

Marin County Flood Control and Water Conservation District

FLOOD ZONE 7 ADVISORY BOARD MEETING
JANUARY 5, 2010

STAFF REPORT

The following is a staff report for the items listed on the Agenda for Flood Zone No. 7 Advisory Board (AB) meeting on January 5, 2010:

Item 1. Approval of Meeting Minutes: August 4, 2009

Recommended Action: Approve minutes of the August 4, 2009 meeting.

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. Project Status Updates:

a) Pump Station No. 2 Rehabilitation

Description: Presently the limited capacity of the existing pump station can lead to flooding in the surrounding residential area serviced by the facility when stormwater is generated by a 10-year or larger storm event. Additionally, the facility is over 40 years old, surpassing its intended design life and is increasingly subject to the potential for several modes of failure.

Status: Preliminary design recommendations from consulting engineers Winzler and Kelly identified a \$1,000,000 cost for improvements; however, further study revealed that replacement of the existing wet well is necessary. Replacement of the existing wet well has required a complete reconfiguration and relocation of the pump station, which has increased project costs significantly. In addition, updated designs call for enclosure of the pumps to reduce long term maintenance costs and to increase operational longevity, which have also increased project costs. Current cost estimates for construction are \$2,400,000. The project would be construction ready in 2011.

b) Estancia Ditch Improvements

Description: Estancia Ditch extends along the landward toe of the levee between the end of Estancia Way and Pump Station No. 5 and receives stormwater from several residential streets between Estancia Way and Vendola. Differential settlement and physical changes to the ditch surface have resulted in drainage challenges.

Status: In-house staff review and expanded engineering analysis has confirmed that drainage in the ditch can be significantly enhanced through a combination of regrading and relining improvements. Additionally, improvements to the storm drain system on Estancia Way will enhance drainage to the ditch and help alleviate street ponding and the potential for residential flooding. With these combined improvements the system would be able to convey the 100 year storm without the need for an additional pump station. Current cost estimates for construction are \$500,000. The project would be construction ready in 2011.

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c) Las Gallinas Creek Levee Evaluation

Description: The District and the U.S. Army Corps of Engineers (Corps) are working together on a joint study to evaluate the condition of the existing levee and to determine the feasibility of a range of improvement alternatives. Phase I of this study is currently underway and includes a geotechnical evaluation, hydrology and hydraulic analysis, and an economic evaluation and determination of feasibility for continued federal participation in the project.

Status: The District is nearing completion of the geotechnical evaluation portion of the study and will advertise a public meeting this winter to discuss preliminary results and the next steps of the levee evaluation. The Corps, for their part, is continuing their analysis of the creek hydrology and hydraulics and anticipates completion of this work in the spring. Their economic evaluation will follow and they expect it to be complete by the end of 2010.

If a continued federal interest in the project is established following the economic evaluation, tasks and costs for phase II of the evaluation will be negotiated between the District and Corps. Phase II would include environmental review and preliminary design and analysis. Costs for this portion will be shared equally and would require a financial commitment from Zone 7. While exact costs for Phase II are unknown, early indicators are that they could be near \$2,000,000, which would require a \$1,000,000 cost sharing commitment from Zone 7.

d) Pump Station No. 5 Outfall Rehabilitation

Description: Existing pipes at Pump Station No. 5 were corroded and in need of replacement to ensure proper functionality.

Status: The corroded discharge pipes were replaced with new high-density polyethylene (HDPE) pipes this past October at a cost of \$35,000. Linscott Engineering Contractors of San Rafael was awarded the bid following a competitive bidding process.

Item 4. Special Tax 2010: Overview and Funding Options

Staff has been evaluating placing a special tax measure on the June 2010 ballot. Preparations require identification of:

1. Projects that are to be funded by the special tax
2. The amount of money to be raised by the special tax
3. The duration the special tax is to be collected

Projects that could be funded via a special tax include, but are not limited to, improvements to Pump Station No. 2 and Estancia Ditch, and continued participation with the U.S. Army Corps of Engineers on the Las Gallinas Levee Evaluation. The following table displays the latest cost estimates for each effort. This estimate may pose funding challenges when considering what has been raised by previous special tax measures. Per parcel estimates for various special tax funding options are also included in the following table:

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Zone 7 Projects Probable Costs

Project	Probable Cost (Est.)
Pump Station No. 2	\$2,400,000
Estancia Ditch Improvements	\$500,000
Las Gallinas Levee Evaluation	\$1,000,000

Zone 7 Special Tax 2010

Option	Project(s)	Total Loan Amount	Years to Repay Loan	Fee Amount (Per Parcel, Per Year)
1	PS No. 2	\$2,100,000	5	\$565
			6	\$480
			10	\$310
			15	\$226
			20	\$185
2	Estancia Ditch	\$200,000	5	\$54
			6	\$46
			10	\$30
			15	\$22
			20	\$18
3	Las Gallinas Levee Evaluation	\$1,000,000	5	\$269
			6	\$228
			10	\$148
			15	\$108
			20	\$88
4	PS No. 2, Estancia Ditch	\$2,600,000	5	\$699
			6	\$594
			10	\$384
			15	\$280
			20	\$229
5	PS No. 2, Las Gallinas Levee Evaluation	\$3,400,000	5	\$914
			6	\$777
			10	\$502
			15	\$366
			20	\$300
6	Estancia Ditch, Las Gallinas Levee Evaluation	\$1,500,000	5	\$403
			6	\$343
			10	\$221
			15	\$162
			20	\$132

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7	PS No. 2, Estancia Ditch, Las Gallinas Levee Evaluation	\$3,900,000	5	\$1,049
			6	\$891
			10	\$576
			15	\$420
			20	\$344

Assumptions

Cash on Hand	\$300,000
Interest Rate	4%
Parcels	877

Zone 7 Special Tax 2003 (for comparison)

Funded construction of Pump Station No. 1. Tax was for 6 years at \$265 per year for each improved residential parcel.

Recommended Action: No action required. The primary purpose of this advisory board meeting is to review the information provided and discuss project and special tax options. A meeting is being scheduled for January 12, 2010 for continued discussion and to receive a policy recommendation from the advisory board.

Item 5. Next Meeting

The next meeting of the Zone No. 7 Advisory Board is scheduled for January 12, 2010

special tax

Schedule

Advisory Board / Public Meetings

Tue, 08-04-09 - Introduction

Tue, 01-05-10 - Potential Projects & Funding Options

Tue, 01-12-10 - Resolution of Consolidation

TBD - Ballot Measure Public Information (if needed)

Tue, 05-04-10 - Ballot Measure Public Information



Administrative Actions

Tue, 02-02-10 - Publish Notice of Public Hearing (BOS meeting)

Tue, 03-09-10 - Public Hearing - BOS Considers Resolution (BOS meeting)

Tue, 03-12-10 - Last Day to Submit BOS Signed Resolution to Elections

Tue, 03-22-10 - Last Day to Submit Ballot Arguments

Tue, 06-08-10 - ELECTION

Additional advisory board meeting to discuss Levee Alternatives - TBD



Project Summary

Estancia Ditch Drainage Improvements

Objective:

Improve drainage in the Estancia Ditch.

Location:

Estancia Ditch serves the residential community of Santa Venetia in unincorporated Marin County and is located on the far east side of the development. It extends along the landward toe of a levee starting several hundred feet upstream of the end of Estancia Way and terminating at Pump Station No. 5. It receives stormwater from several residential streets between Estancia Way and Vendola.

Benefits:

1. Improve drainage capacity and flow within Estancia Ditch and adjacent roadway storm drain systems.
2. Reduce flooding along several streets that drain to the Estancia Ditch.

Workplan:

Staff has completed conceptual design plans. Duration required to complete tasks after the conceptual design are provided below. Actual schedule will depend on what priority the project is given against other Zone 7 projects.



Task	Status / Issues	Duration	Start	Finish	Cost
1. Conceptual Design	Complete - Conceptual alternatives have been developed. Additional data must be collected and analyzed to evaluate the feasibility of drainage improvements, including alternate pump location and ditch lining materials.	4 months	August 2009	December 2009	DPW Staff
2. Environmental Assessment, Regulatory Permitting	On hold - Duration & cost ranges are estimates and assume that a CEQA initial study/negative declaration is required. Project will take longer and be more costly should a full environmental impact report be necessary.	6 – 18 months	TBD	TBD	\$15k - \$20k
3. Plans, Specs, & Cost Est.	On hold	6 – 12 months	TBD	TBD	\$80k - \$100k
4. Real Estate Acquisition	On hold - Depends on property boundary survey and final alignment of ditch. Property acquisition not anticipated at this time.	TBD	TBD	TBD	TBD
5. Construction	On hold – Assuming that environmental requirements are met with an IS-Neg. Dec. and that properly acquisition is not required, would be construction ready in 2011.	2 months	TBD	TBD	\$500K (Ditch: \$375k Drains: \$125k)

Project Summary

Las Gallinas Creek Levee Evaluation – Phase I

Objective:

Develop design alternatives for levee improvements which: a) provide a uniform and increased level of flood protection, b) meet minimum requirements for participation in the U.S. Army Corps of Engineers' Section 205 program.

Location:

Las Gallinas Creek levee in the unincorporated community of Santa Venetia.

Benefits:

Develop an understanding of:

1. Current levee characteristics
2. Requirements for conforming to USACE design and construction standards
3. FEMA accreditation requirements and process
4. Conceptual alternatives which meet minimum requirements for participation in the U.S. Army Corps of Engineers' Section 205 program

**Workplan:****County**

Task	Status / Issues	Duration	Start	Finish	Cost
1. Conditions Survey	Complete	12 months	July 2008	July 2009	\$300,000
2. Failure Analysis	In progress – develop levee conceptual design criteria	7 months	July 2009	February 2010	
3. Alternatives Assessment	In progress – evaluate design alternatives against criteria	5 months	September 2009	February 2009	
4. Final Report	Planned – present study and findings	2 months	February 2010	April 2010	

U.S. Army Corps of Engineers

Task	Status / Issues	Duration	Start	Finish	Cost
1. Hydrology and Hydraulic Evaluation	In progress – determine water surface elevations of creek	~18 months	July 2008	Spring 2010 (est)	Funded by USACE
2. Flood Damages and Benefit-Cost Analysis	Planned – dependent on USACE budget approval	TBD	Summer 2010	Fall 2010	Funded by USACE

Project Summary

Pump Station No. 2 Rehabilitation

Objective:

Rehabilitate the existing stormwater Pump Station No. 2 in Santa Venetia, which was constructed in the early 1960's.

Location:

Vendola Drive at Hawthorne Way, adjacent to Las Gallinas Creek, in the unincorporated community of Santa Venetia.

Benefits:

1. Increase stormwater pumping capacity from less than a 10-year design flow to a 100-year design flow.
2. Eliminate functional and structural deficiencies.
3. Replace aging and outdated equipment, increasing the pump station's reliability.
4. Improve safety by constructing a new enclosed electrical panel and corresponding work area, replacing the existing ones which are exposed to the weather and which present a dangerous working environment if there is a power outage during a storm, as frequently happens.

**Workplan:**

Task	Status / Issues	Duration	Start	Finish	Cost
1. Conceptual Design	Complete	N/A	N/A	N/A	\$24,000
2. Environmental Assessment, Regulatory Permitting	In progress – CEQA categorical exemption being sought. JARPA draft complete; need USACE consultation & may need permit.	12 months	April 2009	April 2010	DPW Staff
3. Plans, Specs, & Cost Estimates (Design)	In progress – 100% PS&E being developed. Design includes new wet well and enclosed pump station building.	11 months	May 2009	March 2010	\$211,273
4. Real Estate Acquisition	In progress – working with Las Gallinas Valley Sanitary District (LGVSD) to determine best joint use of property boundaries and easements. Project will require easement from LGVSD and adjacent properties.	5 months	November 2009	March 2010	\$10,000 (Plus DPW Staff)
5. Construction	Due to timing of election, and availability of funding, construction is not possible prior to summer of 2011.	6 Months	May 2011	October 2011	\$2,400,000