



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

REPLY TO  
ATTENTION OF:

29 DEC 2000

CECW-P (10-1-7a)

SUBJECT: Ohio River Ecosystem Restoration Program, Kentucky, Illinois, Indiana, Ohio, Pennsylvania, and West Virginia

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on ecosystem restoration along the Ohio River corridor within the States of Kentucky, Illinois, Indiana, Ohio, Pennsylvania, and West Virginia. It is accompanied by the report of district and division engineers. This interim report was prepared under the broader Ohio River Mainstem Systems Study (ORMSS) which is investigating the navigation needs of the system. An interim report on ecosystem restoration was prepared because early study coordination efforts revealed strong support among Federal and State resources agencies for a comprehensive restoration plan. The ORMSS is being conducted in response to a resolution adopted by the Committee on Public Works of the United States Senate dated 16 May 1955, which directed a review of the comprehensive plan for the Ohio River basin. Further authority was provided through a resolution adopted on 11 March 1982 by the Committee on Public Works and Transportation of the House of Representatives that directed a review of specific navigation improvement on the upper Ohio River.

2. Section 101(b)(16) of the Water Resources Development Act of 2000 (WRDA 2000) authorized the Ohio River, Kentucky, Illinois, Indiana, Ohio, Pennsylvania, and West Virginia projects for ecosystem restoration subject to the completion of a favorable report of the Chief of Engineers not later than 31 December 2000 and subject to the conditions recommended in that final report. The authorizing language for the program does not account for the costs of developing a Program Implementation Plan and periodic program assessments that will not be subject to cost sharing. The cost estimate for the authorized program has been revised in this report to correct this oversight. This report also includes recommendations for including appropriate recreation development at projects implemented under the program. Otherwise, the recommendations of this report are consistent with WRDA 2000, including the provisions of Section 101(b)(16)(B) which provide for the non-Federal share of projects to be in the form of cash, in-kind services, or materials and for non-Federal interests to receive credit for the cost of design and construction carried out by the non-Federal interest before the date of execution of a project cooperation agreement, if the Secretary determines that the work is integral to the project. This report constitutes the final report of the Chief of Engineers required by WRDA 2000.

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3. The district and division engineers recommend the following for authorization of an Ohio River Ecosystem Restoration Program:

a. A comprehensive, managed ecosystem restoration program for the Ohio River corridor consistent with current law and U.S. Army Corps of Engineers policy.

b. A program with maximum Federal funding of \$10 million annually for each of the first 5 years and \$15 million annually for the next 10 years.

c. The creation of a partnership, composed of representatives from government resource agencies, universities, and other environmental concerns, for monitoring, evaluating, and managing the Ohio River ecosystem.

d. A corridor-wide inventory of ecosystem resources and development of a Program Implementation Plan to define ecosystem goals and prioritize restoration efforts and assessments of the program in its eighth and fourteenth years.

e. Implementation of site-specific projects to accomplish program ecosystem restoration goals to include appropriate recreation features. Non-Federal sponsors would be responsible for a share of the costs to plan, design, construct, and monitor site-specific projects (i.e., ecosystem restoration, 35 percent; recreation, 50 percent) and for 100 percent of operation, maintenance, repair, rehabilitation, and replacement.

4. The cost of the authorized program is estimated at \$306,400,000 (October 2000 price levels). This amount includes an estimated \$2,400,000 in Federal funding to conduct the resource inventory, develop the Program Implementation Plan, and perform program assessments. The remainder of program cost, \$304,000,000, is for the implementation of site-specific ecosystem restoration projects. Consistent with current policy, limited recreation development at site-specific ecosystem restoration projects will be considered. Program costs for project implementation have not been allocated to ecosystem restoration and recreation purposes. For the purpose of this report, all project implementation costs are allocated to ecosystem restoration. Actual project implementation costs will be allocated to ecosystem restoration and recreation purposes and cost-shared in accordance with the provisions of Public Law 99-662, Section 103, as amended. The estimated Federal cost of the program is \$200,000,000 and the estimated non-Federal cost is \$106,400,000.

5. The authorized ecosystem restoration program for the Ohio River mainstem corridor will provide integrated ecosystem benefits for multiple resource categories including wetlands, bottomland hardwood forests, and the aquatic environment. The report identified specific goals for restoration of several types of habitats. While direct, measurable benefits will result from implementation of individual projects, the integrated ecosystem approach to the program will

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create a synergy among habitat types and the species present. In this context, the interconnection of the river and associated floodplain, with the various habitat types of each, will be considered as an ecosystem complex. Species that utilize the diversity of habitats throughout the complex will benefit from an environment that more closely resembles the natural, self-sustaining systems to which they are adapted. The result will be improvement of biodiversity both in the Ohio River corridor and throughout other areas of the hemisphere utilized by these species. The Ohio River ecosystem restoration program will benefit endangered species, such as the Indiana Bat, Interior Least Tern, and various species of freshwater mussels. Birdwatchers, hunters, and fishermen will benefit from increased populations of birds, game, and aquatic life. Local communities, along the entire 981-mile length of the Ohio River will also derive environmental benefits as a result of the program authorization.

6. The report of the district and division engineers estimates that the opportunity exists through this program to restore 25,000 acres of bottomland hardwood forests, 1,250 acres of aquatic habitat, 40 islands, 100 miles of riparian habitat, and 25,000 acres of wetlands along the Ohio River corridor. It is expected that the overall benefits of a comprehensive ecosystems restoration program for the Ohio River mainstem corridor will justify the cost of the program. The effects of the individual site-specific projects to be implemented under the program authority will be evaluated during pre-construction planning and design. The environmental outputs of each project will be measured in appropriate habitat-based units, and each project will be justified based on the significance of the resource to be restored and the principles of cost effectiveness and incremental cost analysis. The separable costs of associated recreation features will be justified in monetary units.

7. Washington level review indicates that the recommended program authority is necessary to achieve comprehensive restoration of the Ohio River mainstem ecosystem. Individual projects to be implemented under the program will be technically sound, environmentally justified, cost effective, and socially acceptable. Projects will conform 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 comply with other administration and legislative policies and guidelines. The views of interested parties, including Federal, State and local agencies have been considered relative to the program. It is expected that non-Federal sponsors of individual projects will be the States of Kentucky, Illinois, Indiana, Ohio, Pennsylvania, and West Virginia, as well as other non-Federal entities.

8. I concur in the findings, conclusions, and recommendations of the reporting officers. Accordingly, I recommend implementation of the authorized program in accordance with the reporting officers' plan with such modifications as in the discretion of the Chief of Engineers may be necessary and advisable. I recommend cost sharing for site-specific projects as required by Section 103 of Public Law 99-662, as amended by Section 210 of Public Law 104-303. Under these acts, the non-Federal sponsor is required to provide 35 percent of total project costs

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allocated to ecosystem restoration and 50 percent of total project costs allocated to recreation. The non-Federal sponsor for each individual project will provide, and receive credit for the value of, the lands, easements, rights-of-way, relocations, and disposal areas. In accordance with Section 101(b)(16)(B) of WRDA 2000, the non-Federal share of ecosystem restoration projects may be in the form of cash, in-kind services, or materials; and credit will be afforded for the cost of design and construction carried out by the non-Federal interest before the date of execution of a local cooperation agreement for the project, if the Secretary determines that the work is integral to the project. Further, the non-Federal sponsor will be responsible for 100 percent of the operation, maintenance, repair, replacement, and rehabilitation of each individual project. The program implementation and assessment activities identified in paragraph 3.d will be 100 percent federally funded. Based on the recommended cost sharing, the Federal share of total program costs would be about \$200,000,000 and the non-Federal share of total program costs would be about \$106,400,000. My recommendation is subject to the non-Federal sponsors agreeing to comply with applicable Federal laws and policies, including the following requirements:

a. Provide 35 percent of the separable project costs allocated to ecosystem restoration and 50 percent of the separable project costs allocated to recreation, as further specified below:

(1) Provide, during construction, any funds needed to cover the non-Federal share of design costs;

(2) 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;

(3) 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

(4) Provide, during construction, any additional costs as necessary to make its total contribution equal to 35 percent of the separable project costs allocated to ecosystem restoration and 50 percent of the separable project costs allocated to recreation.

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

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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 during 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. These documents would be made available for public inspection at reasonable times during normal business hours.

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 USC 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.

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.

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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 Section 601 of the Civil Rights Act of 1964, Public Law 88-352, and Department of Defense Directive 5500.11 issued pursuant thereto, as well as Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army."

m. Provide the non-Federal share of that portion of total cultural resource preservation mitigation and data recovery costs attributable to environmental restoration and recreation that are in excess of 1 percent of the total amount authorized to be appropriated for environmental restoration and recreation.

n. Do not use Federal funds to meet the non-Federal sponsors' 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.

  
ROBERT B. FLOWERS  
Lieutenant General, U.S. Army  
Chief of Engineers