

State Water Resources Control Board  
Order 5/19/2023

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Term 2 - Fisheries Monitoring Tasks



**Sonoma  
Water**

**April 1, 2024**

**Prepared by**

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## Introduction

On April 24, 2023, the Sonoma County Water Agency (Sonoma Water) filed a Temporary Urgency Change Petition (TUCP) with the State Water Resources Control Board (SWRCB) to temporarily reduce minimum instream flows in the Russian River and in Dry Creek to address low storage in Lake Mendocino and Lake Sonoma (SWRCB 2023). The SWRCB issued a Temporary Urgency Change Order (Order) approving the Sonoma Water's TUCP on May 19, 2023 (SWRCB 2023). The SWRCB's Order included fisheries monitoring and reporting tasks which are summarized in terms 2 of the Order and presented in the methods section of this report.

## Methods

In the sections that follow the monitoring methods covered under Term 2 (Fisheries Monitoring) of the Order are outlined.

### Video Monitoring

Sonoma Water was tasked with operating an underwater video camera in the fish ladder that provides fish passage around the Mirabel inflatable dam, which is located on the Mainstem Russian River near the town of Forestville. The Order stipulated that the video camera was to be installed by September 1, 2023.

### Snorkel Surveys

#### Lower River

Starting in October and if flow at the USGS stream gage at Hacienda was less than 110 cfs, Sonoma Water was to conduct biweekly snorkel surveys in at least one and up to six pools based on consultation with NMFS and CDFW. These surveys were to occur between the Mirabel dam and the estuary and were intended to document the presence of adult salmonids.

#### Upper River

Once 100 adult salmonids had passed the Mirabel dam and flow at the USGS stream gage at Hacienda was below 110 cfs Sonoma Water was to conduct snorkel surveys on a biweekly basis in the upper Russian River.

## Results:

From May 19, 2023 when the Order went into effect, to October 15, 2023 when the Order expired, flow at the Russian River USGS gage at Hacienda (USGS gage number 11467000) remained above 110 cfs. Flow during the period of the order ranged from 151 cfs to 633 cfs with a median flow of 179 cfs (Figure 1).

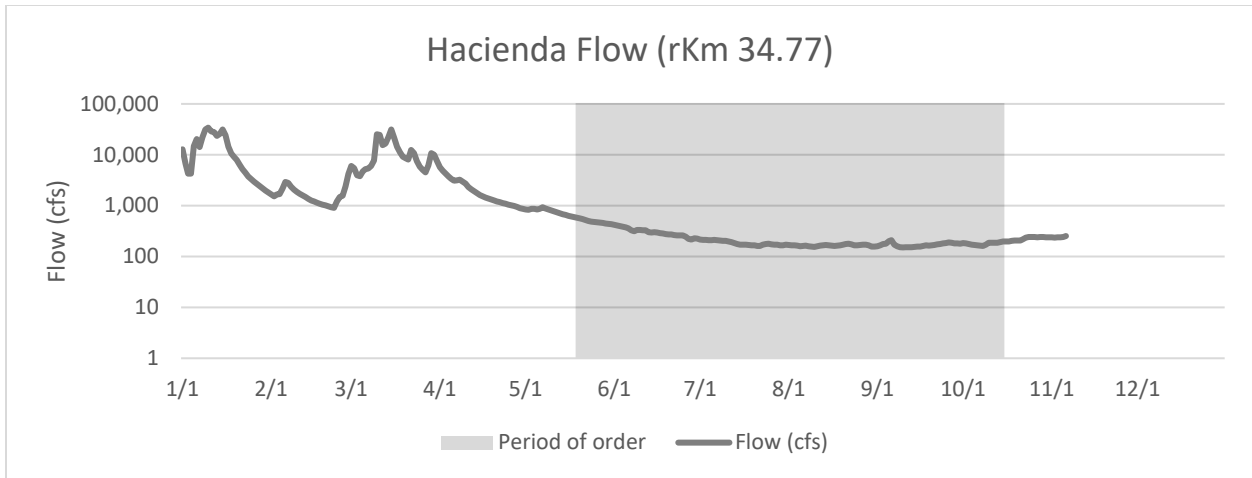


Figure 1. Flow in the Russian River at the USGS Hacienda stream gage (USGS gage number 11467000).

### Video Monitoring

Sonoma Water installed a video camera in the fish ladder at the Mirabel Dam on September 1, 2023 to monitor adult salmonids as they returned to the Russian River. When the Order expired on October 15, 2023 a total of 379 adult Chinook salmon, two steelhead, and no adult Coho had passed the Mirabel Dam (Figure 2). The preliminary video count for the 2023 adult salmonid monitoring season (including fish that returned after the order expired) is 1,971 Chinook, 286 coho, and 45 steelhead. As in previous years, the majority of Chinook, Coho and steelhead pass the site after October 15 (Table 1).

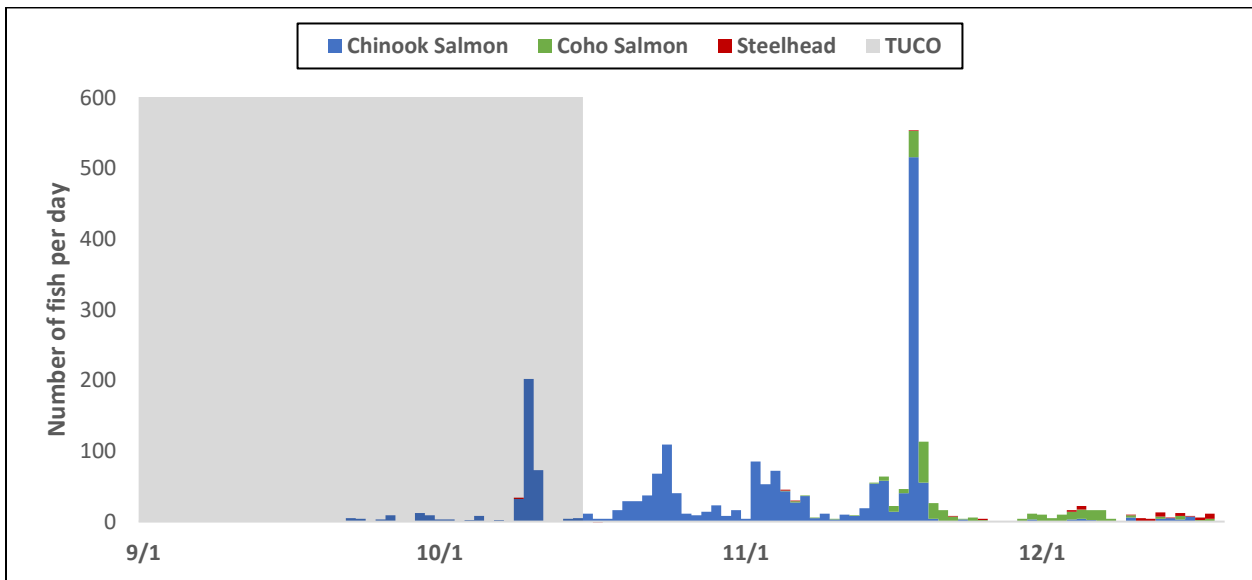


Figure 2. Number of adult salmonids (9/1/2023-12/19/2023) and the portion of Temporary Urgency Change Order (TUCO) that overlaps with the adult salmonid season.

Table 1. Weekly totals of adult salmonids observed on the Mirabel Dam video camera (9/1/2022-10/15/2023) and the percentage of fish in 2000-2022 that passed the Mirabel dam by week.

Week	Chinook		Coho		Steelhead	
	2000-2022	2023	2000-2022	2023	2000-2022	2023
9/1	0.1%	0	0.0%	0	2.0%	0
9/8	0.2%	0	0.0%	0	0.2%	0
9/15	0.3%	0	0.1%	0	0.3%	0
9/22	0.9%	23	0.1%	0	0.4%	0
9/29	6.9%	37	0.2%	0	0.3%	0
10/6	5.7%	310	1.0%	0	0.6%	2
10/13	5.9%	44	0.5%	0	0.6%	0

### Snorkel Surveys

The need to conduct lower and upper river snorkel surveys was conditional, based on flow. Flow at the USGS Hacienda gage remained above 110 cfs for the duration of the Order (Figure 1). Therefore, snorkel surveys were not conducted in 2023.

### Summary

In total, 379 Chinook salmon were observed on the Mirabel camera from when the camera was installed on September 1, 2023 to October 15, 2023 when the order expired. Compared to the long-term data set a relatively small portion of the run typically returns to the Russian River before October 15 (Table 1).

## References

State Water Resources Control Board. 2023. In the matter of permits 12947A, 12949, 12950, and 16596 (applications 12919A, 15736, 15737, 19351) Sonoma County Water Agency order approving temporary urgency change. Sacramento California.

Sonoma County Water Agency 2023. Petitions for Temporary Urgency Change-Permits 12947A, 12949, 12950, and 16596. April 2023.

U.S. Geological Survey, 2022, USGS Current Conditions for California available on the World Wide Web (USGS Water Data for the Nation), accessed November 11, 2023, at URL <https://waterdata.usgs.gov/ca/nwis/uv?>