

**FLOOD ZONE 1 ADVISORY BOARD**

**DECEMBER 2, 2021**

**STAFF REPORT**

*We acknowledge the land we are on today as the traditional territory of the Coast Miwok. We thank the Coast Miwok who were the stewards to the land and water here before us and those who are here now for sharing their ancestral homeland with us. For more information:*

<https://native-land.ca/resources/territory-acknowledgement/>

**Item 1. Approval of Meeting Minutes: May 6, 2021**

The advisory board is being asked to approve the minutes from the May 6, 2021 meeting. The draft minutes can be found here: [https://www.marinwatersheds.org/sites/default/files/2021-11/FCZ1\\_AB-Mtg\\_draft\\_minutes\\_050621.pdf](https://www.marinwatersheds.org/sites/default/files/2021-11/FCZ1_AB-Mtg_draft_minutes_050621.pdf)

**Recommended Action:** Approve minutes.

**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. Deer Island Basin Complex Wetland Restoration Design**

**Status Update:** ESA has conducted biological surveys, an aquatic habitat report and a public access assessment that are all in final drafts and should be available soon. In addition, Staff have been working with ESA engineers and modelers on an improved HEC-RAS model based on the Stetson model of the lower watershed and on preliminary design for the restoration alternatives. Our goal is to keep improving the Novato watershed RAS model for current and future projects.

**Background:** The SF Bay Restoration Authority (SFBRA) Governing Board approved funding design, preparation of construction plans and specifications and permitting for the first phase of Deer Island Basin Tidal Wetlands Complex Restoration Project. The District's Deer Island Basin Complex includes both the Deer Island Basin and the two stormwater ponds (Ducks Bill and Herons Beak) along Novato Creek.

Following a solicitation for proposals, competitive selection, and negotiation, the cost for the proposed scope exceeded available budget. Staff worked with SFBRA staff to modify the scope to scale back the design for the Deer Island Basin restoration element to a preliminary design level while leaving the scope for the restoration of the two ponds adjacent to Novato Creek unchanged. Restoration of the two ponds would effectively widen Novato Creek and increase the floodplain in that location. The cost for this reduced scope still exceeds the \$630,000 grant by \$108,540 which must come from Flood Control Zone 1 funds. On January 28, 2020, the District awarded the contract to ESA and we have been working closely with them on the project design.

The project has been in design since January 2020 and has been making progress on the project design deliverables. There have been some design and permitting delays and new tasks that require additional District funding to complete the scope. Many of these delays and costs are typical for ecological and flood control projects of this complexity. These cost increases are briefly described below and in the this [linked writeup](#) provided by ESA. Much of the cost increases can be handled by moving scope from some existing tasks but there is a need for

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\$121,573 in new funding. Plus we recommend adding an additional \$25,000 to the as-needed task that can only be spent with prior District approval but allows staff to pay for unanticipated additional costs without having to go to the BOS for approval which takes significant time.

The primary new scope item is the need for a geotechnical investigation to confirm design modifications to the Lynwood Levee. The shallow and deep boring information from the LOLE geotechnical work conducted by GEI in 2020 showed some contradictory information that will be clarified by the additional borings proposed under this scope. The benefits are more certainty in the geotechnical design and a reduced construction cost.

The other main new scope items are budget for a Monitoring and Adaptive Management (MAMP) Reporting Plan that was requested by the agencies during preliminary consultations that was not in the original scope. The project has incurred additional charges for ESA expert staff time for the tribal consultations required under AB52 that were not scoped in the original RFP. Finally, the project will be using B. K. Cooper a contractor with expertise and experience in wetlands and soft soils construction to do a constructability and value engineering review to look for potential change order situations and to make recommendations for design changes to reduce construction costs.

The other costs are associated with additional consultant time due to delays and project management issues.

**Recommended action:** Recommend the District Board of Supervisors approve a Zone 1 professional services budget adjustment of up to \$120,593 for additional tasks and \$25,000 in new funding for Task 10 unanticipated new as needed tasks for a total cost increase of \$145,593 in new funding to complete the additional tasks to complete the project scope.

### **Item 4. Arroyo Avichi-Baccaglio-Scottsdale-Lynwood Complex Flood Study**

**Status Update:** Mapping and inspections of storm drains, drainage ditches and other facilities in Nave Gardens were completed this summer and a draft scope for a hydraulic study focusing on the bypass system around this area has been prepared for advisory board consideration. The estimated total cost as scoped is approximately \$250,000.

**Background:** As presented at the February 6, 2017 Advisory Board meeting, a limited evaluation of potential flood reduction benefits for potential projects at Scottsdale Pond was included in the Novato Watershed Study. In November 2020 staff recommended that a more detailed analysis of Novato Creek and the bypass system from Arroyo Avichi through Baccaglio Basin, Scottsdale pond and marsh, and Lynwood Basin (“ABSL Complex”) be performed leveraging the City of Novato stormdrain model and the new Countywide LiDAR surface data. Below is a summary of elements that could be included in the ABSL Complex study based on feedback from the advisory board at the November 2020 meeting and the Old Town Novato Flood Group:

*1) Summary of the universe of potential projects in Zone 1 to model (from watershed program and levee evaluation review, and new projects to be identified below).*

**2)** Identify opportunities along Novato and lower Warner creeks and through the ABSL Complex for new flow gates, perimeter barriers, pump stations, and increased stormwater detention that improve flood mitigation in downtown Novato and Nave Gardens. This includes alternatives to existing systems (i.e. move pump station from Lynwood Basin to Scottsdale). This analysis is key because of the large potential costs for repairing the Lynwood Pump in its current location (estimated at \$3M) meant that the alternatives evaluation within this scope is important to decide on next steps for this pump station.

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- 3) *In addition to considering alternatives to sediment removal, evaluate alternative footprints and triggers for sediment removal.*
- 4) Evaluate potential project alternative benefits for smaller flood events (e.g. 10-year event) than the 50-year.
- 5) *Applies to apples comparison of project alternative benefits and costs, project ranking (aim for 1-2 criteria), and determination of how to fund projects (grants and/or if loan is feasible). Review criteria with advisory board.*
- 6) Comprehensive evaluation of the trade-offs between projects that benefit Nave Gardens/South Novato Blvd and their impacts elsewhere.
- 7) Review with City potential storm drain improvements that may be more effective in conjunction with potential Zone 1 projects in the study, and any opportunities for flow gates in City's road right of way.

Last year the District solicited Statements of Qualifications from firms interested in performing on-call work. One of many respondents included Wood Rodgers (WR), an engineering firm that has extensive experience in storm drain modeling and uses the proprietary software developed for the City of Novato's storm drain model. Staff recommends issuing Wood Rodgers task request forms, under their on-call contract, for Wood Rodgers for the ABSL Complex study scope that includes elements 2, 4, 6, and 7 above. Note that there are some unknowns identified in the WR scope that may require additional scope and budget once their initial analysis is done. To this end, we recommend an as-needed budget of \$54,425 in the event that additional work is required.

**See link here for draft [scope](#) and cost for Wood Rodgers. Staff would issue the requests one task at a time, provide the advisory board with updates following each task, and check in about whether to continue with the next task and/or modify the next task before proceeding.**

**Recommended action:** Recommend the District Board of Supervisors approve a Zone 1 professional services budget adjustment of \$245,575 to complete the proposed study plus an additional \$54,425 in potential out of scope tasks for an even \$300,000 for this study.

**Next Steps:** After completion of the ABSL Complex study elements by Wood Rodgers, staff could work on assimilating the results into elements 1 and 5. If the advisory board moves forward with this study, expenditures will be tracked in a new ABSL Complex project ledger so you can receive reports on actual costs at advisory board meetings.

### **Item 5. San Mateo County Flood and Sea Level Rise Resiliency District ("OneShoreline")**

The advisory board will discuss San Mateo's "OneShoreline." Some reference materials are located here:

<https://oneshoreline.org/>

[http://www.sanmateocourt.org/documents/grand\\_jury/2020/Sea%20Level%20Rise.pdf](http://www.sanmateocourt.org/documents/grand_jury/2020/Sea%20Level%20Rise.pdf)

### **Item 6. Schedule Next Meeting**

The next regular meeting is tentatively scheduled for February 1, 2022.