



Russian River Biological Opinion Update – March 1, 2021

The Sonoma County Water Agency (Sonoma Water) is continually planning and implementing the Russian River Biological Opinion requirements. Below is a brief synopsis of current work. For more detailed information, please visit www.sonomacountywater.org.

Fish Flow Project

The Fish Flow Habitat and Water Rights Project (Fish Flow) Draft Environmental Impact Report (Draft EIR) was released in 2016 for public comments. Submitted comments fall into a number of categories, but many comments fall into the following general issues:

- Water Quality (e.g., algae and biostimulatory conditions);
- Water Rights (e.g., illegal/unauthorized diversions along Russian River, minimum bypass flow terms in State Water Resources Control Board-issued water right permits);
- Recreation (e.g., lower Russian River recreation and tourism, quantity and quality of river flow for recreation);
- Independent Science Review Panel (ISRP) Report (e.g., consideration of results/recommendations of ISRP report in Draft EIR);
- Proposed Project description and alternatives (e.g., consideration of “adaptive management” in implementation of proposed project).

Sonoma Water staff are currently working on revisions in anticipation of recirculating the Draft EIR in 2021.

Dry Creek Habitat Enhancement Project

Construction

Hanford and the Sonoma Water Construction Management staff are preparing to construct the two remaining Phase III project elements during the 2021 in-stream work window from June 15 to October 15. At this point this mostly involves coordinating with the participating property owners, contract management, and planning pre-construction surveys.

Habitat Monitoring and Maintenance

Sonoma Water environmental staff conducted physical and biological surveys on newly constructed and maintained sites over the summer and fall to verify they were built according to the plans and to quantify the habitat created. This involves surveying the topography at the site, the bathymetry in the creek channel and habitat features, the velocity and depth of the water, and the location and extent of specific habitat structures such as log jams, pools, and riffles. Sonoma Water staff have been processing the data to make maps and analyze habitat quality and quantity, and identify any physical changes.

Phases IV - VI

Inter-Fluve has completed the bid documents for Phase IV and it will be the first phase to be constructed. These sites are grouped in two reaches of Dry Creek: one approximately one mile downstream, and another two miles upstream, of Yoakim Bridge. The Corps is currently reviewing changes to the Right-Of-Way agreement that were requested by some of the property owners participating in Phase IV. Due to the time required to conduct this review and obtain approval the start of construction may be delayed. Sonoma Water is also in the process of procuring the logs and large wood materials needed to construct the habitat structures in the Phase IV project, the cost of which will count towards Sonoma Water’s 35% in-kind match obligation to the Corps. Sonoma Water is scheduled to go to the Board of Supervisors in April to execute contracts with suppliers.

Sonoma Water continues advance the right-of-way agreements with Phase V property owners, which involves appraising the value of the easements, meeting with property owner, and addressing their questions and concerns. Construction of Phase V is scheduled to begin in 2022. Sonoma Water and Cardno, the design consultant, are addressing final comments on the Phase VI design plans and specifications.

ESA, the design consultant for Phases III and V, has begun preliminary design and field studies on an additional site immediately upstream of the Phase III site currently under construction in Reach 5. Sonoma Water is advancing this work independently of the work being cost-shared with the Corps using the same source of funds as Phases I, II, and III. It builds on a relationship developed with a property owner during the Phase III project and will provide habitat that may be needed to fully meet the 6 miles required by the Biological Opinion in the event that any planned projects fall through.

Fish Monitoring

The 2020/2021 video monitoring season at the Mirabel dam fish ladders aimed at continuing Sonoma Water's long-term data set of upstream migrating adult Chinook Salmon has ended. Though not yet finalized, this season's count will end up as the lowest since we began video monitoring in 2000. Of course, there are multiple factors in freshwater and ocean environments that could impact the number of adults returning to spawn each year. In freshwater, scour of salmon redds (nests) can lead to mortality of incubating eggs and late winter/early spring high flows can make life as a newly hatched salmon fry perilous. Since 2015, the estimated number of Chinook smolts leaving Dry Creek heading to the ocean has been less than 50% of the average since 2009 when smolt monitoring on Dry Creek began. In at least one of those years (2017), high flows from winter storms and sustained, long-duration releases from Dry Creek to evacuate the flood control pool were particularly noteworthy as potential causes for the low numbers of adults returning in 2020.

The situation in freshwater for adult Coho Salmon and steelhead looking for places to spawn has also been quite challenging so far this season. Unlike Chinook which typically spawn in the mainstem Russian River and Dry Creek, these two species often spawn in smaller tributaries such as those pictured below. Because of the lack of rain, however, flow in many of these tributaries has already become disconnected meaning that adults cannot access them to spawn and, in some places, redds are becoming exposed due to low stream flow. Should the dry weather pattern continue, the consequences for smolts becoming trapped in these tributaries as well as the survival of juveniles this summer may be similarly grim.

A bright spot for Coho in the dry winter of 2020/2021 is Dry Creek which provides a steady supply of cool, clean water – a commodity that will be in short supply in 2021 if current conditions persist. Through our monitoring of PIT-tagged (an electronic tag) Coho Salmon, we have detected a high proportion of this year's adult Coho returns entering Dry Creek, some of which we have observed spawning in habitat enhancement areas compelled by the Russian River Biological Opinion.



Porter Creek mouth, 2/11/2021



Felta Creek exposed Coho redd (nest), 2/11/2021

The mouth of Porter Creek and an exposed Coho Salmon redd (nest) near the mouth of Felta Creek. Both tributaries contain important habitat for Coho Salmon and steelhead.

Russian River Estuary Management Project

The mouth of the Russian River closed eight times in 2020; twice during the lagoon management season (May 15 – October 15). Sonoma Water artificially breached the barrier beach four times in 2020, all outside the lagoon management season. So far in 2021, the river mouth has closed four times. Sonoma Water will submit a draft of the 2021 Adaptive Management Plan to resource agencies by April 1, 2021. Baseline, weekly pinniped monitoring is ongoing and the remaining biological monitoring has concluded for the season and will resume in the spring. Sonoma Water staff and Stewards of the Coast and Redwoods will be hosting a Q&A session of existing and new pinniped monitoring volunteers on April 29 from 10 to 11:30am. Information is available at: <https://www.stewardscr.org/events/2021-pinniped-monitoring-volunteer-training-q-amp-a-session>



The mouth of the Russian River on January 28, 2021. Photo by Gary Tourady.

Interim Flow Changes

The Temporary Urgency Change Order (Order) that was issued by the State Water Board on July 28, 2020 expired on December 27, 2020. The water year type changed from *Dry* to *Normal* on January 1, 2021 as established by Decision 1610 for Permits 12947 A, 12949, 12950 and 16596. This change means that the minimum flow requirements in the Russian River increased to levels that staff estimated cannot be sustained if additional, substantial precipitation does not occur in the next few months. Additionally, PG&E is preparing a variance request for Potter Valley Project operations due to low water storage levels at Lake Pillsbury. If a variance request is approved by FERC, a change in operations would result in limited transfers of water through the hydroelectric project and would adversely impact water storage levels in Lake Mendocino. Sonoma Water staff modeled the expected changes and, based on that work, filed a

Temporary Urgency Change Petition (Petition) and supporting technical memorandum on January 7, 2021. The Petition requested that storage thresholds at Lake Mendocino be used to determine the water year type for the Upper Russian River and set minimum stream flow requirements in the Upper Russian River instead of cumulative inflow into Lake Pillsbury. No changes were requested for how the water year type is determined for Dry Creek or the Lower Russian River. The Petition was noticed on January 19, 2021 and an Order approving the temporary requested change was issued by the State Water Board on February 4, 2021. On February 1, 2020 the water year type, based on Decision 1610, changed from *Normal* to *Dry*. . Based on the Lake Mendocino storage thresholds approved by the State Water Board order, the water year type for the Upper Russian River changed from *Dry* to *Critical*. The water year type for Dry Creek and the Lower Russian River remains *Dry*.

Annual Russian River Biological Opinion Public Policy Facilitating Committee Meeting

On Tuesday, March 9, 2021, the Public Policy Facilitating Committee (PPFC) will host its annual meeting to receive reports and presentations on various projects designed to help restore endangered and threatened fish to the Russian River watershed, while maintaining the region's primary water supply. The meeting will take place via Zoom from 2 to 4 p.m. To register for the meeting and receive log-in directions, visit www.sonomawater.org/ppfc2021

A Biological Opinion was released by National Marine Fisheries Service (NMFS) in September 2008. This 15-year plan requires Sonoma Water and the U.S. Army Corps of Engineers (USACE) to modify Russian River water supply and flood control operations to prevent harm to endangered coho salmon and threatened steelhead trout. The PPFC – comprised of elected and appointed officials from public agencies throughout the region – meets annually to review implementation of the Russian River Biological Opinion.

The Biological Opinion requirements include reducing minimum summertime flows in the Russian River and Dry Creek; changing the way the sandbar is managed at the mouth of the Russian River between May 15 and October 15; enhancing habitat in Dry Creek; and fish monitoring.

Presentations on March 9 will include the Russian River estuary management for salmonids; flood patterns and the Dry Creek Project; and the presentation of a graphic video project that explains flows in the Russian River. There will also be an update on the Dry Creek Habitat Enhancement Project. The public will have an opportunity to comment.

The meeting agenda will be available at www.sonomawater.org/ppfc2021.