



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

REPLY TO  
ATTENTION OF:

03 JAN 2005

CEMP-SPD (1105-2-10a)

SUBJECT: Salt River (Va Shly'ay Akimel), Maricopa County, Arizona

THE SECRETARY OF THE ARMY

1. I submit, for transmission to Congress, my report on the study of ecosystem restoration and recreation opportunities on the Salt River (Va Shly'ay Akimel), Maricopa County, Arizona. It is accompanied by the report of the district and division engineers. These reports are in partial response to Section 6 of the Flood Control Act of 1938 and a resolution adopted by the Committee on Public Works and Transportation of the House of Representatives on 17 May 1994. The statute and the resolution requested a review of reports for the State of Arizona to determine whether modifications of the recommendations contained therein are advisable at the present time in the interest of flood damage reduction, environmental protection and restoration, and related purposes. This is the authority under which pre-construction engineering and design activities will continue.

2. The reporting officers recommend authorization of a plan to restore ecosystem functions and values to about a 14-mile reach of the Salt River, within the Salt River Pima-Maricopa Indian Community and the City of Mesa, beginning immediately downstream of the Granite Reef Dam and continuing down to the Pima Freeway and the Red Mountain Freeway interchange. The recommended plan includes the following measures to support the restoration plantings:

- Reshaping of abandoned quarry pits and the river channel to provide a low-flow channel and terraces.
- Construction of new drainage channels, irrigation diversions and pipelines, and/or spillways.
- Installation of a groundwater well to nourish vegetation planted on the terraces along the river.
- Construction of a grade control structure across the channel at the abandoned Gilbert Road quarry.
- A passive recreation plan consisting of approximately 5.1 miles of multi-use decomposed-granite trails, parking lots with trailheads, rest stops spaced approximately at one per mile, and interpretive signs.

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3. Additionally, the reporting officers recommend that the U. S. Army Corps of Engineers participate in cost-shared monitoring and minor modifications, as may be required to ensure success of the project, as identified and described within the monitoring and adaptive management plan of the report. The reporting officers further recommend that the plans, recommended herein, be exempt from regulations of the Clean Water Act, pursuant to Section 404(r) of the Clean Water Act. The 404(r) exemption will cover the construction phase and the operation and maintenance phase of the project, as described in the feasibility report and environmental impact statement.

4. Based on October 2003 price levels, the estimated total first cost of the recommended plan is \$138,970,000. In accordance with cost sharing provisions of the Water Resources Development Act of 1986, as amended, the Federal share of total project cost would be approximately \$90,130,000 and the non-Federal share would be approximately \$48,840,000. The estimated total first cost for the ecosystem restoration portion of the recommended plan is \$137,600,000, and cost shared 65 percent Federal and 35 percent non-Federal, has an estimated Federal cost of \$89,400,000 and an estimated non-Federal cost of \$48,200,000. The estimated total first cost of the plan includes approximately \$4,300,000 for 5 years of monitoring and adaptive management necessary to ensure success of the project. Additionally, the total first cost includes the cost of the recreation portion of the project, estimated at \$1,370,000. Recreation features are cost shared 50 percent Federal and 50 percent non-Federal, and have an estimated Federal cost of \$685,000 and an estimated non-Federal cost of \$685,000. The total estimated annual operation and maintenance costs for the project, which are the responsibility of the non-Federal sponsors, are estimated to be \$390,000, with an associated non-Federal sponsors water cost of \$1,280,000 annually. The Salt River Pima-Maricopa Indian Community and the City of Mesa are the non-Federal sponsors for the project.

5. The recommended plan for the Salt River (Va Shly'ay Akimel) ecosystem restoration project would restore and improve approximately 1,485 acres of habitat, including 880 acres of Cottonwood/willow community, 380 acres of mesquite bosque, 200 acres of wetlands, and 25 acres of Sonoran desert scrub shrub. Restoration of this resource in this urban setting is significant because riparian areas in the Southwest represent only one percent of the landscape, yet the survival of more than 75 percent of wildlife in the West is dependant on riparian areas. In Arizona, over 90 percent of riparian areas have been lost due to impacts from European settlement and urbanization. To ensure recommendation of an efficient plan, the alternative ecosystem restoration plans were evaluated using functional assessment, cost effectiveness, and incremental analysis techniques. The cost of the recommended ecosystem restoration features are justified by the increase of 1,006 average annual functional capacity units and by achieving ecosystem function increases in the most cost effective manner. The recommended plan would reconnect wildlife corridors, restore wildlife habitat for species significant to Maricopa County as well as the arid Southwest, provide potential habitat for threatened and endangered species, and

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restore threatened plant communities of cottonwood/willow riparian forest, seasonal wetlands, and mesquite bosque. The recommended plan is the national ecosystem restoration plan and is the plan that is locally preferred. Based on October 2003 price levels and a discount rate of 5.625, the recreation plan provides average annual benefits of about \$510,000 which when compared to average annual costs of about \$339,000 results in a benefit to cost ratio of 1.5. Additionally, high- and low-flow water harvesting channels on the Finger Rock Wash tributary in the recommended plan would provide incidental flood damage reduction benefits of about \$260,000 annually.

6. I concur with the findings, conclusions, and recommendation of the reporting officers. Accordingly, I recommend that the Salt River (Va Shly'ay Akimel), Maricopa County, Arizona, project be constructed in accordance with the reporting officers' recommended plan. My recommendation is subject to cost sharing, financing, and other applicable requirements of Federal and State laws and policies, including the Water Resources Development Act (WRDA) of 1986, as amended by WRDA 1996. Federal implementation of the authorized project would be subject to the non-Federal sponsors agreeing to comply with applicable Federal laws and policies, including but not limited to:

a. Provide 35 percent of the separable project costs allocated to environmental restoration 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, including suitable borrow and dredged or excavated material disposal areas, 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;

(4) Provide or pay to the Government the cost of providing all retaining dikes, waste weirs, 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 35 percent of the separable project costs allocated to environmental restoration and 50 percent of the separable project costs allocated to recreation.

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b. For so long as the project remains authorized, operate, maintain, repair, replace, and rehabilitate 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 in the OMR&R manual and any subsequent amendments thereto.

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, any investigations for hazardous substances that are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601-9675, that may exist in, on, or under lands, easements or rights-of-way necessary for the construction, operation, and maintenance of the project; except that the non-Federal sponsor shall not perform such investigations on lands, easements, or rights-of-way that the Government determines to be subject to the navigation servitude without prior specific written direction by the Government.

h. Assume complete financial responsibility for all necessary cleanup and response costs of any CERCLA regulated materials located in, on, or under lands, easements, or rights-of-way that the Government determines necessary for the construction, operation, or maintenance of the project.

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i. To the maximum extent practicable, operate, maintain, repair, replace, and rehabilitate the project and otherwise perform its obligations in a manner that will not cause liability to arise under CERCLA.

j. Prevent future encroachments on project lands, easements, and rights-of-way, which might interfere with the proper functioning of the project.

k. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended by title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 CFR part 24, in acquiring lands, easements, and rights-of-way, and performing relocations for construction, operation, and maintenance of the project, and inform all affected persons of applicable benefits, policies, and procedures in connection with said act.

l. Comply with all applicable Federal and State laws and regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d) and Defense Directive 5500.11 issued pursuant thereto; Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army"; and all applicable federal labor standards requirements including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)).

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.

p. For so long as the project remains authorized, provide the quantity of water for such periods that the Government determines is necessary to construct, operate, repair, replace, rehabilitate, and otherwise maintain the project.

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7. 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 or 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 sponsors, 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  
Lieutenant General, US Army  
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