

FLOOD ZONE 9 ADVISORY BOARD MEETING
APRIL 16, 2015
SAN ANSELMO TOWN HALL
STAFF REPORT

Item 1. Approval of Meeting Minutes for March 17, 2015

Action by Board: Advisory Board members will review meeting minutes from the March 17, 2015 meeting, make corrections, and approve the minutes as corrected.

Item 2. Open Time for Items Not on the Agenda

Comments will be heard for items not on the agenda (limited to three minutes per speaker).

Item 3. Ross Valley Flood Protection and Watershed Program Updates

a) Strategic Implementation Plan Update

Circlepoint will provide an overview presentation of the Strategic Communications Plan for the Ross Valley Flood Protection and Watershed Program, their key findings, and recommendations for next steps. Discussion will include a review of the Draft Implementation Plan, which outlines phased outreach recommendations for engaging the public and soliciting input on the Program and proposed projects.

b) Ad-Hoc Budget Subcommittee Update

District Staff and members of the Ad-Hoc Budget Subcommittee held a second meeting on Monday, April 6, 2015. Based on additional input provided by the committee, District staff will continue to develop 10-year budget projections for individual projects and for the overall program beginning from when the Advisory Board adopted the 10-Year work program, which is designed to provide protection from the 25-year flood, on April 3, 2012. District staff anticipates presenting FY 2015/16 budgets at a future Advisory Board meeting after incorporating additional input from the Ad-Hoc Budget Subcommittee.

c) Flow Reduction Study Presentation

CH2M HILL will be presenting the elements that have been eliminated in the “fatal flaw” evaluation, the ranking of the remaining elements, and the alternate programs that have been developed from the remaining elements for continued analysis. These items are discussed in Deliverable 2 memo dated April 7, 2015. These items were discussed at the Technical Working Group (TWG) meeting on March 26 and comments from the TWG have been incorporated into the current document. Public comments (by email) were collected between March 13 and March 27 on the selection criteria and elements being considered (Memo dated March 6, 2015). Public comments and staff responses have been incorporated into the March 6, 2015 memo as an appendix. Future presentations will be made at TWG meetings and Advisory Board meetings on interim submittals as the study progresses.

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Handouts relating to Deliverable 2 dated April 7, 2015 are included with this staff report. The previous memo dated March 6, 2015 is also included in this staff report for convenience. In addition, the handouts were uploaded to the Ross Valley Flood Program website on April 13. The Advisory Board and public have an opportunity to provide comments on this document during the meeting. The District will also collect public comments by email during the two-week public review period beginning on April 13 and ending on April 27. The appendix will be updated with new public comments and responses as they are received.

This study will be used as the starting point for the alternatives analysis required in the programmatic environmental review for CEQA if an environmental impact report is deemed necessary.

The schedule for presentations at meetings and public comment periods is shown below. Note that future Advisory Board meetings may need to be added or adjusted to meet this schedule.

Deliverable	TWG Presentation Date	AB Presentation Date	Public Comment Dates
Selection criteria, weighting factors, and list of preliminary Flow Reduction Elements being considered.	February 26, 2015	March 17, 2015	March 13-27, 2015
Results of applying preliminary fatal flaw criteria to elements; group remaining elements into preliminary Program alternatives.	March 26, 2015	April 16, 2015	April 13-27, 2015
Analyze & apply criteria to Program alternatives, and rank them.	May 2015	No presentation	May 2015
Draft Report with recommendations, conceptual plans, and cost estimates.	No presentation	June 16, 2015	June 2015

Item 4. Project Status Updates (Information Item):

The Current Cost Estimate covering environmental and feasibility studies, design and construction of 10-year Work Plan Baseline Measures is included as **Attachment A** to this Staff Report. A summary of project descriptions, cost estimates, project construction start dates, and grant funding sources is included as **Attachment B** to this Staff Report.

a) Phoenix Lake Integrated Regional Water Management (IRWM) Retrofit Project

URS has completed the sampling and testing of the soil samples from the dam. URS has completed the reservoir bottom sediment sampling and laboratory analyses are being performed on the sediment samples. A draft Geotechnical Data Report is expected soon. The earthquake ground motion analysis technical memo for the dam site has been prepared by URS and reviewed by County staff, MMWD, and peer reviewed by CH2M HILL. URS has made the revisions from the review comments and the memo has been submitted to CA Division of Safety of Dams (DSOD) for review.

Other feasibility studies in process include the Hydrologic Study of Long-Term Yield of Phoenix

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Lake, the Phoenix Lake Coordinated Operations Plan, the Ross Creek In-Stream Flow Study, and the Water Quality Baseline Study for both Phoenix Lake and Ross Creek. Results of these studies will be available on www.rossvalleywatersheds.org later this year.

b) Memorial Park Dual-Use Facility

The Town of San Anselmo has issued a Request for Qualifications (RFQs) for Environmental Documentation and Permitting Services. A site tour with the interested consultants was held on March 31 and was well attended. The Statement of Qualifications (SOQ) from the consultants is due on April 21. The Town will issue a RFQ for Engineering and Design Services in the near future.

c) Lefty Gomez Field Dual-Use Facility

Preliminary investigations into the feasibility of a detention basin at the Lefty Gomez Field site are underway. URS has completed the installation of groundwater monitoring wells and the collection of soil samples. Monitoring of groundwater levels will occur between October 2014 and May 2015.

URS has completed laboratory analyses of the soil samples. URS has submitted final boring logs, sediment loading analyses, geotechnical report, conceptual design plan, and a construction cost estimate which has been reviewed by District staff. URS is making the final minor corrections.

Staff will present final geotechnical findings and sediment loading calculations performed by URS to the Advisory Board at a future meeting.

d) Loma Alta Dual-Use Facility

Staff is currently evaluating alternate locations for the Loma Alta Dual-Use Facility. Staff has held discussions with Marin County Parks & Open Space District and with the Ross Valley School District on the alternate locations. Staff described the two alternate locations and received feedback from the neighbors on the preferred location. Staff is also preparing conceptual cost estimates for each alternate location.

e) Bridge Replacements in Town of San Anselmo

Building Bridge 2

The Town of San Anselmo was notified in March that the project was eligible but was not selected for funding under the California Office of Emergency Services (CalOES) Hazard Mitigation Grant Program intended to primarily fund mitigation for damage caused by the 2014 Napa Earthquake. When considering another funding source known as the FEMA Pre-Disaster Mitigation Grant Program (PDM), the Town was notified by CalOES that no projects are expected to receive funding through the PDM this year due to limited funding. However, the PDM budget is expected to increase next year and which would improve chances of funding competitive projects such as Building Bridge 2.

Nokomis, Madrone and Sycamore/Center Boulevard Bridge Replacements

On April 7, the cost sharing agreement between the Town of San Anselmo and the District was executed by the District Board of Supervisors approving a total of \$624,824 in matching Flood Fee funds by District for all three bridge projects. The project design team completed field surveys for all three bridge locations and plans to present horizontal layouts of alternatives to the Town of San Anselmo for the Madrone and Nokomis bridges. Geotechnical borings were completed for Madrone

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and Nokomis bridges and hydraulic modeling is proceeding at both of these bridge locations in order to optimize the bridge design. Development of fact sheets was started for Madrone and Nokomis locations in order to initiate public communication on the projects in April. A Caltrans field review meeting for the Madrone and Nokomis bridges will be planned for late May or early June followed closely by the first public meeting.

f) Winship Avenue Bridge Replacement in Town of Ross

The Town of Ross consultant, Quincy Engineering, is currently performing Preliminary Engineering for the project. The geotechnical borings have been completed and are being incorporated into a draft report. The Area of Potential Effect map has been completed and will be presented during the Caltrans field review planned for May. A fact sheet was provided to the Town of Ross in order to brief the Town Council on the project. Once the project website is finalized the fact sheet will be posted online.

g) Azalea Avenue Bridge Replacement in Town of Fairfax

The Town of Fairfax is still awaiting allocation of funding for the project by Caltrans and is waiting to find out if the project is included in the next funding cycle which will be released around April.

h) Corte Madera Creek Units 3 and 4 Project

U.S. Army Corps of Engineers (USACE) Project Design Team (PDT) hosted a kick-off meeting at their office with District staff on April 3. Discussion centered around what information was available (i.e. past geotechnical, hydraulic, and environmental studies) and identified potential data gaps. Each of the work elements was discussed in length and each PDT member clarified their scope and proposed budget. The USACE project manager will be working closely with the District over the next month to determine the most efficient way to complete the required work elements defined for the Alternatives Milestone due in September 2015.

i) Lower Corte Madera Creek Improvement Project

District staff is working closely with City of Larkspur Department of Public Works (DPW) Director Mary Grace Houlihan to draft a Memorandum of Understanding (MOU) between the two agencies. This MOU will set forth preliminary terms for the development of the Lower Corte Madera Creek Improvement Project. In addition, this MOU formalizes the mutual cooperation between the Board of Supervisors of the Flood Control District and the Larkspur City Council regarding the development of potential projects to make improvements to Lower Corte Madera Creek.

Staff submitted an application to the California Department of Water Resources (DWR) Local Levee Assistance Program on March 17. The projects and sites included in the application were the Units 3 and 4 project (Ross and Kentfield), College Court (Larkspur), Kentfield Gardens (Kentfield), 2 Bon Air Road and adjacent properties (Larkspur) and Larkspur Plaza Drive (Larkspur). DWR plans to make draft decisions on which applications will be approved in July 2015.

Item 5. Adjourn, Schedule Next Meeting For May 20, 2015

District Staff recommends the next meeting be set for May 20, 2015. Confirm if there are any Advisory Board member conflicts with a May 20, 2015 meeting, in addition to any conflicts with rescheduling future September 15 meeting to September 16.

**ROSS VALLEY FLOOD PROTECTION AND WATERSHED PROGRAM
COSTS AND REVENUES ESTIMATES
Attachment A**

								Last Updated: March 25, 2015
FLOOD CONTROL MEASURES - 10-Year Work Plan*	Implementing Agency	Current Cost Estimate**	Grants Secured***	Grants In Pursuit****	Current Cost Estimates minus Secured Grants	70% Outside Funding Target	% of Funding Target	Current Work Program
BASELINE MEASURES 10 YWP								
Lower Corte Madera Creek Improvement Project (Dredge)	FC District	\$6,210,000	\$0	PENDING	\$6,210,000	\$4,347,000	0%	\$6,210,000
Loma Alta	FC District	\$1,900,000	\$0		\$1,900,000	\$1,330,000	0%	\$1,900,000
Lefty Gomez	FC District	\$6,400,000	\$0		\$6,400,000	\$4,480,000	0%	\$6,400,000
Memorial Park (Prop 1E Scope)	San Anselmo	\$17,441,000	\$8,720,500		\$8,720,500	\$12,208,700	71%	\$8,720,500
Phoenix Lake (Prop 1E Scope)	FC District	\$19,691,150	\$7,661,000		\$12,030,150	\$13,783,805	56%	\$12,030,150
Azalea Ave - FX [135]	Fairfax	\$2,326,520		\$2,326,520	\$2,326,520	\$1,628,564	0%	\$2,326,520
Nokomis Ave SA [083]	San Anselmo	\$2,493,917	\$2,409,042	\$64,500	\$84,875	\$1,745,742	138%	\$84,875
Madrone Ave SA [077]	San Anselmo	\$2,487,917	\$2,127,413	\$57,102	\$360,504	\$1,741,542	122%	\$360,504
Sycamore Ave (Center Blvd) SA [063]	San Anselmo	\$5,930,375	\$5,131,752	\$84,104	\$798,623	\$4,151,263	124%	\$798,623
Winship Ave RS [005]	Ross	\$2,413,075	\$2,329,340		\$83,735	\$1,689,153	138%	\$83,735
Sir Francis Drake Blvd Bridge RS [021]	Ross	\$6,125,000	\$0	PENDING	\$6,125,000	\$4,287,500	0%	\$6,125,000
Bldg Bridge #2 [046]	San Anselmo	\$3,308,000	\$0	GRANT READY	\$3,308,000	\$2,315,600	0%	\$3,308,000
Corte Madera Creek Units 3 and 4 Project (Assumptions)								
- Planning and Design	FC District/USACE	\$2,800,000	\$400,000	\$2,400,000	\$2,400,000	\$1,960,000	20%	\$2,400,000
- Construction	FC District/USACE	\$6,560,000	\$0	\$6,560,000	\$6,560,000	\$4,592,000	0%	\$6,560,000
- Real Estate, easements and disposal areas	FC District	\$4,500,000	\$0	PENDING	\$4,500,000	\$3,150,000	0%	\$4,500,000
TOTAL - Baseline Measures		\$90,586,954	\$28,779,047	\$11,492,225	\$61,807,907	\$63,410,868		\$61,807,907
% of TOTAL Current Cost Estimates		100%	32%	13%	68%	70%	45%	68%
ADDITIONAL MEASURES 10 YWP								
Merwin Avenue Bridge Replacement [124]*	TBD	\$989,000	\$0	\$741,750	\$989,000	100%	0%	\$0
Channel Modifications at Merwin Bridge Area [121][122][123][125][126][127][128]	TBD	\$957,000	\$0		\$957,000	100%	0%	\$0
Install new wing wall [142]	TBD	\$126,000	\$0		\$126,000	100%	0%	\$0
Install new wing wall [143]	TBD	\$136,000	\$0		\$136,000	100%	0%	\$0
Install Floodwall/Berm as wing wall extension [144]	TBD	\$70,000	\$0		\$70,000	100%	0%	\$0
Supplement: Floodwall <3.6' RS662-700 (35 ft long)	TBD	\$50,000	\$0		\$50,000	100%	0%	\$0
Supplement: Floodwall <3.3' RS662-791 (129 ft long)	TBD	\$655,000	\$0		\$655,000	100%	0%	\$0
Supplement: Floodwall <2.0' RS956-1283 (327 ft long)	TBD	\$150,000	\$0		\$150,000	100%	0%	\$0
Taylor Avenue Bridge Replacement [203]	TBD	\$991,000		\$991,000	\$991,000	100%	0%	\$0
Replace Existing Retaining Wall [209]	TBD	\$216,000	\$0		\$216,000	100%	0%	\$0
Retrofit/Replace Existing Retaining Wall [213]	TBD	\$77,000	\$0		\$77,000	100%	0%	\$0
Construct new retaining wall [216]	TBD	\$99,000	\$0		\$99,000	100%	0%	\$0
Supplement: Floodwall <1.0' RB RS2762-2796 (34 ft long)	TBD	\$10,000	\$0		\$10,000	100%	0%	\$0
Construct new retaining wall as wingwall [219]	TBD	\$382,000	\$0		\$382,000	100%	0%	\$0
Construct new retaining wall [220]	TBD	\$387,000	\$0		\$387,000	100%	0%	\$0
Broadmoor Avenue Bridge Replacement [224]	TBD	\$1,354,000	\$0		\$1,354,000	100%	0%	\$0
Channel Modifications RS3400-3442 [225][227][228]	TBD	\$249,000	\$0		\$249,000	100%	0%	\$0
Floodwall <2.0' LB RS3646 +/- 80' (160 ft long)	TBD	\$65,000	\$0		\$65,000	100%	0%	\$0
Floodwall <2.0' LB RS4085 +/- 120' (240 ft long)	TBD	\$90,000	\$0		\$90,000	100%	0%	\$0
All Flood Control Measures (22) from RS437000-45970	TBD	\$9,214,000	\$0		\$9,214,000	100%	0%	\$0
Floodwall <1.0' RB RS43397-43512 (115 ft long)	TBD	\$15,000	\$0		\$15,000	100%	0%	\$0
Supplement: Floodwall <3.0' RB RS43716-43773 (57 ft long)	TBD	\$50,000	\$0		\$50,000	100%	0%	\$0
Supplement: Floodwall <32.5' RB RS43828-43838 (10 ft long)	TBD	\$5,000	\$0		\$5,000	100%	0%	\$0
ADDED MEASURES - SUPPLEMENT TO 10YWP								
SUBTOTAL - Additional Measures								
		\$16,337,000	\$0	\$1,732,750	\$16,337,000			\$0
PROGRAM MANAGEMENT and PUBLIC OUTREACH								
Staff = 10 Years @ \$346,951	NA	\$3,469,513			\$3,469,513			\$3,469,510
Hydraulic & Hydrologic Engineering, Grant Application Prep (3 years @ \$100K per year max)	NA	\$300,000			\$300,000			\$300,000
SUBTOTAL		\$3,769,513			\$3,769,513			\$3,769,510
GRAND TOTAL		\$110,693,467	\$28,779,047	\$13,224,975	\$81,914,420			\$65,577,417
Deficit/Surplus with an annual 3% rise in fee amount					-\$32,110,069			-\$15,773,066
Expected Revenue - With No Rise in Fee Amounts:		\$43,146,194						
Expected Revenue - With 3% Rise in Fee Amounts:		\$49,804,351						

NOTES:

- * Pending review and certification of environmental documents and alternatives to the listed project.
- ** Operations and Maintenance costs are not included and will be updated when the final design is known.
- *** Executed grant agreements, E76, or notified the grant application was selected.
- **** In grant application process, or working with ACOE on obtaining federal funding.

ATTACHMENT B

BASELINE MEASURE	DESCRIPTION	GRANT AMOUNT
<p><i>Phoenix Lake IRWM Retrofit Project</i> Implementing Agency: <i>Marin County Flood Control and Water Conservation District</i> Cost Estimate: \$19,691,150 (Source – DWR Prop 1E Grant Agreement 5/8/2013) Projected Construction Start Date: <i>Summer 2019</i></p>	<p>The proposed Phoenix Lake Integrated Regional Water Management (IRWM) Retrofit Project involves modifying the Phoenix Lake reservoir, dam, spillway and outlet works to increase water storage capacity in order to reduce or prevent flooding within the Ross Valley watershed during large storms.</p>	<p align="center">\$7,661,000</p>
<p><i>Memorial Park Dual-Use Detention Project</i> Implementing Agency: <i>Town of San Anselmo</i> Cost Estimate: \$17,441,000 (Source – DWR Prop 1E Grant Application 9/20/2013) Projected Construction Start Date: <i>2019</i></p>	<p>The proposed Memorial Park Dual-Use Facility will provide a new detention basin and restoration and improvement of the park recreational facilities.</p>	<p align="center">\$8,720,500</p>
<p><i>Lefty Gomez Field Dual-Use Facility</i> Implementing Agency: <i>Marin County Flood Control and Water Conservation District</i> Cost Estimate: \$6,400,000 (Source – Ross Valley Capital Improvement Plan, May 2011) Projected Construction Start Date: <i>Approximately 4 years after secured funding (~2 years environmental review, ~ 2 years engineering design)</i></p>	<p>The proposed Lefty Gomez Field Dual-Use Facility could include conversion of the existing Lefty Gomez Field at White Hill Middle School to a dual-use facility allowing the field to be used to detain high creek flows during infrequent, large flood events. The proposed project also could include recreation improvements to the existing field at the site.</p>	<p align="center">NOT GRANT READY</p>
<p><i>Loma Alta Detention Basin Project</i> Implementing Agency: <i>Marin County Flood Control and Water Conservation District</i> Cost Estimate: \$1,900,000 (Source – Ross Valley Capital Improvement Plan, May 2011) Projected Construction Start Date: <i>Approximately 4 years after secured funding (~2 years environmental review, ~ 2 years engineering design)</i></p>	<p>The proposed Loma Alta Dual-Use Facility could convert a 3-acre portion of the existing Loma Alta open space area into a dual-use facility that will temporarily detain high creek flows during infrequent, large flood events. The project could also include improvements to the existing trail network at the site.</p>	<p align="center">NOT GRANT READY</p>
<p><i>Building Bridge 2</i> Implementing Agency: <i>Town of San Anselmo</i> Cost Estimate: \$3,308,000 (Source – Grant Application Proposal for FEMA Hazard Mitigation Grant Program, 6/12/14) Projected Construction Start Date: <i>~3 years after secured funding</i></p>	<p>This project proposes the removal of Building Bridge #2 and a commercial building spanning the San Anselmo Creek in downtown San Anselmo.</p>	<p align="center">GRANT READY</p>
<p><i>Nokomis Avenue Bridge</i> Implementing Agency: <i>Town of San Anselmo</i> Cost Estimate: \$2,493,917 (Source –Town of San Anselmo) Projected Construction Start Date: <i>2018</i></p>	<p>This project proposes the removal and replacement of the Nokomis Avenue Bridge over San Anselmo Creek in the Town of San Anselmo.</p>	<p align="center">\$2,409,042</p>
<p><i>Madrone Avenue Bridge</i> Implementing Agency: <i>Town of San Anselmo</i> Cost Estimate: \$2,487,917 (Source –Town of San Anselmo) Projected Construction Start Date: <i>2018</i></p>	<p>This project proposes the removal and replacement of the Madrone Avenue Bridge over San Anselmo Creek in the Town of San Anselmo.</p>	<p align="center">\$2,127,413</p>
<p><i>Sycamore Avenue/Center Boulevard</i> Implementing Agency: <i>Town of San Anselmo</i> Cost Estimate: \$5,930,375 (Source –Town of San Anselmo) Projected Construction Start Date: <i>~3 years after project and grant funding approval</i></p>	<p>This project proposes the removal of the bridge at Sycamore Avenue and replacement with a new bridge at Center Boulevard over San Anselmo Creek in the Town of San Anselmo.</p>	<p align="center">\$5,131,752</p>
<p><i>Winship Avenue Bridge</i> Implementing Agency: <i>Town of Ross</i> Cost Estimate: \$2,413,075 (Source – Town of Ross) Projected Construction Start Date: <i>2018</i></p>	<p>This project proposes the removal and replacement of the Winship Avenue Bridge over San Anselmo Creek in the Town of Ross.</p>	<p align="center">\$2,329,340</p>
<p><i>Azalea Avenue Bridge</i> Implementing Agency: <i>Town of Fairfax</i> Cost Estimate: \$2,326,520 (Source – Town of Fairfax) Projected Construction Start Date: <i>~3 years after receipt of grant</i></p>	<p>This project proposes the removal and replacement of the Azalea Avenue Bridge over Fairfax Creek in the Town of Fairfax.</p>	<p align="center">PENDING</p>
<p><i>Corte Madera Creek Units 3 and 4 Project</i> Implementing Agency: <i>Marin County Flood Control and Water Conservation District</i> Cost Estimate – <i>Environmental, Permitting, Design & Construction: \$9,360,000 (Source – USACE), Right-of-way Acquisition: \$4,500,000 (Source: District)</i> Projected Construction Start Date: <i>Summer 2021</i></p>	<p>The proposed Corte Madera Creek Units 3 and 4 Project would improve the existing concrete channel and the earthen channel up to the Sir Francis Drake Boulevard bridge in Ross including removing the old wooden fish ladder that is currently in the creek. The proposed project is part of a prior U.S. Army Corps of Engineers (USACE) Flood Control Project and therefore the USACE is our partner and potential funding source.</p>	<p align="center">\$400,000</p>
<p><i>Lower Corte Madera Creek Improvement Project (Dredge)</i> Implementing Agency: <i>Marin County Flood Control and Water Conservation District</i> Cost Estimate: \$6,210,000 (Source - Flood Zone 9/Ross Valley 10-Year Work Plan) Projected Construction Start Date: <i>Approximately 4 years after secured funding (~2 years environmental review, ~ 2 years engineering design)</i></p>	<p>This proposed project will remove accumulated sediment from the lower sections of Corte Madera Creek in Kentfield, Larkspur, and Greenbrae. As the design moves forward, Staff will consider habitat improvements and beneficial sediment reuse opportunities that complement the project.</p>	<p align="center">PENDING</p>