

State Water Resources Control Board  
ORDER WR 2020-0102-EXEC

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Term 2.c

Report on Fishery Agencies Consultations



**February 17, 2021**

Prepared by

**Sonoma County Water Agency  
404 Aviation Blvd  
Santa Rosa, CA 95403**

# 1 Introduction

On July 28, 2020, the State Water Resources Control Board Order (Order) was issued approving Sonoma County Water Agency's (Sonoma Water) Temporary Urgency Change Petition to reduce flows in the upper and lower Russian River due to low reservoir storage levels and dry hydrologic conditions. Because the Order remained in effect through December 27, 2020, lower than normal flow levels were likely to affect the migration of salmon and steelhead. To ensure flows allowed passage of migrating fish, Term 2 of the Order directed Sonoma Water to monitor the status of the fishery by: operating a video counting station; conducting spawning ground surveys; reporting results bi-weekly; and consulting with staff from the California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service (NMFS) once a total of 100 adult salmon and steelhead had been counted or before October 15<sup>th</sup>. Term 2.c of the Order specifically referenced consultation regarding increasing the minimum instream flow requirements in the lower river up to a flow rate of 135 cfs as measured at the Hacienda gage. Previous studies conducted by Sonoma Water found that a lower river flow of 135 cfs or higher allowed unimpeded migration of anadromous fish. Term 2.c of the Order also required bi-weekly reporting of the results of CDFW and NMFS consultation meetings to the Deputy Director of Water Rights. Sonoma Water, CDFW, and NMFS met weekly to discuss river flow and fishery conditions from November 6 to December 29, 2020. The following is an account of those fishery and river flow consultation meetings.

## 2 Consultation Meetings

Sonoma Water environmental resources and engineering staff held eight meetings with NMFS and CDFW biologists between November 6 and December 29, 2020 (Table 1). Because the Russian River estuary was closed and no salmon were counted before October 15, Sonoma Water did not initiate the consultation meeting process until late October. Following a breach of the sandbar at the mouth of the Russian River and the detection of 100 fish at the Mirabel Dam video counting station, Sonoma Water notified the fishery agencies on October 27 that releases from Warm Springs Dam would be increased to achieve lower river flows of 100 cfs or higher (Figure 1; Table 2). Lack of precipitation, low river flow, and high ocean swell created a sandbar that closed the mouth of the river five times during fall and early winter 2020 (Figure 1). Due in part to closure of the river mouth and dry hydrologic conditions, counts of Chinook salmon (the earliest arriving species) were below average throughout the fall and have remained low through early winter.

Table 1. Fishery consultation meetings among Sonoma Water, NMFS, and CDFW staff pursuant to the July 28, 2020 Russian River Order.

Meeting Date	Sonoma Water Participants	NMFS Participants	CDFW Participants
6-Nov	David Manning (DM) Env. Resources Manager, Gregg Horton (GH) Principal Biologist, Justin Smith (JS) Sr. Fisheries Biologist, Pam Jeane (PJ) Asst. General Manager Don Seymour (DS) Principal Engineer	Bob Coey (BC) North Coast Supervisor, Josh Fuller (JF) Fisheries Biologist, Tom Daugherty (TD) Fisheries Biologist	Eric Larson (EL) Env. Program Manager, Ryan Watanabe (RW) Regional Fishery Biologist
13-Nov	DM, GH, JS, PJ, DS	BC, JF, TD	EL, RW
18-Nov	DM, GH, JS, PJ, DS	BC, JF, TD	EL, RW
24-Nov	DM, GH, JS, PJ, DS	BC, JF, TD	EL, RW
4-Dec	DM, GH, JS, PJ, DS	JF, TD	EL, RW
11-Dec	DM, GH, JS, PJ, DS	BC, JF, TD	RW
18-Dec	DM, GH, JS, PJ, DS	BC, TD	EL, RW
29-Dec	DM, GH, JS, PJ, DS	BC, TD	EL, RW

### 3 Monitoring and Management Strategies

To preserve storage in Lake Mendocino, the fishery agencies agreed to concentrate flow management on releases from Warm Springs Dam to encourage fish migration in the lower river and spawning in Dry Creek. Fishery agency staff agreed to limit flow increases in the lower river until a breach of the sandbar and precipitation were imminent. Prior to an anticipated breach and rain event, Sonoma Water increased releases during the week of November 9 to achieve a lower river flow of 135 cfs or higher. Coincident with a mid-November flow increase, sandbar breach, and rain event, salmon counts increased (Figure 1).

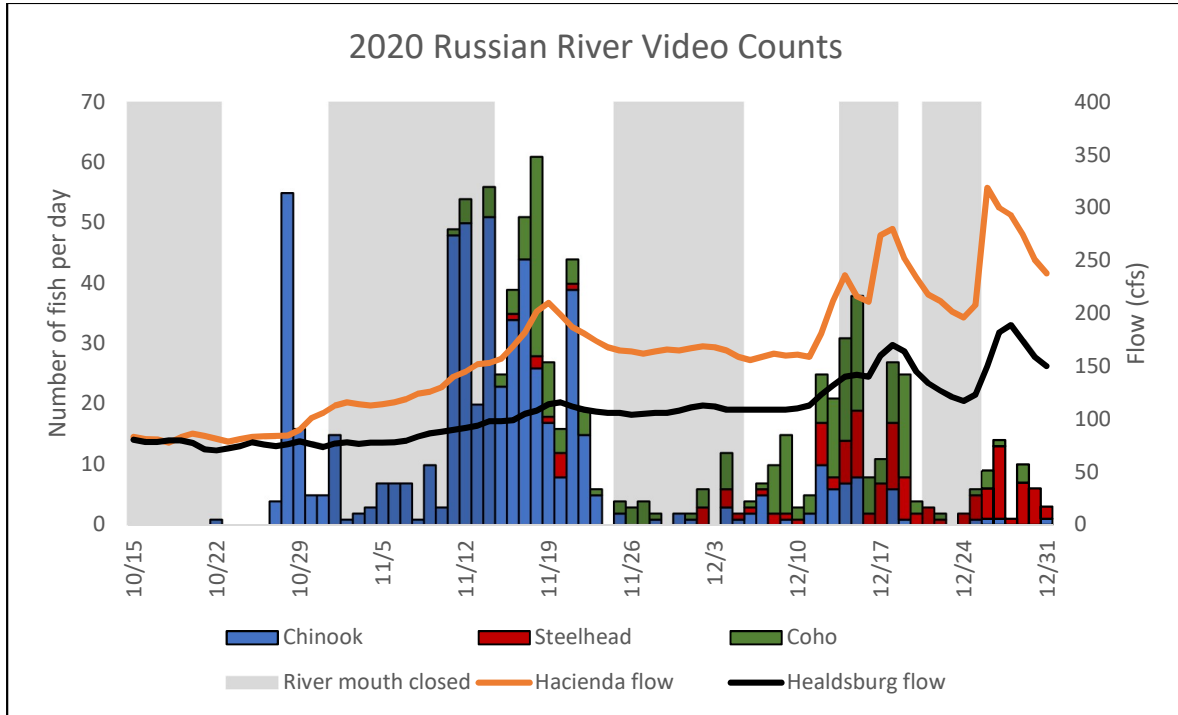


Figure 1. The daily number of adult Chinook, coho salmon, and steelhead observed in the Russian River on the underwater video cameras at Sonoma Water’s Mirabel Dam monitoring station (river Km 38.7). Also show is the daily average flow in the Russian River taken at the USGS Hacienda flow gage (gage number 11467000), and the USGS Healdsburg flow gage (gage number 11464000). Dates that salmon and steelhead could not enter the Russian River due to the formation of a barrier beach at the river mouth (river mouth closed) are represented by gray bars.

Table 2. Results of Sonoma Water Mirabel Dam video fish counts, salmon redd observations, flow in the lower (Hacienda) and upper (Healdsburg) Russian River, and fishery agency consultation meetings during the term of the July 28, 2020 Temporary Urgency Change Petition Order.

Week	Video Counts			Redd Counts	Flow (cfs)		Consultation meeting dates
	Chinook	Coho	Steelhead	Chinook	Hacienda	Healdsburg	
15-Oct	0	0	0	0	78 - 86	71 - 81	-
22-Oct	60	0	0	0	79 - 84	70 - 78	-
29-Oct	47	0	0	0	90 - 116	74 - 79	-
5-Nov	83	1	0	0	114 - 140	78 - 90	6-Nov
12-Nov	248	55	3	3	145 - 202	92 - 108	13-Nov
19-Nov	86	24	6	4	165 - 210	106 - 116	18-Nov
26-Nov	4	12	3	4	162 - 169	104 - 113	24-Nov
3-Dec	12	29	9	115*	156 - 168	109 - 112	4-Dec
10-Dec	33	68	30	23*	159 - 236	110 - 142	11-Dec
17-Dec	7	34	31	5	202 - 280	121 - 170	18-Dec
24-Dec	3	8	37	6	196 - 319	117 - 189	**
31-Dec	2	5	6	9	238	150	29-Dec

\* Kayak based surveys were conducted on these days. They cover more spawner sites in a day than walk in surveys  
 \*\* Holiday week

River flow remained above 150 cfs through a period of river mouth closure from late November to early December. Despite adequate flow for migration, fish counts were low during this time and forecasts indicated no precipitation. Storage at Lake Mendocino was less than 30,000 acre-feet and storage at Lake Sonoma was less than 162,000 acre-feet, about 9,000 acre-feet less than the same time of year during the 2013-2015 drought. During the December 4 consultation meeting, Sonoma Water requested fishery agency approval to reduce releases from Lake Mendocino and Lake Sonoma by 15-20 cfs while maintaining an upper river flow of at least 100 cfs and lower river flow of 135 cfs. After submission of a written request, the resource agencies concurred.

In addition to video counts collected at Mirabel Dam, Sonoma Water staff also visited spawning grounds in Dry Creek and the mainstem Russian River above Healdsburg weekly. Weekly observations generally confirmed the presence of spawning fish following breaches of the sandbar and increases in flow. More extensive spawning ground surveys were conducted in Dry Creek on December 7-8 and in the mainstem river on December 7-9 and December 15 (Table 3). While redds were observed, fish were less actively spawning than in years with more normal rainfall patterns and frequent opening of the river mouth.

Table 3. Sonoma Water Dry Creek and Russian River spawning ground surveys conducted by boat in December 2020.

<b>Tributary</b>	<b>Subreach</b>	<b>Date</b>	<b>Redds</b>
Dry Creek	Dry Creek - Upper	12/7/2020	69
	Dry Creek - Lower	12/8/2020	22
<b>Total</b>			<b>91</b>
Russian River	Alexander Valley - Upper	12/7/2020	0
		12/8/2020	4
		12/15/2020	19
	Alexander Valley - Lower	12/9/2020	2
		12/15/2020	4
Healdsburg - Upper	12/9/2020	18	
<b>Total</b>			<b>47</b>

Sonoma Water staff continued to meet with the fishery agencies through December 29, 2020. Despite flow increases due to precipitation and two sandbar breaching events, Chinook salmon numbers remained below average. The number of coho salmon and steelhead migrating through the lower river began to increase in mid-December (Figure 1). Because flow remained at levels sufficient for fish migration, consultation meetings in late December focused on hydrologic conditions and the need to file a temporary urgency change petition in January 2021. During these late December consultation meetings, the fishery agencies worked with Sonoma Water staff on a set of draft terms for the new order. Sonoma Water, NMFS, CDFW, and North Coast Regional Water Quality Control Board staff have been meeting weekly to discuss river and fishery conditions since the expiration of the 2020 Order.