

**FLOOD ZONE 5 ADVISORY BOARD MEETING**  
**FEBRUARY 18, 2020**

**STAFF REPORT**

---

**Item 1. Election of Chairperson and Vice-Chairperson**

Article VI of the Advisory Board's bylaws stipulate that officers of the Advisory Board be elected to a two-year term by a majority vote of the Advisory Board. There are two officers – chair and vice-chair. The last officer election occurred on February 15, 2018 when Toby Bisson and Howard Schechter respectively were named Chairperson and Vice-Chairperson. The advisory board may choose to renew or rotate officers.

**Recommended Action:** Elect chairperson and elect vice-chairperson.

**Item 2. Approval of Meeting Minutes: February 21, 2019**

**Recommended Action:** Approve minutes.

**Item 3. Open Time for Items not on the Agenda**

Comments will be heard for items not on the agenda (limited to 3 minutes per speaker).

**Item 4. Stinson Beach Parking Lot Project**

The Federal Highway Administration (FHWA) is working with the National Park Service (NPS) on improvements to the Stinson Beach Parking Lot. District staff have been coordinating with their water resources engineering consultant to share all relevant data and models developed by Zone 5 and the Stinson Beach Watershed Program. An initial field meeting with FHWA was canceled due to the Public Safety Power Shutoffs in October. In December a meeting with NPS Water Resources Division was held, the results of which will presumably inform the current FHWA planning.

FHWA Project Manager Matt Ambroziak will provide an update on the planned Stinson Beach Parking Lot Project. For more project information see attached January 29, 2020 CA FTNP GOGA 205(1) Stinson Beach Parking Lot.

**Item 5. Stinson Beach Nature-Based Adaptation Feasibility Study**

The Stinson Beach Nature-Based Adaptation Feasibility Study will examine the extent to which several dune restoration and enhancement alternatives can sustain the beach and protect development from coastal flooding. This study will assess the feasibility of a nature-based green infrastructure project at Stinson Beach to develop a resilient beach and dune ecosystem that enhances existing habitats and public access, supports vibrant recreational opportunities for users of all socioeconomic circumstances, and provides flood and erosion protection against existing coastal hazards and future sea level rise.

Last year the County's Community Development Agency (CDA) released a request for proposals to carry out the study. CDA involved District/Zone 5 staff in review of proposals and

## ***Marin County Flood Control and Water Conservation District***

interview of consultants. The highly qualified firm Environmental Science Associates (ESA) [<https://esassoc.com/>] was selected. District staff will continue to be involved via the Technical Advisory Committee being established for this project.

### **Item 6. Drainage on Highway 1 Near Library**

District staff were informed of a drainage problem over Highway 1 near Calle del Mar, the Library, and entrance to the Park. Supervisor Rodoni arranged a site meeting on February 13 with Caltrans, the Stinson Beach Fire Chief, and adjacent property owners. The advisory board will have the opportunity to share any pertinent observations or ideas with the Supervisor, District, and NPS staff.

### **Item 7. Marin County Flood Forecast Model**

County staff are developing a Marin Real-Time Flood Forecast Model. This tool is being developed through statistical analysis of every event in the District's roughly 25 years of rain and stream data record. One thing that jumped out that is pretty obvious is that Marin flooding is really spiked by the shorter duration rainfall durations like the 10 to 60 minute rainfall duration. Marin's watersheds are really flashy so these short-term rainfall bursts definitely impact our creek water surface levels. Marin's small and flashy watersheds make it immediately clear that our new Marin model needs to account for the short-term duration intensities both historically and in order to forecast flooding. The new model considers:

1. Antecedent (past) Rainfall conditions

2. Maximum Rainfall Intensity for six storm durations currently set at 10-, 30-, 60-, 120-, 240- and 360- minutes.

3. Average Rainfall Intensity for Same Durations as 2.

4. Rainfall Intensity "Spikiness" Factor staff have proposed a new factor which is simply the maximum rainfall intensity divided by the average rainfall intensity for each duration (i.e. 10-minute max/10 minute average) which is a rainfall intensity "spikiness" factor of sorts.

Inputs 2 and 3 of the forecast model depend on the forecast precipitation data from the National Weather Service (NWS). NWS does not currently provide precipitation forecasts for those relatively small durations, but they are discussing with staff a Marin-customized forecast with at least some of the data needed for Marin's new model. NWS believes they can provide hourly data for sure, and likely some version of 15-minute data for some time before storms. We know we already get the 360-minute data for 4 or 5 days before events (the quantitative precipitation forecast, QPF tables) so we may also be able to obtain forecasts for the 120- and 240-minute intervals.

In support of the continued development of the forecast model as well as improving situational awareness during flood events, the Flood Control District has been working to expanded its County-wide network of sensors. The network was updated to ALERT 2 and doubled in size in recent years with a Department of Water Resources Flood Emergency Response Project Grant supplemented with County emergency preparedness funds. This year the county contributed a small amount of additional funds that will be utilized to identify and prepare for new precipitation and/or stream gage sites in Stinson Beach as there are not currently gages on the southern

## ***Marin County Flood Control and Water Conservation District***

coast of Marin. Existing coastal precipitation gages are at Point Reyes Station and Dillon Beach and none are stream gages. Visit <https://marin.onerain.com/> to view real time or historic data.

### **Item 8. Easkoot Creek Emergency Sediment Removal**

On February 13-15, 2019 an atmospheric river soaked the Easkoot Creek watershed and stormwater carried sediment down to the sediment trap adjacent to the Parkside Café to the point that the creek was nearly full of sediment. With the approach of another atmospheric river on February 25, the District in coordination with NPS staff initiated emergency sediment removal operations for a total zone cost of \$20,517.66. Because the President declared a Major Federal Disaster, staff have been working with FEMA to determine if this work is eligible for reimbursement under a FEMA pilot program for debris removal assistance and in late January of 2020 FEMA awarded the full amount in reimbursement (not yet reflected in zone fund balance).

### **Item 9. Easkoot Creek Maintenance Sediment Removal**

The District was preparing to remove sediment from the Easkoot Creek sediment trap in September 2019, but a preconstruction survey determined that the channel capacity met the design capacity so the effort was canceled. Sedimentation will be monitored after major storms this winter.

The five year Special Use Permit (SUP) that allows the District to maintain the sediment basin on National Park Service (NPS) property expired on September 30, 2018 and NPS renewed it last February for another 5 years. Before August 2023 the Zone will need to determine whether to continue the use of the NPS site to trap sediment. In the meantime NPS is looking at possible changes to the beach parking lot configuration that may be able to accommodate larger volumes of sediment in the basin and reduce the amount of damage sustained during overflows.

In 2012, prior to construction of the sediment trap adjacent to the Parkside Café, the California Department of Fish and Wildlife (CDFW) granted the District a Routine Maintenance Agreement to perform vegetation and sediment management in specified sections of Easkoot Creek for flood risk reduction purposes. This previously extended permit expires at the end of 2020 so this year's work program includes CDFW permit renewal.

The Army Corps of Engineers permit and Regional Water Quality Control Board (RWQCB) permit are each effective for two additional maintenance seasons. Development of quantitative triggers per RWQCB for vegetation maintenance as required under that permit is underway this year. Additionally, the RWQCB permit is limiting district-wide maintenance to 5000 total linear feet of creek channel. Because of this strict limitation the District can no longer prioritize vegetation maintenance work outside of existing easements in Zone 5.

### **Item 10. FY 2020-21 Budget Review**

The Zone 5 budget for FY 2020-2021 (begins July 1, 2020 and ends June 30, 2021) will be presented to the District Board of Supervisors later this year. The County Administrator, whose office reviews all Flood District zone budgets, has requested that this coming Fiscal Year's budgets be submitted by mid-March accompanied by recommendations of the Zone 5 Advisory Board (AB). As this is even earlier than the previous years' budgeting timeline, staff has proposed the attached budget for review. As usual, the recommended budget may be adjusted

***Marin County Flood Control and Water Conservation District***

as necessary to update priorities and cost estimates for projects and studies planned for this coming fiscal year.

**Recommended Action:** Recommend that the District Board of Supervisors approve the proposed budget.

**Item 11. Schedule Next Meeting**

The AB may consider setting the next meeting date.



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Central Federal Lands Highway Division**

12300 West Dakota Avenue  
Suite 380A  
Lakewood, CO 80228-2583

January 29, 2020

## **CA FTNP GOGA 205(1) Stinson Beach Parking Lot**

### **Lead Agency:**

The Federal Highway Administration, Office of Federal Lands, Central Federal Lands Highway Division (CFLHD) is the lead agency for the project and is responsible for the design, permitting, construction, and construction administration.

CFLHD was established to promote effective, efficient, and reliable administration for a coordinated program of federal public roads and bridges; to protect and enhance our Nation's natural resources; and to provide needed transportation access for Native Americans. Our primary purpose is to provide financial resources and transportation engineering assistance for public roads that service the transportation needs of Federal and Indian lands. The FLH provides these services in all 50 states, the District of Columbia, Puerto Rico, and US Territories through our Headquarters, Eastern, Central, and Western Federal Lands Highway Division offices.

CFLHD solves and manages unique program and project challenges that are wide-ranging in environment, geography and complexity, through engineering solutions that are sensitive to the context of the land. We are often confronted by unique terrain, challenging work restrictions, and CFLHD is at the forefront delivering consistently distinct and sound engineering projects.

The CFLHD, in cooperation with the National Park Service (NPS), are proposing improvements to the Stinson Beach Parking Lot with the Golden Gate National Recreation Area. The NPS will be the lead agency for environmental compliance.

### **Project Background:**

The Stinson Beach parking lot is prone to frequent flood damage from storm flows in Easkoot Creek, as well as increasingly frequent coastal erosion. Flooding poses hazards to people in the parking area and also downstream of the NPS property in residential areas. The pavement within the parking lot is badly deteriorated and is in need of rehabilitation and replacement.

### **Project Scope:**

The project proposes to rehabilitate and improve drainage function. Areas will be evaluated for minor grade raising and armoring to address coastal erosion problems. The access road and pedestrian pathways are proposed to be realigned to improve storm water management and flood protection. Parts of the parking lot will be evaluated for obliteration and restoration to reduce risk of future flood or costal erosion damage and to improve flood control function. Parking areas,

access roads, and pedestrian facilities will be rehabilitated and repaved to accommodate future storm flows with minimal damage.

**Project funding:**

The project costs (Design, Construction, and Construction Engineering) are funded through the Federal Lands Transportation Program (FLTP).

**Project Schedule:**

- Project Design Start: January 2020
- Preliminary Design Finish: Summer 2020
- Environmental Compliance Finish: Summer 2020
- Final Design Finish: Winter 2020
- Construction Begin (tentative): Spring 2021
- Construction End (tentative): Summer 2021

**Flood Zone 5 FY 2020-21 Proposed Operating Budget (Org 32517631)  
with anticipated two-year cash flow projection**

**FY 2018-2019 Fund Ending Balance: \$316,906**

Proposed budget, subject to change

Expected Expenditure Description	FY 2018-19	FY 2018-19	FY 2019-20	Year 1	Year 2	Year 3
	Budget (revised)	Actuals	Budget <sup>3</sup> (revised)	FY 2020-21 Proposed	FY 2021-22 Estimate	FY 2022-23 Estimate
1 Road Maintenance Staff	\$ 2,000	\$ -	\$ 1,000			
2 Real Estate Division Staff	\$ 1,000	\$ -	\$ 1,000			
3 Engineering Division Staff	\$ -	\$ -				
4 Water Resources Staff	\$ 34,743	\$ 37,700	\$ 33,008	\$ 37,700	\$38,831	\$39,996
<b>Labor</b>	<b>\$ 37,743</b>	<b>\$ 37,700</b>	<b>\$ 35,008</b>	<b>\$ 37,700</b>	<b>\$ 38,831</b>	<b>\$ 39,996</b>
5 A87 Indirect Cost Allocation <sup>1</sup>	\$ 1,001	\$ 1,044	\$ 1,504	\$ 1,549	\$ 1,596	\$ 1,643
6 Maintenance - Creeks	\$ 52,406	\$ 55,866	\$ 45,140	\$ 48,000	\$ 49,440	\$ 50,923
7 Professional Services Contracts	\$ 558	\$ -	\$ 12,650	\$ 10,000	\$ 5,000	\$ 5,000
8 Other Trade Services (Construction not Maintenance)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9 Misc. Expense	\$ 4,000	\$ 1,098	\$ 4,120	\$ 4,244	\$ 4,371	\$ 4,502
<b>Service and Supplies</b>	<b>\$ 57,965</b>	<b>\$ 58,008</b>	<b>\$ 63,414</b>	<b>\$ 63,793</b>	<b>\$ 60,407</b>	<b>\$ 62,069</b>
<b>Total Expenditures</b>	<b>\$ 95,707</b>	<b>\$ 95,707</b>	<b>\$ 98,422</b>	<b>\$ 101,493</b>	<b>\$ 99,238</b>	<b>\$ 102,065</b>
10 Revenues <sup>1</sup> (increase approx. 0.5% annually)	\$59,778	\$99,074	\$99,569	\$100,067	\$100,567	\$101,070
<b>Projected Fund Ending Balance**</b>		<b>\$ 316,906</b>	<b>\$ 318,054</b>	<b>\$ 316,628</b>	<b>\$ 317,958</b>	<b>\$ 316,963</b>

1. Estimates are provided for reference only. Advisory board is not being asked to make recommendations regarding revenue budget or indirect cost allocation.

2. Fund Ending Balance for 2018-19 is as of 12/13/2019 and includes funds encumbered under contracts. Future year fund ending balance will change with updated info.

3. Includes prior year encumbered funds rolled forward into this year in addition to budget request for this year.

Note: project/contract funds not expended in a given fiscal year will roll over into the next fiscal year.

Flood Control Zone 5  
FY 2020-21 Proposed Budget  
Budget Notes

The following provides details related to the proposed budget line items in the Flood Zone 5 FY 2020-21 Proposed Budget:

**Line Item #**

1. Road Maintenance Staff: This line item includes staff time for creek maintenance activities such as sediment and downed tree removal. This budget assumes these activities are completed under contract, but if Roads is available and cost-competitive the necessary funds would be transferred here from line item 6. Maintenance-Creeks.
2. Real Estate Division Staff: This line item includes staff time any unanticipated issues related to easements. This budget assumes these activities are not completed this year but if necessary, funds could be transferred here from line item 4. Water Resources Staff.
3. Engineering Division Staff: This line item includes staff time for surveying and engineering support, e.g. such as easement boundary or sediment trap elevation surveys. This budget assumes these activities are not completed this year but if such services become necessary, available, and cost-competitive, funds could be transferred here from line item 4. Water Resources Staff or 7. Professional Services Contracts.
4. Water Resources Staff: This line item includes staff time for Zone 1 management and administrative support (project management, grant applications and administration, oversight of creek maintenance and preventive pump station maintenance, budgeting, Advisory Board meetings, public inquiries, inter-agency coordination, planning, permitting and clerical support).
5. A87 Indirect Cost Allocation: The Marin County Flood Control & Water Conservation District is a separate and distinct political subdivision of the State of California and receives no revenue from the County. However, the County provides the staffing, financial and administrative support and other services to the District to allow it to function. In addition, the County provides the Civic Center and other facilities for administration and support services for the District operations, including the District Board of Supervisors. Because of this, each Flood Control Zone is charged an overhead cost in accordance with the County's Fiscal Policy and as allowed by the federal Office of Management and Budget (OMB) Circular 2 CFR Part 200 (as are other eligible non-county districts and organizations).
6. Maintenance – Creeks: This line item includes outside support (vendors, contractors, suppliers, etc.) for Zone 5 creek vegetation maintenance and sediment removal, storm patrol by Conservation Corps North Bay, permitting fees for creek maintenance. This line item used to include contracts and subscriptions for stream and precipitation gauge maintenance but in 2019-20 the County approved a budget for this as the expanded gauging system supports emergency preparedness countywide.
7. Professional Services Contracts: This line item includes all professional services generally to support Easkoot Creek maintenance including: environmental permitting requirements such as fish salvage if NPS cannot do this, and cross section surveying (if needed).



8. Other Trade Services (Construction not Maintenance): This line item for construction of Z5 projects includes construction contracts, and any materials or equipment provided by Z5 for those construction projects. No construction projects are currently planned.
9. Misc. Expenses: This item includes costs for permitting fees for creek maintenance and other expenses not accounted for under any other line items, and any other unforeseen expenses.
10. Revenues: This is an estimate for reference only. The advisory board is not being asked to recommend a revenue budget. For the purpose of this analysis, revenues are conservatively estimated to increase by 0.5%.