



# Ross Valley Flood Protection and Watershed Program

## PROJECT: CORTE MADERA CREEK FLOOD RISK MANAGEMENT

FREQUENTLY ASKED QUESTIONS (FAQ) NOVEMBER 29, 2017

### What is the Corte Madera Creek Flood Risk Management Project that is currently under development by the US Army Corps of Engineers (USACE)?

The primary goal of the Corte Madera Creek Flood Risk Management Project (USACE Project) is to reduce the frequency and severity of flooding in the communities of Ross and unincorporated Kentfield. The proposed Project would include;

- removing the wooden fish ladder in Ross that constricts flow,
- widening the channel to hold more water by removing portions of the concrete channel to create flood plains and riparian corridors, and
- installing flood walls adjacent to the banks and stabilizing creek slopes to protect properties adjacent to the creek.

The proposed USACE Project goals and benefits are:

- managing flood risk in a manner that is fully implementable and supportable by the local community by reducing the likelihood and consequences of flooding on human life and safety, and reducing the risk of flood damages, preserving or restoring the natural creekbed and associated riparian habitat, and improving fish passage;
- preserving or improving, to the extent practicable, the recreational experience and aesthetic quality of Corte Madera Creek;
- minimizing future erosion of unprotected creek banks & improving bank stability along the earthen channel in Ross; and,
- minimizing long-term maintenance requirements of the project.

### What is Phase 1 of the USACE Project?

The USACE Project is being divided into two projects in order to move priority flood reduction measures in Ross and Kentfield years ahead of the larger USACE Project's schedule by utilizing a \$7.6 M grant from the Department of Water Resources (DWR). In June 2017, the Flood Zone 9 Advisory Board approved reallocating DWR grant funds from the Phoenix Lake Integrated Regional Water Management Project (determined to be infeasible as proposed due to grant restrictions) to create Phase 1 of the Corte Madera Flood Risk Management Project.

The goal would be to construct Phase 1 by 2020 and includes removing constrictions (such as the Ross fish ladder) and widening the channel (creating a flood plain, a more hydraulically-efficient transition, and a riparian corridor at Frederick Allen Park) to keep more water in Corte Madera Creek during large flood events. Phase 1 also includes making improvements to stabilize the banks of the earthen channel above the fish ladder and adding protective floodwalls along the channel downstream in Kentfield at the Granton Park neighborhood. These measures are being prioritized because residents and business in these areas flood during even smaller flood events, such as experienced in winter 2016-17. This opportunity also leverages state funds to offset the USACE-required local funding share of design and construction of the project. You can learn more about the larger USACE Project (Phase 2) at:

[http://www.marinwatersheds.org/documents\\_and\\_reports/USACECorteMaderaCreekProject.html](http://www.marinwatersheds.org/documents_and_reports/USACECorteMaderaCreekProject.html)

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## What are the benefits of the Phase 1 Project?

Phase 1 brings flood risk reduction to many residents and businesses in Ross and Kentfield by 2020, years ahead of the larger USACE Project (Phase 2) schedule. Existing hydraulic modelling indicates that the Project is calculated to reduce the height of flood waters by 2-11 inches in flood-prone areas in Ross, in addition to potentially removing properties from the FEMA 100-year special flood hazard area (SFHA) along Sir Francis Drake Blvd downstream of the Lagunitas bridge and Granton Park in Kentfield. Also, several properties within the existing SFHA that see flooding during a 10-year flood event should experience little to no flooding. Other potential downstream impacts will also be mitigated under the larger USACE project.

## Where is the Phase 1 Project in the development process?

The Phase 1 Project is currently in a conceptual design phase. The final design and specific features of the Project have not been completed at this point. The Marin County Flood Control and Water Conservation District (District) and Town of Ross are working together to conduct an in-depth public engagement process within the Ross community to ensure both directly and indirectly impacted residents have an opportunity to learn about the conceptual design and provide input. The District is also carefully analyzing different scenarios to maximize flood reduction while supporting community interests and environmental benefits. Both the larger USACE Project and Phase 1 Project are in environmental review and a Draft EIR/EIS will be released for public review and comment in Spring 2018. The Final EIR should follow later in 2018, which offers another opportunity for public comment. Then, Phase 1 will progress into final engineering and design, followed by construction, which is projected to be complete by 2020. Community input will continue to be a part of all phases of project development.

## Why not just remove the fish ladder, or are there additional benefits to creating the riparian corridor?

Hydraulic modelling shows that including the proposed Allen Park Riparian Corridor lowers the floodwater elevations an additional 2" to 11" compared to removing the fish ladder alone, mainly within the riparian corridor itself and also in the Sylvan Lane neighborhood upstream of the Lagunitas Road bridge. Reducing the depth of flooding during flood events is the most important goal of this project, which is further achieved by construction of the riparian corridor. The Riparian Corridor is also judged to be a crucial part of the overall USACE Project to mitigate for downstream effects of removal of the fish ladder and to mitigate for environmental effects that may be required to construct any project.

## Why doesn't the Town dredge the creek downstream of the Lagunitas Bridge like they did in the past?

Dredging (sediment removal) for flood risk reduction is mainly used in the slow moving, tidally-influenced reaches of a channel where fine sediment tends to build up over a period of years. In Ross, studies show that the buildup of the gravel bar around the Lagunitas bridge is a phenomenon attributed to the "fish ladder" bulkhead installed downstream by the Corps of Engineers back in 1971. In the past, the removal of the gravel bar around the old Lagunitas Bridge provided only a temporary flood risk benefit and because of the potential environmental impacts on aquatic species, is now only permitted when the creek is dry (naturally or by using expensive dewatering systems). With the higher deck and wider opening of the new Lagunitas bridge, and because it was found that the gravel bar was usually restored by nature during the first few storms of the season, the expenditure of Town funds to dredge this part of the creek is no longer justifiable.

## What is the Town of Ross' role in the Phase 1 Project?

The Town of Ross has multiple roles in the Project ranging from property owner to one of the project's decision makers relative to design and negotiating future agreements, such as maintenance and liability. The Town owns the property west of the current concrete channel, which is Frederick Allen Park. At this time, the Phase 1 Project is a conceptual plan with detailed analysis and design details still to be worked out based on findings from studies and meetings with stakeholders including Ross residents and businesses. As property owner of the Frederick Allen Park, the next step is to



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have the Town Council decide whether to support the conceptual flood risk reduction project, which is scheduled at the Ross Town Council meeting on December 14, 2017.

Additional public workshops for the USACE Project (including Phase 1) will be scheduled for Spring 2018 to offer the community an opportunity to learn more about the Project schedule and gain information to assist with providing informed comments when the Draft EIR/EIS is released in Spring 2018.

Further along in the process, the Town Council will conduct a public hearing on the Phase 1 Project and consider a Design Review application for final consideration of the Phase 1 Project design. The detailed project design will include the location of all elements of the project such as creek channel, pathways, walls, and landscaping. In addition, the Town will consider approval of agreements with the District including items such as maintenance responsibilities, construction plan requirements, liability, and easements. Only after approval of these agreements could construction begin.

### **Will FEMA recognize the flood risk reduction benefit of the Project and reduce our flood insurance premiums?**

After construction is completed, the District and Town of Ross will apply for a Flood Insurance Rate Map Revision through FEMA that could redefine the flood plain to remove areas of Ross to reduce flood insurance premiums for some Ross residents.

### **As an alternative to constructing barriers to contain flows, why not offer no-interest loans to all homeowners in the floodplain to raise their homes?**

An alternative that will also be assessed in the EIR/EIS known as the Non-Structural Alternative, does propose to rely on home raising and flood proofing in the place of structural barriers to flooding. However, this alternative puts the onus on homeowners to raise their homes and would only benefit those homeowners that have the financial means and want to pursue raising or flood proofing their home. This alternative would not reduce hazardous flooding around homes that affect access to emergency services and roadways.

### **How can I learn more about the entire Project?**

You can go to the Ross Valley Watershed Flood Risk Reduction Program (Program) website at [www.RossValleyWatershed.org](http://www.RossValleyWatershed.org) and click on the project name "Corte Madera Creek Flood Risk Management Project" to learn more about the larger USACE Project (Phase 2) and Phase 1. You can also sign up on the website to receive automatic email notifications related to upcoming meetings and other Program updates.

