

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

**STAFF SUMMARY REPORT: Keith Lichten
MEETING DATE: February 12, 2025**

ITEM: 8

**Corte Madera Flood Risk Management Project: College of Marin Creek
Restoration Element – Informational Item**

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DISCUSSION

The Lower College of Marin Corte Madera Creek Habitat Restoration Project will restore floodplain and wetland habitat to Corte Madera Creek (Creek) by lowering the walls on a portion of an existing concrete flood control channel at the College of Marin (College). The project represents coordinated, multi-benefit, community-engaged design that maximizes multiple goals within an urbanized watershed context, including flood management, habitat for fish and other species, and recreation. It is an incremental improvement to the substantial damage done to the Creek by past single-purpose flood management designs.

The Creek, in the 28-square-mile Ross Valley watershed in eastern Marin County, has experienced numerous past flooding events, including well over ten significant floods since 1942, and multiple events since 2000. Significant flood events in 1942, 1955, 1958, and 1960 led to the original Corte Madera Creek Flood Control Project, designed by the U.S. Army Corps of Engineers (Corps), which resulted in construction of three miles of earthen trapezoidal channel at the bottom of the watershed and about a mile of concrete-lined channel immediately upstream. This project would restore about 500 feet of the lower end of the concrete-lined channel and the Creek channel immediately downstream.

The original Corps design spawned protests, including by future Senator Barbara Boxer, that prevented the concrete channel's completion—and the associated impacts to fish passage and habitat, including for salmonids—along the entire planned reach. In addition, the design's faulty modeling assumptions mean that it does not provide the intended level of protection from flooding. While planned to provide protection from the 250-year return period event (i.e., an event with a 0.4 percent chance of occurring in any given year), the constructed design instead contained flows for the 5- to 10-year return period event (i.e., an event with a 10 to 20 percent chance of occurring in any given year). This was due in part to underestimating the amount of sediment that would be carried by the Creek, the amount that would deposit downstream over time, and its effects during flood flows. The assumption was also made that the concrete channel walls would remain very smooth, promoting super-critical flow, instead of becoming

pitted and covered with barnacles. Efforts are underway at multiple locations in the watershed to continue to reduce flooding.

The College, the Friends of Corte Madera Creek (Friends), and the Marin County Flood Control and Water Conservation District have coordinated on a project that better accommodates flood flows and maximizes restoration at the College, taking into account constraints including existing public paths, playfields, and structures, and obtaining funding to build the multi-benefit design.

Sandra Guldman from the Friends of Corte Madera Creek and Joanna Dixon from the Marin County Flood Control and Water Conservation District will describe current efforts to design, fund, and construct the restoration project.