

PHASE 1 Elk River Recovery Assessment (ERRA)

- Prepare ERRA Recovery Framework Report (**Complete**) https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/elk_river/pdf/190516/ERRA%20Framework%20Final%20compiled_031419.pdf

PHASE 2 Elk River Stewardship

- Present Preferred Strategy (**Complete**)

PHASE 3 Develop Elk River Recovery Plan

- Prepare Elk River Recovery Plan for public and agency review (**Complete**) https://caltrout.org/wp-content/uploads/2019/05/Elk-River-Stewardship-Recovery-Plan-Public-Draft-July_2022.pdf

PHASE 4 Planning and Design **WE ARE HERE**

- Develop conceptual designs in collaboration with landowners for each Planning Area (In Progress)
- Prepare engineering designs and permit applications.

PHASE 5 Project Implementation **(2026-2030)**

- Obtain funding and complete final engineering designs and permits
- Construct restoration projects in phases

FOR MORE INFORMATION

Visit the RWB Elk River TMDL web site:

https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/elk_river/

or the CalTrout Elk Recovery Project website:

<https://caltrout.org/projects/elk-river-recovery-project>

Email questions, comments, or other information to:

dmierau@caltrout.org

kgurin@caltrout.org

elizabeth.pope@waterboards.ca.gov



WATERSHED STEWARDSHIP PROGRAM

CAN THE FEMA FLOOD HAZARD ZONE CHANGE?

The 100-year flood hazard zone, also known as the Special Flood Hazard Area, is a designation used by the Federal Emergency Management Agency (FEMA) to identify the area that has a 1% chance of experiencing a flood event in a given year. This is commonly referred to as a “100-year flood.” The concept of the 100-year floodplain was created to manage the risks associated with such floods and to aid in land use planning, flood insurance, and emergency management efforts. In short, the 100-year floodplain is a tool that communities can use to identify areas that have the highest risk of flooding and helps lenders determine insurance requirements.

In 2020, with funding from the State Water Board, Northern Hydrology and Engineering completed a technical memorandum identifying an increased risk from extreme flood events for portions of the Elk River watershed not currently included in the FEMA mapped flood area. For some, this memo raised the question of how FEMA flood maps can be updated, and how its technical information could be used.

Because flood risk can change over time from factors like climate change, land development, and altered hydrologic conditions, FEMA works to update its flood maps based on new technology and current technical information. There are three ways to change a flood hazard map: 1) FEMA-Initiated Update where FEMA initiates revisions, 2) Community-Initiated Map Revisions in which a community submits the request and supporting technical information, or 3) Community-Initiated Map Revision Through the Cooperating Technical Partners Initiative where communities, flood management agencies, universities, tribes and non-profits actively partner with FEMA in the flood hazard mapping program.

Changes to the FEMA 100-year floodplain impact flood insurance requirements and access to emergency



assistance. Newly identified flood risk areas would require flood insurance while landowners in areas no longer identified as flood risks could request the removal of federal flood insurance requirements. Talking to your insurance provider will help you understand how changes to the 100-year floodplain may impact your insurance requirements and identify which FEMA special assistance programs you may qualify for. For individual property owners, or the community in general, who may be interested in pursuing changes to FEMA maps, more information including current flood maps, details on how to change flood zone designation, and technical requirements can be found at www.fema.gov/flood-maps.

Photo by Darren Mierau (2019)

UPDATES

Restoration

The Elk Recovery project team, including California Trout, Northern Hydrology and Engineering, GHD, and Stillwater Sciences, is developing engineering designs to reduce flooding and create habitat along Swain Slough and the Elk River from Hwy 101 through the North and South Forks. Our designs for the Elk typically involve trapping sediment from the upper watershed; removing excess sediment from the channel by digging pools and laying back channel banks; restoring habitat through targeted placement of large logs to maintain pools and provide water velocity shelter; recontouring the floodplain to create habitat, reduce fish stranding, and benefit existing land uses; thinning vegetation in the channel where it blocks flow; removing invasive plants and planting native plants; restoring tidal and freshwater wetlands; and modifying infrastructure (tide gates, culverts, etc.) when it no longer serves the landowner and/or may contribute to reduced habitat function and increased flooding.

These actions are applied to each parcel based on the wishes of the landowner and the results of baseline studies, which, when combined with conversations with landowners, inform us of each parcel's infrastructure, topography, river and tributary flow patterns, fish habitat, water quality, cultural resources, and plant communities. Working with landowners, we select a site-specific conceptual design, which is reviewed by a technical advisory committee and analyzed with a computer model to predict the design's impacts on flooding. With approval from the landowner, this design becomes the outcome of the conceptual design process. The conceptual design is then refined to become the engineering design used by a construction contractor (phase 5 on the timeline on the last page).

Because the Elk Stewardship Area is so large, we are seeking funding for work on each Planning Area separately. This means that we work closely with river-adjacent landowners in the Estuary, Mainstem, or North and South Forks for a period of time as we move through each successive design phase. For example, the Project team worked with North and South Fork landowners, using funding from the State Water Resources Control Board, to develop concept designs for pilot projects in 2016-2021. From 2020-2023, the Project Team used funds from the State Coastal Conservancy and the Wildlife Conservation Board to develop concept designs in the Elk Estuary. Work on the mainstem Elk from the forks to Showers Road received funding from the National Fish and Wildlife Foundation in early 2023, and the project team is currently working with Mainstem landowners to develop baseline studies and present initial design actions. This phase will be complete in 2025; from there, we will seek funding for engineering design and permitting, as well as construction. Although it is difficult to know for sure before funding is secured, we are aiming to begin construction in the Elk Estuary in 2026, and in the mainstem and the North and South Forks soon thereafter.

Thanks to all of you who have worked with us to develop these engineering plans and baseline studies!

Health and Safety

Health and Safety Interviews: Between May 2022 and June 2023, three rounds of resident interviews were conducted by Regional Water Board staff. Interviews were guided by open-ended questions about 100-year flood levels, road flooding, drinking water, and wastewater systems. Participants were asked to share personal experiences on each of these topics and to provide perspective on any solutions they saw for the watershed. Information shared during the interviews will help with future health and safety projects. Thanks to all those who participated.

Road Flooding: The Regional Water Board and the Humboldt County Department of Public Works are partnering to complete a Project Study Report (PSR) for Elk River Road flooding. The PSR is a necessary first step in a road improvement project because it identifies design options, workplans, and feasible projects—basically all the information needed for effective road design. The PSR will look at the three main flooding locations along Elk River Road at Zanes Road, Berta Road and the flood curve.

Drinking Water: Regional Board staff continues to work with other state and local officials (e.g., Safe and Affordable Funding for Equity and Resilience (SAFER) Drinking Water Program, the Division of Drinking Water, Division of Financial Assistance, and the Humboldt Community Services District) to find alternatives for sustainable drinking water solutions to address the issues of the Elk watershed, and that also consider viewpoints shared during the health and safety interviews.

ELK RIVER TMDL MILESTONES

2016 Regional Water Board adopts Sediment Total Maximum Daily Load for the Upper Elk River (Upper Elk Sediment TMDL)

2016 Elk River Stewardship Program (Stewardship Program) initiated

2016 Waste Discharge Requirements (WDRs) for commercial timber operations of Humboldt Redwood Company and Green Diamond Resources Company in the Elk watershed are adopted

2017 State Water Board adopts the Upper Elk Sediment TMDL

2018 Office of Administrative Law and United States Environmental Protection Agency approve the Upper Elk Sediment TMDL

2018 Water Quality Control Plan for the North Coast Basin (Basin Plan) updated to include the Action Plan for the Upper Elk Sediment TMDL

2019 Elk River Recovery Assessment finalized

2019 Regional Water Board adopts updated WDRs for Humboldt Redwood Company

2020 Regional Water Board adopts updated WDRs for Green Diamond Resource Company

2021 North Fork Elk River Pilot Projects completed

2021 South Fork Elk River Planning and Conceptual Design completed

2022 The Elk River Watershed Stewardship Program: Sediment Remediation and Habitat Rehabilitation Recovery Plan completed

2022 The first five-year staff review of the Upper Elk Sediment TMDL completed

2023 Elk River Estuary (Upstream of the 101 to Showers Rd): Conceptual Design Report completed

2023 Elk River Mainstem (Showers Road to Confluence of North and South Forks): Planning and Conceptual Design Development initiated

2023 Elk River Estuary CEQA and 65% Engineering Design initiated

TO THE COMMUNITY OF ELK RIVER AND ALL ITS STEWARDS,

(Excerpt from a larger message. For the full message please email Elizabeth. Pope@waterboards.ca.gov)

To the Community of Elk River and all its contributing Stewards,

As I enter a new phase of my career through retirement from State service, I heartily wish all of you success in rallying the resources necessary to return the Elk River to a vital, sustaining, and resilient place to live, work, and play. I have been honored and humbled to work amongst all of you in service to a sustainable and resilient Elk River Watershed. I wish you good luck in this exciting new phase of energy and change. I hope for the growth and strengthening of a true Stewardship vision that inspires your engagement and support for the actions that are necessary to reconcile the tugging and straining forces at play in the Elk River.

Best wishes

Alydda Mangelsdorf

Retired Planning and Watershed Stewardship Division Supervisor, North Coast Regional Water Quality Control Board

NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD WELCOMES NEW EXECUTIVE OFFICER

The North Coast Regional Water Board (Regional Board) has welcomed Valerie Quinto as its new Executive Officer. Valerie filled the Executive Officer position that was previously held by Matt St. John, in early 2023. Having worked with the Regional Board in a variety of capacities, Valerie is no stranger to the Regional Board's efforts, stakeholders, or mission, nor is she a stranger to the Elk River watershed. Many years ago, as a Student Intern for the Regional Board, Valerie's work included analysis of sediment data



in the watershed. More recently, she served as a Board member for seven years, during which time the Board took several important actions regarding Elk River. Before accepting the Regional Board Executive Officer position, Valerie worked for the Sonoma Resource Conservation District (2008-2023), and served as its Executive Director 2017-2023. There, she led efforts focused on collaborative improvements to water quality, fish habitat, and more.

Valerie is looking forward to working with the community to protect and improve our North Coast watersheds.