



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

JAN 25 2006

REPLY TO
ATTENTION OF:

CEMP-NAD (1105-2-10a)

SUBJECT: Town of Bloomsburg, Columbia County, Pennsylvania

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on the study of flood damage reduction in the town of Bloomsburg, Columbia County, Pennsylvania. It is accompanied by the report of the district and division engineers. These reports are in response to a resolution of the Committee on Transportation and Infrastructure of the House of Representatives, adopted 14 September 1995. This resolution directs the Secretary of the Army to *"review the report of the Chief of Engineers on the Susquehanna River, New York, Pennsylvania and Maryland, published as House Document 702, 77th Congress, to determine whether flood damage reduction measures should be implemented in the town of Bloomsburg, Pennsylvania."* Preconstruction engineering and design activities, if funded, would be continued under the study authority cited above.
2. The reporting officers recommend a plan to reduce flood damages in the vicinity of Bloomsburg and Fernville, Pennsylvania, by protecting against flooding from the Susquehanna River and Fishing Creek. The recommended plan includes constructing approximately 9,600 linear feet of earthen levee, approximately 760 linear feet of mechanically stabilized earth floodwalls, approximately 1,150 linear feet of concrete floodwalls, nine drainage structures, five road raises, and seven closure structures to protect Bloomsburg. The recommended plan also includes constructing approximately 4,350 linear feet of earthen levee, approximately 710 linear feet of mechanically stabilized earth floodwalls, one road raise, two closure structures, two river stage gages, and rain gages to protect Fernville. Unavoidable environmental impacts would be fully compensated for by the creation of about 0.7 acre of emergent wetland and about 1.5 acres of forested wetland habitats, and the removal of a timber crib dam on Fishing Creek to enable fish passage. These mitigation features would be monitored for up to five years to ensure they perform as needed. All features are located in the Commonwealth of Pennsylvania.
3. The town of Bloomsburg is the non-Federal cost-sharing sponsor for all features. Based on October 2005 price levels, the total first cost of the plan is estimated at \$43,302,000, all for flood damage reduction. Under cost sharing specified by the Water Resources Development Act (WRDA) of 1986, Public Law 99-662, as amended, the project would be cost shared 65 percent Federal and 35 percent non-Federal. The total first cost of the plan would be cost shared

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\$28,146,000 Federal and \$15,156,000 non-Federal. The cost of lands, easements, rights-of-way, relocations, and dredged material disposal areas is estimated at \$11,982,000. The total cost includes \$1,784,000 for environmental mitigation. The town of Bloomsburg would be responsible for the operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) of the project after construction, a cost currently estimated at about \$185,000 per year. The total equivalent average annual costs are \$2,629,000, including OMRR&R. The equivalent average annual benefits are \$3,723,000 based on an interest rate of 5-1/8 percent and a 50-year period of analysis. The equivalent average annual net benefits are \$1,094,000, and the benefit-cost ratio is approximately 1.4 to 1. In addition to the above, the town of Bloomsburg would be fully responsible for performing the investigation, cleanup and response of hazardous materials on the project site. The cost of hazardous material work is estimated at approximately \$895,000 and is a non-Federal responsibility. The proposed plan is the national economic development plan.

4. The plan selected by the reporting officers is estimated to be 99.8 percent reliable in protecting the Bloomsburg area from a flood which has a 0.23 percent chance of occurrence in any year (440-year flood) and would reduce average annual flood damages by more than 98 percent. The selected plan is estimated to be about 99.5 percent reliable in protecting the Fernville area from a flood which has a 1.0 percent chance of occurrence in any year (100-year flood). The selected plan would reduce average annual flood damages by about 66 percent and would leave average annual residual damages estimated at \$1,567,000.

5. The Washington level review indicates that the plan recommended by the reporting officers is technically sound, economically justified, and environmentally and socially acceptable. The plan complies with essential elements of the U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and land Related Resources Implementation Studies and complies with other administration and legislative policies and guidelines. Also, the views of interested parties, including Federal, State, and local agencies have been considered.

6. I concur with the findings, conclusions and recommendation of the reporting officers. Accordingly, I recommend construction of the proposed improvements for flood damage reduction in accordance with the reporting officers' plan with such modifications as in the discretion of the Chief of Engineers may be advisable. My recommendation is subject to cost sharing, financing, and other applicable requirements of Federal and State laws and policies, including WRDA 1986, as amended by Section 202 of WRDA 1996. Federal implementation of the recommended project would be subject to the non-Federal sponsor agreeing to comply with applicable Federal laws and policies, including but not limited to:

a. Provide a minimum of 35 percent, but not to exceed 50 percent of total flood damage reduction costs as further specified below:

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(1) Provide 25 percent of design costs allocated by the Government to flood damage reduction in accordance with the terms of a design agreement entered into prior to commencement of design work for the project;

(2) Provide, during the first year of construction, any additional funds necessary to pay the full non-Federal share of design costs allocated by the Government to flood damage reduction;

(3) Provide, during construction, a contribution of funds equal to 5 percent of total flood damage reduction costs;

(4) Provide all lands, easements, and rights-of-way, including those required for relocations, the borrowing of material, and the disposing of dredged or excavated material; perform or ensure the performance of all relocations; and construct all improvements required on lands, easements, and rights-of-way to enable the disposal of dredged or excavated material all as determined by the Government to be required or to be necessary for the construction, operation, and maintenance of the flood damage reduction features;

(5) Provide, during construction, any additional funds necessary to make its total contribution for flood damage reduction equal to at least 35 percent of total flood damage reduction costs;

b. Shall not use funds from other Federal programs, including any non-Federal contribution required as a matching share therefor, to meet any of the non-Federal obligations for the project unless the Federal agency providing the Federal portion of such funds verifies in writing that expenditure of such funds for such purpose is authorized;

c. Not less than once each year, inform affected interests of the extent of protection afforded by the project;

d. Agree to participate in and comply with applicable Federal floodplain management and flood insurance programs;

e. Comply with Section 402 of the Water Resources Development Act of 1986, as amended (33 U.S.C. 701b-12), which requires a non-Federal interest to prepare a floodplain management plan within one year after the date of signing a project cooperation agreement, and implement the plan not later than one year after completion of construction of the project;

f. Publicize floodplain information in the area concerned and provide this information to zoning and other regulatory agencies for their use in adopting regulations, or taking other

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actions, to prevent unwise future development and to ensure compatibility with protection levels provided by the project;

g. Prevent obstructions or encroachments on the project (including prescribing and enforcing regulations to prevent such obstructions or encroachments) such as any new developments on project lands, easements, and rights-of-way or the addition of facilities which might reduce the level of protection the project affords, hinder operation and maintenance, or interfere with the project's proper function;

h. Comply with all applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended (42 U.S.C. 4601-4655), and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights-of-way required for construction, operation, and maintenance of the project, including those necessary for relocations, the borrowing of materials, or the disposal of dredged or excavated material; and inform all affected persons of applicable benefits, policies, and procedures in connection with said Act;

i. For so long as the project remains authorized, operate, maintain, repair, rehabilitate, and replace the project, or functional portions of the project, including any mitigation features, at no cost to the Federal Government, in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Federal Government;

j. Give the Federal Government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-Federal sponsor owns or controls for access to the project for the purpose of completing, inspecting, operating, maintaining, repairing, rehabilitating, or replacing the project;

k. Hold and save the United States free from all damages arising from the construction, operation, maintenance, repair, rehabilitation, and replacement of the project and any betterments, except for damages due to the fault or negligence of the United States or its contractors;

l. Keep and maintain books, records, documents, or other evidence pertaining to costs and expenses incurred pursuant to the project, for a minimum of 3 years after completion of the accounting for which such books, records, documents, or other evidence are required, to the extent and in such detail as will properly reflect total project costs, and in accordance with the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 Code of Federal Regulations (CFR) Section 33.20;

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m. 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 Department of 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 substantial 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 *et seq.*);

n. Perform, or ensure performance of, 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), Public Law 96-510, as amended (42 U.S.C. 9601-9675), that may exist in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be required for construction, operation, and maintenance of the project. However, for lands that the Federal Government determines to be subject to the navigation servitude, only the Federal Government shall perform such investigations unless the Federal Government provides the non-Federal sponsor with prior specific written direction, in which case the non-Federal sponsor shall perform such investigations in accordance with such written direction;

o. Assume, as between the Federal Government and the non-Federal sponsor, complete financial responsibility for all necessary cleanup and response costs of any hazardous substances regulated under CERCLA that are located in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be required for construction, operation, and maintenance of the project;

p. Agree, as between the Federal Government and the non-Federal sponsor, that the non-Federal sponsor shall be considered the operator of the project for the purpose of CERCLA liability, and to the maximum extent practicable, operate, maintain, repair, rehabilitate, and replace the project in a manner that will not cause liability to arise under CERCLA; and

q. Comply with Section 221 of Public Law 91-611, Flood Control Act of 1970, as amended (42 U.S.C. 1962d-5b), and Section 103(j) of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2213(j)), which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until each non-Federal interest has entered into a written agreement to furnish its required cooperation for the project or separable element.

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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 nor the perspective of higher review levels within the executive branch. Consequently, the recommendation may be modified before it is transmitted to Congress as a proposal for authorization and implementation funding. However, prior to transmittal to Congress, the sponsor, the Commonwealth of Pennsylvania, interested Federal agencies, and other parties will be advised of any modifications and will be afforded the opportunity to comment further.

A handwritten signature in black ink, appearing to read 'Carl A. Strock', with a long horizontal line extending to the right.

CARL A. STROCK
Lieutenant General, USA
Chief of Engineers