

COASTAL CONSERVANCY

Staff Recommendation
February 4, 2010

**HAMILTON WETLANDS RESTORATION PROJECT
IMPLEMENTATION
BEL MARIN KEYS UNIT V EXPANSION**

Project No 94-003
Project Manager: Tom Gandesbery

RECOMMENDED ACTION: Authorization to amend the Project Cooperation Agreement between the Conservancy and the U.S. Army Corps of Engineers for the Hamilton Wetland Restoration Project to include restoration of the Bel Marin Keys Unit V property near Novato, Marin County and authorization to disburse up to an additional \$2,500,000 toward implementation of the project.

LOCATION: Southeast Novato, adjacent to and between the Bel Marin Keys residential community and Novato Creek to the north and the Gallinas Sanitary District Property to the south, along the western margin of San Pablo Bay, Marin County (Exhibit 1A and 1B)

PROGRAM CATEGORY: Resource Enhancement, San Francisco Bay Area Conservancy

EXHIBITS

- Exhibit 1: [Project Location and Site Maps](#)
 - Exhibit 2: [June 25, 2001 Staff Recommendation](#)
 - Exhibit 3: [June 16, 2005 Staff Recommendation](#)
 - Exhibit 4: [Chronology of Conservancy Board Actions](#)
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RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Chapters 4.5 and 6 of Division 21 of the Public Resources Code:

“The State Coastal Conservancy hereby:

Authorizes 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 authorizes the disbursement of an additional amount not to exceed two million five hundred thousand dollars (\$2,500,000) for implementation of the Hamilton Wetlands Restoration Project.”

Staff further recommends that the Conservancy adopt the following findings:

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

1. The proposed authorization is consistent with the Project Selection Criteria and Guidelines last updated by the Conservancy on June 4, 2009.
2. The proposed authorization is consistent with the purposes and objectives of 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, and with Chapter 6 of Division 21, concerning the enhancement of coastal and bay resources.”

PROJECT SUMMARY:

Staff recommends that the Conservancy authorize its Executive Officer to amend the Project Cooperation Agreement (“PCA”) for the Hamilton Wetland Restoration Project (the “Project”), which the Conservancy entered into with the U.S. Army Corps of Engineers (“Corps”) on April 22, 2002. The PCA establishes the Corps’s commitment to restore wetlands at the Hamilton site, largely through beneficial reuse of dredge material, and the Conservancy’s obligation to pay 25% of the total project cost. The amendment will enable the Corps to expand the restoration site to include the adjacent, 1,600 acre Bel Marin Keys Unit V property (“BMKV”). The addition of BMKV will substantially increase the size of the restored area and the amount of federal funding for the Project. The addition of BMKV will also enable the Conservancy to obtain credit for the land value of BMKV, which the Conservancy purchased in 2001. The land credit will satisfy the Conservancy’s cost share for several years. The Corps has indicated that the Conservancy’s cost share for the BMKV portion of the project will be 35%. Staff also recommends that the Conservancy authorize the expenditure of up to \$2,500,000, to be used either to satisfy a portion of the Conservancy’s cost share or to carry out components of the restoration work which may be credited towards the Conservancy’s cost share. The PCA amendment and purposes of the \$2.5 million are described in greater detail below.

Amendment of the Project Cooperation Agreement

The Conservancy and the Corps entered into the PCA in 2002, after adoption of the Hamilton Wetlands Restoration Plan/ Feasibility Report, certification of an Environmental Impact Report (“EIR”)/Environmental Impact Study (“EIS”) and authorization of the Project by Congress in the Water Resources Development Act of 1999. The Corps began construction of the Project in 2005.

The Conservancy approved modification of the Hamilton Wetland Restoration Plan to include BMKV and certified a Supplemental EIR/EIS for the Project in 2005. The Water Resources Development Act (“WRDA”) of 2007 authorized the Corps to include BMKV in the Hamilton Wetland Restoration Project. In doing so, WRDA 2007 increased the commitment of federal funding for the Project. (Public Law 110-114, Section 3018) Federal law provides that before the Corps can carry out restoration of BMKV, the PCA must be amended. (42 USCA § 1962d-5b (a)(1)). The PCA currently requires the Conservancy, as the non-federal sponsor of the Project,

to contribute 25% of the total project costs, as well as all necessary lands, easements and rights of way, which count towards the Conservancy's required cost share. However, WRDA 2007 appears to have also increased the Conservancy's cost share for BMKV to 35%.

The amendment to the PCA will provide for the Corps to restore BMKV in accordance with the Corps's Final General Reevaluation Report ("GRR") and the certified EIR/EIS for the Bel Marin Keys Unit V Expansion of the Hamilton Army Airfield Wetland Restoration Project, both dated April 2003. To accommodate the additional restoration work, the PCA amendment will increase the total Project cost to the amount authorized by WRDA 2007, as adjusted for inflation and project modifications. The amount authorized by WRDA 2007 is \$228.1 million. With inflation and allowable increases for project modifications, the Corps estimates a total project cost of approximately \$332 million. The Conservancy's share is approximately 25% for work on the Hamilton portion, 25% or 35% for work on the Bel Marin Keys portion, and 50% for all recreational features. The Conservancy's share includes lands and in-kind work.

While the Conservancy and Corps will be agreeing in the PCA amendment to spend up to the amount authorized by WRDA 2007 as adjusted for inflation and project modifications, the amount authorized is likely not adequate to construct the Project with the same volume of dredged material as described in the GRR. This is due in large part to the cost of delivering dredged material to the site, which has been several times more costly than originally estimated. The Project bears the cost difference between the delivery of dredged material to the Hamilton site, versus delivery of the material to the Deep Ocean Disposal Site and In-Bay disposal sites. Use of the disposal sites is dependent on permits issued by federal and state regulatory agencies. Thus far, the incremental cost has been significantly higher than originally estimated, therefore increasing the cost of the Project by a significant factor. But because the goal is to restore a mix of wetland habitats at Hamilton within the current authorized amount, using less dredged material than originally planned for may change the final mix of habitat types but will still allow achievement of the fundamental goal of the Project. Based on the projected incremental costs of dredged material delivery, completing the Project as described in the GRR (which calls for placement of 23-24 million cubic yards of dredged material) would require Congressional authorization to adjust the authorized cost limit upward. Conservancy staff is not pursuing a Congressional re-authorization but instead working with the Corps to implement the Project within the current Congressionally-authorized amount.

The Amendment will also revise the PCA by explicitly addressing federal law that requires the Conservancy to share the cost of public access components on a 50:50 ratio. (33 U.S.C. section 2213(c)(4)) At the time the PCA was entered into, the parties did not explicitly address the cost of trail construction. Since the Project includes a public trail, the Amendment will address the Conservancy's requirement to pay 50% of the costs to design and build the trail (and a few other public amenities). The "recreational" (public access) component of the Project is expected to cost approximately \$3.5 million.

Although the language of the PCA amendment is not yet final, it will likely reflect new federal law, enacted as part of WRDA 2007, that allows the Conservancy to receive credit towards its cost share for project implementation work conducted directly by the Conservancy. In particular, the Amendment may allow the Conservancy to receive credit for the design and construction of two levees, improvements to a third levee, and the breaching and lowering of the two existing levees. The Conservancy would receive credit toward its cost share for this work,

which is anticipated to cost approximately \$28.5 million and would allow the Conservancy greater control of project costs.

Expenditure of \$2.5 Million

Although amending the PCA will enable the Conservancy to use its BMKV land credit to satisfy its cost share for several years, the amendment will also enable the Conservancy to carry out design and construction of key features of the Project for credit. Thus, staff recommends that up to \$2.5 million of funding, most likely derived from the Habitat Conservation Fund (“HCF”), be authorized to be used for either a cash contribution to the Corps for the Project for federal fiscal year 2010 or for the Conservancy to complete the Bel Marin Keys plan and design and to start construction of key features of the Project. If the funds are not provided directly to the Corps, but instead used to plan or construct project features, the Conservancy will seek in-kind crediting towards its cost share. In the future, staff may seek additional authorization for expenditure of cash on design and construction work before the entire value of the BMKV land has been credited toward the Conservancy’s cost share.

Benefits of Current Authorization

Amending the PCA to include BMKV and expending up to \$2.5 million on the Project at this time are critical to: 1) securing millions of dollars in federal funding for the Project, 2) ensuring beneficial reuse of millions of cubic yards of sediments that will be dredged from San Francisco Bay and 3) ensuring completion of restoration of the Airfield segment of the Project, as described below:

1. If the Conservancy does not amend the PCA to include BMKV or contribute \$2.5 million to the Project, the Conservancy will not be able to provide its full cost share for the current fiscal year and, as a result, the Corps will not be able to access the full federal funding appropriated for this year. For the current fiscal year, the Corps received a \$14 million appropriation; however, the amount of non-federal funds carried over from last fiscal year is slightly less than one million dollars. That means that the most federal funding the Corps could expend on the Project this federal fiscal year would be about three million dollars. The Corps has developed budgets that show a spending capability of \$14 million (see “Financing” section below). Therefore, the Conservancy will lose federal funding for the Project if it does not provide its cost share this year either in cash, land credit, or in-kind credit.

2. The restoration relies heavily on the availability of clean dredged material in order to fill the subsided land. Up to 24 million cubic yards of sediment are needed to complete the entire Hamilton Project, including BMKV. Each year, the Corps dredges several million yards of sediment in San Francisco Bay; making it by far the largest dredger in the region. Dredged material is pumped to the site using a hydraulic offloading system moored 5.5 miles offshore of Hamilton and this system is both a critical and also very costly component of the Project. The offloader can potentially accommodate sediment delivery from dredging projects throughout the region; however, dredging in San Francisco Bay and Delta is subject to seasonal restrictions due to impacts to fisheries, Chinook salmon and herring. Thus, most dredging is carried out in the late spring to late fall, so it is critical that the Project be fully funded and operational this summer in order to coordinate offloading with dredging schedules. If the Project is not able to accept material from dredging projects this summer, then the material will most likely be disposed of at

the deep ocean disposal site located over fifty miles offshore of the Golden Gate or at one of the in-bay disposal sites (e.g. off Alcatraz Island).

3. The existing Hamilton Project has received about 5.9 million cubic yards of sediment since inception of the offloading system in 2006, which represents about 80% of the material needed to completely fill the Hamilton Airfield site. Depending upon dredging schedules, there is a strong potential that the Airfield could be brought to capacity at the end of this dredging season. Allowing the Corps to expand operations to BMKV will also allow the Corps to complete the Airfield portion without any additional cash contribution from the Conservancy, due to the value of the BMKV lands, which count towards the Conservancy's cost share.

Site Description: The Project site consists of three properties located along the western edge of San Pablo Bay, Marin County totaling nearly 2,600 acres: the 644-acre former Hamilton Airfield (including the former 18-acre Navy ballfields property), the 319-acre North Antenna Field (owned by the State Lands Commission) and the 1,585-acre BMKV property (Exhibit 1B). All of these properties are historic wetlands that were diked off from the Bay and have since subsided below sea level. Currently the Airfield is covered with sediment from dredged material offloaded in 2007 to 2009, most of which came from the Port of Oakland's -50 foot Channel Deepening Project. The site contains seven "cells" which contain about six million cubic yards of dredged sediment (Exhibit 1C).

The North Antenna Field ("NAF") site is split roughly into four quadrants. Three quadrants contain dredged material cells which are also full of sediment from the recently completed Channel Deepening Project at the Port of Oakland. The fourth quadrant is the location of contaminated soil that is pending removal by the Formerly Utilized Defense Sites program ("FUDS"). Past practices by the military resulted in soil contamination on both the Airfield and NAF. Contamination on the Airfield was remediated by the Army and Navy Base Realignment and Closure ("BRAC") program, concluding in 2006. Cleanup of residual contamination on the NAF is the responsibility of FUDS and is in-progress and expected to be completed by the fall of 2010.

The BMKV property is leased year-to-year to a farmer for oat hay production. The farmer uses about two thirds of the land at any one time to grow two crops of organically-certified hay. Construction of wetland features will displace some farming and ultimately farming would cease on the property. The site includes about 200 acres of seasonal and farmed 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.

The vast majority of sediment now on the site came from the deepening of the Port of Oakland's Channel Deepening Project; however, that project was complete in December of 2009. The Hamilton Project was one of three major reuse sites envisioned for the Port of Oakland's Channel Deepening Project. Because of this, the Congressional authorization for the Hamilton Project provided that the Project receive sediment from the Oakland Channel Deepening Project at no cost. Thus, the Hamilton Project has had to pay the incremental difference for only a small fraction of the sediment currently on the site. From this point forward, the Project will make use of sediment from various Corps maintenance dredging projects as well as non-Corps dredging projects. The Conservancy is currently working with the Corps to establish institutional

arrangements that will accommodate sediment delivery from a wide variety of non-federal projects.

Project History: A chronology of Conservancy actions is attached (Exhibit 4). WRDA of 1986 established a program within the Corps to undertake “ecosystem restoration” projects, giving the agency the ability to include such projects in its civil works program. In 1996, the Conservancy began its role as the non-federal sponsor in developing a wetland restoration plan with the Corps for the former Hamilton Airfield and adjacent properties. The San Francisco Bay Conservation and Development Commission (“BCDC”) staff has provided input to the implementation of the Project since its inception, especially as it relates to dredging projects.

In April 1999 the Conservancy adopted the Hamilton Wetlands Restoration plan and certified the EIR/EIS for the Project. The Hamilton Project was authorized by Congress in WRDA of 1999. BMKV was acquired by the Conservancy in 2001 for \$16 million. In 2003, the Conservancy and Corps finalized a restoration plan for the BMKV property. The Corps first accepted dredged sediment, or “material”, onto the site in 2006 and has placed 5.9 million cubic yards of dredged material to date. The dredged material comes from Corps and non-Corps dredging projects throughout the bay area, primarily from the Port of Oakland to date, and is needed in order to fill the site up to approximately average tidal elevations. The plan was the basis for Congressional approval in WRDA 2007 to expand the Project to include BMKV. WRDA 2007 allows for the expansion of the Project to include the BMKV property, as well as allows the sponsor to receive in-kind credit for carrying out design and construction work. An amendment to the PCA to carry out the work described in WRDA 2007 is the subject of this Staff Recommendation.

PROJECT FINANCING

Total Project Costs (WRDA 2007 Authorized Amount):

\$228 million¹

Implementation Costs through Federal Fiscal Year 2009

Conservancy

\$13.445 million²

Corps

\$42.532 million

Federal Fiscal Year 2010

Conservancy

\$ 4.375 million

Corps

\$14.000 million

Remaining Costs³

Conservancy

\$38.2⁴million

Corps

\$171.0 million

¹ Corps Federal limit (Section 902) is about \$332 million, which includes a 20% contingency and accounts for inflation through the midpoint of construction.

² Credited amount pursuant to USACOE crediting procedures.

³ Based on a total cost of \$228.1M; could be up to \$76M at the 902 limit

⁴ Assumes a \$20M land credit for BMKV property

Cost-share Policy

As the non-Federal sponsor of a congressionally authorized civil works project, the Conservancy must pay 25% to 35% percent of the cost to design and construct restoration features and 50% of the cost to design and construct recreational features, as well as provide all of the lands, easements, rights of way, and relocations required to implement the Project (which count as part of the required cost share). For federal fiscal year 2010, the Conservancy will use either land credit or cash to satisfy its cost share. Staff recommends that the cash contribution be derived from the Habitat Conservation Fund.

Expenditures

To date, the Corps has expended about \$56 million (of federal and state funding) on the Project. The main expenses were levee construction, the incremental cost to offload sediment and project staffing. The Corps estimates that an additional \$10 million to \$20 million of expenses remain before the restoration of the Airfield is complete. Staff will continue to work with the Corps to refine the budget for FY10 and beyond and to find efficiencies that will lead to a lower overall cost-to-complete. Budgeting for this Project has been challenging for a number of reasons, including a reliance on a dynamic supply of dredged material, a fluctuating federal funding stream, constraints on contracting, and escalating construction costs. Conservancy staff has identified three primary determinates in the cost of this Project: 1) offloading; 2) Corps staffing, and 3) contracting approach.

Land Credit

Given that the land value of BMKV counts towards the Conservancy's share of the Project costs, the land credit can constitute the Conservancy's cost-share for several years, depending on the level of federal appropriations for the Project. This will give the Conservancy the flexibility to rely on its credit instead of paying cash to the Corps for its share of Project costs for several years. Anticipated BMKV land credit is \$16 million to \$20 million. The Conservancy purchased the BMKV property in 2001 for \$16 million, subsequently, in 2003, the Corps published a "gross appraisal" of \$19.1 million, which reflected a value escalated to 2001 price levels.⁵ While land values in Marin County continued to rise after the Corps's preliminary appraisal, the real estate market leveled off in 2008 and may have decreased somewhat in the last two years. A new appraisal will be submitted to the Corps as part of the crediting process.

In-kind Credit

The Conservancy's staff time, as well as the costs of related consulting contracts, are eligible for in-kind credit by the Corps. To date, the Conservancy has received credit for staffing, pollution insurance and infrastructure relocation expenses of \$3,531,795.75. Conservancy Staff intends to periodically submit to the Corps in-kind credit requests for staff and consultant expenditures. The amended PCA will also allow the Conservancy to be credited for undertaking specific construction activities at BMKV.

⁵ Corps of Engineers, April 2003, General Reevaluation Report, Appendix F, Real Estate Plan.

Conservancy Cash Funding

The California Wildlife Protection Act of 1990 created the Habitat Conservation Fund to be used for, among other things, the restoration of wetlands and preservation of wildlife corridors. Fish and Game Code Section 2786(d). Therefore, the Habitat Conservation Fund is an appropriate source of funds for the Project, which is intended to restore nearly 2,600 acres of wetlands and associated habitats.

Project Cost Limits

The current PCA created an obligation for the Conservancy to pay 25 percent of the project costs (recreational elements were not addressed). In 1998/99, the Conservancy's share of project costs was estimated to be \$13,820,780 of a total project cost of \$55,283,123 (i.e., without BMKV). If escalated for inflation, that would equate to a total cost of about \$73 million in today's dollars.⁶ The total project cost above is an estimate prepared by the Corps based on the amount Congress approved in WRDA 2007, which was \$228.1 million, as adjusted by 20% to account for project modifications (e.g, construction of the trail required by permits, etc) and as adjusted for inflation, in accordance with federal law (See Public Law 99-662, Section 902). Due to additional changes in WRDA 2007, the cost-share for work carried out on the Bel Marin Keys portion may have to be shared at a 65:35 ratio, resulting in a greater required cash contribution or in-kind work for the project than for the Hamilton portion.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

Amending the PCA to include BMKV and disbursing \$2.5 million for the Project is consistent with Chapter 6 of the Conservancy's enabling legislation, Public Resources Code Sections 31251-31270. The Conservancy adopted the Hamilton Wetlands Restoration Plan on April 22, 1999 and adopted modifications to the plan to include restoration of BMKV on June 16, 2005. In these actions the Conservancy found the Hamilton Wetland Restoration Project to be consistent with Chapter 6 of Division 21, including specifically Sections 31252, 31258.5 and 31263.5 regarding the San Francisco Bay Plan and Policies and coordination with BCDC. The amendment of the PCA and the contribution of funds facilitates implementation of the plans and is also consistent with Section 31253, which authorizes the Conservancy to provide up to the total cost of any coastal resources enhancement project, including the state or local share of the federally supported projects.

Amending the PCA to include BMKV and disbursing \$2.5 million for the Project is also consistent with Chapter 4.5 of Division 21, which established the San Francisco Bay Area Conservancy Program to address resource and recreational goals of the San Francisco Bay area, including goals to protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional importance, to improve public access to and around the Bay through completion of regional trail systems, including the Bay Trail, and to assist in the implementation of the San Francisco Bay Plan and the adopted plans of local governments (Section 31162). The Project is of high priority because it meets the following criteria set forth in Section 31163(c): (1) The Project is supported by adopted local and

⁶ CPI Inflation Calculator lump sum for comparison only, not a Corps cost estimate.

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 resource enhancement opportunity of statewide significance; (3) it can be implemented in a timely way; (4) it provides opportunities for tremendous resource enhancement benefits that could be lost if the Project is not quickly implemented, in that federal dredging projects will be available and that those dredged sediments would otherwise require ocean and (5) the Project includes matching funds from the federal government, which will pay 75 percent of project costs.

**CONSISTENCY WITH CONSERVANCY’S 2007
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Amending the PCA to include BMKV and disbursing \$2.5 million for the Project is consistent with the Strategic Plan Goals and Objectives as follows:

Consistent with **Goal 10 Objectives F** of the Conservancy’s Strategic Plan, the Project will restore and enhance wetlands and other natural habitats and connecting corridors, of regional importance including 899 acres of tidal wetlands including 120 acres of sub-tidal habitat and mudflats; 277 acres of seasonal wetlands, and 247 acres of uplands to serve as buffers and wildlife corridors.

Consistent with **Goal 11 Objective E** of the Plan in that adding BMKV to the Project would create approximately two thousand feet of *additional* Bay Trail to the Project.

**CONSISTENCY WITH CONSERVANCY’S
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy’s Project Selection Criteria and Guidelines, last updated on June 4, 2009, in the following respects:

Required Criteria

1. **Promotion of the Conservancy’s statutory programs and purposes:** See the “Consistency with Conservancy’s Enabling Legislation” section above.
2. **Consistency with purposes of the funding source:** See the “Project Financing” section above.
3. **Support of the public:** Comments were received from Bel Marin Keys residents and environmentalists during the SEIR public comment period (Exhibit 4). General project support and concern was also received when the first EIS/EIR was drafted in 1998. The Project enjoys the broad support of labor, industry and environmental interests. Additionally the Project has the support of the County of Marin, City of Novato, Department of Fish and Game, the Regional Water Quality Control Board, USEPA and the National Marine Fisheries Service. The Conservancy also received numerous letters of support for the purchase of the Bel Marin Keys property in Year 2000.

4. **Location:** The site is within the nine-county San Francisco Bay Area consistent with Section 31162 of the Public Resources Code.
5. **Need:** Amendment of the Agreement is necessary in order to continue work on the Hamilton Project, as authorized and approved by the Conservancy in previous actions (Exhibit 4).
6. **Greater-than-local interest:** The majority of the Bay-Delta system's historic wetlands have been significantly altered or filled. Over 90 percent of the Bay's more than 550,000 acres of historic tidal wetlands have been lost, with a dramatic reduction in the wildlife populations that depend on them. Many Bay/Delta species have become threatened or endangered as a result of this habitat loss. This Project would permanently preserve and increase the resource value of about 2,600 acres for endangered species, fish, migratory birds, and other wildlife. The Project would also provide an upland site for beneficial reuse of material dredged from San Francisco Bay, implementing the LTMS program.
7. **Sea level rise vulnerability:** The Project involves restoration of tidal marshes, which are known to buffer wave action adding an additional measure of protection to inland communities. It is assumed that the tidal wetlands will adjust and respond to changing sea level, though this phenomenon is dependent on the supply of suspended sediment in San Pablo Bay and the rate of sea level rise.

Additional Criteria

8. **Urgency:** There are at least three things that will be lost if the PCA is not amended: 1) federal funding, 2) dredged material placement opportunity and 3) sediment capacity and flexibility. If the Conservancy does not amend the PCA, the Project will have only a fraction of the current fiscal-year's funding available to carry out the Project and may lose more than \$10 million of federal funding. Completion of the Hamilton Airfield could also be significantly delayed and impeded if the PCA is not amended.
10. **Leverage:** See the "Project Financing" section above.
12. **Innovation:** The Project features restoration of seasonally flooded tidal wetlands. These habitats are valuable resting areas for shore birds during storms and may also function as nesting areas for several special status species. The Project seeks to construct seasonally flooded tidal wetlands including, tidal "pannes", which are rare in the existing baylands. Also the restoration will be carried out in an experimental manner and lessons learned will hopefully be of value to those carrying out projects elsewhere.
13. **Readiness:** Project is currently under construction.
14. **Realization of prior Conservancy goals:** "See "Project History" above."
15. **Vulnerability from climate change impacts other than sea level rise:** Vegetation to be planted and which will grow without intervention is thought to be largely resilient to changes in climate because these plant species are also found in the wetlands of Southern California and Baja Mexico.
16. **Minimization of Greenhouse Gas Emissions:** The major energy usage in this Project is for the hydraulic offloading of sediment from barges located 5.5 miles from the restoration site. However the Project uses an electrically-driven system in order to minimize localized air

(diesel) emissions. Along with minimizing localized generation of diesel exhaust, the project is minimizing greenhouse gas (“GHG”) emissions by reducing the distance traveled by ships transporting dredged material for disposal. Much of the sediments that are offloaded at the site come from dredging projects that would otherwise ship dredged material to a designated ocean disposal site situated approximately 50 miles offshore of the Golden Gate. Because the Hamilton site is located so much closer to the point of origin of the dredged sediment, the GHG emissions of the ships are significantly lessened when material is placed at Hamilton. Furthermore, disposal at the ocean site requires ocean-going barge tugs and scows which generate more diesel emissions, and hence GHGs than bay-running equipment. Lastly, the Army Corps has specified in recent contact solicitations that onsite construction equipment comply with the latest emissions standards for diesel trucks (e.g. particulate filters). Also GHG emissions were reduced in 2007, when the Project opted to grind road base onsite by recycling onsite concrete from the former Airfield runway and taxiways rather than import rock from a Marin county quarry. This change reduced heavy truck traffic transiting to the site by 80-85%.

CONSISTENCY WITH SAN FRANCISCO BAY PLAN:

The Project helps implement BCDC’s San Francisco Bay Plan, dated January 2008 which contains policies to protect and restore marshes and mudflats : “to 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]; “where 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 further, “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 Bay Plan identifies the Hamilton Airfield and coastal salt marsh area as high-priority areas for wildlife use. The plan was amended (Bay Plan Amendment No. 1-95) to change the airport priority use designation and policy note for the former Hamilton airfield parcel. The plan contains the following policy:

“Develop comprehensive wetlands habitat plan and long-term management program for restoring and enhancing wetlands habitat in diked former tidal wetlands. Dredged materials should be used whenever feasible and environmentally acceptable to facilitate wetlands restoration.”

Therefore, amending the PCA to include BMKV and disbursing \$2.5 million toward the Project is consistent with the San Francisco Bay Plan.

COMPLIANCE WITH CEQA:

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 and approved modifications to the Hamilton Wetland Restoration Plan to incorporate BMKV. The Staff Recommendations for these actions are attached as Exhibits 2 and 3. The amendment to the PCA and the expenditure of \$2.5 million for the Project both facilitate implementation of the approved Hamilton Wetland Restoration Plan. There have been no substantial changes in the Project or in the circumstances under which the Project is undertaken that would trigger the need for revision of the certified EIR/EIS and Supplemental EIR/EIS.