

PHASE 1 Elk River Recovery Assessment (ERRA)

- Conceptual Model and Hydrodynamic Sediment Transport Model Development (Complete)
- ERRA Recovery Framework Report (Complete)
- Pilot Project Implementation (In progress)

PHASE 2 Preferred Recovery Strategy

- Develop site-specific actions in consultation with landowners and regulatory agencies
- Present Preferred Strategy at Feb. 27, 2020 Public Meeting (Complete)

We are
here

PHASE 3 Develop Elk River Recovery Plan

- Modeling and analysis of Preferred Recovery Strategy
- Modeling and Analysis of Vegetation Management
- Present results of analysis including preliminary impacts and cost considerations

PHASE 4 Regulatory Compliance

- Conduct programmatic environmental review

PHASE 5 Planning and Design

- Engineering design of landowner-supported actions
- Permitting

Phased Implementation of Projects

CALIFORNIA TROUT



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Northern Hydrology and
Engineering



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FOR MORE INFORMATION

Visit the Program web site:

https://www.waterboards.ca.gov/northcoast/water_issues/programs/watershed_info/eureka_plain/elk/stewardship/

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Hello Elk River landowners and stakeholders,

We hope this newsletter finds you all safe, healthy, and looking forward to the coming Spring. Working remotely in our home offices, we have continued to maintain forward momentum with our Elk River Recovery Program. We wanted to take this opportunity to update you on some of our recent progress.

Since public release of the draft **Preferred Recovery Strategy** (Strategy) in June 2020, the *Elk River Watershed Stewardship Program* (Stewardship Program) has been evaluating aspects of the Strategy for effectiveness in addressing the sediment, nuisance flooding, and habitat impairment problems in Elk River. This Spring 2021 we will be “running the model” (our hydrodynamic and sediment transport model) to analyze the Strategy. We’ve also begun incorporating our preliminary results into a forthcoming Elk River Recovery Plan which will be released for public review in late 2021, and will integrate conceptual designs, costs, permitting, and other considerations necessary to implement the Actions being proposed.

CalTrout and our Program partners have been busy behind the scenes with the following activities:

- 1) Completing special studies and negotiating with regulatory agencies to obtain permits for the *North Fork Elk River Sediment Remediation and Habitat Rehabilitation Pilot Projects*;
- 2) Initiating conceptual restoration designs on the South Fork Elk River, which is the next step toward engineering plans;
- 3) Securing funding to initiate conceptual designs across the lower 480-acre Elk River Estuary and adjacent agricultural lands;
- 4) Seeking ways to streamline the regulatory compliance and permit requirements.

These efforts are described in more detail in the following sections.



Project Partner Doug Parkinson taking a
water level measurement in the Elk River.

NORTH FORK PILOT PROJECTS

At the request of regulatory agencies, CalTrout completed a wetland delineation and developed a Revegetation Plan for the Pilot Projects sites in Winter 2019. The Elk River is a sensitive habitat area that includes many protected species and habitats, necessitating mitigation and “no net loss” of those resources. Local, State, and Federal permitting of the North Fork Pilot Projects is expected to conclude in Summer 2021, after which permits will be secured and fundraising for implementation may proceed. **Development of these Pilot Projects has been extremely slow, and this slow pace is as frustrating and disappointing to us as it is to you. But we have had several important lessons learned and are establishing some foundational permitting precedents that will help accelerate our next phases of project permitting.**

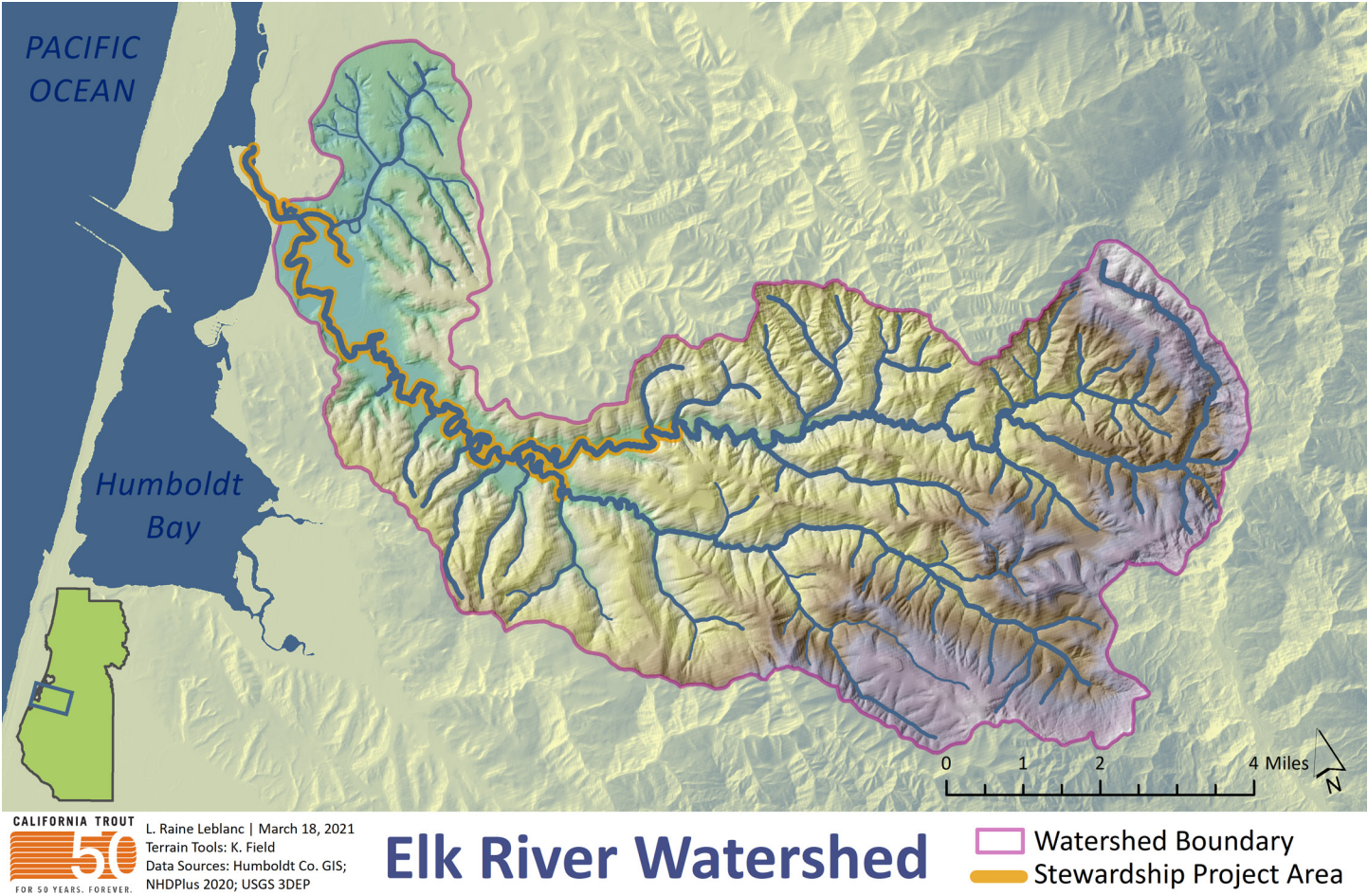


SOUTH FORK CONCEPTUAL DESIGN

In July 2020, the Project Team initiated conceptual planning in the South Fork Elk River to advance the proposed Stewardship concepts. The South Fork planning area extends from the North Fork/South Fork confluence up through the Save the Redwoods League property, and into Tom’s Gulch, which has been identified as a significant sediment source. Concepts being developed for the South Fork include sediment detention, selective in-channel sediment removal, pool enhancement, floodplain lowering, and riparian restoration. A key component of South Fork planning is developing recommendations for wood and vegetation treatment that is acceptable to regulatory agencies, increases flood flow conveyance, and maintains ecological function. **Ideally, vegetation management is an action that could be implemented in advance of other recovery actions to provide landowners with some immediate flood relief.** See below for more information.

In-Channel Vegetation
A “Root Cause
of Aggradation”

In-stream vegetation was historically cleared from the Elk River channel before the detrimental impact on fish was widely understood and the practice was disallowed. Currently, the vegetation in the Elk River channel is unmaintained because regulations prohibit its removal. In some locations, the river is choked by thickets of willow and blackberry that slow flood waters, causing sediment to settle out of the water, and allowing vegetation to take root in the deposited sediments. This creates a negative feedback loop in which more sedimentation leads to more vegetation, and so on. The Stewardship Program is actively engaging with regulatory agencies to determine allowable parameters for vegetation removal and maintenance so that the in-stream wood and vegetation can be managed while still maintaining ecological benefits. We are currently evaluating the extent to which flood flows would decrease if in-channel vegetation were removed or thinned. Determining a regulatory pathway for this action is a priority because it would immediately improve flood conditions and community health and safety, particularly in the North and South forks.



ELK ESTUARY CONCEPTUAL DESIGN The California State Coastal Conservancy and Wildlife Conservation Board have shown their support for Elk River recovery by funding conceptual design planning in the tidal reaches of Elk River and adjacent agricultural lands. The Estuary planning area is approximately 480 acres and extends from Hwy 101 to Showers Road. Concepts being advanced include in-channel sediment removal, vegetation removal (in-channel) and replanting (on floodplain), recontouring the floodplain to help direct flood flows back toward drainage channels, infrastructure modifications to improve drainage, wetland enhancement for habitat benefits, and riparian vegetation restoration. Because the tidal reaches could provide high quality habitat for endangered salmon, restoring the estuary provides the opportunity to mitigate for temporary construction impacts in other reaches.

PERMIT STREAMLINING The regulatory requirements intended to protect the environment can sometimes make restoration very challenging. Implementing the Recovery Plan will require permits issued by the US Army Corps of Engineers, National Marine Fisheries Service, US Fish and Wildlife Service, California Department of Fish and Wildlife, North Coast Regional Water Quality Control Board, and Humboldt County. Additional requirements apply when endangered species are present or when actions are proposed in the riparian corridor, sensitive habitat areas, or in the Coastal Zone thus requiring a Coastal Commission permit. Impacts to these habitat types must be avoided or mitigated and are negotiated during the permitting process. Action types with similar impacts will be permitted programmatically, to the extent possible. CalTrout is working with our agency partners to explore ways to streamline and expedite the permitting process. We’re also positioning our Elk River Program to be part of the California Natural Resources Agency’s Cutting the Green Tape initiative [<https://resources.ca.gov/Initiatives/Cutting-the-Green-Tape>] to seek support in our effort to streamline permitting and expedite our recovery efforts.