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Board of Directors
Marin County Open Space District
3501 Civic Center Drive
San Rafael, CA 94903

SUBJECT: BOLINAS LAGOON NORTH END CONCEPTUAL DESIGN REPORT

Dear Board Members:

RECOMMENDATION:

1. Accept the Bolinas Lagoon North End Conceptual Design Report.
2. Direct staff to move forward with design and environmental review of Phase 1.

SUMMARY:

The North End Wetland Enhancement and Sea Level Rise Adaptation Project (also known as the North End Project) is the result of a culmination of over 20 years of active collaboration between the communities of Bolinas and Stinson Beach and the Marin County Open Space District, Point Reyes National Seashore, Golden Gate National Recreation Area, and the Greater Farallones National Marine Sanctuary.

At your June 10, 2014 meeting, your board authorized staff to investigate the rehabilitation of the Bolinas Lagoon north end. The objective of the North End project was to evaluate the feasibility of developing a wetland enhancement and sea level rise (SLR) adaptation plan for the vicinity of the Bolinas "Wye". As part of investigating the potential project a number of scientific studies have been conducted, and are still being conducted. AECOM was contracted to conduct the background studies for the Site Conditions Report, and to prepare a Conceptual Design Report. In September 2017, the Draft Conceptual Design Report was completed, posted for public review, and presented to the Bolinas Lagoon Advisory Council (BLAC).

The Conceptual Design Report presented three alternatives (Alternatives 1, 2 and 3), with each alternative having three phases (Phase 1, 2, and 3). Phase 1 is identical in all three alternatives. The primary difference between each alternative is how State Route 1 is constructed within the project area, and how Wilkins Gulch Creek (National Parks Service land) is restored. Alternatives 1 and 2 propose elevating State Route 1 on fill with two partial causeways, and Alternative 3 proposes a full causeway. Alternatives 2 and 3 propose reconnecting Wilkins Gulch Creek to its alluvial fan, with Alternative 1 proposing only partial connectivity to the alluvial fan.

AECOM designed the alternatives to address the following three project goals: restoring habitat and hydrologic connectivity; adapting to climate change and SLR; and improving road safety. All projects have been designed to meet these goals, with

Alternative 3 providing the greatest level of attainment, followed by Alternative 2. The Conceptual Design Report provided an analysis table (Table 10, pg. 67) that weighs the different alternatives and phases, and their level of attainment for the following categories: costs/timeline, constructability/complexity, environmental effects, social considerations, and project benefits (defined goals). Phase One for all alternatives is the same, the only difference from the alternatives are the impacts from Phase 2 and 3. Overall, the takeaway from the analysis table is that Alternative One is the most cost and time effective, but is the least preferred because it does not provide the greatest gains in relation to climate change adaptation, habitat improvements for species, and hydrologic connectivity. The reverse is true for Alternative 3, which is the costliest but provides the greatest gains to the aforementioned categories. It should be stated that the difference in scores between all the alternatives is relatively minor.

The opportunities and constraints analysis of the report identified a number of potential impacts, benefits, and constraints to each alternative's development. More specifically, the geotechnical investigation found that existing sediments and seismic risks limit the cost effectiveness of placing fill to elevate roads with Alternatives 1 and 2. Additionally, there are added risks and benefits associated with restoring Wilkins Gulch Creek and Lewis Gulch Creek onto their alluvial fans and creating a functional floodplain for all alternatives and phases. The risks include short term impacts to special status species and sensitive habitat. Restoration of Wilkins Gulch Creek under Phase 2 would alter the cultural landscape of Wilkins Ranch. Lastly, the community would be disrupted during construction of all phases for each alternative.

Based on the data from the conceptual design document, staff is concerned about the potential costs and impacts of Phases 2 and 3, regardless of the alternative. Staff is therefore recommending that the Marin County Open Space District Board of Directors pursue Phase 1 as a standalone project, and to defer action on subsequent phases. This would allow for studies that are currently under way to be completed, the further refinement of Phase 2 and 3 with our partners, and allow for the development of comprehensive funding strategies specific to the greater demands of the later phases. Taken alone, Phase 1 is financially feasible, has independent utility, requires the least amount of disruption to the environment and the community, and would result in immediate benefits to the community upon completion. On September 29, 2017, the Conceptual Design Report was presented to the BLAC. Consistent with the recommendation by staff, the BLAC's recommendation to the Board is to proceed with Phase 1.

FISCAL IMPACT:

Approval of the recommended action will result in no increase to general fund net county cost. It is estimated that the design and environmental review costs will be \$500,000. MCOSD has applied for a Proposition 1 grant from the California Coastal Conservancy for \$258,000 to support Phase 1 construction designs costs. The remaining balance of \$242,000 will come from a combination of Measure A funds and other outside grant sources to be determined at a later date. It is anticipated that the construction phase of this restoration project will cost between \$5 million and \$10 million dollars. Marin County Parks will utilize Measure A funding to leverage funds from additional sources such as Prop 1 funds, federal grants, and any future Statewide Park Bonds that become available.

REVIEWED BY:

- Dept. of Finance N/A
- County Counsel N/A
- Human Resources N/A

Veronica Pearson, Open Space Planner, is the principal author of this report.

Respectfully submitted,



Chris Chamberlain
Assistant Director
Marin County Open Space District