



## Russian River Biological Opinion Update – January 6, 2025

Sonoma Water is continually planning and implementing the Russian River Biological Opinion requirements. Below is a brief synopsis of the current work. For more detailed information, please visit [SonomaWater.org](https://www.SonomaWater.org).

### **Dry Creek Habitat Enhancement Project**

The Dry Creek Habitat Enhancement Project is creating 6 miles of rearing habitat for endangered or threatened juvenile salmonids and consists of 6 Phases (I – VI) spread throughout the 15 miles of Dry Creek between the Russian River and Warms Springs Dam. In order to track project locations, this portion of Dry Creek is divided into 15 Reaches that are numbered according to approximate distance in miles from the confluence with the Russian River.

#### **Phases I – III**

Phases I – III were completed in 2021 and included approximately 14 sites from 6 different reaches. These Phases were designed and constructed primarily by Sonoma Water, however, the U.S. Army Corps of Engineers (Corps) constructed 2 sites. Sonoma Water is now monitoring and maintaining these sites as described in the next section.

#### **Phases IV – VI**

Sonoma Water and the Corps of Engineers are implementing Phases IV – VI of the Dry Creek Habitat Enhancement Project under a cost-share partnership where Sonoma Water covers 35% of the cost, provides right-of-way, and manages the design contracts, and the Corps covers 65% of the cost and implements the construction. Phases IV and V construction were both completed in 2024. Phase IV consists of sites in Reaches 10 and 13 of Dry Creek, and Phase V includes sites in Reaches 4C and 2A. Phase VI is in final stages of design and planning, with construction tentatively planned for 2026.



Site 10A1 Side Channel looking upstream.



Site 10A1 Side Channel looking downstream from the inlet.

ROD Construction has completed the remaining 4 sites in Reach 2, and the post-construction walkthrough inspection occurred on September 4, 2024. This completes the construction of Phase V of the Dry Creek Habitat Projects



Reach 2 sites on September 4, 2024. View is looking back upstream with the main channel of Dry Creek in the center and a newly constructed side channel visible on the right and the outlet of a newly constructed side channel visible to the left of the main channel.

### *Phase VI Planning*

Sonoma Water's right-of-way staff and project manager continue to work with the Phase VI property owners to obtain appraisals for the value of the right-of-way compensation amounts, prepare right-of-way compensation offers and easement agreements, present the documents to the owners, and address owner comments and concerns. Approximately half of the offers have been presented so far and Sonoma Water is waiting for comments.

### **Habitat Monitoring and Maintenance**

Sonoma Water environmental staff completed 2024 effectiveness monitoring in November, evaluating 14 newly and previously constructed reaches, to quantify the habitat areas meeting desired conditions, and to identify maintenance needs. Methods include collecting bathymetric data with survey equipment, measuring water depth and velocity, recording aquatic habitat types and characteristics, collecting topographic data and aerial photography with drones, and monitoring fish use using pit tags and fish surveys. For the first time this year, staff used a drone with a LiDAR sensor to collect topographic data, as well as information on upper- and mid-level riparian canopy. The drone will also be used this winter to characterize and quantify salmonid overwintering habitat.



Data collected using drone with LiDAR sensor: riparian canopy layer (left panel), bare earth topographic points (middle panel), digital elevation model generated from bare earth points (right panel).

Sonoma Water Environmental staff are currently working to obtain long-term programmatic permits covering maintenance work for the next five years. Maintenance work was completed on October 9th in the Reach 5 area to remove sediment which had deposited in the site during high flow events and was reducing the habitat area and quality at the site. Maintenance in the Reach 8 area to address similar sedimentation impacts, is expected to occur during the 2025 work season.



Photo showing portion of the Reach 5A Channel that had filled in. Habitat channel shown is in process of being re-excavated. Photo taken September 26, 2024.



Photo of eroded bank of habitat channel stabilization work. Photo shows regraded bank slope, new willow cuttings at the toe of the slope and excavation of the habitat channel area. Photo taken September 26, 2024.



Photo of newly opened portion of the habitat channel. Photo is showing the inlet connection from Dry Creek into the habitat channel in Reach 5A. Photo taken October 3, 2024.



Photo of newly opened portion of the habitat channel. Photo is looking back upstream along the constructed habitat channel in Reach 5A. Photo taken October 9, 2024.



Photo of the lower portion of the habitat channel in Reach 5A where flow was recently restored back into. Photo is looking downstream along the constructed habitat channel in Reach 5A. Photo taken October 9, 2024.

## **Public Outreach**

The annual meeting on the Russian River Biological Opinion will be held after a new Biological Opinion is issued.

## **Fish Monitoring**

On September 1, Sonoma Water began operating a video camera in the fish ladder at the Mirabel dam near Forestville, CA to count adult salmonids returning to the Russian River. A total of 1,612 adult Chinook salmon were counted before the inflatable dam was lowered due to impending storms on November 19. In most years, the Chinook run continues into the month of December. The long-term average annual adult Chinook count is 2,610. The video counting system only operates when the dam is inflated and the fish ladder is functioning. The dam has been deflated since the late November series of atmospheric river storms. Therefore, total Chinook count for the season is likely an underestimate of the total number of fish returning to the Russian River watershed. Although the video system is off-line for the winter, Sonoma Water Biologists will continue to monitor the return of coho salmon and steelhead to the watershed by conducting spawning ground surveys in tributary streams.





Chinook viewed at fish ladder at the Mirabel dam near Forestville.

### **Russian River Estuary Management Project**

The mouth of the Russian River closed on October 8, 2024, and was artificially breached on October 28. The lagoon water surface elevation reached 8.34 feet at the Jenner visitor center gage. A barrier beach formed again and closed the river mouth on November 1, 2024. The barrier beach was breached on November 13. The lagoon water surface elevation reached 9.14 feet at the Jenner visitor center gage. Fisheries, pinniped baseline, and water quality monitoring are complete for the season.



October 22, 2024, Russian River mouth closed at Goat Rock State Beach in Jenner. Photo credit: Michelle Hartwick, Sonoma Water.

### **Interim Flow Changes**

On August 20, 2024, Sonoma Water filed new temporary urgency change petitions with the State Water Resources Control Board (State Water Board) requesting that storage thresholds at Lake Mendocino be used as the hydrologic index for determining minimum instream flow requirements in the Russian River and Dry Creek starting November 1, 2024. Sonoma Water filed similar petitions in October of 2023, which the Division issued an order approving in December 2023. The State Water Board issued the Order approving the temporary urgency change petitions for a 180-day term.

### **New Biological Opinion**

Sonoma Water and the U.S. Army Corps of Engineers (USACE) are in consultation with the National Marine Fisheries Service (NMFS), and California Department of Fish and Wildlife (CDFW) for the next Biological Opinion (BO). Implementation of projects and monitoring required by the 2008 BO will continue until a new BO is issued.