



DEPARTMENT OF THE ARMY  
OFFICE OF THE CHIEF OF ENGINEERS  
WASHINGTON, D.C. 20314-1000

REPLY TO  
ATTENTION OF:

JUL 19 2004

CEMP-SPD (1105-2-10a)

SUBJECT: Hamilton Army Airfield Wetland Restoration, California

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on modifying the Hamilton Army Airfield Wetland Restoration, California project. It is accompanied by the report of the district and division engineers. These reports are in partial response to a resolution adopted by the Committee on Environment and Public Works of the United States Senate on 29 October 1997. The Senate resolution requested a review of the report of Chief of Engineers on San Francisco Bay and Tributaries and any other pertinent reports to determine the advisability of ecosystem restoration and protection, including restoring tidal and seasonal wetlands, at the Hamilton Army Airfield and adjacent properties on San Pablo Bay, Marin County, California. Pre-construction engineering and design activities for the HWRP will continue under the authority provided by the existing project and the resolutions cited above.

2. The reporting officers recommend modifying the authorized HWRP to include the Bel Marin Keys Unit V (BMK V) site (the modified HWRP). This modification adds the BMK V site and reflects an increased cost for the original HWRP. Section 101(b) (3) of the Water Resources Development Act of 1999 (WRDA 1999) authorized construction of the Hamilton Wetland Restoration Project (HWRP). The currently authorized HWRP would restore approximately 990 acres of habitat, including 570 acres of coastal salt marsh and seasonal wetlands, along with 120 acres of tidal channels and intertidal habitats. The sponsor of the HWRP, the California State Coastal Conservancy, will remain the sponsor for the modified HWRP. The modified HWRP would include an additional 1,600 acres including about 900 acres of tidal wetlands and about 680 acres of non-tidal and freshwater wetlands as well as upland, subtidal, and non-wetland tidal habitats, for a total acreage of approximately 2,600 acres for the expanded site. The purpose of the modified HWRP is consistent with that of the currently authorized HWRP, i.e., to: (i) prepare the expanded site through a system of levees, channels and other structures, for the creation of salt water marsh habitat by the introduction of sea water from San Pablo Bay to help remedy the regional decline in such habitat; (ii) to provide Federal and non-Federal navigation projects in the San Francisco Bay area a location to dispose of dredged material in a manner beneficial to the environment (as the placement of such material will expedite and enhance the creation of the desired salt water marsh habitat), and to help fund the placement of such material. The recommended plan for the modified HWRP would provide for ecosystem and

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wetland restoration through beneficial reuse of dredged material, and for recreation, and involves the construction of 21,000 feet of new levees; 36,400 feet of improved levees; 19,200 feet of phase containment levees; and, 18,200 feet of intertidal berms. The recommended plan includes excavation of two tidal inlet channels. In addition, the recommended plan calls for placing 13,800,000 cubic yards of dredged material on the modified HWRP to raise elevations suitable to a variety of habitats. This amount is in addition to the 10,600,000 cubic yards of dredged material for the currently authorized HWRP, for a total of approximately 24,400,000 cubic yards of dredged material planned for the modified HWRP. The dredged material will come from nearby navigation projects, either new construction or maintenance of Federal and non-Federal projects. To facilitate placement of the dredged material, a hydraulic offloader would be placed in San Pablo Bay and a pipeline would be installed to connect the offloader to the modified HWRP.

3. The recommended plan for the modified HWRP is the national ecosystem restoration (NER) plan and replaces the plan authorized by Section 101(b)(3) of WRDA 1999. Modifying the HWRP to include the BMK V site would create an aquatic and ecologically related habitat area totaling approximately 2,600 acres. The modified project would provide 876 average annual habitat units (AAHU) for a wide variety of marsh and estuarine species of animals. About 526 AAHU would be attributable to the recommended restoration actions on the BMK V portion of the modified HWRP. Federally listed threatened and endangered species that are expected to benefit from a modified HWRP include the salt marsh harvest mouse, the winter-run Chinook salmon, the California brown pelican, and the California clapper rail. The tidal and seasonal wetland complex restored by this project, including establishment of vegetation and repopulation of wildlife, is expected to develop naturally over time. The Long Term Management Strategy (LTMS) Management Plan for dredging and disposal activities in San Francisco Bay, developed by an interagency Federal-State planning team, has been implemented and supports the beneficial use of dredged material. A small number of recreation features are also included in the recommended plan.

4. Based on October 2003 price levels, the estimated first cost for the modified HWRP including the already authorized project and the BMK V addition is estimated at \$192,900,000. This total first cost of the project includes about \$192,714,000 for ecosystem restoration through beneficial use of dredged material and about \$186,000 for recreation. The average annualized project cost is \$15,033,000 based on a discount rate of 5.625 percent, a 50-year period of economic analysis, and a 13-year period of construction. The Federal cost of the modified HWRP is estimated at \$144,628,500 and the non-Federal cost is estimated at \$48,271,500. Consistent with principles established by Section 204 of the Water Resources Development Act (WRDA) of 1992, as amended, the cost-sharing formula for ecologically beneficial use of dredged material would be 75 percent Federal and 25 percent non-Federal. The Federal cost of the modified HWRP wetland restoration and dredged material disposal features is estimated at \$144,535,500, and the non-

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Federal cost is estimated at \$48,178,500, including approximately \$12,170,000 for 13 years of monitoring (\$5,600,000) and adaptive management (\$6,570,000) necessary to ensure the success of the modified HWRP. The estimated first cost includes approximately \$30 million for assumption by the modified HWRP of the incremental costs of transportation of dredged material ("excess transportation costs"), above the least-cost environmentally acceptable disposal plan designated in accordance with the LTMS Management Plan for Placement of Dredged Material in the San Francisco Bay Region, as explained in the next paragraph. The estimated total first cost also incorporates recreational development features appropriate to an ecosystem restoration project, including restroom, display boards/kiosks, a parking lot, and a segment of the San Francisco Bay Trail. These separable recreational features are projected to cost \$186,000, and based on the cost sharing requirements of the Water Resources Development Act of 1986, the costs would be shared 50 percent Federal and 50 percent non-Federal. Thus, the Federal cost of the modified HWRP recreation features are estimated at \$93,000, and the non-Federal cost is estimated at \$93,000. Average annual recreation costs are \$11,200 and average annual recreation benefits are \$534,000, for a recreation benefit-to-cost ratio of 48 to 1. The total annual operation and maintenance costs for the modified HWRP, which are the responsibility of the non-Federal sponsor, are estimated to be \$896,000.

5. The rate at which wetlands will be formed on this project is dependent on the availability of dredged materials, which in turn is dependent on the construction and implementation schedules of the separately authorized and funded new work navigation projects, and of the operations and maintenance dredging activities associated with existing authorized Federal navigation projects and non-Federal channels and berthing areas within the San Francisco Bay region. The recommended plan is based on the Corps' best estimates as to the dredging cycles and maintenance schedules. It is estimated that 24,400,000 cubic yards of material will be available for placement at the modified HWRP within the anticipated project construction time frame (not including the 13-year period for monitoring and adaptive management). To the extent that dredged material is not forthcoming on the anticipated schedule, the environmental benefits of the modified HWRP will still be realized, but at a slower rate, as the dredged materials facilitate the marsh habitat formation. The first costs of the modified HWRP include the incremental transportation and placement costs at the modified HWRP of those Federal navigation projects that currently have permission to dispose nearby within San Francisco Bay, as well as fund the incremental transportation and placement costs associated with dredged materials from non-Federal dredging activities with similar access to In-Bay sites.

6. The modified HWRP will be utilized by local navigation projects within San Francisco Bay and dredging activities as a disposal site. These projects and activities will fund much, but not all, of the costs of site preparation, offloading and material placement incident to the disposal of their dredged material at the modified HWRP as described in the reporting officers report. These costs are not included in the \$192,900,000 first costs of the project described above, as they

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would be contingent on the progress of dredging work and therefore outside the scope of the modified HWRP authorization. The estimated total costs to be borne by these other projects and activities, based on current projections, are \$114,900,000, of which \$25,400,000 is associated with new work navigation projects, and \$89,500,000 is associated with Federal and non-Federal dredging and disposal activities. These funds are excluded from the computation of project first costs, or total project costs, of the modified HWRP for purposes of cost-sharing with the Non-Federal Sponsor and for purposes of Section 902 of WRDA 1986, as amended, and come from three categories of activities:

a. New Navigation Projects Including the Oakland Harbor Navigation Improvement (-50 foot) Project (Oakland Project). As provided in my recommendation dated 21 April 1999, and subsequently incorporated into Section 101(a)(7) of WRDA 1999, the Oakland Project is committed to funding the full incremental cost of site preparation, offloading and placement of its dredged material at HWRP, pursuant to Section 204 of WRDA 1992, as amended, to the extent it utilizes HWRP for this purpose. This commitment is incorporated in the July 2001 Project Cooperation Agreement between the Government and the City of Oakland. The current estimate for the amount to be received from the Oakland Project is \$25,400,000.

b. Corps and other Federal Operation and Maintenance (O&M) of Navigation Channels Throughout the San Francisco Bay Region. To the extent such projects use the modified HWRP site for disposal, much of the cost of material placement would be funded by such projects. However, in order not to unfairly burden Federal O&M appropriation accounts, these costs will not be calculated based on the full incremental cost of site preparation, offloading and placement of the material at the modified HWRP site, but rather will be calculated so as not to cost the affected O&M projects more than they would have incurred had there been no modified HWRP, as follows. Where the cost incurred by a Federal dredging project to transport dredged material to the modified HWRP site would be less than the cost of transportation to, and disposal at, the project's least-cost environmentally acceptable alternative disposal site (such as the San Francisco Deep Ocean Disposal Site), that maintenance dredging project would provide an amount equivalent to that differential to the modified HWRP. It is estimated that the amounts forthcoming from these sources will amount to about \$77,000,000. As it is also estimated that these funds will not cover the full incremental cost of these projects' site preparation, offloading and material placement at the modified HWRP, the funds necessary to make up the difference are included in the first costs of the modified HWRP as described above in paragraph 4.

c. Non-Federal Dredging and Disposal Activities. The modified HWRP can accept dredged material from non-Federal navigation activities. Where the cost incurred by a non-Federal dredging activity to transport dredged material to the modified HWRP site would be less than the cost of transportation to, and disposal at, the activity's least-cost environmentally acceptable alternative disposal site (such as the San Francisco Deep Ocean Disposal Site), that

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maintenance dredging activity would fund an amount equivalent to that differential by the modified HWRP, in order to capture the value of the special benefit to the recipient pursuant to Federal law, 31 U.S.C. 9701, as implemented by OMB Circular No. A-25. The non-Federal project will not incur costs beyond its least-cost environmentally acceptable alternative disposal site, and any additional funds needed to provide the full incremental cost of site preparation, offloading and material placement at the modified HWRP site are included in the first costs of the modified HWRP as described above in paragraph 4. It is estimated that the amounts forthcoming from this source will amount to about \$12,500,000. However, pursuant to Federal law, such amounts will be credited to the general fund of the U.S. Treasury as miscellaneous receipts, in the absence of explicit statutory authority authorizing the modified HWRP to use such funds without further appropriation. I recommend that for the modified HWRP plan recommended herein, that any new project authorization specifically allow the Secretary of the Army to use such funds without further appropriation. Should such statutory authority not be provided the modified HWRP project could still be constructed and projected benefits realized over a longer time horizon through reliance on natural sedimentation processes.

d. The Table below summarizes the anticipated funding above project first costs:

*Oct 2003*

	Federal Construction Costs (\$)	Non-Federal Construction Costs (\$)	Total Costs (\$)
Wetland Restoration through Beneficial Use of Dredged Material	144,535,500	48,178,500	192,714,000
Recreation	93,000	93,000	186,000
SUBTOTAL	144,628,500	48,271,500	192,900,000
<b>OTHER NAVIGATION COSTS</b>			
→ Incremental Costs (Oakland)	19,050,000	6,350,000	25,400,000
Federal Operation and Maintenance Dredging	77,000,000		77,000,000
Non-Federal Operation and Maintenance Dredging		12,500,000	( )
SUBTOTAL	96,050,000	18,850,000	114,900,000
TOTAL	240,678,500	67,121,500	307,800,000

7. Washington level review indicates that the plan recommended by the reporting officers is technically sound, economically justified, and environmentally and socially acceptable. The plan

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~~conforms with essential elements of the U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies and complies with other administrative and legislative policies and guidelines. Also, the views of interested parties, including Federal, State and local agencies, have been considered.~~

8. There are ongoing and potential future remediation activities, including Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. 9601-9675, covered actions, on the property necessary for the wetland project being conducted by the Department of the Army under the Base Realignment and Closure and Formerly Used Defense Sites programs. The performance and payment for these remediation activities will not be the responsibility of the Civil Works program of the U.S. Army Corps of Engineers or the non-Federal sponsor, except to the extent the pertinent Project construction activities principally accomplish design objectives in direct performance of the Project's ecosystem restoration or recreation functions, and only incidentally result in the accomplishment of the remediation objectives of other components of the Federal Government. All such other activities that are not conducted principally to accomplish ecosystem restoration functions, including funding, will be the responsibility of other parts of the Federal Government, as required by the applicable law.

9. I concur in the findings, conclusions, and recommendations of the reporting officers. Accordingly, I recommend that the HWRP be modified in accordance with the reporting officers' recommended plan. My recommendation is subject to cost sharing and financing and other applicable requirements of Federal and State laws and policies, including WRDA 1986, as amended by WRDA 1996. Also, this recommendation is subject to the non-Federal sponsor agreeing to comply with applicable Federal laws and policies, and that it shall be responsible for the following items of local cooperation:

a. Provide 25 percent of the separable project costs allocated to ecosystem and wetland restoration (through beneficial reuse of dredged material) and 50 percent of the separable project costs allocated to recreation, as further specified below:

(1) Enter into an agreement which provides, prior to execution of a project cooperation agreement for the project, 25 percent of design costs;

(2) Provide, during construction, any additional funds needed to cover the non-federal share of design costs;

(3) Provide all lands, easements, and rights-of-way and perform or assure the performance of all relocations determined by the Government to be necessary for the construction, operation, and maintenance of the project;

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(4) Provide or pay to the Government the cost of providing all retaining dikes, wasteweirs, bulkheads, and embankments, including all monitoring features and stilling basins, that may be required at any dredged or excavated material disposal areas required for the construction, operation, and maintenance of the project; and

(5) Provide, during construction, any additional costs as necessary to make its total contribution equal to 25 percent of the separable project costs allocated to wetland restoration and 50 percent of the separable project costs allocated to recreation.

b. Assume responsibility for operating, maintaining, replacing, repairing, and rehabilitating the completed project, or functional portion of the project, including mitigation features, at no cost to the Government, in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and any specific directions prescribed by the Government. This provision does not preclude the non-Federal sponsor from transferring this responsibility to a willing Federal agency, such as the U.S. Fish and Wildlife Service, at a later date.

c. Give the Government a right to enter, at reasonable times and in a reasonable manner, upon land which the local sponsor owns or controls for access to the project for the purpose of inspection; and, if necessary, for the purpose of completing, operating, maintaining, repairing, replacing, or rehabilitating the project.

d. Comply with Section 221 of Public Law 91-611, Flood Control Act of 1970, as amended, and Section 103 of the Water Resources Development Act of 1986, Public Law 99-662, as amended, which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until the non-Federal sponsor has entered into a written agreement to furnish its required cooperation for the project or separable element.

e. Hold and save the Government free from all damages arising for the construction, operation, maintenance, repair, replacement, and rehabilitation of the project and any project-related betterments, except for damages due to the fault or negligence of the Government or the Government's contractors.

f. Keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project to the extent and in such detail as will properly reflect total project costs.

g. Perform, or cause to be performed, for all parcels comprising the project on which there are no ongoing or potential future remediation activities conducted by the Department of

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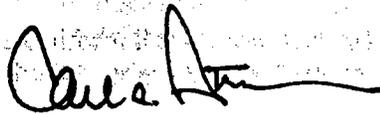
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m. Provide the non-Federal share of that portion of the costs of archeological data recovery activities associated with historic preservation, that are in excess of 1 percent of the total amount authorized to be appropriated for the project, in accordance with cost sharing provisions of the agreement;

n. Not use Federal funds to meet the non-Federal sponsor's share of total project costs unless the Federal granting agency verifies in writing that the expenditure of such funds is authorized.

o. Provide and maintain necessary access roads, parking areas, and other public use facilities, open and available to all on equal terms.

10. The recommendation contained herein reflects the information available at this time and current departmental policies governing formulation of individual projects. It does not reflect program and budgeting priorities inherent in the formulation of a national civil works construction program, nor the perspective of higher review levels within the executive branch. Consequently, the recommendation may be modified before it is transmitted to the Congress as a proposal for authorization and implementation funding. However, prior to transmittal to the Congress, the sponsor, the State, interested Federal agencies; and other parties will be advised of any significant modifications and will be afforded an opportunity to comment further.



CARL A. STROCK  
Major General, U.S. Army  
Chief of Engineers