

Common Response 7.20

Utilities and Service Systems

Introduction

This introduction provides important context to this common response. A similar introduction is provided in each common response to ensure that the reader has the appropriate context when reviewing common responses. For ease of reference, a table of contents is included after this introduction to guide readers to specific subject areas.

Protecting the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) watershed and its many beneficial uses of water is one of the State Water Resources Control Board's (State Water Board) primary responsibilities and top priorities. In response to declines of several native aquatic species since the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Watershed (Bay-Delta Plan or Plan) was last comprehensively updated, the State Water Board commenced a process to update the Bay-Delta Plan for the Sacramento River and its tributaries, Delta eastside tributaries (including the Calaveras, Cosumnes, and Mokelumne Rivers), and Delta for the reasonable protection of fish and wildlife beneficial uses, referred to as the Sacramento/Delta Update to the Bay-Delta Plan. The Bay-Delta Plan identifies beneficial uses of water to be protected in the Bay-Delta watershed, water quality objectives and program of implementation to achieve the reasonable protection of those beneficial uses, monitoring, evaluation, and special study provisions. The State Water Board's proposed action to update the Bay-Delta Plan is supported by a Staff Report/Substitute Environmental Document (Staff Report), which provides an evaluation of the environmental impacts and economic effects in support of consideration of different alternatives to update the Bay-Delta Plan to achieve reasonable protection of fish and wildlife beneficial uses in the Sacramento/Delta. The Staff Report is functionally equivalent to an Environmental Impact Report under the California Environmental Quality Act (CEQA) but also provides the additional analyses that support the State Water Board's consideration of the action under the Clean Water Act and Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

Development of the final Staff Report and final draft Bay-Delta Plan were informed by several opportunities for public comment over multiple years. This common response may address issues that were raised during any of those public comment periods. In September 2023, the State Water Board released the 2023 draft Staff Report evaluating different alternatives for the Sacramento/Delta Update to the Bay-Delta Plan for public review and comment. Following release of the 2023 draft Staff Report, the State Water Board released draft amendments to the Bay-Delta Plan in October 2024 (2024 draft Plan) for public review and comment that incorporated alternatives identified in the 2023 draft Staff Report with revisions based on public comments. The State Water Board released revised draft Plan updates in July 2025 (July 2025 revised draft Plan) but delayed public comment on that version of the Plan pending further updates, though some parties did submit public comments on the July 2025 draft that are part of the State Water Board's response to comments. In December 2025, the State Water Board released Chapter 13, *Revised Proposed Plan Amendments*, as a limited recirculation of the 2023 draft Staff Report (2025 partially recirculated draft Staff Report) together with the December 2025 revised draft Plan for public review and comment. These documents reflect the updated proposed project, referred to as the revised proposed Plan amendments, which brings together in the Bay-Delta Plan program of

implementation a voluntary agreement (VA) pathway that incorporates commitments identified in the Healthy Rivers and Landscapes (HRL) proposal and would apply to specified HRL water rights, and a regulatory pathway based on the proposed Plan amendments that would apply to other water rights and to any HRL water rights no longer covered under the VA pathway. In August 2026, the State Water Board released a final draft Bay-Delta Plan that included refinements to the revised proposed Plan amendments based on public comments received on the December 2025 revised draft Plan. At the same time, the State Water Board released this final Staff Report, including responses to comments previously received on the draft Staff Report. The final Staff Report informs the State Water Board's consideration of adoption of the Sacramento/Delta updates to the Bay-Delta Plan.

With respect to the CEQA impact conclusions, it is important that they be understood in the context of the overall nature of the proposed project, which is intended to be an environmental restoration action. CEQA only considers changes that could negatively impact the existing environment and does not recognize or offset negative changes with improvements that could result from an environmentally beneficial project. Here, the impacts that could potentially result from implementation of the restoration action occur in a system that has been highly altered, and the project would be expected to improve conditions for native fish and wildlife in the Sacramento/Delta watershed over time. However, the project will also result in changes in hydrology and changes in water supply that could result in some potentially significant adverse environmental impacts at certain times and locations that must be analyzed under CEQA. These potentially significant environmental impacts should be viewed in light of the overall purpose and goals of the Sacramento/Delta update to the Bay-Delta Plan.

The State Water Board reviewed all comments related to utilities and service systems and developed this common response to address recurring topics and common themes regarding the potential environmental impacts that may result from changes in water supply.

Commenters identified several concerns related to municipal water supplies and utilities and services systems related to Impact UT-d in the Staff Report that are addressed in this common response. Multiple commenters asserted that the Staff Report does not provide sufficient information about the unimpaired flow scenarios or that the analysis of alternatives is inadequate to allow for assessment of impacts. Some commenters contended that the Staff Report does not analyze or disclose impacts on individual agencies. The commenters further stated that the Staff Report underestimates the effects of changes in water supply on utilities and service systems, which they view as insurmountable. Others claimed that the projected reductions in water supply were not unreasonable, and that the Staff Report overstated impacts on water providers which could be mitigated.

Some commenters expressed concerns regarding the availability, feasibility and cost of replacement water supply in response to reduced Sacramento/Delta municipal water supply. Multiple commenters stated that proposed response actions by municipal suppliers to augment or replace water supply are already being implemented, and that it is difficult to obtain additional water savings through conservation. The cost and time to develop replacement supplies or manage demand were also a concern. Some commenters asserted that the State Water Board must identify specific protocols, performance criteria, or other enforceable standards to reduce or avoid impacts on municipal supplies. Commenters also expressed concerns that the ability of municipal water suppliers to provide safe and reliable water would be jeopardized under the Plan amendments and

other flow scenarios described in the Staff Report. Commenters also expressed concern about the ability to develop new housing with reduced municipal water supplies.

This common response includes a discussion of how the Staff Report identifies and discloses potential environmental impacts of the changes in water supply on a regional level, how service reliability assessments were used as a proxy for considering local response options to reduced surface water supply from the Sacramento/Delta, and information about analyses included in the Staff Report that address water supply beyond the physical environment, such as the Porter-Cologne Act requirements when establishing water quality objectives and program of implementation. In response to the above topics, this common response includes, but is not limited to, the following topics:

- Environmental analysis and changes in water supply
- Availability of municipal water and alternative water supplies
- Urban water conservation

This common response references related common responses as appropriate where recurring comments and common comment themes overlap with other subject matter areas. For responses to comments regarding the level and scope of analysis, description of the flow scenarios, evaluation of alternatives and potential impacts, and how the Staff Report responds to CEQA requirements, please see Common Response 7.1, *General CEQA and Approach to the Analysis*, and Common Response 7.24, *Alternatives Analysis*. See Common Response 1.2, *Water Quality Control Planning Process*, for information regarding reasonable protection of fish and wildlife beneficial uses and consideration of other factors in Water Code section 13241. For a discussion regarding water supply generally, and other water management actions, please see Common Response 6.3, *Water Supply and Other Water Management Actions*. Common Response 8.1, *Economic Analysis and Other Considerations*, includes details on regional economic effects, municipal water supply costs, and the pricing and availability of water transfers. Common Response 10.1, *Economically Disadvantaged Communities*, discusses topics related to water supply and disadvantaged communities. As described in Common Response 1.3, *Revised Proposed Plan Amendments*, the revised proposed Plan amendments include water supply adjustments and flexibility to tailor carryover storage requirements for existing water right holders at the outset of plan implementation to reduce water supply impacts and allow more water to be stored in reservoirs.

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Environmental Analysis and Changes in Water Supply

The State Water Board's obligations under CEQA are to identify the significant environmental effects of the project, including the percent of unimpaired flow scenarios on the environment and to mitigate those effects through feasible mitigation measures and alternatives. In response to comments related to the use of the Staff Report to meet CEQA requirements, this section summarizes how the Staff Report identifies and discloses effects of the flow scenarios on municipal water suppliers and associated impacts on the environment. The section also discusses the regional assessment as an overall approach to impact analysis in the Staff Report, and how this relates to impacts on individual municipal water suppliers.

The underlying fundamental purpose of the Sacramento/Delta update to the Bay-Delta Plan is the restoration of flows for the reasonable protection of fish and wildlife. The restoration flows and the percent of unimpaired flow requirements to achieve them will reduce surface water supply for some users who have relied on that water supply in the past. The Staff Report impact analyses in Section 7.20, Section 9.20, and Section 13.7.20, each titled *Utilities and Service Systems*, evaluates how much reductions in Sacramento/Delta supply could affect water supplies for municipal use in a manner that would cause water suppliers to need new or expanded water entitlements.

Recognizing the importance of municipal water supplies, the Staff Report uses threshold UT-d in Section 7.20, *Utilities and Service Systems*, to assess impact of changes in supply to municipal use although it is not a direct impact on the environment. Staff Report Section 7.20, *Utilities and Service Systems*, describes the environmental setting, potential impacts, and mitigation measures for utilities and service systems that may result from changes in hydrology and changes in water supply. The analysis considers municipal supply, including whether and how communities that rely in whole or in part on Sacramento/Delta supply would be able to meet municipal demand using other water management actions in response to changes in supply. Some communities may already be vulnerable, particularly in dry years, if their water supply is not enough to meet demand. This is true for municipal use that relies primarily on Sacramento/Delta supply, without access or funding to develop or utilize other supplies. It is possible that lower groundwater levels also could reduce the availability and quality of groundwater on which municipal providers and private users rely, including in economically disadvantaged communities.

Water agencies' responses to reduced Sacramento/Delta supply for municipal use can lead to other actions, including the construction or expansion of new water treatment facilities or water supply infrastructure, which could have environmental impacts. As discussed in Section 8.3, *Costs Associated with Other Water management Actions*, there is a suite of reasonably foreseeable actions that affected entities may undertake to address possible Sacramento/Delta water supply reductions. However, the State Water Board recognizes the unique water supply portfolios and circumstances of each water provider. It would be speculative to make assumptions regarding how municipal providers will respond to implementation of the Plan amendments because it will depend on many individual and collective decisions including, but not limited to, the discrete actions of other local water users in response to reductions in surface water and alternative sources of water supply. The Staff Report conservatively concludes that impacts on municipal use could be significant even if proposed mitigation was applied.

Section 9.7.20, *Utilities and Service Systems*, describes the potential impacts to utilities and service systems that may result from changes in hydrology or changes in water supply under the proposed VAs.

The final Staff Report Chapter 13, *Revised Proposed Plan Amendments*, is the current proposed project which includes modified components of both the voluntary agreements and proposed plan amendments based on public comments received on the draft Bay-Delta Plan update and the 2023 draft Staff Report. As discussed in Section 13.3, *Revised Proposed Plan Amendments*, the proposed Plan amendments have been refined to reduce water supply impacts and provide offramps to preserve carryover storage for municipal suppliers, with tailored rulesets for certain tributaries. These refinements include new water supply adjustments at the Plan outset that lower flow requirements under certain conditions, designed to reduce water supply impacts and allow more water to be stored in reservoirs. The regulatory pathway under the revised proposed Plan amendments would have similar potential effects as those that were evaluated in Section 7.20, *Utilities and Service Systems*; however, as described in Section 13.4, *Changes in Hydrology and Supply*, changes in hydrology and water supply under the starting point for the regulatory pathway would be expected to be smaller in magnitude and closer to baseline conditions than those described in Chapter 7, *Environmental Analysis*, due to the addition of new water supply adjustments. These refinements include the possibility of moving up in the range of unimpaired flow under certain conditions and the potential for modifying the water supply adjustments in the future.

In addition, the Plan allows for adaptive implementation in part to reduce water supply effects if tailored solutions are available that are comparable or more protective for fish. CEQA impact determinations are conservative, and in many instances can be reduced or avoided through adaptive implementation and local cooperative solutions. The State Water Board provides these flexibilities with the intent that water diverters and reservoir owner/operators utilize these provisions because they are in a good position to understand their unique circumstances on a specific tributary. The program of implementation provides an adaptive range of a percent unimpaired flow and allows for two or more tributaries to work together to meet the numeric flow requirements downstream. Reservoir owners and operators may meet the proposed cold water habitat requirements by implementing some combination of cold water releases, temperature control devices (TCDs, e.g., reservoir outlet shutters and thermal curtains), and fish passage improvements. A full range of flow scenarios with cold water storage targets are analyzed in Sections 7.3 through 7.20 as well as physical habitat restoration and other ecosystem projects that may be pursued in Section 7.21, *Habitat Restoration and Other Ecosystem Projects*. See also Common Response 7.6.2, *Aquatic Biological Resources and Cold Water Habitat*, for responses to comments on cold water habitat implementation.

Approach to Analysis

The Staff Report evaluates environmental and economic impacts that may result from implementation of changes to the Bay-Delta Plan. Changes in flow requirements could cause changes in hydrology and water supply within the Sacramento/Delta as well as in regions that receive water from the Sacramento/Delta. The study area is divided into seven regions based on geography and water supply: Sacramento River watershed, Delta eastside tributaries, Delta, San Francisco Bay Area, San Joaquin Valley, Central Coast, and Southern California. The Sacramento Water Allocation Model (SacWAM) is used to simulate changes in hydrology and water supply that could result from changes in flow and other water quality objectives.

Staff Report Section 2.8, *Existing Water Supply*, describes the existing water supply in the study area and provides context for what portion of each region's total water supply originates from the Sacramento/Delta. Discussion of how much water is supplied to different regions of the state is

based on historical water deliveries data and on estimates of Sacramento/Delta supply from SacWAM results. The historical water deliveries data convey the overall magnitude of the average demand and water supply available to each region and sector (i.e., agriculture, municipal, managed wetland uses). Although both historical water deliveries data and SacWAM estimates of Sacramento/Delta supply provide useful information on regional water supplies, these data are derived from different sources, and comparison of data from the two sources should be done cautiously. Comparisons of the historical water deliveries data and SacWAM results are provided throughout the Staff Report to generally show the proportion of Sacramento/Delta supply for any given region relative to the total water supply for that region. This is a reasonable use of the data from the two sources. The methods used to obtain estimates of the historical water deliveries from DWR's 2018 California Water Plan and other sources are described in Appendix A1b, *Methodology for Estimating Existing Water Supply from Historical Water Deliveries Data*. SacWAM estimates of Sacramento/Delta surface water supply to agriculture or municipal suppliers are described in Appendix A1a, *Methods for Estimating Regional Sacramento/Delta Surface Water Supply for Agricultural and Municipal Use*.

The historical water deliveries data demonstrate regional differences in water supply portfolios. Historical water deliveries data indicate that the average total water supply to the study area was approximately 40,875 thousand acre-feet (TAF) per year during 2005 to 2015 (Table CR 7.20-1). Of this, approximately 8,054 TAF/yr, about 20 percent, is for municipal use. The water supply in some regions, such as the San Joaquin Valley, is used primarily for agricultural purposes, while the water supply in other regions, such as the San Francisco Bay Area, is used primarily for municipal purposes.

Table CR 7.20-1. Average Annual Total Water Supply by Geographic Region and Sector (thousand acre-feet) (copy of Table 7.20-1 from Section 7.20, *Utilities and Service Systems*)

Geographic Region	Agriculture	Municipal	Managed Wetlands	Total
Sacramento River watershed	6,773	826	451	8,050
Delta eastside tributaries	824	154	8	986
Delta	1,185	136	48	1,368
San Francisco Bay Area	137	1,089	26	1,251
San Joaquin Valley	16,803	1,053	581	18,437
Central Coast	1,055	279	0	1,334
Southern California	4,863	4,518	68	9,449
Total	31,639	8,054	1,181	40,875

Source: Sum of values in Table 2.8-1 and Table 2.8-2, Chapter 2, *Hydrology and Water Supply*.

Some regions, such as the Central Coast, depend primarily on groundwater, while other regions, such as the San Francisco Bay Area, depend primarily on surface water supplies. SacWAM estimates of Sacramento/Delta surface water supply indicate relative importance of this source in the overall regional water supply portfolios. Average annual Sacramento/Delta surface water supply is approximately 11,957 TAF (Table CR 7.20-2), with about 3,058 TAF/yr is used for municipalities.

Table CR 7.20-2. Simulated Average Annual Sacramento/Delta Surface Water Supply by Geographic Region and Sector (thousand acre-feet) (copy of Table 7.20-3 from Section 7.20, Utilities and Service Systems)

Geographic Region	Agriculture	Municipal	Refuge	Total
Sacramento River watershed	4,641	480	199	5,320
Delta eastside tributaries	124	81	0	205
Delta	1,136	18	0	1,154
San Francisco Bay Area	27	670	0	698
Central Coast	37	49	0	86
San Joaquin Valley	2,422	99	298	2,819
Southern California	14	1,661	0	1,675
Total	8,401	3,058	497	11,957

Source: Table 2.8-3, Chapter 2, *Hydrology and Water Supply*.

The Staff Report also describes the changes in hydrology and water supply that could occur as a result of the Sacramento/Delta update to the Bay-Delta Plan. To estimate potential changes to hydrology and water supply, the SacWAM hydrologic model is run for a 94-year historical sequence of hydrologic conditions (from water year 1922 through water year 2015) at existing levels of land use, population, and water demands and under an assumed framework of regulations. Despite detailed model inputs and assumptions, SacWAM results may differ from real-time operations given that not all the regulatory requirements or real-time operations are modeled in SacWAM. For example, SacWAM does not relax standards that the State Water Board, in coordination with other regulatory agencies, has historically modified under extreme dry circumstances. As a result, SacWAM may tend to underestimate reservoir storages, and overestimate streamflows during the most severe droughts compared with historical operations. In reality, water operations are managed in close coordination with various regulatory agencies and stakeholders under such extreme circumstances. Thus, results should not be expected to match exactly what operators might do in a specific month or year within the simulation period since the latter would be informed by numerous real-time considerations. Rather, model results are intended to be a reasonable representation of long-term operational trends under a repeat of historical hydrologic conditions (precipitation and temperature). For more information about SacWAM, including model assumptions, see Staff Report Chapter 6, *Changes in Hydrology and Water Supply*.

SacWAM scenarios described in Chapter 6, *Changes in Hydrology and Water Supply*, of the Staff Report are presented as a range of potential instream flow changes in increments of ten, from 35 percent up to 75 percent unimpaired flow (referred to as scenarios or flow scenarios). These flow scenarios are later grouped into three alternatives, with each alternative encompassing a range of percent unimpaired flow. The three alternatives are then compared to baseline conditions in the environmental analysis (Chapter 7) of this Staff Report to evaluate the potential environmental impacts. The scenarios represent a range of tributary inflows in recognition that tributaries may have unique needs and conditions (e.g., cold water pool needs, implementation of complementary ecosystem actions, drought) and to allow for adjustments up or down within a given numeric range in order to meet those needs. Model results are presented for changes in hydrology under various scenarios, including changes in streamflows and reservoir levels, and changes in Sacramento/Delta water supply under various scenarios.

In addition to Chapter 6, *Changes in Hydrology and Water Supply*, SacWAM results are presented in Chapter 9, *Proposed Voluntary Agreements*, for the proposed voluntary agreements, and in Chapter 13, *Revised Proposed Plan Amendments*, for the revised proposed Plan amendments.

Impact Analysis Summary

The environmental analysis in Section 7.20, *Utilities and Service Systems*, first addresses potential impacts from changes in water quality and supply that could affect municipal water providers and the flowrate and composition of municipal wastewater conveyed from homes to wastewater treatment facilities. The analysis considers the effects on treatment facilities, including potential need for changes in operations or upgrades to existing facilities. The analysis in Section 7.20 also considers municipal supply, including whether and how communities that rely in whole or in part on Sacramento/Delta supply would be able to meet municipal demand using other water management actions in response to changes in supply.

Reductions in Sacramento/Delta water deliveries to municipal users vary by region. As Sacramento/Delta supply presents only a portion of the municipal supply portfolios, the overall impact depends on what portion of the total municipal supply is Sacramento/Delta supply compared to other supplies. Examination of the impacts of changes in supply on municipalities begins with consideration of the change in water supply to municipal water providers. Historical water deliveries data indicate that the average water supply for municipal use was approximately 8,054 TAF/yr in the study area (Table CR 7.20-1). SacWAM results indicate that Sacramento/Delta supply to municipal uses in the study area average approximately 3,058 TAF/yr (Table CR 7.20-3).

Table CR 7.20-3. Annual Average Surface Water and Groundwater Sources of Municipal Supply by region, and Annual Average Sacramento/Delta Supply and Percent of Total Supply for Municipal Use (thousand acre-feet per year) (copy of Table 7.20-4 from Section 7.20, *Utilities and Service Systems*)

Region	Surface Water	Groundwater	Total Municipal Supply	Sacramento/Delta Supply	Sacramento/Delta Percent of Total Municipal Supply
Sacramento River watershed	439	387	826	480	58%
Delta eastside tributaries	102	53	155	81	52%
Delta	96	40	136	18	13%
San Francisco Bay Area	905	184	1,089	670	62%
San Joaquin Valley	231	823	1,054	99	9%
Central Coast	83	196	279	49	18%
Southern California	2,928	1,590	4,518	1,661	37%
Total			8,054	3,058	38%

Sources: Tables 2.8-4 through 2.8-10, Chapter 2, *Hydrology and Water Supply*.

Annual municipal deliveries are estimated by SacWAM, and the output is used directly in the associated municipal water supplier analyses within the Sacramento River watershed, Delta eastside tributaries, and Delta regions. SacWAM estimates of the quantity of Sacramento/Delta supplies that is exported to the San Joaquin Valley, Bay Area, Central Coast, and Southern California regions are in

aggregate form that requires additional data processing before it can be used in the municipal supply analyses. The volume of export deliveries is estimated within SacWAM based on SWP and CVP contracts.

SacWAM estimates for regional changes in the amount of Sacramento/Delta water supplied to municipal users show that changes in flow requirements could result in reductions in municipal supply to all regions (Table CR 7.20-4). Impacts of reduction in Sacramento/Delta supply to municipal suppliers can vary substantially across regions. As Sacramento/Delta supply presents only a portion of the municipal supply portfolios, the overall impact depends on what portion of the total municipal supply is Sacramento/Delta supply compared to other supplies. Regions that receive relatively small volumes of Sacramento/Delta supply for municipal use, such as the Delta eastside tributaries, Delta, San Joaquin Valley, and Central Coast regions show the smallest volume reductions. In the populous Bay Area and Southern California regions, reductions in municipal supply would be greater than in other regions, and the magnitude of reductions would increase with increasing flow requirements.

Table CR 7.20-4. Change from Baseline Conditions: Annual Average Sacramento/Delta Supply for Municipal Use by Region and Scenario (thousand acre-feet per year) (copy of Table 7.20-6 from Section 7.20, *Utilities and Service Systems*)

Region	Baseline	35	45	55	65	75
Sacramento River Watershed	480	-15	-29	-52	-83	-107
Delta Eastside Tributaries	81	-7	-11	-15	-22	-28
Delta	18	0	0	-1	-2	-4
San Francisco Bay Area	670	-60	-105	-166	-238	-295
Central Coast	49	-2	-6	-12	-17	-25
San Joaquin Valley	99	-4	-11	-22	-35	-50
Southern California	1,661	-92	-238	-446	-651	-910
Total	3,058			-714		

Source: Table 6.4-1, Chapter 6, *Changes in Hydrology and Water Supply*.

The effect on individual municipalities will vary depending on the extent of their reliance on Sacramento/Delta surface water relative to other sources of water, and on the balance between supplies and existing demand. Service providers with broad portfolios may have options within existing water entitlements, such as switching to or increasing use of existing groundwater supplies, groundwater storage and recovery, water recycling, water transfers, agricultural and municipal water conservation measures, or desalination. Communities that rely solely on Sacramento/Delta supply and already have unmet demands, and communities with no other water supplies of suitable quality would need to obtain new water entitlements to satisfy demands.

The Staff Report concludes that, although some communities appear to have reserve water supply from other sources that could replace Sacramento/Delta supply reductions, other communities do not have enough reserve supplies. If additional water supplies need to be obtained, new or modified facilities could be needed. Construction and operation impacts from new and modified facilities and mitigation measures for those impacts are described and analyzed in Section 7.22, *New or Modified Facilities*. As described in Section 13.4, *Changes in Hydrology and Supply*, changes in water supply under the starting point for the regulatory pathway and related impacts would be expected to be smaller in magnitude and closer to baseline conditions than those described in Chapter 7,

Environmental Analysis, due to the addition of new water supply adjustments that provide relief for water supply and reservoir storage in all but wetter conditions at the outset of Plan implementation.

Implementation of the percent of unimpaired flow scenarios would reduce Sacramento/Delta water supplies at certain times and locations. In response to reduced Sacramento/Delta surface water supplies, water users may choose to modify their water supply portfolios by increasing the use of other sources of water and maximizing the use of existing water supplies. These other water management actions include groundwater storage and recovery, water transfers, water recycling, and water conservation. A description of these other water management actions, including state-wide trends and regional observations, is provided in Section 6.6, *Other Water Management Actions*.

Other water management actions affect the overall analysis in two ways. First, environmental impacts and economic effects from reduced Sacramento/Delta surface water supplies likely would be less given these efforts. Second, other water management actions may result in their own environmental impacts that must be disclosed and analyzed. The potential impacts related to the modifications or construction of facilities in response to the Plan amendments are evaluated in Section 7.22, *New or Modified Facilities* (e.g., new reservoirs, new groundwater wells, and new water treatment facilities). The Staff Report also includes an analysis of the economic effects that could result from Sacramento/Delta updates to the Bay-Delta Plan.

It is important to note that the environmental impact conclusions from reduced Sacramento/Delta water supply do not rely on alternative water supplies being available, including the implementation of other water management actions, even though these actions could reduce supply impacts at certain times and locations. The Staff Report recognizes that the availability of replacement supplies may be limited in some cases.

Under CEQA, the effectiveness of a mitigation measure is determined by evaluating the impact remaining after implementation of mitigation. The Staff Report reaches one of two conclusions: potentially significant environmental impacts could be reduced to less-than-significant levels with mitigation incorporated, or no feasible mitigation exists to reduce the impact to a less-than-significant level, and, therefore, the impact was determined to be significant and unavoidable. When other mitigation measures are largely within the jurisdiction and control of other agencies or depend on how water users respond to the project, the State Water Board cannot guarantee that measures will always be adopted or applied fully to mitigate potentially significant impacts. Accordingly, the Staff Report concludes that unless and until the mitigation is fully implemented, the impacts remain potentially significant.

Urban Water Management Plans (proxy for unmet demand and supply options)

Municipal water providers are actively engaged in water supply planning, including planning for drought and other contingencies, and could take various actions in response to changes in Sacramento/Delta surface water supplies. Many water providers have made significant investments to diversify their water supply portfolios due to existing or potential population growth, drought, environmental needs, climate change, economic factors, energy needs, resiliency, unforeseen disaster, and other reasons. Those efforts include developing local and regional supplies within the export areas, groundwater storage and recovery, surface water storage, water transfers, water treatment and reuse, and desalination, while also extending the utility of existing supplies through conservation and water use efficiency efforts. Water suppliers with diverse supply portfolios may have options within existing water entitlements, such as switching to or increasing use of existing

groundwater supplies, groundwater storage and recovery, water recycling, water transfers, agricultural and municipal water conservation measures, or desalination. Communities that rely solely on Sacramento/Delta supply and already have unmet demands, and communities with no other water supplies of suitable quality, would need to obtain new water entitlements to satisfy demands.

Recognizing that municipal water suppliers have various mechanisms (e.g., water rights, contracts, negotiated agreements) by which to obtain water supply to meet demand, and recognizing the unique circumstances of each service provider, the Staff Report relies on information from municipal water supplier planning documents to provide context for potential impacts of and response to the reduced Sacramento/Delta water supplies and as a proxy for service providers' ability to use existing alternative supplies, develop alternative water supplies, or manage demand.

Water Code section 10620 requires every urban water supplier to prepare and adopt an urban water management plan (UWMP). Water Code section 10617 defines urban water supplier to mean a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. Section 10617 applies only to water supplied from public water systems subject to Health and Safety Code section 116275 et seq. Water service reliability data from 2020 UWMPs provide information about current and projected future supplies and water demand of wholesale and municipal water suppliers. The Staff Report uses information from UWMPs to place the modeled changes in Sacramento/Delta supplies in context for the analysis of municipal use.

In all geographic regions of the study area, the projected water supply is compared to the projected future demand as reported for the water supply reliability for five consecutive dry years (see Appendix D, *Supplemental Municipal Supply Analysis Information*). The UWMP water service reliability requires combined assessment of supplier's water uses and supplies under varying hydrological and development conditions. The assessment represents projected variances that occur in both supply sources and customer use under changed conditions, which include both short-term and long-term hydrological, regulatory, and development conditions through at least a 20-year time horizon. Every supplier is required to provide their expected water service reliability for a normal year, single dry year, and five consecutive dry years projections for 2025, 2030, 2035, and at least through 2040. This approach accounts for an advance planning period generally required by providers to identify response actions, such as demand management and replacement sources of water; develop contracts and/or infrastructure as necessary; and potentially obtain municipal bonds or otherwise secure capital funding if needed. The Staff Report considers only shortage or surplus after five consecutive dry years, as available supply is expected to be more constrained than for a single dry year.

If the supply of water to urban water suppliers is reduced as a result of implementing the proposed Plan amendments, service providers could respond in a variety of ways, if necessary. The response by individual municipalities will vary depending on the extent of their reliance on Sacramento/Delta surface water relative to other sources of water, and on the balance between supplies and existing demand. For example, for municipalities with extensive supply that outpaces demand, the proposed Plan amendments may experience little to no impacts. As discussed in Section 7.20, *Utilities and Service Systems*, communities that rely solely on Sacramento/Delta supply and already have unmet demands may need to obtain new water entitlements to satisfy demands. Although some communities may need to obtain new water entitlements to meet future increases in demand even in the absence of reduced Sacramento/Delta supply, Section 7.20 acknowledges that the proposed

Plan amendments and other flow scenarios described in the 2023 draft Staff Report may exacerbate this need for certain communities.

The existing and planned options that municipal water suppliers have to augment water supply are a reasonable representation of potential local actions in response to potential reduction in Sacramento/Delta surface water deliveries. Municipal water suppliers may choose any approach, or a combination of approaches, or they may identify another as-yet unknown approach to meet their own unique needs. The Staff Report analysis considers supply portfolios both for short-term and long-term water shortages. Because UWMPs indicate that such actions had been or were being considered as part of the overall water supply planning effort, similar actions were considered to represent plausible responses to reduced Sacramento/Delta surface water supply. Construction and operation impacts from new and modified facilities and mitigation measures for those impacts are described and analyzed in Section 7.22, *New or Modified Facilities*.

Water Shortage Contingency Plans

UWMPs also contain an action plan for addressing a drought or catastrophic water supply shortage. Specifically, a Water Shortage Contingency Plan is a detailed operations plan for how a supplier intends to act in the case of an actual water shortage condition, with pre-determined steps for managing six standard water shortage levels corresponding to progressive ranges of up to 10-, 20-, 30-, 40-, and 50-percent shortages and greater than 50-percent shortage. If and when shortage conditions arise, the Water Shortage Contingency Plan allows the supplier's governing body, its staff, and the public to identify and efficiently implement pre-determined steps to manage a water shortage that may occur due to a number of reasons (e.g., population growth, drought, regulatory action constraints, climate change, catastrophic events). Shortage response actions include locally appropriate supply augmentation actions, locally appropriate demand reduction actions to adequately respond to shortages, locally appropriate operational changes, and mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.

Some comments viewed the discussion of Water Shortage Contingency Plans in the Staff Report as conflating response to short-term shortages, like droughts, with permanent reductions in water supply due to reduced Sacramento/Delta supply. However, the Staff Report only relies on the information from Water Shortage Contingency Plans to infer the *types* of potential response actions that align with standard water shortage levels corresponding to progressive shortage in municipal water supply in 10 percent increments. For example, responses to supply reductions of up to 10 percent most commonly include demand management measures, such as public outreach, incentives to expand water conservation, and measures to reduce outdoor use. Thus, the Staff Report uses Water Shortage Contingency Planning as an indicator of short-term responses, recognizing that short-term actions are not a solution that can replace a longer-term response which may involve investment in new or augmented water sources. While suppliers may continue to develop locally appropriate alternative supplies, and implement locally appropriate operational changes, demand management measures would still be an appropriate part of the response to shortage, regardless of the underlying reason for the supply reduction.

Impacts to Individual Water Suppliers

Some commenters asserted that the analysis in the Staff Report should discuss the potential environmental impacts of reduced Sacramento/Delta municipal water supplies on individual water providers or on their specific projects.

As described in the Staff Report, Section 7.1.5, *Environmental Analysis*, due to the size and complexity of Sacramento/Delta water supply and use, the impact analyses in the Staff Report are necessarily broad to cover the wide range of foreseeable compliance measures and responses that may result. A wide range of responses and associated environmental effects could occur as a result of the project due to the degree of flexibility included in the proposed Plan amendments and the scope and complexity of Sacramento/Delta water use. As further discussed in Common Response 7.1, *General CEQA and Approach to the Analysis*, the environmental analysis under CEQA does not require the State Water Board to analyze and address effects on each individual water user. Water users could take many possible actions in response to changes in Sacramento/Delta surface water supplies. The response by individual municipalities will vary depending on unique circumstances of each municipal water supplier, such as the extent of their reliance on Sacramento/Delta water relative to other sources, and on the balance between supplies and demand. Projecting the specific ways that any one municipal supplier may respond to reduced surface supply would require speculation or conjecture. Even with information regarding projected supplies and demand and projects described in local plans, it would be speculative to make assumptions regarding how individual suppliers will choose to act because responses will depend on many individual and collective decisions including, but not limited to, the discrete actions of other local water users in response to reductions in surface water and alternative sources of water supply.

While every effort has been made to represent the detailed operations in SacWAM, the results should not be interpreted at the water district or water right holder scale nor as detailed, year-specific operational outcomes, such as the exact manner in which a water user may make decisions managed during a particular year or a particular drought sequence. Rather, the results should be interpreted at a larger scale appropriate for the broader-level analysis, such as presented in Chapter 6, *Changes in Hydrology and Water Supply*. This reflects the nature of the Plan amendments, which do not prescribe specific operations or dictate specific responses. Instead, the model uses generalized operational rules designed to respond to hydrologic variability. This approach provides a reasonable depiction of the overall range of likely project outcomes rather than replicating individual operational decisions. This level of analysis appropriately supports the findings and conclusions in the Staff Report. Please refer to Common Response 6.1, *Sacramento Water Allocation Model and Changes in Hydrology and Water Supply*, for a response to comments about the scale of analysis in the Staff Report.

The Staff Report assumes that impacts would occur (i.e., new entitlements would be needed) if regional analysis indicates that some suppliers could not meet demand with a combination of reduced Sacramento/Delta supply and demand management measures. The Staff Report concludes that, although many communities appear to have reserve supply from other sources that could replace Sacramento/Delta supply reductions, other communities do not have enough reserve supplies. These communities would need to intensify demand management and/or look for other water supplies, either through accelerating existing planned acquisitions or initiating the planning process for additional water supplies. If additional water supplies need to be obtained, new or modified facilities could be needed. Construction and operation impacts from new and modified

facilities and mitigation measures for those impacts are described and analyzed in Section 7.22, *New or Modified Facilities*.

Availability of Municipal Water and Alternative Water Supplies

This section provides information in response to comments related to the use of the Staff Report to meet Water Code requirements. As indicated in the Staff Report Executive Summary, in addition to CEQA requirements, the State Water Board's amendments to the Bay-Delta Plan were prepared in accordance with applicable water quality planning provisions of the Porter-Cologne Act, Water Code Section 13000 et seq., and other applicable laws. Section 13241 of the Porter-Cologne Act identifies certain factors that must be evaluated when establishing water quality objectives. These factors include: (1) past, present, and probable future beneficial uses of water; (2) environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto; (3) water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area; (4) economic considerations; (5) the need for developing housing within the region; and (6) the need to develop and use recycled water.

Some commenters asserted that the State Board must identify specific protocols, performance criteria, or other enforceable standards to reduce or avoid the effect of reduced Sacramento/Delta surface water supply on municipal supplies. The reduction of a surface water supply to a municipal water supplier, in and of itself, does not represent a significant effect on the physical environment requiring mitigation. As such, the fact that there may be a potential reduction in surface water supplies to a water supplier under the Plan amendments do not require mitigation requirements that apply to CEQA mitigation measures. Please refer to Common Response 7.1, *General CEQA and Approach to the Analysis*, for additional information about mitigation measures.

Historical water deliveries summarized in Section 2.8, *Existing Water Supply*, of the Staff Report demonstrate regional differences in water supply portfolios and water uses. Some regions, such as the Central Coast, depend primarily on groundwater, while other regions, such as the Bay Area, depend primarily on surface water supplies. Some regions, such as the San Joaquin Valley, use water primarily for agricultural purposes, while other regions, such as the Bay Area, use water primarily for municipal uses. As discussed in Section 7.20, *Utilities and Service Systems*, municipal suppliers in some regions rely on Sacramento/Delta supplies more heavily than others, leaving them more vulnerable to reductions in that supply. Overall, regions most reliant on the Sacramento/Delta supply are the Sacramento River watershed (58 percent of municipal supply relies on Sacramento/Delta supplies), Delta eastside tributaries (52 percent), and Bay Area (62 percent) (Table CR 7.20-3).

SacWAM estimates for changes in the amount of Sacramento/Delta water supplied to municipal users show that changes in flow requirements could result in reductions in municipal supply to all regions. Reduction in Sacramento/Delta supply to municipal suppliers vary substantially across regions. As Sacramento/Delta supply presents only a portion of the municipal supply portfolios, the overall impact depends on what portion of the total municipal supply is Sacramento/Delta supply compared to other supplies. Table CR 7.20-5 illustrates how much the total municipal supply to each region might be affected by reduced Sacramento/Delta supply by scenario. Average reduction for the 55 scenario ranges from 1 percent in the Delta region to 15 percent in the Bay Area region. As

noted above, SacWAM results are intended to be a reasonable representation of long-term operational trends under a repeat of historical hydrologic conditions. SacWAM results are not intended to be used in a real-time predictive manner and should be considered only as an indicator of stressed water supply conditions and should not necessarily be understood to reflect literally what would occur in the future under a given scenario.

Table CR 7.20-5. Change in Annual Average Sacramento/Delta Supply to Municipal Users by Region and Scenario, Percent of Total Municipal Supply (copy of Table 7.20-8 from Section 7.20, *Utilities and Service Systems*)

Region	35	45	55	65	75
Sacramento River Watershed	-2%	-4%	-6%	-10%	-13%
Delta Eastside Tributaries	-5%	-7%	-10%	-14%	-18%
Delta	0%	0%	-1%	-1%	-3%
San Francisco Bay Area	-6%	-10%	-15%	-22%	-27%
Central Coast	0%	-1%	-2%	-3%	-5%
San Joaquin Valley	-1%	-2%	-4%	-6%	-9%
Southern California	-2%	-5%	-10%	-14%	-20%

Sources: Table 7.20-6 and Table 7.20-4.

Responses to Changes in Municipal Water Supply

Some commenters expressed concerns regarding the availability, feasibility and cost of replacement water in response to reduced Sacramento/Delta municipal supply. In particular, multiple comments stated that response actions to augment or replace water supply are already being implemented, or that response actions proposed in the Staff Report may not be feasible. Additionally, commenters stated that programs like water recycling, groundwater storage and recovery, and conservation are expensive and take time to implement, even with funding resources. In addition, commenters noted that demand management measures have economic impacts on water suppliers – both in terms of the costs to implement and from lost sales revenue due to reduced water use. Common Response 8.1, *Economic Analysis and Other Considerations*, discusses the feasibility and costs associated with groundwater supplies, groundwater storage and recovery, water recycling, water transfers, agricultural and municipal water conservation measures, or desalination under the Plan amendments.

Current habits of water supply and use in California's cities have evolved over time but also reflect past decision-making and expectations. Early in the twentieth century, California's developing cities constructed large-scale infrastructure systems to transport water across long distances. Over the past few decades, reducing reliance on the Delta has become a part of the State's long-term strategies. The Sacramento-San Joaquin Delta Reform Act was adopted in 2009 (Delta Reform Act) (Wat. Code, § 85000 et seq.). The Delta Reform Act codified two coequal goals for the Delta of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem— both of which are to be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. Today, many suppliers obtain water from multiple sources, including local surface water, groundwater, recycled water, and inter-basin imports, as well as through temporary or permanent transfer agreements. Strategies that suppliers have used to increase reliability in recent decades

include diversifying supplies and, especially in Southern California, investing in demand management and water storage projects. [sourced from 2023 SRIA]

Depending on the region, municipal water use often comprises only a small fraction of the total water use (see Table CR 7.20-1). For example, in the Delta region and in the San Joaquin Valley region municipal use constitutes a relatively small portion of the total water use. In these regions, potential municipal supply impacts of the reduced surface water supply from the Sacramento/Delta are less and opportunities to respond are greater (e.g., opportunity for transfers/purchases between municipal and agricultural uses to offset impacts to municipal supplies). However, the vast majority water use in the San Francisco Bay region is for municipal purposes, with more than half of the total supply to the region being from the Sacramento/Delta. Impacts to the municipal supply in the San Francisco Bay Area region are therefore potentially greater, resulting in a need for multiple response measures.

Communities regularly assess whether existing water supplies can accommodate anticipated population growth and implement plans for obtaining additional water supplies if increased water supplies are needed. Communities that face impending shortages or without an assured water supply in the future should already be in planning stages of pursuing options to meet the shortages. These options may include conservation measures, water recycling, new wells, lease agreements with other entities holding excess water, or even purchasing water rights. As a result, communities are continually in the process of overcoming water supply-based barriers to housing development and should do so whether or not the flow requirements are implemented.

The Staff Report considers the annual average reductions in Sacramento/Delta water deliveries to municipal users estimated in SacWAM for each geographic region in the context of the projected demand and supply after five consecutive dry years based on municipal suppliers' estimates. Suppliers pursue both water supply and water demand management strategies to provide reliable water for residents and customers. Recognizing the unique water supply portfolios and circumstances of each supplier and as discussed above, analyses in the Staff Report rely on the service reliability assessment as a proxy for service providers' ability to use existing alternative supplies, develop alternative water supplies, or manage demand. In addition to drought, water service reliability assessments also describe actions to manage a water shortage that may occur due to other reasons, including population growth, regulatory action constraints, and climate change.

Groundwater. Groundwater supplies roughly 40–60 percent of statewide water use, and California's aquifer system has an estimated storage capacity exceeding 1,000 million acre-feet, compared to all the major above-ground reservoirs in California which can hold up to 44 million acre-feet (DWR 2026). The Staff Report consideration of groundwater as a potential source for municipal supply is predominantly limited to the Sacramento River watershed, Delta Eastside tributaries, Central Coast and Southern California.

Groundwater Storage and Recovery. California hosts several large-scale and numerous smaller groundwater storage and recovery projects managed by local agencies. Groundwater storage and recovery is considered as a source type primarily in Southern California and in the San Francisco Bay Area, although there are examples in other regions as well. Assumptions in the Staff Report analysis reflect information from UWMP, and instances where municipal water suppliers have implemented or are planning for groundwater storage and recovery as part of their long-term planning efforts.

Recycled Water. Water reuse was considered in the Staff Report analysis in instances where urban water management plans indicated treatment and reuse as implemented or planned measures. Many municipal water suppliers discuss recycled water in their UWMPs and identify recycled water as part of their long-term strategies. Commenters communicated impediments to plan and implement recycled water projects, including long time to implement and unfavorable costs. Given the planning and development across various water recycling projects, additional water supplies from water recycling facilities are considered as a feasible and a reasonably foreseeable alternative to supplement surface water.

Water Transfers. Water transfers were considered in the Staff Report analysis because urban water management plans indicated that such transfers had been or were being considered as part of the overall water supply planning efforts. Staff Report provides information on temporary and permanent transfers that have occurred in recent decades in Section 6.6, *Other Water Management Actions*. Historical data demonstrates that water transfers persist during dry and critical water year types, which provides a strong indication that they will continue at some level despite changes in water supply. While water transfers may not be able to fully mitigate reductions in Sacramento/Delta water supplies, transfers and exchanges are expected to reduce the economic effects of changes in water supply by directing the available water supplies to their highest valued uses. The analysis in the Staff Report acknowledges and accounts for possibility of higher prices of water transfers than in the past.

Water Conservation. The Staff Report contains information that demonstrates that urban water users have taken action to reduce residential daily use in recent years. While some commenters alleged that because users have already lowered per capita water use, additional water conservation would be difficult, there is evidence in urban water provide planning documents supporting the feasibility of additional demand reduction measures. Generally, municipal water suppliers are planning to implement additional water conservation measures based on information regarding long-term strategies contained within their UWMPs, including those suppliers that have already implemented a variety of water conservation measures. Recent technological improvements and new regulatory requirements suggest that additional water conservation is likely feasible, even where water users have already implemented water conservation actions.

Desalination. The Staff Report discusses desalination as a potential water supply source. For many geographic areas within the state, desalination is impractical because of a lack of suitable saline source water and is not economically feasible because more cost-effective water supply alternatives are available. However, desalination technologies continue to improve; they are becoming more cost effective and are being used in the Central Coast and Southern California regions. Section 8.3.5, *Desalination*, in the Staff Report acknowledges the costs and energy demands of desalination but identifies that technologies have improved over time and are becoming more cost-effective, leading communities to reconsider previously deferred desalination plants.

In addition to alternative water sources to augment supply, there are examples of innovative efforts and creative partnerships among municipal water suppliers to come up with regional solutions to improve water supply reliability and respond to drought or other water supply limitations. For instance, Bay Area Regional Reliability (BARR) is a partnership of the largest agencies in the Bay Area working together in a planning effort to identify and develop projects and processes to enhance water supply reliability across the region. Potential projects include interagency interties and pipelines, treatment plant improvements and expansion, groundwater management and recharge, potable reuse, desalination, and water transfers. Many of the potential actions would

leverage or expand existing assets while others would require new facilities. BARR agencies are also pursuing projects individually or with other partners outside of the BARR framework to further improve Bay Area supply reliability. Many of these ongoing projects are expected to enhance reliability in the Bay Area and might involve multiple non-BARR partners (BARR Partners 2023).

In conclusion, the Staff Report properly identifies the types and potential availability of replacement water supplies (groundwater, groundwater storage and recovery, water reuse and recycling, water transfers, water conservation, and desalination) that municipal water users would be likely to implement in response to reduced Sacramento/Delta supplies. See also Common Response 1.2, *Water Quality Control Planning Process*, for a discussion and responses to comments on Water Code section 13241 factors including housing development needs for municipal use. Common Response 6.3, *Water Supply and Other Water Management Actions*, for general discussion and response to comments on water supply and alternative supplies.

Water Code Section 106 and Water for Minimum Health and Safety Needs

Health and safety protection for municipal use is a critical issue and is addressed in Chapter 5, *Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta*, and Section 7.20, *Utilities and Service Systems*. Many communities have developed or are developing access to other water supplies in response to drought-related or other reductions in current supply sources and to supplement surface water supplies. Many communities are implementing conservation measures to reduce demand and ensure adequate water for their communities. The Plan objectives and implementation measures for those objectives would include measures to address required planning for drought and minimum health and safety supplies (in accordance with Water Code section 106.3, establishing the policy of the state that every human being has the right to safe, clean, affordable, and accessible water), a significant degree of flexibility and adaptive management, and other measures to encourage and support water use efficiency and diversification of water supplies.

Some commenters expressed concerns that the ability of municipal water suppliers to provide safe and reliable water could be jeopardized under the flow scenarios described in the 2023 draft Staff Report.

The use of water for domestic purposes is recognized as “the highest use of water” in Water Code section 106. While this does not mean that domestic and municipal uses (or instream uses) can claim an absolute priority (*National Audubon Society v. Superior Court*, (1983) 33 Cal.3d 419, 447 fn. 30), it is nevertheless an important state water policy. When implementing the flow requirements in accordance with the program of implementation, the State Water Board will consider the allocation of responsibility among water right holders to meet the objectives and all applicable legal requirements and state policies, including Water Code section 106.

The State Water Board has identified the human right to water as a top priority and core value across all programs and activities, and has taken multiple implementation actions to provide safe, accessible, and affordable drinking water for all Californians. Consistent with the Human Right to Water (Wat. Code § 106.3), the State Water Board will take actions as necessary to ensure that implementation of the flow objectives does not affect supplies of water for minimum health and safety needs, particularly during drought periods. Actions may include, but are not limited to, financial assistance, technical assistance, consolidations, and other means, including for communities that may be affected by reduced groundwater supplies or groundwater quality

concerns. The Safe and Affordable Drinking Water Fund established under Senate Bill 200 will enable the State Water Board to provide crucial ongoing operations and maintenance support so once-struggling community water systems can provide a sustainable source of safe drinking water (Cal Legislative Information 2019).

As described in Chapter 5, *Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta*, and mitigation measure MM-UT-d.4, *Implement Municipal Water Shortage Policy*, the proposed program of implementation prioritizes minimum health and safety water supplies in its implementation efforts. Specifically, the July 2025 revised draft Sacramento/Delta updates to the Bay-Delta Plan identifies that the State Water Board will develop appropriate provisions to address human health and safety needs and other possible reasons for short-term and long-term exceptions to curtailments associated with implementation of the Bay-Delta Plan for specific purposes. Those purposes include provisions to allow continued diversions for minimum human health and safety water supplies where alternate supplies are not available. Those provisions may be informed by other relevant regulatory efforts in order to provide for consistency as appropriate.

Urban Water Conservation

Some commenters expressed concerns regarding the feasibility of water conservation and water use efficiency measures and asserted that these efforts have already been maximized. Among the comments was a concern that previous water efficiency programs have reduced municipal demand such that it is difficult to achieve additional water savings from conservation measures. To support this assertion, comments pointed to an example that in the recent 2021-2022 drought, the state only reached 6 percent water savings on average, well below a voluntary statewide reduction goal of 15 percent.

Many communities have developed and are continuing to develop access to other water supplies in response to drought-related or other reductions in current supply sources and to supplement surface water supplies. Water conservation and water use efficiency to reduce demand and ensure adequate water for their communities are among the measures that many communities are implementing. Water savings under voluntary water use reduction goals do not necessarily indicate that additional water savings are not possible, as multiple studies concluded that voluntary conservation measures are less effective than mandatory use restrictions (SWRCB 2016a). Likewise, California statewide emergency water conservation regulation measures also demonstrated that in the absence of required conservation targets, statewide water use decreased nine percent (SWRCB 2015), while the level of conservation exceeded 25 percent (SWRCB 2016b) with mandatory conservation targets. Since then, California has passed legislation such as Senate Bill 1157 (2022) which outlined new indoor water use efficiency standards that lower indoor residential water use from 55 to 47 gallons per capita daily starting in 2025. These standards will be lowered further to 42 gallons per capita per day starting in 2030 (Cal Legislative Information 2022).

Per capita water use is a standard measure of efficiency. In California, per capita water use has, for the most part, been declining over the last few decades due to implementation of both supply-side measures, such as leak detection and repair, and demand-side measures, like customer education, and incentives. Per capita water use declined steeply during drought and rebounded slightly during times when water supply conditions improved. In 2000, average statewide total urban water use was 199 gallons per capita per day (GPCD) and dropped to 164 GPCD by 2013. Between 2013 and 2015, emergency conservation regulations resulted in average statewide water use dropping from

164 GPCD to 129 GPCD, a 21 percent savings in two years. Since then, California has experienced some rebound, peaking at 137 GPCD in 2020 but dropped again by the end of 2022, averaging 130 GPCD. The average statewide total urban water use is expected to continue to decline, forecasted to reach 122 GPCD in 2030 and 114 GPCD in 2040 in absence of additional regulation, or decline to 120 GPCD in 2030 and 109 GPCD in 2040 with regulation on urban water use (SWRCB 2024).

The total volume of water consumed by the urban water sector is also relevant and allows comparison with estimated reductions in the Sacramento/Delta supply under the proposed flow requirements. Between 2013 and 2022, the total volume of water consumed decreased by almost 18 percent. Between 2022 and 2050, total volume is projected to further decrease almost 8 percent (approximately 500 TAF/year) with passive water conservation due to prior conservation and efficiency efforts, and by as much as 12 percent with regulation on urban water use (SWRCB 2024). For example, East Bay Municipal Utility District (EBMUD) shows water conservation due to passive and active water savings is forecast to continue to grow (EBMUD 2021).

Accordingly, the Staff Report conclusions that additional water conservation and water use efficiency measures are possible and could result in additional water savings are reasonable.

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