Russian River Biological Opinion Update – May 3, 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 summer and fall 2020 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 are finalizing data processing by analyzing and rating habitat quality and quantity, identifying physical changes, and making maps to illustrate results. Habitat monitoring during 2020 found that the greatest amount of optimal habitat occurred in

Aerial image of a Dry Creek Habitat Enhancement feature following a high-flow event.

off-channel enhancement sites and in alcove habitat units.

Sonoma Water Engineering and Environmental staff visited the sites below Westside Road Bridge that were impaired by sediment deposition during the high flows of 2019 to observe site conditions and develop conceptual design options for maintaining the features. The tentative plan is to remove some of the deposited sediments and to reopen the side channels and reconnect them to the mainstem of the creek in a configuration that will discourage sediment entrainment. The team will now refine the concepts, model the hydraulics, estimate excavation volumes and potential cost, and determine whether to do the work this year or in 2022. Maintenance work on the Phase II project will use the same source of funds used for Phase II construction.

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 obtained Board approval on March 16th and has executed contracts with log suppliers.

ESA has completed the 99% design submittal for Phase V and construction is scheduled to begin in 2023. 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 property owner questions and concerns. Sonoma Water and Cardno, the design consultant, are addressing final comments from the Corps of Engineers on the 99% design plans and specifications for Phase VI, which is planned to start construction in 2024 The Sonoma Water right-of-way staff and project manager are also working with ESA and Cardno to review the access routes and staging areas for these projects and refine them if necessary, in time for appraisals.

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

An important question relative to salmon and steelhead recovery is identifying sources of mortality at various life stages (e.g., juvenile, smolt, adult) and where the mortality is occurring (e.g., freshwater, estuary, ocean). Although we have very good information on the number of salmon leaving some tributaries, relatively little is known about survival of these fish as they travel through the mainstem Russian River and estuary. Such information is important as we attempt to better understand the benefits of Dry Creek habitat enhancements and estuary management activities.

This spring, Sonoma Water staff is embarking on a project to estimate survival of coho salmon smolts (which is the life stage that transitions from freshwater to the ocean) as they leave tributary streams and make their way to the ocean. This study is facilitated by acoustic telemetry. By implanting fish with acoustic tags and "listening" for these tags with specially designed acoustic receivers situated along the river course, we will be able to estimate survival through specific reaches of the mainstem Russian River and estuary. Although acoustic technology is not new, recent advances in tag technology allow us to tag smolt-sized fish (4 to 6 inches long) without impacting study results. This project is being conducted through a partnership with the US Army Corps of Engineers.

Acoustic tags (at left) are implanted in smolt-sized fish (center) and the tags are detected by acoustic receivers (right) situated along the river course.

Russian River Estuary Management Project

The mouth of the Russian River closed on April 21, 2021. It is the sixth closure to date in 2021. Sonoma Water submit a draft of the 2021 Adaptive Management Plan to resource agencies for review and staff plan to finalize it by May 15, 2021. Baseline, weekly pinniped monitoring is ongoing and water quality monitoring is beginning the week of April 26 with deployment of datasondes to collect vertical profiles. Remaining biological monitoring will mostly resume in the next month.

Interim Flow Changes

On January 7, 2021, Sonoma Water filed a Temporary Urgency Change Petition (Petition) in response to ongoing dry conditions and low storage at Lake Mendocino. The Petition requested that storage thresholds at Lake Mendocino be used to determine the water year type and set minimum stream flow requirements for 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 changes was issued by the State Water Board on February 4, 2021. 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*. Sonoma Water is in the process of preparing to file another Petition in early May to request a reduction in minimum instream flow requirements for the Lower Russian River and extend the reduced minimum instream flow requirements in the Upper Russian River, which would increase on July 27 when the February order expires. This is in response to very low storage levels at both Lake Mendocino and Lake Sonoma. Included with the May Petition will be a commitment by Sonoma Water to reduce its Russian River diversions by 20 percent between July 1 and October 31 compared the same time period in 2020 in an additional effort to preserve storage at Lake Sonoma.

The Yorty Creek arm of Lake Sonoma on April 20, 2021.

Fish Flow video series being released, and PPFC meeting recording available

A complete recording of the March 9, 2021 Public Policy Facilitating Committee is now available on Sonoma Water's website, along with the three hand-drawn videos that explain the Russian River system, the life cycles of salmon in the river, and the proposed Fish Habitat Flows and Water Rights Project.

The annual Russian River Biological Opinion Public Policy Facilitating Committee was held via Zoom on March 9, with nearly 70 members of the public in attendance. For those not able to attend the meeting, a full recording of the meeting and presentations is now available at www.sonomawater.org/ppfc2021

The three videos explaining the proposed Fish Habitat Flows & Water Rights Project are available for viewing on the Sonoma Water YouTube page at: https://www.youtube.com/watch?v=Bc9Ll7N1aKU

For more information about the Fish Habitat Flows & Water Rights Project visit: www.sonomawater.org/decision1610