

FLOOD ZONE 9 ADVISORY BOARD MEETING
MARCH 17, 2015
SAN ANSELMO TOWN HALL
STAFF REPORT

Item 1. Approval of meeting minutes for February 17, 2014

Action by Board: Advisory Board members will review meeting minutes from the February 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) Audio Taping Cost Research

As requested at the last Advisory Board meeting, District staff obtained estimated costs of \$790 in initial equipment costs plus an additional 1-1/2 hours of staff time for each meeting in order to tape future Flood Zone 9 Advisory Board meetings and make recordings available to the public by posting on the website. Note Staff will be assessing potential implications to existing staffing availability and additional costs to other Flood Zones that, should Flood Zone 9 begin recording meetings and making them available to the public, may also be requested to provide similar services. Please find a cost estimate breakdown below pertaining only for initial equipment costs to Flood Zone 9:

Mixer	\$300
Wireless Mic	\$150
Wired mics (x8)	\$240
Misc. (Cables, memory cards, etc.)	\$100
Total initial equipment costs:	\$790

*Although equipment may be available at some meeting venues, additional staff time will be required to determine how recording equipment is run and how recording files are downloaded after each meeting. Note that this estimate assumes staff will not review entire recordings at the completion of meetings but will only be posting completed recordings online

b) Ad-Hoc Budget Subcommittee Update

District Staff and members of the Ad-Hoc Budget Subcommittee met on Wednesday, March 4, 2015. Based on input provided by the committee, District staff will 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 new budget formats at a future Advisory Board meeting after incorporating additional input from the Ad-Hoc Budget Subcommittee.

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c) Strategic Communication Plan Update

District staff has provided comments back to Circlepoint on the revised Draft Strategic Communications Plan (SCP) which includes an Implementation Plan of proposed public outreach tools. The next steps are to finalize the SCP and present recommended Communication Tools to the Advisory Board at the next Advisory Board meeting.

d) Flood Emergency Response Project Grant Program

On February 9, 2015, District staff submitted a grant application requesting \$60,000 in grant funds to upgrade several existing rain gages in Ross Valley and install two new rain and stage gauges, see Item 4. d) from prior [Staff Report dated February 17th, 2015](#). In April 2015, the Department of Water Resources is expected to publish a draft list of projects likely to receive grant funding.

e) First Addendum to Stetson Engineers' Professional Services Contract

The Flood Control District Board of Supervisors approved an amendment to Stetson Engineers' contract earlier today. This amendment includes a continuance of technical support for the Phoenix Lake project (of which 50% is reimbursed through DWR grant) which was previously budgeted and approved by Advisory Board Members. Tasks included in the amendment were expanded to include technical support for the recently funded Unit 4 contract, assistance with upcoming grant opportunities and Technical Working Group presentations.

f) Flow Reduction Element Study Presentation

CH2M Hill will be presenting the selection criteria to be used in the Flow Reduction Element Study, how each selection criteria will be quantified, the option of weighting individual selection criteria, the flow reduction elements being considered, and the schedule for completion of the study. These items were discussed at the Technical Working Group (TWG) meeting on February 26 and comments from the TWG have been incorporated into the current document. Future presentations will be made at TWG meetings and AB meetings on interim submittals as the study progresses.

Handouts relating to this first deliverable are included with this staff report. In addition, the handouts were uploaded to the Ross Valley Flood Program website on March 13. The Advisory Board and public have an opportunity to provide comments on this document during the meeting. The District will also collect comments during the two-week public review period beginning on March 13 and ending on March 27. An addendum will be prepared to the document providing responses to comments from the Advisory Board and general public.

Staff worked with CH2M-HILL to accelerate the completion of the study and the revised schedule for presentations at meetings is shown below. Note that future AB meetings may need to be added or adjusted to meet this schedule.

Deliverable	TWG Presentation Date	AB Presentation Date
Selection criteria, weighting factors, and list of Flow Reduction Elements being considered.	February 2015	March 2015
Results of selection criteria and weighting factors applied to Flow Reduction Elements.	March 2015	April 2015

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Flow Reduction Elements still being considered after records research, site visits, and hydraulic modeling.	May 2015	No presentation
Report with recommendations, conceptual plans, and cost estimates.	No presentation	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 Corporation has completed the reservoir bottom sediment sampling and laboratory analyses is being performed on the samples. 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 is making final revisions before the memo is 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 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 will issue two Requests for Qualifications (RFQs) for:

- Environmental Documentation and Permitting Services.
- Engineering and Design Services.

The Environmental Documentation and Permitting Services RFQ is scheduled to be advertised in mid-March.

The agreement to reimburse the Town of San Anselmo for FEMA/CalOES grant application costs (totaling \$73,385.40) from Flood Zone 9 was approved by the Town Council on January 27, 2015. The agreement was approved by the Flood Control District Board of Supervisors on March 3, 2015.

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 is being reviewed by District staff.

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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 CalOES Hazard Mitigation Grant Program intended to primarily fund mitigation for damage caused by the 2014 Napa Earthquake. The Town is considering submitting an application for funding of the project under the recently released FEMA Pre-Disaster Mitigation Grant program.

Nokomis, Madrone and Sycamore/Center Boulevard Bridge Replacements

In April, Staff intends to present a cost sharing agreement between the Town of San Anselmo and the District, signed by the San Anselmo Town Council in March, for the Board to approve and execute. The District will be contributing matching Flood Fee funds totaling \$624,824 for all three bridges. Following the kick-off meeting in December, the project design team has completed land survey and traffic analysis and has started hydraulic modelling, geotechnical investigations and initial designs for the Nokomis and Madrone Bridges. The next steps will include developing bridge layouts and analyzing hydraulic scenarios. Land survey work has been performed at the Sycamore/Center Boulevard bridges to date.

f) Winship Avenue Bridge Replacement in Town of Ross

The Town of Ross consultant, Quincy Engineering, is currently performing Preliminary Engineering for the project. They are in the process of iterating channel alignments and profiles to optimize the hydraulic opening and straightening of the channel while making efforts to avoid impacts to surrounding properties. Stetson engineers are performing hydraulic analyses on the proposed configurations. After the design team has proposed final bridge layouts, they will meet with Caltrans to complete a field review and conduct public meetings this April or May.

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

District was previously notified that the U.S. Army Corps of Engineers (ACOE) funding of \$400,000 for the Units 3 and 4 project has been included in the FY15 work plan. The ACOE District office has notified us that the funds will be arriving soon to initiate the Corte Madera Creek feasibility study for

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the project. On March 9, 2015, the District led a site visit with the ACOE Project Design Team (PDT) to view the important elements of the project including the existing fish ladder and creek upstream (Unit 4), as well as the concrete channel at Units 2 and 3. On the same day, the District toured the Unit 4 site with the ACOE Division head, Brigadier General Toy and his staff and discussed future funding needed to complete the feasibility study and environmental review phase. Supervisor Rice, Congressman Huffman and staff from the offices of Senators Feinstein and Boxer attended the tour to show their support for the project. As soon as ACOE funding is finalized, the District will meet with the PDT to determine work elements and schedule to best complete the study on budget and within the required time frame of less than 3 years.

i) Lower Corte Madera Creek Improvement Project

At the Technical Working Group on February 26, 2015, Staff presented a map of potential sites along Corte Madera Creek that will be included in an application to the California Department of Water Resources Local Levee Assistance Program and comments were taken. The projects and sites that are tentatively being included in the application include the Units 3 and 4 project (Ross and Kentfield), College Court (Larkspur), Kentfield Gardens (Greenbrae), 2 Bon Air Road and adjacent properties (Larkspur) and Larkspur Plaza Drive (Larkspur).

Item 5. Set Next April Meeting Schedule

Set the next meeting in April 2015 and reschedule September 15 meeting to September 16.

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: 2020</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: 2019</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: Once grant received then ~2 years environmental review, ~ 2 years engineering design</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: Once grant received then ~2 years environmental review, ~ 2 years design</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: ~3 years after receipt of grant</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: 2018</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: 2018</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)</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: 2018</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: ~3 years after receipt of grant</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 – Environmental, Permitting, Design & Construction: \$9,360,000 (Source – USACE), Right-of-way Acquisition: \$4,500,000 (Source: District) Projected Construction Start Date: 2021</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: Once grant received, ~2 years environmental review, ~ 2 years engineering design</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>

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

								Last Updated: March 13, 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	PENDING	\$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	\$9,092,225	\$61,807,907	\$63,410,868	45%	\$61,807,907
% of TOTAL Current Cost Estimates		100%	32%	10%	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	\$0	\$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	\$10,824,975	\$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.