

CHAPTER 4.0 Introduction to Environmental Setting, Impacts, and Mitigation Measures

4.0.1. Introduction

The purposes of the Environmental Setting, Impacts, and Mitigation Measures (ESIM) section are to: provide the reader with background information on the environmental setting in the Fish Habitat Flows and Water Rights Project (Fish Flow Project) area; explain the methodology used to determine project impacts; disclose the environmental impacts associated with the project; and present potential mitigation measures to either reduce or avoid project impacts. For the reader to understand the information presented in this chapter, it may be necessary to refer to Chapter 3, "Background and Project Description."

The ESIM chapter consists of Chapters 4.1 through 4.10. The sub-chapters discuss the following resource categories: Hydrology; Water Quality; Fisheries Resources; Vegetation and Wildlife; Recreation; Energy; Cultural Resources; Greenhouse Gas Emissions and Climate Change; Aesthetics, and Public Services and Utilities.

4.0.2 California Environmental Quality Act Requirements

The State California Environmental Quality Act (CEQA) Guidelines, Section 15125, require that an Environmental Impact Report (EIR) include a description of the environment in the vicinity of the project as it exists before the commencement of the proposed project, from both a local and regional perspective. Section 15125 further states that the description will be no longer than is necessary for an understanding of the significant impacts of the proposed project.

The State CEQA Guidelines Section 15126 states that all phases of a project must be considered when evaluating its impact on the environment, and that an EIR must identify and focus on the potentially significant environmental effects of the proposed project. It also requires that mitigation measures that could minimize significant adverse impacts be described.

4.0.3 Environmental Setting Background Information

In general, the majority of physical environmental impacts of the Fish Flow Project would occur at Lake Mendocino and Lake Sonoma, in and along the Russian River downstream of Coyote Valley Dam to the Pacific Ocean, in and along Dry Creek downstream of Warm Springs Dam, and in the Water Agency's or its contractors' service areas in Sonoma and Marin counties.

General background information on the Russian River watershed is presented here to avoid repeating the same background information in each sub-chapter. A watershed location map is

included as Figure 4.0-1. Where necessary for the reader to understand the project impacts, this background information is further described in the sub-chapters.

Russian River Watershed

The Russian River originates in central Mendocino County, approximately 15 miles north of Ukiah. The Russian River watershed drains an area of approximately 1,485 square miles, including much of Sonoma and Mendocino counties. The Russian River flows into the Pacific Ocean at Jenner, about 20 miles west of Santa Rosa. The main channel of the river is approximately 110 miles long and runs generally southward from its headwaters near Redwood and Potter valleys to Forestville, where the channel's direction changes to generally westward as the river crosses a part of the Coast Range. Principal tributaries of the Russian River are the East Fork Russian River, Big Sulphur Creek, Maacama Creek, Dry Creek, Mark West Creek, and Austin Creek. Near the community of Duncans Mills, the lower section of the Russian River becomes an estuary (Russian River Estuary), where the tidal influence of the Pacific Ocean causes ocean water to mix with Russian River water, forming estuarine conditions.

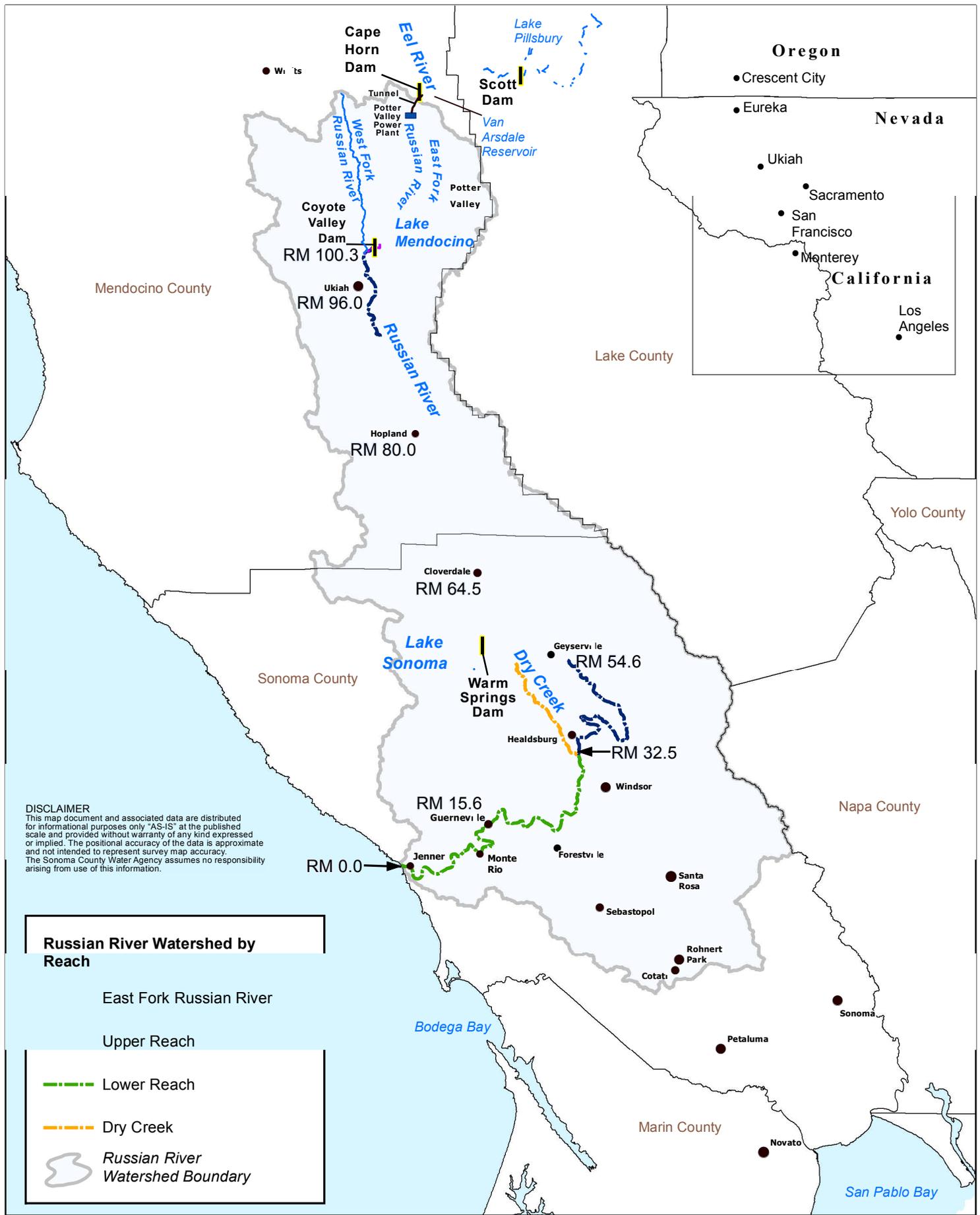
The Russian River Estuary may close throughout the year as a result of a barrier beach forming across the mouth of the Russian River. Although closures may occur at any time of the year, the mouth usually closes during the spring and fall. Closures result in ponding of the Russian River behind the barrier beach and, as water surface levels rise in the Estuary, flooding may occur. Natural breaching events occur when estuary water surface levels exceed the capability of the barrier beach to impound water, causing erosion of the barrier beach and creation of a tidal channel that reconnects the Russian River to the Pacific Ocean. The barrier beach has been artificially breached for decades; first by local citizens, then the County of Sonoma Public Works Department, and, since 1995, by the Water Agency, to alleviate potential flooding of low-lying properties along the Estuary.

The Water Agency adaptively manages the Russian River Estuary with the objectives of enhancing summer rearing habitat for juvenile salmonids and managing estuary water levels to minimize flood hazard during the lagoon management season from May 15 to October 15.

Climate

Climate in the Russian River watershed is influenced by the watershed's proximity to the Pacific Ocean. As for much of the California coastal area, the year is divided into wet and dry seasons. Approximately 93 percent of the annual precipitation normally falls during the wet season, October to May, with a large percentage of the rainfall typically occurring during three or four major winter storms. These major storms often come in the form of an Atmospheric River, which is the horizontal transport of large amounts of water vapor through the atmosphere along a narrow corridor. Although brief, Atmospheric Rivers can produce 30 to 50 percent of the regions, annual precipitation during a few days (<http://www.esrl.noaa.gov/psd/atmriivers/>). Winters are cool, but below-freezing temperatures seldom occur. Summers are warm and dry. A significant part of the region is subject to marine influence and fog intrusion. Prevailing winds are from the west and southwest.

Climatic conditions vary across different portions of the watershed. Average annual precipitation is as high as 80 inches in the mountainous coastal region of the watershed, and 20 to 30 inches in the valleys where the majority of the water users are located. Precipitation varies significantly from season to season, which results in a large amount of variability in flows in the Russian River. Based on historical estimates of unimpaired flow developed by the United State Geological Survey (USGS) , the estimated annual unimpaired flow at the Hacienda Gage has ranged from a low of approximately 66,000 acre-feet in 1977 to a high of 3,884,000 acre-feet in 1983, with an average of 1,479,000 acre-feet per year (AFY) and a standard deviation of 861,000 AFY (see Appendix C, Russian River Hydrologic Modeling for the Fish Habitat Flows and Water Rights Project).



Fish Habitat Flows and Water Rights Project Watershed Map



Figure 4.0-1

Water Supply Operations

In this EIR, the principal reaches of the Russian River and Dry Creek are described as follows: the East Fork Russian River is from Coyote Valley Dam to the confluence with the Russian River; the Upper Russian River is between the East Fork Russian River and the river's confluence with Dry Creek; the Lower Russian River is from the Russian River's confluence with Dry Creek to the Pacific Ocean; and Dry Creek is from Warm Springs Dam to its confluence with the Russian River.

As described in Chapter 3, "Background and Project Description," the Water Agency is the local sponsor for the two federal water supply and flood control reservoirs in the Russian River watershed. Coyote Valley Dam at Lake Mendocino is located on the East Fork Russian River near the City of Ukiah in Mendocino County (Figure 4.0-1). Warm Springs Dam at Lake Sonoma on Dry Creek is located near the City of Healdsburg in Sonoma County (Figure 4.0-1). The Water Agency, as local sponsor, partially financed the construction of Coyote Valley and Warm Springs dams under agreements with the U.S. Army Corps of Engineers (USACE). The Water Agency manages water supply storage within Lake Mendocino and Lake Sonoma to optimize the water supply yields of the reservoirs, and the Water Agency controls releases from the water supply pools¹ of both reservoirs to maintain the minimum instream flow requirements specified in its water right permits and for downstream beneficial uses along the Upper Russian River, Lower Russian River, and Dry Creek, including diversions for domestic, municipal, industrial and agricultural purposes. Pacific Gas and Electric Company's (PG&E) Potter Valley Hydroelectric Project (PVP), which includes Lake Pillsbury, diverts water from the Eel River watershed into the Russian River watershed, and some of this water flows into Lake Mendocino. The USACE manages flood control operations at Lake Mendocino and Lake Sonoma.

The Water Agency makes water supply releases from Lake Mendocino and Lake Sonoma as necessary to comply with its water right permits, which implement the provisions of the State Water Resources Control Board's (SWRCB) Decision 1610. The Decision 1610 hydrologic index and minimum instream flow requirements are described in Chapter 3, "Background and Project Description." The Water Agency's permits authorize diversions to storage in Lake Mendocino and Lake Sonoma, and re-diversions of water released from storage and direct diversions at points downstream. Collection of water into storage in Lake Mendocino's water supply pool is authorized by the Water Agency's water right Permit 12947A and collection of water into storage in Lake Sonoma's water supply pool is authorized by the water right Permit 16596. Additionally, these permits and Permits 12949 and 12950 authorize the Water Agency to directly divert water from the Russian River. These permits specify an overall limit on total direct diversions and re-diversions of 75,000 acre-feet per year (AFY). Additional information regarding the Water Agency's water right permits and water supply agreements is provided in Chapter 3, "Background and Project Description."

During times of sufficient rainfall, when natural flows provide enough water to meet minimum instream flow requirements at downstream USGS gages (compliance points), the Water Agency

¹ The water supply pools in Lake Mendocino and Lake Sonoma are sometimes referred to a "water conservation pools."

limits releases from the water supply pools in Lake Mendocino and Lake Sonoma to the amounts needed to meet minimum release requirements. For Lake Mendocino, there is a 25 cubic feet per second (cfs) release requirement for minimum instream flows in the East Fork Russian River immediately downstream of the dam. For Lake Sonoma, the minimum releases are usually determined by Don Clausen fish hatchery requirements.

During periods of insufficient unimpaired flow, the Water Agency must make releases of water from storage to ensure that the required minimum instream flows are maintained at compliance points along the Russian River and Dry Creek. In the spring and early summer, when there is typically contributing tributary flow, the Water Agency makes reservoir releases to meet minimum instream flow requirements at the closest compliance point downstream of each reservoir. For Coyote Valley Dam, the closest downstream compliance point is the confluence of the East Fork and the West Fork Russian River (the Forks), and for Warm Springs Dam this point is the USGS Dry Creek near Geyserville gage (Dry Creek Geyserville gage). As natural flows recede during the dry season, the minimum instream flow compliance points transition from upstream flow gages to gages further downstream. For Lake Mendocino the farthest downstream compliance point is the Healdsburg gage, and, for Lake Sonoma, the farthest downstream compliance point is the USGS Russian River at Guerneville gage (Hacienda gage).

The Water Agency receives little information from other entities, such as other public water systems or agricultural diverters, to help determine the amounts of releases from Lake Mendocino and Sonoma. Instead, the Water Agency normally sets releases by frequently considering data from USGS gaging stations on the Russian River and Dry Creek, and by using the Water Agency's understanding of how reach losses change both with forecasted weather conditions and seasonally.

The Water Agency does not divert any water from the Russian River between Lake Mendocino and the Russian River's confluence with Dry Creek, but the Water Agency does have an agreement that authorizes diversions by the City of Healdsburg from this reach under the Water Agency's water right permits. The Water Agency diverts water from the Russian River at its Wohler and Mirabel diversion facilities near Forestville and conveys that water through its water transmission system to its customers.

Lake Mendocino

Lake Mendocino is located approximately 4 miles northeast of the City of Ukiah on the East Fork Russian River in Mendocino County, California, (Figure 4.0-1) and is created by Coyote Valley Dam. The watershed contributing to Lake Mendocino encompasses an area of 105 square miles, which is approximately 7 percent of the Russian River watershed. The average annual inflow into Lake Mendocino is approximately 235,000 acre-feet per year, with a peak annual inflow of 443,000 acre-feet in 1983 and a minimum annual inflow of 60,000 acre-feet in 1977. Inflow into the reservoir consists of unimpaired flows² from the contributing watershed and water imported from the Eel River by the PVP. Unimpaired stream flows create most of the

² Unimpaired flows are the "natural" flows, unaffected by man-made influences like water diversions and reservoir operations.

Russian River flows downstream of Coyote Valley Dam to the Russian River's confluence with Dry Creek during the rainy season (November through April). During the drier months of May through October, water released from Lake Mendocino storage provides most of the flows in the Russian River upstream of Dry Creek. Please see Chapter 3, "Background and Project Description," for more information on this reservoir and flood management and water supply operations.

Lake Sonoma

Lake Sonoma is located approximately 10 miles northwest of the City of Healdsburg in Sonoma County, California, on Dry Creek, a tributary to the Russian River. Lake Sonoma is created by Warm Springs Dam (Figure 4.0-1). The watershed contributing to Lake Sonoma encompasses an area of 130 square miles, which is approximately 9 percent of the Russian River watershed. The average annual inflow into Lake Sonoma is approximately 170,000 acre-feet per year, with a peak annual inflow of 392,000 acre-feet in 1995 and a minimum of 41,000 acre-feet in 2014. All of the reservoir inflows come from unimpaired flows. Please see Chapter 3, "Background and Project Description," for more information on this reservoir and flood management and water supply operations.

Lake Pillsbury and Potter Valley Project

As described in Chapter 3, "Background and Project Description," PG&E's PVP directly diverts Eel River water and re-diverts water released from storage in Lake Pillsbury, a reservoir created by the Scott Dam on the Eel River. These diversions and re-diversions occur 12 miles downstream from Scott Dam at Cape Horn Dam. The diverted water is conveyed through a diversion tunnel and penstocks to the Potter Valley Powerhouse, which is located in the Russian River watershed. Some of the water discharged from the powerhouse is diverted into canals from which the Potter Valley Irrigation District (PVID) receives water under a water supply agreement with PG&E and its own appropriative water rights license. PVID's water supply contract with PG&E authorizes PVID to receive up to 50 cfs of flows from the PVP. The water discharged from the powerhouse that is not consumptively used by PVID flows down the East Fork Russian River into Lake Mendocino. The PVP has a maximum flow capacity of approximately 300 cubic feet per second (cfs) and a generation capacity of 9.4 megawatts (MW). PVP diversions and operations are regulated by a license issued to PG&E by the Federal Energy Regulatory Commission (FERC) and serve multiple purposes, including power generation, Potter Valley agricultural irrigation uses, and minimum instream flow releases into the East Fork Russian River.

PG&E began operation of the PVP in accordance with its amended FERC license in 2006, and these new operations substantially reduced the amounts of PVP diversions compared to historical levels.³ Annual PVP diversions now average about 72,000 acre-feet, less than half the 1922-1992 average (SCWA, 2015). Changes in the seasonal timings of PVP diversions have also affected Lake Mendocino water storage reliability. Reduced inflows in the spring have contributed to declining water supply reliability of Lake Mendocino through the summer months

³ FERC issued the license amendment to PG&E in 2004; however, the terms of the license were not interpreted and implemented fully until 2006.

(SCWA, 2015). As a result, the Water Agency has had to file several Temporary Urgency Change Petitions (TUCP) with the SWRCB to temporarily reduce the minimum instream flow requirements in the Water Agency's water right permits as necessary to preserve water supply storage in Lake Mendocino for subsequent downstream beneficial uses. Please see Chapter 3, "Background and Project Description," for more information on the PVP and TUCP filings.

Russian River Diversions and Beneficial Use

Hydrologic conditions in the Russian River watershed and the Water Agency's water demands vary from year to year due to variations in weather (both precipitation and temperature), the economy, local land use activities (agricultural irrigation and frost protection), and diversions by other water users. Before 2007, Water Agency annual diversion volumes at the Wohler and Mirabel diversion facilities were often above 60,000 AF. Annual diversion volumes have trended downward since 2007. As described in Chapter 3, "Background and Project Description," the Water Agency is a member of the Sonoma-Marín Saving Water Partnership (Partnership). As a member of the Partnership, the Water Agency collaborates with its wholesale customers to ensure that they implement the California Urban Water Conservation Council Best Management Practices, meet statewide conservation targets, and actively promote the efficient use of water in the region. Since 2005, the members of the Partnership have achieved a 30 percent reduction in per capita water use. In 2009, the Water Conservation Act of 2009 (SBx7-7) established a statewide goal, known as 20 x 2020, to reduce per capita water use 20 percent by the year 2020, with an interim goal of a 10 percent reduction by 2015. The Water Agency and its contractors have met both the 2015 and 2020 goals. The Partnership anticipates continuing many of the established water use efficiency programs in the region, with a continued focus on minimizing system water loss, installing indoor water-efficient fixtures, and transforming landscapes to be locally, climate appropriate.

Tables 4.0-1 and 4.0-2 provide summaries of the Water Agency's maximum historical diversions under Permits 12947A, 12949, 12950, and 16596. As discussed in Chapter 3, "Background and Project Description," water right Permit 12947A authorizes the Water Agency to collect up to 122,500 AFY of water to storage in Lake Mendocino each year and Permit 16596 authorizes the Water Agency to collect up to 245,000 AFY of water to storage in Lake Sonoma each year. The authorized points of diversion and re-diversion in these permits include the Water Agency's Wohler/Mirabel diversion facilities and diversion facilities of its Russian River Customers. The total of direct diversions and re-diversions under the Water Agency's four permits (12947A, 16596, 12949, and 12950) is limited to a maximum instantaneous rate of 180 cfs (116.3 million gallons per day (mgd)) and to a maximum annual rate of 75,000 acre-feet per water year. Because the Water Agency's water conservation programs, recycled water use, and conjunctive use of groundwater all have substantially reduced the demands for surface-water supplies from the Water Agency, the Water Agency's diversions have not yet reached either of these maximum authorized rates.

Table 4.0-1. Amounts of Diversions and Beneficial Use for Water Right Permits 12949, 12950, and 16596.

	12949 (A015736)	Water Year	12950 (A015737)	Water Year	16596 (A019351)	Water Year
Prior to December 1, 1999						
Direct Diversion	10,831	1974	13,348	1989	-	-
Collection to Storage	-	-	-	-	186,274	1986
Beneficial Use	-	-	-	-	15,325	1994
Full Period of Operation						
Direct Diversion	11,014	2002	13,348	1989	-	-
Collection to Storage	-	-	-	-	186,274	1986
Beneficial Use	-	-	-	-	19,867	2004

Table 4.0-2. Aggregate Beneficial Use Amounts for All Permits: Permit 12947a, 12949, 12950, and 16596. Amounts in 'Beneficial Use + Credits' include claimed credits for water conservation, use of urban-offset recycled water, and the conjunctive use of groundwater supplies.

	Annual Combined (ac-ft)	Water Year	Max Month Combined (cfs)	Month
Prior to December 1, 1999				
Beneficial Use	65,110	1997	138.9	Jun-97
Beneficial Use + Credits	72,798	1999	-	-
Full Period of Operation				
Beneficial Use	68,994	2004	147.6	Aug-04
Beneficial Use + Credits	85,472	2004	-	-

4.0.4 Impact Assessment

This EIR includes sub-chapters that present analyses of the project-level potential impacts resulting from implementation of the Fish Flow Project and the alternatives. Impacts are categorized as either no impact, less than significant impact, less than significant with mitigation, significant and unavoidable or beneficial.

Hydrologic conditions in the Russian River watershed and the Water Agency's water demands vary from year to year due to conditions such as weather (both precipitation and temperature), the economy, local land use activities (agricultural irrigation and frost protection), and diversions by other water users. Choosing a single year or the year the Notice of Preparation (NOP) was issued (2010 for the Fish Flow Project EIR) as the baseline condition would not accurately reflect existing physical conditions in the project area over time. To account for variations in watershed conditions and Water Agency water demands, a range of years was selected to represent the physical environmental setting. The years 2006 to 2014 represent a range of conditions in the Russian River watershed that include annual PVP diversions in accordance with the 2004 license issued by the FERC for PG&E's operation of that project. The years selected for water demands are described below.

The methodology used to assess the impacts of the project varies with the type of resource or impact being addressed. In some cases, the impacts have been determined by applying quantitative methods or reasoning; in other cases, a more qualitative approach was found to be most appropriate. The professional judgment of the Water Agency's staff and consultants has been applied in conducting this environmental assessment and developing feasible mitigation measures.

Russian River Model

The Russian River Reservoir Simulation (Russian River ResSim) is an operations modeling system for the Russian River developed using the USACE Hydrologic Engineering Center (HEC) ResSim software package. The model is used as a planning tool to simulate the effects of various climatic and hydrologic conditions, levels of system loss, and operational criteria on the water supply available for use by the Water Agency and others and to simulate resulting streamflows from these processes. Russian River ResSim simulates storage levels in and releases from Lake Mendocino and Lake Sonoma, and flows at 14 locations (junctions) along the Russian River, taking into account USACE flood control operations criteria and Water Agency operations to meet minimum instream flow requirements and downstream water demands. The model includes various delivery curtailments required by the SWRCB under certain weather conditions, and distributed demands. These demands include the Water Agency's diversions and demands associated with all of the diversions and depletions in the watershed, whether or not the diversions and depletions are legally authorized. Thus, the model assumes that all demands in the watershed are satisfied with its simulated flow releases, not just the demands of the Water Agency. Water quality conditions were simulated with the Russian River HEC5Q model. The Russian River HEC5Q was used to simulate water

temperatures in degrees Fahrenheit (deg F) and dissolved oxygen in milligrams per liter (mg/L). These models are described in detail in Appendix G. Additional modeling for fisheries habitat and power production are described in the ESIM sub-chapters. The models were used to compare the effects of one condition or alternative with another and aid in understanding the range of impacts that may be anticipated. Comparisons of reservoir storage volumes, reservoir water surface elevations, streamflow generated by the models are useful in understanding the anticipated effects of the Fish Flow Project.

The modeling for the impacts analysis includes the 75,000 acre-feet per year of diversions authorized by the Water Agency's water right permits, even though the Water Agency's diversions actually only will increase to this amount over time, as demands increase. Impacts are presented according to project alternatives identified in Chapter 3, "Background and Project Description," and the Russian River ResSim basic model assumptions are summarized as follows.

Baseline Condition

CEQA Guidelines Section 15125 requires an EIR to include a description of baseline physical conditions against which a project's potentially significant impacts are compared to determine whether impacts are significant.

The modeled Baseline Condition includes the hydrologic index and minimum instream flow requirements specified in the Water Agency's water right permits, which were added to these permits by the SWRCB's Decision 1610, and assumes that delivery curtailments required by these permits under certain hydrologic conditions will occur. The Baseline Condition also assumes that diversions from the Eel River into the Russian River by PG&E's PVP will be made in accordance with the 2004 FERC order for PG&E's operation of PVP and will be consistent with PVP operations from water years 2006 to 2014. The Baseline Condition represents the operation of water supply releases from Lake Mendocino and Lake Sonoma from 2006 to 2014. The Water Agency's water diversions are based on average water year 2009 to 2013 water diversions of 55,211 acre-feet per year (AFY) (51,588 AFY reported by the Water Agency and 3,623 AFY reported by Russian River customers). Water Agency diversions from 2009 to 2014 were selected as these years include the Water Agency and its contractors compliance with SB7x7 and meeting the required goals to reduce per capita water use 20 percent by the year 2020 with an interim goal of a 10 percent reduction by 2015. The Baseline Condition assumes system losses not associated with Water Agency diversions will be consistent with the range of hydrologic conditions that occurred from 2002 to 2013.

Proposed Project

The Proposed Project incorporates the proposed Russian River Hydrologic Index, the accompanying proposed new minimum instream flow requirements, and diversions under the Water Agency's water right permits of 75,000 AFY, as discussed in Chapter 3, "Background and Project Description." All other assumptions remain the same as for the Baseline Condition.

Impacts presented are those that would occur under the Proposed Project compared to the "Baseline Condition," as required by CEQA.

No Project 1 Alternative

The No Project 1 Alternative represents the operations of Lake Mendocino and Lake Sonoma with diversions under the Water Agency's water right permits of 75,000 acre-feet per year, as authorized by the Water Agency's existing water right permits. All other assumptions remain the same as under Baseline Conditions.

No Project 2 Alternative

The No Project 2 Alternative represents the operations of Lake Mendocino and Lake Sonoma with diversions under the Water Agency's water right permits of 75,000 acre-feet per year, as authorized by the Water Agency's existing water right permits. The No Project 2 Alternative includes the temporary minimum instream flow requirements recommended in the Russian River Biological Opinion. As described in Chapter 3, "Background and Project Description," the Russian River Biological Opinion requires that the Water Agency annually petition the SWRCB for certain temporary changes to minimum instream flow requirements during the summer months until the SWRCB issues an order permanently changing these requirements. The Russian River Biological Opinion requires annual Water Agency petitions for temporary changes to minimum instream flow requirements for the mainstem Russian River, but not to the requirements for Dry Creek. These minimum instream flow changes are as follows: under *Normal* conditions from May 1 to October 15: 125 cfs in the Upper Russian River and 70 cfs in the Lower Russian River. The Russian River Biological Opinion did not provide recommended temporary changes to minimum instream flows for *Dry* or *Critical* conditions, so these are the same as for the Baseline Condition. All other assumptions remain the same as for the Baseline Condition.

4.0.5 Mitigation Measures

CEQA Guidelines Section 15126.4, this EIR describes feasible measures which could minimize significant adverse impacts, where necessary.

4.0.6 Effects Determined Not to be Significant and Not Discussed Further

CEQA and the CEQA Guidelines allow a lead agency to dismiss environmental effects that are not significant or potentially significant from detailed discussion in an EIR (PRC Section 21100, CCR Sections 15126.2[a] and 15128). For effects dismissed as clearly less than significant and not discussed further, the CEQA Guidelines require a brief explanation of the reasons supporting that determination.

The Proposed Project involves modifying the Water Agency's existing water rights to manage water supply releases from Lake Mendocino and Lake Sonoma to provide minimum instream flows in the Russian River and Dry Creek that would improve habitat for listed salmonids and meet the requirements of the Russian River Biological Opinion, to extend the deadline for beneficial use of the Water Agency's existing water rights, and to add additional existing points of diversion and rediversion to the authorized points of diversion in the permits. To implement

the Fish Flow Project, changes to the Water Agency's existing water right permits from the SWRCB are required.

Based on a review of the project description and research and analysis of potential environmental effects during preparation of this Draft EIR, it has been determined that the following resource categories would not experience any significant environmental impacts from the project. Accordingly, these resources are not addressed further in this Draft EIR. A brief explanation is provided below regarding the reasons why significant impacts to each resource would not occur.

- ▲ Air Quality
- ▲ Agricultural Resources
- ▲ Geology, Soils, and Mineral Resources
- ▲ Hazards and Hazardous Materials
- ▲ Land Use and Planning
- ▲ Noise
- ▲ Traffic and Transportation
- ▲ Population and Housing

Air Quality

The Fish Flow Project would not include any construction activities and would, therefore, not result in any equipment-related increases in criteria air pollutants, their precursors, or toxic air contaminants. The modified minimum instream flow requirements would not adversely affect water storage or water supplies such that the demand for groundwater and associated levels of groundwater pumping would be altered. Thus, pumping associated implementation of the project would not change. Moreover, the project would not influence the level of recreational activity on the affected surface waters or the number of vehicle trips associated with recreational uses, because modifications are not sufficient to substantially change river or reservoir recreation opportunities. As explained in Chapter 4.5, recreation use levels on Lake Mendocino, Lake Sonoma, and the Russian River, have not varied historically because of the existing pattern of fluctuations in water levels during a water year. Thus, there would be no changes to air emissions associated with water supply or recreational vehicle trips as a result the Proposed Project. Because there would be no new sources of or changes in air emissions, the Proposed Project and project alternatives would not impede any air quality improvement efforts in the region, violate any air quality standards, or expose residential land uses or other sensitive receptors to substantial pollutant concentrations. No significant air quality impacts would occur, so this topic is not evaluated in further detail in this EIR.

Agricultural Resources

The Fish Flow Project would not include any construction activities and would, therefore, not include conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Therefore, the Fish Flow Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. The Proposed Project would not conflict with existing zoning for forest land, timberland zones, or timber production. Therefore, it would not result in the loss of forest land or conversion of forestland to non-forest use. No significant

impacts to agricultural resources would occur, so this topic is not evaluated in further detail in this EIR.

Geology, Soils, and Mineral Resources

The Proposed Project would not result in new construction and would not expose people or structures to potential substantial adverse effects associated with earthquakes, seismic ground shaking or failure. While the Sonoma County Aggregate Resources Management Plan identifies areas along the Russian River suitable for mineral resource extraction, as explained in Chapter 4.1, the hydrological patterns of Lake Mendocino, Lake Sonoma, and the Russian River have not varied historically because of the existing pattern of fluctuations in water levels during a water year. Thus, the Fish Flow Project would not adversely affect soil erosion rates associated with water supply or mineral resources as a result the project. No significant impacts to geology, soils and mineral resources would occur, so this topic is not evaluated in further detail in this EIR.

Hazards and Hazardous Materials

The Proposed Project would not result in new construction and would not involve the use of hazardous materials, nor would it have the potential to create hazards or risks for the public or the environment. No significant hazards or hazardous materials-related impacts would occur, so this topic is not evaluated in further detail in this EIR.

Land Use and Planning

The Fish Flow Project would not involve habitable structures that may result in changes to land use. Therefore, the Fish Flow Project would not conflict with applicable land use plans, policies, or regulations. No significant land use- and planning-related impacts would occur, so this topic is not evaluated in further detail in this EIR.

Noise

The Fish Flow Project would not expose persons to, or generate noise levels in excess of standards established in county or city plans, ordinances, or applicable standards of other agencies. In addition, the Fish Flow Project would not expose persons to or generate ground-borne vibration or ground noise levels, or substantially increase ambient noise levels. No significant noise-related impacts would occur, so this topic is not evaluated in further detail in this EIR.

Population and Housing

The Fish Flow Project would not result in impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities. The Proposed Project would not generate additional wastewater demands. No significant impacts to population and housing would occur, so this topic is not evaluated in further detail in this EIR.

Traffic and Transportation

The Fish Flow Project would not involve any new construction and would not result in an increase in traffic that is substantial in relation to existing traffic load or capacity of the street system. Moreover, the Proposed Project would not influence the level of recreational activity on the affected surface waters or the number of vehicle trips associated with recreational uses, because changes are not sufficient to substantially change river or reservoir recreation opportunities. As explained in Chapter 4.5, recreation use levels on Lake Mendocino, Lake Sonoma, and the Russian River have not varied historically because of the existing pattern of fluctuations in water levels during a water year. Thus, there would be no changes to traffic or transportation associated with water supply or recreational vehicle trips as a result the project. No significant impacts to traffic and transportation would occur, so this topic is not evaluated in further detail in this EIR.

4.0.7 Plans and Consistency

General Plans

The project area includes portions of Mendocino and Sonoma counties. A discussion of the general plans in each of these counties and a brief discussion of the Proposed Project consistency with these general plans are included in each ESIM sub-chapter.

Policy for Maintaining Instream Flows in Northern California Coastal Streams

The State Water Resources Control Board's adopted Policy for Maintaining Instream Flows in Northern California Coastal Streams (North Coast Instream Flow Policy) (State Water Resources Control Board, 2014) applies to new applications to appropriate water and water right change petitions. The policy states:

“Water Code section 1259.4, which was added by Assembly Bill 2121 (Stats. 2004, ch. 943, § 3), requires the State Water Board to adopt principles and guidelines for maintaining instream flows in northern California coastal streams as part of state policy for water quality control, for the purposes of water right administration. This policy implements Water Code section 1259.4. The geographic scope of this policy, referred to as the policy area, extends to five counties—Marin, Sonoma, and portions of Napa, Mendocino, and Humboldt counties— and encompasses (1) coastal streams from the Mattole River (originating in Humboldt County) to San Francisco, and (2) coastal streams entering northern San Pablo Bay.

This policy focuses on measures that protect native fish populations, with a particular focus on anadromous salmonids (e.g., steelhead trout, coho salmon, and chinook salmon) and their habitat.”

The North Coast Instream Flow Policy establishes principles and guidelines for maintaining instream flows for the protection of fishery resources. The proposed modifications to the Water

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Agency's water right permits that would reduce the minimum instream flow requirements, establish a new methodology to determine the classifications of water supply conditions, and extend the time period for beneficial use would comply with the policies in the North Coast Instream Flow Policy. The proposed changes would only affect flows in watercourses that the policy designates as flow-regulated mainstem rivers. As such, the changes should follow the policy principles. As stated in Section 1.0 of the North Coast Instream Flow Policy, the policy is centered on measures that protect native fish populations, with a particular focus on anadromous salmonids.

The Water Agency's proposed changes to the minimum instream flow requirements in the Water Agency's water right permits were developed in consultation with NMFS and CDFW as part of the implementation of the Russian River Biological Opinion Reasonable and Prudent Alternative to improve salmonid habitat conditions. Overall, these proposed changes would benefit habitat by: 1) enhancing rearing habitat for juvenile coho salmon and steelhead in the Russian River watershed to become superior to that which occurs with the present minimum instream flow requirements, which were adopted by the State Board's Water Right Decision 1610 in 1986; 2) improving migration flows to support the fall-run Chinook salmon to flows that would be superior to those that occur with the present Decision 1610 minimum instream flow requirements; and 3) providing a more accurate and reliable methodology to classify water supply conditions in the Russian River watershed.

The Water Agency's petitions for time extensions would not adversely impact salmonid habitat because, while an order approving these petitions would allow Water Agency diversions to increase to the full amounts authorized by the Water Agency's water right permits, the permits have terms to maintain required minimum instream flows and to protect habitat, as described in the previous paragraph.

4.0.8 References

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