

Marin County Flood Control and Water Conservation District

FLOOD ZONE 1 ADVISORY BOARD MEETING

JULY 26, 2007

STAFF REPORT

The following is a staff report for the items listed on the Agenda for Flood Zone #1 Advisory Board (AB) meeting on July 26, 2007:

Item 1. Approval of Minutes: February 15, 2007

Advisory Board members will review meeting minutes from the February 26, 2007 meeting, make corrections, and approve minutes as corrected.

Item 2. Open Time for Items Not on the Agenda

Comments will be heard for items not on the agenda.

Item 3. Review Zone Budget for FY 2007/2008

Staff will present the FY2007/2008 budget.

Item 4. Watershed Management Program

The County Board of Supervisors authorized the implementation of a watershed management program staffed by the Flood Control Division of the Public Works Department on July 16, 2006. The Board supports an approach that integrates flood management and habitat restoration elements and decided that this was the best approach to seeking solutions in the Corte Madera creek watershed following the devastating floods of 2005. The watershed program is now fully staffed and consists of a GIS Resource Specialist, a Senior planner and a Principal Planner.

One of the program's first tasks will be to update the Marin County watershed plan that was drafted by the Community Development Agency (CDA) in 2004. The draft plan can be viewed at http://www.co.marin.ca.us/depts/CD/main/comdev/Watershed/WMP_Pt1.pdf. This update would amend the 2004 draft watershed management plan to include watersheds draining to San Pablo and San Francisco Bay and would support the development of multiple benefit projects that provide flood and habitat improvements. The plan's public outreach process includes coordination and meeting with community stewardship groups and State and Federal regulatory agencies during plan scoping and development.

Task deliverables and objectives include the following:

- Marin watershed descriptions and associated mapping
- Public outreach and meetings
- Criteria for project restoration selection
- Improve coordination with new Phase II stormwater regulations
- Develop framework for plan updates
- Sample Work Plan

It is anticipated it will take 12-18 months to complete the plan from the date the Board approves the contract which is tentatively scheduled to occur in August. The public outreach process will

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include several public meetings including presentations to the flood advisory boards.

Item 5. Vineyard Creek Flood Control Improvements

Hydraulics and hydrology modeling is essentially complete and project alternatives have been developed and will be presented at the meeting.

Creek bank planting and bank stabilization measures were originally scheduled for this summer, however, through the alternative analysis process we have learned channel widening in some locations may be required therefore, bank planting and bank stabilization measures are being postponed until next summer. However, our regular summer maintenance will be performed this summer along with any necessary erosion control measures.

Project construction is scheduled for summer 2008.

Item 6. Novato Creek Bank Stabilization Guidelines

Questa Engineering was selected via a request for proposals to develop a suite of bank stabilization designs that integrate flooding and habitat enhancement needs along Novato Creek. Funding was provided by the Novato Sanitary District through a Supplemental Environmental Project mandated through the State for an unplanned discharge. The study specifically addresses the reach from Grant Avenue to Novato Blvd in Miwok Park but the recommendations are applicable for the entire system.

Analysis of Novato Creek was completed that included historical longitudinal stream profile analysis, hydraulic analysis, assessing current geomorphic channel geometry and trends and sediment transport analysis. It was determined that the channel has evolved and will continue to evolve in response to factors such as dam construction, urbanization, human factors such as vegetation management and bank stabilization. The report finds that Novato Creek is close to reaching a quasi-equilibrium to altered watershed conditions and the rate of erosion and response to these factors may be slowing at it reaches this new state. It is believed that the primary response mechanism will be lateral movement of the channel alignment and the development of stable geomorphic geometry within the greater incised channel. Vertical bed movement has generally slowed or stabilized throughout much of the study reach.

This report also addresses the analysis and design of bank stabilization projects within the study reach. Several bank stabilization techniques and options are discussed and presented. A guide to permitting and agency submittal requirements for local, State and Federal agencies is included.

This document was reviewed by the City of Novato, Marin County Flood Control District, The CA Department of Fish and Game and the CA Regional Water Quality Control Board.

The final report will be posted at:

<http://www.co.marin.ca.us/depts/pw/main/floodcontrol/fczone1.cfm>

Item 7. Novato Flood Control Project, Phase VIII

Shelterbelt Builders, Inc. of Berkeley CA was selected to provide habitat mitigation and monitoring services. They are also responsible for watering and weeding the 2000 native plants that were installed this fall. Their contract was recently amended to allocate an additional

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\$50,000 for installation of a temporary drip system and hand-watering due to the lack of suitable water sources along this reach. The total contract is for a not-to-exceed amount of \$187,344 that includes planting 2,000 native plants, assembling and installing plant cages, design and installation of an irrigation system, watering twice/month, mowing, weeding, photo monitoring and migration reporting to meet State and Federal permit requirements.

Photo montage of various reaches showing plants and irrigation system will be posted at the Zone 1 meeting.

Item 8. Summer Maintenance

Channel Maintenance

District management of creek vegetation has two main priorities:

1. Helping water effectively pass through creeks and drainages by reducing obstructions that may lead to flooding.
2. Protecting, enhancing, and restoring creek habitats.

The Zone 1 annual Creek Maintenance Management Program is carried out from July-October for 30 miles of channel within the Novato watershed. Creek management can involve one or more of the following techniques:

- Clearing the path for the flow of water in order to reduce the possibility of flooding. This commonly occurs in areas overgrown with non-native Himalayan blackberry and cattails.
- Removal of woody debris that are loose and may lead to debris jams downstream and/or trimming/removing debris that may deflect flow and cause excessive erosion. Woody debris may be placed on an upper-bank area or simply re-aligned to allow creek flow, protect banks, and promote habitat for protected Steelhead species.
- Removing garbage.
- Repairing areas experiencing excessive erosion by
 - installing erosion blankets, straw wattles, or biologs
 - using native re-vegetation to deflect flows and improve bank stability
- Cutting grass, fennel, and blackberry bushes growing along creek access paths to ensure safe removal of debris.
- Planting native plant species to improve habitat diversity and to prevent erosion.
- Habitat recovery via the removal of non-native/invasive plants for the health of trees and other native plants.

Work in Zone 1 begins in May for fire fuel reduction purposes and continues through the summer from July through October with crews from the Marin Conservation Corps and local landscaping contractors.

Pump Station Maintenance

As part of our Pump Station Planned Maintenance Program, the following pumps systems have been removed for reconditioning required to extend the useful life:

- Lynwood Pump # 3 (pump & motor)
- Lynwood Pump # 4 (pump only)

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- Farmers (Nunes) (pump & motor)

All pumps and motors are scheduled to be reinstalled by October 15, 2007. Pump Repair Services of San Francisco was contracted to perform the work. The total cost to recondition these pump systems is \$92,733.

Item 9 Novato Maintenance Dredge Project

Over the last 6 months, staff has been involved in four party negotiations with Army Corps of Engineers, California Coastal Commission and City of Novato to obtain vehicular access along Todd Road or it's alternate for hauling of dredge materials to Hamilton Wetlands Restoration Project Site, the original spoils disposal site. It is now apparent that this route will not be available within the 2008 construction timeframe. Therefore, we have identified an alternate spoils disposal site, Central Sonoma Landfill in Petaluma. The landfill fee for disposal is only \$9,000.

Currently, the environmental documentation for this project, a CEQA Negative Declaration, is being revised to incorporate the new dredge spoil disposal site and clearance is expected this fall. Permits will be requested after arrangements with the landfill have been finalized. Construction is scheduled for the summer of 2008.

Item 10. Rush Creek/Cemetery Marsh Culvert Improvements

The District Engineer awarded the project to replace two 24" culverts to Maggiora Ghilotti. The contract cost for this project is \$109,901. The culverts and their associated tide gates control normal flows through a levee to Cemetery Marsh and flood flows to Rush Creek. Failure to replace the two corroded culverts and leaky tidegates would allow high tides to damage bird habitat area in Cemetery Marsh and increase flood risk due to tidal inundation. Culverts will be replacement with plastic (HDPE) pipe.

Item 11. Schedule Next Meeting

Advisory Board members will set a date for the next meeting.

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