

April 2017

Sonoma County Water Agency

Supplement to the April 2017 Temporary Urgency Change Petition

1.0 BACKGROUND

The Sonoma County Water Agency (Water Agency) controls and coordinates water supply releases from Lake Mendocino and Lake Sonoma to implement the minimum instream flow requirements in water rights Decision 1610, which the State Water Resources Control Board (State Water Board) adopted on April 17, 1986. Decision 1610 specifies minimum flow requirements for the Upper Russian River, Dry Creek and the Lower Russian River. These minimum flow requirements vary based on water supply conditions, which are also specified in Decision 1610. The Decision 1610 requirements for the Upper Russian River and Lower Russian River are contained in term 20 of the Water Agency's water-right Permit 12947A (Application 12919A). The Decision 1610 requirements for the Lower Russian River are contained in term 17 of the Water Agency's water-right Permit 12949 (Application 15736) and term 17 of the Water Agency's water-right Permit 12950 (Application 15737). The Decision 1610 requirements for Dry Creek and the Lower Russian River are contained in term 13 of the Water Agency's water-right Permit 16596 (Application 19351).

The Water Agency's operations are also subject to the Russian River Biological Opinion issued by the National Marine Fisheries Service on September 24, 2008.

1.1 Minimum Flow Requirements

Decision 1610 requires a minimum flow of 25 cubic feet per second (cfs) in the East Fork of the Russian River from Coyote Valley Dam to the confluence with the West Fork of the Russian River under all water supply conditions. From this point to Dry Creek, the Decision 1610 required minimum Russian River flows are 185 cfs from April through August and 150 cfs from September through March during *Normal* water supply conditions, 75 cfs during *Dry* conditions and 25 cfs during *Critical* conditions. Decision 1610 further specifies two variations of the *Normal* water supply condition, commonly known as *Dry Spring 1* and *Dry Spring 2*. These conditions provide for lower required

minimum flows in the Upper Russian River during times when the combined storage in Lake Pillsbury (owned and operated by the Pacific Gas and Electric Company) and Lake Mendocino on May 31 is unusually low. *Dry Spring 1* conditions exist if the combined storage in Lake Pillsbury and Lake Mendocino is less than 150,000 acre-feet on May 31. Under *Dry Spring 1* conditions, the required minimum flow in the Upper Russian River between the confluence of the East Fork and West Fork and Healdsburg is 150 cfs from June through March, with a reduction to 75 cfs during October through December if Lake Mendocino storage is less than 30,000 acre-feet during those months. *Dry Spring 2* conditions exist if the combined storage in Lake Pillsbury and Lake Mendocino is less than 130,000 acre-feet on May 31. Under *Dry Spring 2* conditions, the required minimum flows in the Upper Russian River are 75 cfs from June through December and 150 cfs from January through March.

From Dry Creek to the Pacific Ocean, the required minimum flows in the Lower Russian River are 125 cfs during *Normal* water supply conditions, 85 cfs during *Dry* conditions and 35 cfs during *Critical* conditions.

In Dry Creek below Warm Springs Dam, the required minimum flows are 75 cfs from January through April, 80 cfs from May through October and 105 cfs in November and December during *Normal* water supply conditions. During *Dry* and *Critical* conditions, these required minimum flows are 25 cfs from April through October and 75 cfs from November through March.

Figure 1 shows all of the required minimum instream flows specified in Decision 1610 by river reach, the gauging stations used to monitor compliance, and the definitions of the various water supply conditions.

1.2 Water Supply Conditions

There are three main water supply conditions that are defined in Decision 1610, which set the minimum instream flow requirements based on the hydrologic conditions for the Russian River system. These water supply conditions are determined based on criteria for the calculated cumulative inflow into Lake Pillsbury from October 1 to the first day of each month from January to June. Decision 1610 defines cumulative inflow for Lake Pillsbury as the algebraic sum of releases from Lake Pillsbury, change in storage and lake evaporation.

Dry water supply conditions exist when cumulative inflow to Lake Pillsbury from October 1 to the date specified below is less than:

- 8,000 acre-feet as of January 1;

- 39,200 acre-feet as of February 1;
- 65,700 acre-feet as of March 1;
- 114,500 acre-feet as of April 1;
- 145,600 acre-feet as of May 1; and
- 160,000 acre-feet as of June 1.

Critical water supply conditions exist when cumulative inflow to Lake Pillsbury from October 1 to the date specified below is less than:

- 4,000 acre-feet as of January 1;
- 20,000 acre-feet as of February 1;
- 45,000 acre-feet as of March 1;
- 50,000 acre-feet as of April 1;
- 70,000 acre-feet as of May 1; and
- 75,000 acre-feet as of June 1.

Normal water supply conditions exist whenever a *Dry* or *Critical* water supply condition is not present. As indicated above, Decision 1610 further specifies three variations of the *Normal* water supply condition based on the combined storage in Lake Pillsbury and Lake Mendocino on May 31. These three variations of the *Normal* water supply condition determine the required minimum instream flows for the Upper Russian River from the confluence of the East Fork and the West Fork to the Russian River's confluence with Dry Creek. This provision of Decision 1610 does not provide for any changes in the required minimum instream flows in Dry Creek or the Lower Russian River (the Russian River between its confluence with Dry Creek and the Pacific Ocean). A summary of the required minimum flows in the Russian River for *Normal*, *Normal—Dry Spring 1* and *Normal—Dry Spring 2* water supply conditions is provided here:

1. Normal: When the combined water in storage in Lake Pillsbury and Lake Mendocino on May 31 of any year exceeds 150,000 acre-feet or 90 percent of the estimated water supply storage capacity of the reservoirs, whichever is less:

From June 1 through August 31

185 cfs

From September 1 through March 31	150 cfs
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From April 1 through May 31	185 cfs
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2. Normal-Dry Spring 1: When the combined water in storage in Lake Pillsbury and Lake Mendocino on May 31 of any year is between 150,000 acre-feet or 90 percent of the estimated water supply storage capacity of the reservoirs, whichever is less, and 130,000 acre-feet or 80 percent of the estimated water supply storage capacity of the reservoirs, whichever is less:

From June 1 through March 31	150 cfs
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From April 1 through May 31	185 cfs
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If from October 1 through December 31, storage in Lake Mendocino is less than 30,000 acre-feet	75 cfs
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3. Normal-Dry Spring 2: When the combined water in storage in Lake Pillsbury and Lake Mendocino on May 31 of any year is less than 130,000 acre-feet or 80 percent of the estimated water supply storage capacity of the reservoirs, whichever is less:

From June 1 through December 31	75 cfs
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From January 1 through March 31	150 cfs
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From April 1 through May 31	185 cfs
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2.0 PROJECTED WATER SUPPLY CONDITIONS

From October 1, 2016 to April 17, 2017, the cumulative inflow into Lake Pillsbury was 771,787 acre-feet. Consequently, the water supply condition will be categorized as *Normal* for the remainder of the year. Based on these criteria, the Decision 1610 required minimum instream flows in the Upper Russian River (from the East Fork Russian River to the Russian River's confluence of Dry Creek) will be 185 cfs between April 1 and May 31. The required minimum in-stream flows starting June 1 will be determined based on the combined storage of Lake Pillsbury and Lake Mendocino on May 31. At this time, the projected combined storage amount is difficult to predict

because it is heavily dependent on late spring precipitation. However, based on the current hydrologic trends, the Water Agency anticipates that the water supply condition starting June 1 will likely be *Normal*. Consequently, the Decision 1610 required minimum instream flows in the Upper Russian River will be 185 cfs until August 31 and then 150 cfs for the remainder of the year. In the Lower Russian River, the required minimum instream flow will be 125 cfs.

2.1 Lake Mendocino

As of April 17, 2017 the water supply storage level in Lake Mendocino was 92,532 acre-feet (AF) and still gaining. This storage level is 110 percent of the Target Water Supply Curve for this time of year. Figure 2 shows the storage level in Lake Mendocino compared to the 30-year average between 1987 and 2016. As shown in the figure, the storage level is well above the 30-year average for this time of year.

2.2 Lake Sonoma

As of April 17, 2017 the water supply storage level in Lake Sonoma was 252,828 AF and still gaining. This storage level is slightly greater than 103 percent of the available water conservation pool. Figure 3 shows the storage level in Lake Sonoma compared to the 30 year average between 1987 and 2016. As shown in the figure, the storage level is well above the 30-year average for this time of year.

3.0 RUSSIAN RIVER BIOLOGICAL OPINION

Under the federal Endangered Species Act (ESA), coho salmon in the Russian River watershed are listed as an endangered species, and steelhead and Chinook salmon are listed as threatened species. Additionally, coho salmon are listed as an endangered species under the California Endangered Species Act (CESA). In September 2008, the National Marine Fisheries Service (NMFS) issued the Russian River Biological Opinion (Biological Opinion). This Biological Opinion was the culmination of more than a decade of consultation under Section 7 of the ESA by the Water Agency and U.S. Army Corps of Engineers (Corps) with NMFS regarding the effects of the Water Agency's and Corps' water supply and flood control operations in the Russian River watershed on the survival of these listed fish species.

Studies conducted during the consultation period led NMFS to conclude in the Biological Opinion that the summer flows in the Upper Russian River and Dry Creek required by Decision 1610 create velocities that are too high for optimal juvenile salmonid habitat.

NMFS also concluded in the Biological Opinion that the historical practice of breaching the sandbar that closes the mouth of the Russian River to minimize flood risk during the summer and fall may adversely affect the listed species. NMFS concluded in the Biological Opinion that it might be better for juvenile steelhead if the estuary was managed as seasonal freshwater lagoon in the summer months. Minimum instream flows lower than those required by Decision 1610 may result in flows into the estuary that improve opportunities to maintain a freshwater lagoon while minimizing risk of flooding low-lying properties.

To address these issues, NMFS's Biological Opinion requires the Water Agency and Corps to implement a series of actions to modify existing water supply and flood control activities that, in concert with habitat enhancement measures, are intended to minimize impacts to listed salmon species and enhance their habitats in the Russian River and its tributaries. The Water Agency is responsible for the following actions under the Biological Opinion:

- Petitioning the State Water Board to modify permanently the requirements for minimum instream flows in the Russian River and Dry Creek (original Petition filed on September 23, 2009; revised petition filed on August 17, 2016);
- Enhancing salmonid habitat in Dry Creek and its tributaries;
- Developing a bypass pipeline around Dry Creek, if habitat enhancement measures are unsuccessful;
- Changing Russian River estuary management;
- Improving water diversion infrastructure at the Water Agency's Wohler and Mirabel facilities;
- Modifying flood control maintenance activities on the main stem Russian River and its tributaries; and
- Continuing to participate in the Coho Brood stock program.

The Biological Opinion acknowledges that implementing permanent changes to the minimum instream flow requirements for the Russian River and Dry Creek will take several years, including the time needed for review under the California Environmental Quality Act (CEQA) and compliance with state and federal regulations. Consequently, the Biological Opinion requires that, beginning in 2010, the Water Agency file annual petitions with the State Water Board for temporary changes to the Decision 1610 minimum instream flow requirements in the main stem Russian River until the State Water Board has issued an order on the Agency's petition for permanent changes to the Decision 1610 minimum instream flow requirements. The Biological Opinion requires the Water Agency to request that the main stem minimum instream flow requirements be

temporarily changed to the following values during *Normal* water supply conditions:

- 70 cfs between May 1 and October 15 at the U.S. Geological Survey (USGS) gage located at Hacienda Bridge (with the understanding that an operational buffer typically will result in flows of approximately 85 cfs)
- 125 cfs between May 1 and October 15 at the USGS gage located at Healdsburg

The temporary changes to Decision 1610 minimum instream flows specified in the Biological Opinion are summarized in Figure 4. (The Biological Opinion does not require the Water Agency to seek any temporary changes to the minimum instream flow requirements for Dry Creek.)

4.0 CRITERIA FOR APPROVING TEMPORARY URGENCY CHANGE TO PERMITS 12947A, 12949, 12950, 16596

As required by Water Code section 1435, subdivision (b), the State Water Board must make the following findings before issuing a temporary change order:

1. The permittee or licensee has an urgent need to make the proposed change;
2. The proposed change may be made without injury to any other lawful user of water;
3. The proposed change may be made without unreasonable effect upon fish, wildlife, or other instream beneficial uses; and
4. The proposed change is in the public interest.

4.1 Urgency of the Proposed Change

Decision 1610 set the minimum instream flow requirements that the State Water Board concluded, in 1986, would benefit both fishery and recreation uses, and would “preserve the fishery and recreation in the river and in Lake Mendocino to the greatest extent possible while serving the needs of the agricultural, municipal, domestic, and industrial uses which are dependent upon the water” (D 1610, § 13.2, page 21). The State Water Board also concluded in Decision 1610 that additional fishery studies should be done (D 1610, § 14.3.1, pages 26-27).

Thirty years later, it appears that the flows set by Decision 1610 no longer benefit fishery uses. To the contrary, the Biological Opinion concludes that summertime flows in the Russian River during Normal water supply conditions, at the levels required by Decision 1610, are higher than the optimal levels for the listed fish species. The Biological Opinion contains an extensive analysis of the impacts of these required minimum instream flows on listed fish species. The Biological Opinion requires the Water Agency to file a petition (original petition filed on September 23, 2009; revised petition filed on August 17, 2016) with the State Water Board to improve conditions for listed species by seeking permanent reductions in the minimum instream flow requirements contained in Water Agency's existing water rights permits. The Biological Opinion also contains the following requirement:

"To help restore freshwater habitats for listed salmon and steelhead in the Russian River estuary, SCWA will pursue interim relief from D1610 minimum flow requirements by petitioning the SWRCB for changes to D1610 beginning in 2010 and for each year prior to the permanent change to D1610. These petitions will request that minimum bypass flows of 70 cfs be implemented at the USGS gage at the Hacienda Bridge between May 1 and October 15, with the understanding that for compliance purposes SCWA will typically maintain about 85 cfs at the Hacienda gage. For purposes of enhancing steelhead rearing habitats between the East Fork and Hopland, these petitions will request a minimum bypass flow of 125 cfs at the Healdsburg gage between May 1 and October 15. NMFS will support SCWA's petitions for these changes to D1610 in presentations before the SWRCB."

(Biological Opinion, page 247.)

One of the species listed under the federal ESA (coho salmon) is also listed under the California Endangered Species Act (CESA). The California Department of Fish and Wildlife (DFW) has issued a consistency determination in which it determined that the incidental take statement issued to Water Agency by NMFS in connection with the Biological Opinion is consistent with the provisions and requirements of CESA.

In light of this background, an urgent need exists for the proposed change. As discussed in the Biological Opinion, the temporary changes that are requested in this petition will improve habitat for the listed species by reducing instream flows and by increasing storage for later fishery use, without unreasonably impairing other beneficial uses, thus maximizing the use of Russian River water resources. Moreover, given the listings of Chinook salmon, coho salmon, and steelhead under the federal ESA, there is a need for prompt action. As demonstrated by the Biological Opinion, there has been an extensive analysis of the needs of the fishery, and fishery experts agree that the

Decision 1610 minimum instream flows appear to be too high.

4.2 No Injury to Any Other Lawful User of Water

If this petition is granted, the Water Agency still will be required to maintain specified minimum flows in the Russian River. Because these minimum flows will be present, all other legal users of water still will be able to divert and use the amounts of water that they legally may divert and use. Accordingly, granting this petition will not result in any injury to any other lawful user of water.

4.3 No Unreasonable Effect upon Fish, Wildlife, or Other Instream Beneficial Uses

This petition is based upon the analysis contained in the 2008 Biological Opinion, which was issued primarily to improve conditions for fish resources in the Russian River system. Two types of improved conditions will result from an order approving this petition. First, the Biological Opinion concludes that stream flows that are required by Decision 1610 are too high for optimum fish habitat. If this petition is granted, then lower stream flows, which will result in better fish habitat, will occur. Second, lowering the required minimum instream flows will result in higher fall storage levels in Lake Mendocino. The resulting conservation of water in Lake Mendocino will allow enhanced management of Russian River flows in early fall for the benefit of fish migration.

It is possible that reduced flows in the Russian River may impair some instream beneficial uses, principally recreation uses. However, although some recreation uses may be affected by these reduced flows, any such impacts on recreation this summer will be reasonable in light of the impacts to fish that could occur if the petition were not approved.

4.4 The Proposed Change is in the Public Interest

As discussed above, the sole purpose of this petition is to improve conditions for listed Russian River salmonid species, as determined by NMFS and DFW. Approval of the Water Agency's petition to reduce instream flows to benefit the fishery will also result in higher fall storage levels in Lake Mendocino, which will make more water available in the fall for fishery purposes. Under these circumstances, it is in the public interest to temporarily change the Decision 1610 minimum required instream flows.

5.0 REQUESTED TEMPORARY URGENCY CHANGE TO PERMITS 12947A, 12949, 12950, 16596

To meet the terms and conditions of the Biological Opinion and to avoid excessively high flows that could result in violations to the Biological Opinion's Incidental Take Statement, the Water Agency is filing this TUCP. It requests that the State Water Board make the following changes to the Water Agency's permits for a period of 180 days from May 1, 2017 until October 15, 2017:

- (1) reduce the required minimum instream flow in the Russian River from the confluence of the East and West Forks to the river's confluence with Dry Creek from 185 cfs to 125 cfs; and
- (2) reduce required minimum instream flow in the Russian River from its confluence with Dry Creek to the Pacific Ocean from 125 cfs to 70 cfs.

The sole purpose of the requested changes is to meet the terms and conditions of the Biological Opinion, as there is adequate water supply available in Lake Mendocino and Lake Sonoma to meet this year's water supply demands by legal users and minimum in-stream flows required by Decision 1610.

To improve its efforts at achieving the optimal habitat conditions in the Lower Russian River and to optimally manage flows in the entire river, the Water Agency has requested in this year's TUCP (as in previous ones) that the minimum instream flow requirement be implemented on a 5-day running average of average daily streamflow measurements with the condition that instantaneous flows on the Upper Russian River be no less than 110 cfs and on the Lower Russian River be no less than 60 cfs. This adjustment will allow the Water Agency to manage stream flows with a smaller operational buffer, thereby facilitating the attainment of the low flow conditions that the Biological Opinion identifies as being conducive to the enhancement of salmonid habitat. Reducing the operational buffer will also conserve water supply in Lake Mendocino, resulting in higher storage levels in the fall for increased releases for migrating Chinook salmon and improving carry over storage for the following year.

6.0 WATER CONSERVATION ACTIVITIES

The Water Agency's water contractors are committed to eliminating non-beneficial uses of potable water. The Water Agency and its water contractors continue to implement water use efficiency programs that align with the California Urban Water Conservation

Council's Best Management Practices (BMPs) and comply with SB 7x-7. While these BMPs remain the baseline for the region, the establishment of the Sonoma-Marín Water Saving Partnership (Partnership) in December 2010 memorialized the region's commitment to long-term, year-round water use efficiencies. The Partnership removes one of the most significant barriers to implementing conservation programs, funding. Each Partner has committed to a sustained level of funding that is allocated specifically to implementing conservation programs while continuously implementing water conservation programs to reduce overall regional water use.

The Partnership represents eleven North Bay water utilities in Sonoma and Marin counties that have joined together to provide regional solutions for water use efficiency. The utilities (Partners) are: the Cities of Santa Rosa, Rohnert Park, Petaluma, Sonoma, Cotati; North Marin Water, Valley of the Moon and Marin Municipal Water Districts; Cal American Water Company-Larkfield; the Town of Windsor and the Sonoma County Water Agency. The Partnership was formed to identify and recommend water use efficiency projects and to maximize the cost-effectiveness of water use efficiency programs in our region.

On April 7, 2017 Governor Edmund G. Brown Jr. issued Executive Order B-40-17 that removes the drought emergency for much of the State. Despite this Executive Order, the Partners are committed to maintain a conservation ethic in the region and will continue to implement conservation programs that minimize post drought water demand rebounds. Beyond the State's monthly reporting of water use, the Partners will continue to collect regional data to ensure our water customers remain engaged in making conservation a California way of life.

7.0 CONCLUSION

The potential need to make changes after 1986 to the minimum instream flow requirements specified in Decision 1610 was contemplated by Decision 1610. Decision 1610 states: "Our decision will be subject to a reservation of jurisdiction to amend the minimum flow requirements if future studies show that amendments might benefit the fisheries or if operating the project under the terms and conditions herein causes unforeseen adverse impacts to the fisheries." As discussed in this petition, fisheries studies conducted during the last two decades, which ultimately led to NMFS' Biological Opinion, now indicate the need to amend the Decision 1610 minimum flow requirements. The Water Agency therefore requests that the State Water Board approve this petition.