DEPARTMENT OF THE ARMY
CHIEF OF ENGINEERS
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WASHINGTON, D.C. 20310-2600

SEP 2 5 2013

DAEN

SUBJECT: Orestimba Creek, West Stanislaus County, California

THE SECRETARY OF THE ARMY

1. I submit, for transmission to Congress, my report on the study of flood risk management along Orestimba Creek in the San Joaquin Basin near the City of Newman, California. It is accompanied by the report of the Sacramento District Engineer and the South Pacific Division Engineer. This report is a partial response to a Resolution by the Committee on Public Works of the House of Representatives, adopted 8 May 1964. This resolution requested a review of prior reports pertaining to the Sacramento-San Joaquin Basin, to determine whether any modifications of their recommendations are advisable, with particular reference to further coordinated development of water resources in the Basin. Preconstruction, engineering and design activities for the Orestimba Creek Flood Risk Management project will continue under the authority provided by the resolution cited above.

2. The reporting officers recommend authorization of a plan for flood risk management by construction of a levee along the City of Newman's northwestern perimeter, referred to as the Chevron Levee. The Chevron Levee maximizes benefits to the urban area by reducing flood damages associated with Orestimba Creek overflows. The north side of the Chevron Levee would be constructed along one mile of an unnamed farm road near Lundy Road about one mile north of town. The western segment would be about 4 miles of levee constructed along the eastern bank of an existing irrigation canal from the farm road south to the Newman Wasteway. The Chevron Levee would range in height from 5.5 to 10 feet, depending on the ground elevation changes along the levee alignment. The plan includes closure structures at four road crossings and one railroad crossing. Several non-structural features would be implemented by the non-federal sponsor to further reduce the consequences of flooding, manage the residual risk, and complement the recommended plan. These include development and implementation of an advanced warning system based on stream gauges at the points where the creek has historically overflowed its banks and placing informational warning signs along roads to alert drivers to the possibility of flooding in the area. This flood warning system would be combined with an emergency evacuation plan. A reverse 911 system would alert surrounding residents of the flood threat. The recommended plan is a Locally Preferred Plan (LPP) that includes the same elements as the National Economic Development (NED) Plan but raises the height of the Chevron Levee to include 3 feet of freeboard above the median 1/200 Average Chance Exceedance water surface elevation. This freeboard was requested by the non-federal sponsor in order to meet State of California requirements for an urban area which is identified as the 1/200 year median Water Surface Elevation plus 3 feet of freeboard. The estimated cost of the LPP is $45,333,000 which is $9,025,000 greater than the estimated cost of the NED Plan currently estimated to be $36,308,000.

3. The recommended LPP would reduce flood risk to the City of Newman. The proposed project would reduce Expected Annual Damages (EAD) within Newman by 94%, with a residual EAD of approximately $200,000. This residual EAD is a result of existing storm drainage flooding. Annual Exceedance Probabilities for flooding within Newman from Orestimba Creek, would be reduced from approximately 15% (1/15 chance of flooding in any given year) to less than 0.1%. The proposed project would have no significant long-term effects on environmental resources. In all cases, the potential adverse environmental effects would be reduced to a less than significant level through project design, construction practices, preconstruction surveys and analysis, regulatory requirements, and best management practices. No compensatory mitigation would be required. No jurisdictional wetlands were identified in the project footprint. Potential impacts to vegetation communities and special status species have been greatly reduced through feasibility level design. Direct impacts to nesting birds and other sensitive species would be avoided by implementing preconstruction surveys and scheduling of construction activities. The U.S. Fish & Wildlife Service has provided a biological opinion in which the agency had no recommendations for design refinement or mitigation. Impacts to agricultural land would be minimized by reducing the project footprint to the greatest extent practical.

4. Based on October 2013 price-levels, the estimated total first cost of the plan is $45,333,000. In accordance with the cost sharing provision of Section 103 of the Water Resources Development Act (WRDA) of 1986, as amended (33 U.S.C. 2213), the City of Newman as the non-federal cost-sharing sponsor is responsible for the additional cost of the LPP. The federal share of the estimated first cost of initial construction would remain the same for the NED Plan and the LPP, currently estimated at $23,681,750. The non-federal cost share increases from about $12,626,000 with the NED Plan to about $21,651,250 with the LPP. The cost of lands, easements, rights-of-way, relocations, and dredged or excavated material disposal areas is estimated at $10,159,000. The City of Newman, California, would be responsible for the operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) of the project after construction. Operation and maintenance is currently estimated at about $180,000 per year.

5. Based on a 3.75-percent discount rate and a 50-year period of analysis, the total equivalent average annual costs of the project are estimated to be $2,316,000, including OMRR&R. The selected plan is estimated to be 99.9 percent reliable in providing flood risk management for the City of Newman and vicinity, California, from a flood which has a one percent chance of occurrence in any year (100-year flood). The selected plan would reduce average annual flood damages by about 57 percent and would leave average annual residual damages estimated at $2,364,000. Average annual economic benefits are estimated to be $3,236,000; net average annual benefits are $920,000. The benefit-to-cost ratio is 1.4 to 1.

6. The goals and objectives included in the Campaign Plan of the U.S. Army Corps of Engineers have been fully integrated into the Orestimba Creek feasibility study process. The recommended plan has been designed to avoid or minimize environmental impacts, to reduce risk of loss of life which has occurred in recent floods and to reasonably maximize economic benefits to the community. The recommended plan allows for continued floodplain flooding while focusing the flood risk reduction on the established urban area. The Feasibility Study team organized and participated in stakeholder meetings and public workshops throughout the process and worked

with local groups to achieve a balance of project goals and public concerns. The study report fully describes flood risks associated with Orestimba Creek and risks that will not be reduced. The residual risks have been communicated to the City of Newman and they understand and agree with the analysis.

7. In accordance with the Corps guidance on review of decision documents, all technical, engineering and scientific work underwent an open, dynamic and rigorous review process to ensure technical quality. This included an Agency Technical Review (ATR), an Independent External Peer Review (IEPR) (Type I), and a Corps Headquarters policy and legal review. All concerns of the ATR have been addressed and incorporated into the final report. An IEPR was completed by Battelle Memorial Institute in October 2012. A total of fifteen (15) comments were documented. The IEPR comments identified significant concerns in areas of the plan formulation, engineering assumptions, and environmental analyses that needed improvements to support the decision-making process and plan selection. This resulted in expanded narratives throughout the report to support the decision-making process and justify the recommended plan. All comments from the above referenced reviews have been addressed and incorporated into the final documents. Overall the reviews resulted in improvements to the technical quality of the report. A safety assurance review (Type II IEPR) will be conducted during the design phase of the project.

8. Washington level review indicated that the project recommended by the reporting officers is technically sound, environmentally and socially acceptable, and economically justified. The plan complies with all essential elements of the 1983 U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Land Related Resources Implementation Studies. The recommended plan complies with other administrative and legislative policies and guidelines. The views of interested parties, including federal, state and local agencies have been considered. No comments were received during state and agency review.

9. I concur with the findings, conclusions, and recommendations of the reporting officers. Accordingly, I recommend that the plan to reduce flood damage along Orestimba Creek near the City of Newman, California, be authorized in accordance with the reporting officers' recommended plan at an estimated cost of $45,333,000 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 Section 103 of WRDA 1986, as amended (33 U.S.C. 2213). The non-federal sponsor would provide the non-federal cost share and all Land, Easements, Rights-Of-Way, Relocation, and Disposal Areas (LERRD). Further, the non-federal sponsor would be responsible for all OMRR&R. This recommendation is subject to the non-federal sponsors agreeing to comply with all applicable federal laws and policies, including but not limited to:

a. Provide the non-federal share of total project costs, including a minimum of 35 percent but not to exceed 50 percent of total costs of the NED Plan, as further specified below:

1. Provide 35 percent of design costs in accordance with the terms of a design agreement entered into prior to commencement of design work for the project;

2. Provide, during construction, a contribution of funds equal to 5 percent of total costs of the NED Plan;

3. Provide all lands, easements, and rights-of-way, including those required for relocations, the borrowing of material, and the disposal 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 project;

4. Provide, during construction, any additional funds necessary to make its total contribution equal to at least 35 percent of total costs of the NED Plan;

b. Provide 100 percent of all incremental costs of the LPP.

c. Shall not use funds from other federal programs, including any non-federal contribution required as a matching share therefore, 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;

d. Not less than once each year, inform affected interests of the extent of protection afforded by the flood risk management features;

e. Agree to participate in and comply with applicable federal flood plain management and flood insurance programs;

f. Comply with Section 402 of WRDA 1986, as amended (33 U.S.C. 701b-12), which requires a non-federal interest to prepare a flood plain management plan within one year after the date of signing a project partnership agreement, and to implement such plan not later than one year after completion of construction of the project;

g. Publicize flood plain information in the area concerned and provide this information to zoning and other regulatory agencies for their use in adopting regulations, or taking other actions, to prevent unwise future development and to ensure compatibility with protection levels provided by the flood risk management features;

h. 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 of the project, or interfere with the project's proper function;

i. 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;

j. For so long as the project remains authorized, OMRR&R of 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;

k. 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;

l. Hold and save the United States free from all damages arising from the construction, OMRR&R of the project and any betterments, except for damages due to the fault or negligence of the United States or its contractors;

m. 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;

n. 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.*);

o. 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;

p. 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;

q. 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, OMRR&R of the project in a manner that will not cause liability to arise under CERCLA; and

r. 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 WRDA 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.

10. The recommendation contained herein reflects the information available at this time and current departmental policies governing formulation of individual projects. It neither reflects program and budgeting priorities inherent in the formulation of a national civil works construction program, nor the perspectives 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 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.

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