COASTAL CONSERVANCY

Staff Recommendation
September 22, 2022

**BEL MARIN KEYS WETLAND RESTORATION**

Project No. 99-108-07
Project Manager: Linda Tong

**RECOMMENDED ACTION:** Authorization to enter into an amended Project Cooperation Agreement with the U.S. Army Corps of Engineers, and to disburse up to $20,000,000 to the U.S. Army Corps of Engineers for the Bel Marin Keys Unit V expansion of the Hamilton Wetland Restoration Project in Marin County.

**LOCATION:** Bel Marin Keys Unit V property in unincorporated Marin County, adjacent to and between the Bel Marin Keys residential community and Novato Creek to the north and the Hamilton Wetlands to the south, along the western margin of San Pablo Bay, Marin County.

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*EXHIBITS*

Exhibit 1: Project Location Map

Exhibit 2: Bel Marin Keys Restoration – Revised Alternative 2

Exhibit 3: Bel Marin Keys Wetlands Restoration Phase 1 Staff Recommendation (August 22, 2019)

Exhibit 4: Chronology of Past State Coastal Conservancy Actions

Exhibit 5: Bel Marin Keys Wetland Restoration Phase 1 Project – Supplemental Environmental Impact Report

Exhibit 6: Bel Marin Keys Wetland Restoration Phase 1 Project – Addendum to the Supplemental Environmental Impact Report

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## RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes:

1. The Executive Officer to amend the Project Cooperation Agreement with the U.S. Army Corps of Engineers for the Hamilton Wetland Restoration Project to include restoration of the Bel Marin Keys Unit V property, and
2. Disbursement of an amount not to exceed twenty million dollars ($20,000,000) to the U.S. Army Corps of Engineers for the non-federal share of project costs for the Bel Marin Keys Unit V expansion of the Hamilton Wetland Restoration Project.

Findings:

Based on the accompanying staff recommendation and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Chapter 4.5 of Division 21 of the Public Resources Code regarding restoration and enhancement of natural habitats in the San Francisco Bay Area and public access improvements to and around the Bay.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria.

## STAFF RECOMMENDATION

**PROJECT SUMMARY:**

Staff recommends the Conservancy authorize the Executive Officer to amend the Conservancy's Project Cooperation Agreement (PCA) with the U.S. Army Corps of Engineers (USACE) for the Hamilton Wetland Restoration Project (HWRP) to include restoration of Bel Marin Keys Unit V, and to disburse up to $20,000,000 to USACE to pay the non-federal share of project costs for the Bel Marin Keys Unit V expansion (the BMKV Project, Exhibit 1).

The PCA for the HWRP is a long-term contract between the Conservancy and USACE for a joint federal-state restoration project. The recommended authorization will enable the Conservancy and USACE to update this long-term contract to include restoration of the BMKV property. The HWRP entailed converting the former Hamilton Army Airfield military base into approximately 650 acres of tidal marsh, seasonal wetlands, and uplands, now known as Hamilton Wetlands. Amending the PCA for the HWRP to include restoration of BMKV will obligate the Conservancy, as the non-federal sponsor of a congressionally authorized civil works project, to pay 25 percent of the BMKV restoration costs as well as provide all the lands, easements, rights of way, and relocations required to implement the project. USACE would pay 75 percent of the project costs.

In 2000, the Conservancy authorized acquisition of the BMKV property, and in 2005 the Conservancy approved a conceptual restoration plan for BMKV as an expansion of the HWRP. The preferred conceptual plan is identified as Revised Alternative 2 (Exhibit 2) in the "Final Supplemental Environmental Impact Report/Environmental Impact Statement for the Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project" (SEIR/S) and is described in USACE's 2003 General Reevaluation Report. The restoration plan provides for the creation of tidal and nontidal habitat types through the construction of new levees, beneficial reuse of dredged material (to raise subsided marsh plain elevations), reestablishment of the tidal

connection, and creation of seasonal wetlands. The plan includes a new outboard levee landward of the existing levee fronting San Pablo Bay to provide continued and improved flood protection to the adjacent Bel Marin Keys Community and other developments landward of the BMKV property. The plan includes raising elevations between the new outboard levee and the existing levee by importing dredged sediment and ultimately breaching the existing levee fronting San Pablo Bay to reestablish tidal wetlands between the new outboard levee and the existing levee. Areas landward of the new outboard levee will be vast seasonal wetlands fed by fresh and brackish water sources. Additionally, the plan includes replacement of the existing Novato Sanitary District's pipeline with a new pipeline (analyzed and approved as part of the HWRP). Lastly, the plan calls for a new 2,000-foot section of levee separating the Hamilton Wetlands and BMKV properties. The restoration of BMKV would result in 899 acres of tidal wetland, 120 acres of subtidal and tidal mudflat habitat, 277 acres of seasonal wetlands, 21 acres of open water (pond), 12 acres of emergent freshwater wetlands, and 247 acres of remaining upland.

In summary, the restoration plan for BMKV includes the following:

- construction of a new outboard levee inland of the existing bayfront levee
- construction of other new levees and access roads
- construction of seasonal and tidal wetlands
- construction of an additional section of the San Francisco Bay Trail
- installation of water management structures and utilities
- placement of dredged sediment on the bayward side of the new outboard levee
- breach of the existing bayfront levee.

Considering the large scale of this restoration plan and its high cost, in 2019, the Conservancy authorized funding for construction of several features of the restoration plan as a first phase (BMKV Phase 1 Project, Exhibit 3). This first phase consisted of construction of the new outboard levee that is inland of the existing bayfront levee; creation of a 44-acre seasonal pond complex and enhancement of an additional 46 acres of seasonal wetlands; modifications to site drainage and a segment of an existing Novato Sanitary District effluent outfall pipeline that crosses BMKV; construction and improvement of necessary access roads; and construction of a water pump system to manage surface water behind the new levee. Construction for BMKV Phase 1 Project was successfully completed at the end of 2021.

Once the PCA for the HWRP is amended to include BMKV, the Conservancy will work with USACE to implement the remaining features of the BMKV restoration plan and to restore the 319-acre parcel owned by the State Lands Commission that is part of the HWRP but hasn't been constructed yet. USACE, in consultation with the Conservancy, will contract for the engineering designs and regulatory permitting of the restoration plan, construct the project (including delivery of dredged sediment for tidal wetland restoration on the bay side of the new levee), and conduct post-construction monitoring and management. The plan for the BMKV Phase 2 Project, which would cover approximately 1,900 acres (1,585-acre BMKV property plus the 319-acre parcel owned by the State Lands Commission), includes restoring tidal estuarine habitat

(salt marsh, mudflats, shallow sub-tidal) on the eastern (bay) side of the new levee. The tidal restoration work entails raising the elevation of the land east of the new levee with dredged sediment and breaching the existing bayfront levee to allow tidal waters from the bay to flow into the site. When completed, the entire HWRP will consist of nearly 2,600 acres of wetlands with associated uplands and 3.5 miles of new San Francisco Bay Trail. The USACE report completed in 2003 envisioned up to 24 million cubic yards of dredged sediment beneficially reused in the course of the entire HWRP, but based on past costs of importing approximately 6 million cubic yards of dredged sediment to Hamilton Wetlands, the restoration of BMKV will be accomplished with less sediment than originally envisioned.

The PCA for HWRP was signed in 2002 and includes the following partial list of requirements that would also be relevant to the BMKV component of the project:

- Requires the Corps to pay 75 percent of project costs, and the Conservancy to pay 25 percent of project costs; total project costs include the "incremental cost" of bringing dredged material to the site over and above the otherwise least-cost environmentally acceptable disposal site (in-bay or ocean), except where payment of any of these costs is the responsibility of another navigation project; recreational elements (Bay Trail segments) are cost shared at 50 percent federal and 50 percent non-federal, but are a relatively small portion of the total project costs.
- Requires the Conservancy to provide the lands, easements, rights-of-way, and relocations required for the project at no cost to the federal government, but credits the Conservancy's share of project costs for the value of these interests (except where provided at no cost by the federal government).
- Creates a Project Coordination Team consisting of representatives of the parties to oversee implementation of the project pursuant to a Project Management Plan, including matters such as the acceptance of dredged material for placement at the site and its suitability for use in the project (to be determined in accordance with applicable regulatory requirements for wetland "cover" material) and the obligation of other navigation projects (if any) to fund a portion of project costs.
- Vests responsibility and discretion for all contract solicitations, awards, modification, claims, and performance with the Corps after consultation with the Conservancy.
- Requires the Conservancy to provide cash contributions on an as-needed basis, in accordance with quarterly reports and projections prepared by the Corps, up to a maximum of its 25 percent share of project costs (adjusted in accordance with provisions of federal law).

Once the PCA with USACE is amended to include BMKV restoration, USACE will be able to use federal funds that equal to 75 percent of the project costs. The Conservancy's share of project costs under the amended PCA is estimated to be $41,300,000 out of a total cost of $165,200,000 for the restoration of BMKV and the State Lands Commission parcel, based on USACE's project cost estimate from 2013. USACE has entered into a Memorandum of Understanding with the Conservancy that allows the Conservancy's BMKV Phase 1 costs, approximately $23,300,000, to be considered as part of the non-federal sponsor's cost-share. If

USACE accepts the BMKV Phase 1 costs as part of the non-federal sponsor's cost-share, the Conservancy needs to contribute an additional $18,000,000 (staff is requesting up to $20,000,000) to meet the current cost-share requirement.

The Conservancy owns and manages the BMKV and Hamilton Wetlands properties. Completing restoration of the properties is a high priority for the Conservancy and the San Francisco Bay Area region. About 80% of the tidal marshes in the San Francisco Bay estuary were lost between 1800 and the late 1990s due to diking and filling. These habitats provide critical ecosystem services such as improved protection against floods and sea level rise; improved water quality; improved fishery habitat; recreational, stewardship, and educational opportunities; and decreased need for costly traditional levee infrastructure. Wetland restoration is a direct and needed response to the current climate crisis, and the 2015 "Baylands Ecosystem Habitat Goals Science Update" recommends that the number and scale of wetland restoration sites in the San Francisco Bay Area dramatically increase to keep pace with sea level rise.

**Site Description:** The HWRP site consists of three properties located along the western edge of San Pablo Bay in Marin County totaling nearly 2,600 acres: the 644-acre former Hamilton Army Airfield and current Hamilton Wetlands (including the former 18-acre Navy Ball Field), the 319-acre North Antenna Field (owned by the State Lands Commission) and the 1,585-acre BMKV property. All these properties are historic wetlands that were part of a larger tidal marsh system that extended from Corte Madera in Marin County to Vallejo in Solano County. All the property is owned by the Conservancy except for the North Antenna Field. The cost-share authorization that is the subject of this staff recommendation is for the BMKV property within the HWRP site.

The BMKV property is partially located within the historic margins of San Pablo Bay. During the period 1853 through 1884, hydraulic mining for gold in the Sierra Nevada foothills caused substantial amounts of sediment to enter the Bay system, resulting in shoreline accretion at BMKV. Around the turn of the last century, marsh lands at the site were diked to accommodate dry land farming. A system of levees and drainage ditches were constructed, and pumps were installed to drain rainwater and the naturally high ground-water table. Over the intervening century, oxidation and consolidation of the Bay mud caused the former tidal baylands to subside to an average of five feet below mean sea level.

The Conservancy currently allows a farmer to grow oat hay on the BMKV property. The farmer uses about two thirds of the land at any one time to grow two crops of organically-certified hay that is of relatively low quality and quantity due to poor soil conditions and lack of irrigation. Construction of BMKV Phase 2 Project will result in the cessation of farming on the bayward side of the new levee. When the remaining features of BMKV restoration are completed, farming will cease on the property altogether.

The site includes about 200 acres of seasonal wetlands. Wildlife that frequent the property are typical for open space of this type and include small mammals, deer, coyote and a large number and variety of raptors.

**Partner Qualifications:** Congress authorized USACE, under the Water Resources Development Act of 1999, to undertake the Hamilton Wetlands Restoration Project. The Water Resources Development Act of 2007 added BMKV to the Hamilton project. Partnering with USACE to restore BMKV would leverage federal funds that are equal to 75 percent of the project costs, as well as leverage the extensive knowledge and connections of USACE staff who have been involved in the project for many years. The Conservancy owns most of the project site and has been administering the ongoing management of the project for decades. The Conservancy hires qualified contractors to carry out the project activities and will continue to hire qualified contractors for the long-term management, maintenance, and monitoring of the project site.

**CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA:**

The proposed project is consistent with the Conservancy's Project Selection Criteria, last updated on September 23, 2021, in the following respects:

**Selection Criteria**

1. **Extent to which the project helps the Conservancy accomplishes the objectives in the Strategic Plan.**

See the "Consistency with Conservancy's Strategic Plan" section below.

2. **Project is a good investment of state resources.**

Restoring the nearly 1,900 acres covered by the BMKV project would be of major benefit to the San Francisco Bay Area and would serve as a model of large-scale restoration for the region and beyond. The BMKV Phase 1 Project has been successfully constructed, and Phase 2 would allow for full restoration of the BMKV property. The project will also add a section of the San Francisco Bay Trail, and the new levees will protect the landward community from sea level rise due to climate change. The impressive scale of the project is matched by the amount of federal funding that is available – state investment in the project would leverage federal funding equal to 75 percent of the project costs.

3. **Project includes a serious effort to engage tribes. Examples of tribal engagement include good faith, documented efforts to work with tribes traditionally and culturally affiliated to the project area.**

In 2017, when starting to plan for the BMKV Phase 1 Project, the Conservancy reached out to a tribe affiliated to the project area to offer more information or a government-to-government consultation regarding the project. Because BMKV Phase 1 required an SEIR/EIS, an updated cultural resources analysis was also conducted. In 2020 the Conservancy reached out again when planning to begin construction of BMKV Phase 1. Now that staff are requesting funds to start the BMKV Phase 2 project, the Conservancy will inform the tribe of this latest development, and will include the tribe in the actual project planning, environmental review, and future actions.

**4. Project benefits will be sustainable or resilient over the project lifespan.**

The project involves restoration of tidal marshes, which are known to buffer wave action adding an additional measure of protection to inland communities from sea level rise due to climate change. Restored wetland habitat will adjust and respond to changing sea level, which is dependent on the supply of suspended sediment in San Pablo Bay and the rate of sea-level rise. The project will deliver benefits to the Bay Area region over an extended period, as the various types of planned habitat types (tidal wetland, seasonal wetlands, high transitional marsh, upland transition) will allow for adaptation to sea level rise. Restoring tidal wetlands fronting the new outboard levee will increase flood protection and decrease the need for expensive levee updates to the existing outboard levee.

**5. Project delivers multiple benefits and significant positive impact.**

The project is one of the largest wetland restoration projects in the United States to beneficially use dredged sediment and is contributing to a regional goal of more than doubling the amount of tidal marsh in San Francisco Bay. In addition to extensive habitat benefits, the project will increase public access through construction of Bay Trail. The project also involves the Novato Baylands Stewards, a well-trusted local group that engages community members, school groups, local conservation corps, and volunteers in hands-on planting and wetlands enhancement work. The project adds value to the local economy, as many contractors will need to be hired to carry out the planning and implementation of this expansive restoration project.

**6. Project planned with meaningful community engagement and broad community support.**

The project has the support of the partnering public agencies including USACE, City of Novato, and the Marin County Flood Control and Water Conservation District, as well as Congressman Jared Huffman and local conservation groups. Novato residents, the Bel Marin Keys community, and other public members have long been involved at the project site, including through well-established groups such as the Novato Baylands Stewards and local Conservation Corps. Local residents and community groups will continue to be engaged in the process of restoring this project site.

**PROJECT FINANCING**

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| **Coastal Conservancy** | **$18,000,000** |
| **(Requesting up to $20,000,000)** | |
| Coastal Conservancy | $23,300,000 |
| (2015, 2017, and 2019 Conservancy authorizations for BMKV Phase 1) | |
| U.S. Army Corps of Engineers | $123,900,000 |
| **Project Total** | **$165,200,000** |

Conservancy funding is anticipated to come from a FY 2022/23 appropriation to the Conservancy from the General Fund for the purpose of climate resilience (Budget Act of 2022, SB 154); and/or from a FY 2022/23 appropriation from the General Fund or Greenhouse Gas

Reduction Fund for the purpose of nature-based sea level rise resilience (Budget Act of 2022, SB 178). The proposed project is consistent with these funding sources because it is a coastal resilience project that includes restoration of coastal wetlands and watersheds and will build resilience for coastal communities, public access, and critical infrastructure. The project will address sea level through tidal marsh restoration. In addition, it will help restore and enhance the ecology of San Francisco Bay ecosystems.

The Project Cooperation Agreement provides for a federal/non-federal cost-share ratio of 75 percent to 25 percent. The Conservancy is the non-federal sponsor, and its share includes a contribution of cash, lands, and staff time for project coordination. The above table summarizes the cash contributions to-date and the anticipated Conservancy cash contribution for completion; the final figure may be adjusted upon final project accounting. The Conservancy spent approximately $23,300,000 for BMKV Phase 1, and expects to contribute up to $20,000,000 for BMKV Phase 2. The Conservancy's share of project costs is estimated to be $41,300,000 out of a total cost of $165,200,000 (25 percent) for the restoration of BMKV. This project cost is based on USACE's estimate from 2013; the cost estimate will need to be updated after the PCA is amended. Total project costs cannot exceed USACE's Section 902 Cost Limit Policy, which limits the project cost to the amount authorized by Congress with inflation.

In 2007 Congress authorized the total amount needed to implement the HWRP as revised to include BMKV and authorized, in general, that non-federal sponsors may receive in-kind credit for carrying out design and construction work that is integral to authorized projects. USACE has received $1,000,000 in federal appropriations for the BMKV expansion for fiscal year 2022-23, and expects to receive $40,000,000 in federal appropriations for fiscal year 2023-24. The Conservancy expects USACE will continue to receive federal appropriations for the BMKV expansion in the coming years.

A list of previous funding actions authorized by the Conservancy for the entire HWRP can be found in Exhibit 4 and in the Conservancy Board meeting archives (https://scc.ca.gov/coastal-conservancy-board-book-archives/).

**CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:**

The project is being undertaken pursuant to Chapter 4.5 of Division 21 of the Public Resources Code (sections 31160-31165). Section 31162 authorizes the Conservancy to undertake projects in the nine-county San Francisco Bay Area to help achieve regional public access and resource goals. Consistent with Section 311162(b), the project restores critical tidal wetlands habitat and consistent with Section 311162(a), it adds a section of the San Francisco Bay Trail.

Consistent with Section 311162(c), the project assists in the implementation of the San Francisco Bay Plan, dated January 2008 (reprinted 2012), which contains policies to protect and restore marshes and mudflats: "[T]o the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased" [page 16, Policy No. 1]; "Marshes and mudflats should be maintained to the fullest possible extent to conserve fish and wildlife and to abate air and water pollution" [page 19, Policy No. 1]; "[W]here and whenever

possible, former tidal marshes and tidal flats that have been diked from the Bay should be restored to tidal action in order to replace lost historic wetlands" [page 23 Policy No. 4]; and, "Dredged materials should, if feasible, be reused or disposed outside the Bay…" and "dredging projects should maximize use of dredged material as a resource consistent with protecting and enhancing Bay natural resources, such as creating, enhancing, or restoring tidal and managed wetlands" [Page 38, Policies No.3 and 5, respectively].

The proposed project satisfies the criteria for determining project priorities under Section 31163(c):

(1) It is supported by adopted local and regional plans including the San Francisco Bay Plan, Hamilton Air Force Bay Re-Use Plan of the City of Novato, and the Long-Term Management Strategy (LTMS) for the Placement of Dredged Material in the San Francisco Bay Region;
(2) It is multi-jurisdictional and serves a regional constituency by offering opportunities for beneficial reuse of dredged material throughout San Francisco Bay and providing a resource enhancement opportunity of statewide significance;
(3) The project can be implemented in a timely way as the Corps has secured its cost-share and stands ready to continue project work;
(4) It provides benefits that could be lost with time, as tidal wetlands need to be established as soon as possible to keep pace with sea level rise; and
(5) The project includes matching funds from the federal government, which will pay 75 percent of project implementation and monitoring costs.

**CONSISTENCY WITH CONSERVANCY'S 2018-2022 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 12, Objective D** of the Conservancy's 2018-2022 Strategic Plan, the proposed project will enhance tidal wetlands, managed wetlands, seasonal wetlands, upland, habitat, and subtidal habitat by restoring approximately 1,900 acres of tidal and seasonal wetlands on the BMKV property.

**CEQA COMPLIANCE:**

In April 1999, the Conservancy certified the Environmental Impact Report/Statement for the Hamilton Wetlands Restoration project. On June 25, 2001, the Conservancy certified the Hamilton Wetland Restoration Plan Volume II EIR/EIS and approved the Feasibility Report. On June 16, 2005, the Conservancy certified the Final Supplemental Environmental Impact Report / Environmental Impact Statement for the Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project (Exhibit 5) and approved modifications to the Hamilton Wetland Restoration Plan to incorporate BMKV. The expenditure of additional funds under this authorization will enable completion of the BMKV wetlands restoration elements of the Project as described in the certified documents. Prior to authorizing funding for construction of BMKV Phase 1, the Conservancy prepared and considered the Bel Marin Keys Wetland Restoration Phase 1 Project Addendum to the Supplemental Environmental Impact Report Environmental

Impact Statement for the Bel Marin Keys Unit V Expansion of Hamilton Wetland Restoration Project ("Addendum"). Since preparation of the Addendum (Exhibit 6), there have been no project changes, new information, or changed circumstances that trigger the need for additional CEQA review of the project pursuant to 14 Cal. Code Regs. Section 15162.