



**DEPARTMENT OF THE ARMY
CHIEF OF ENGINEERS
2600 ARMY PENTAGON
WASHINGTON, DC 20310-2600**

DAEN

NOV 13 2020

SUBJECT: Malibu Creek Ecosystem Restoration, Los Angeles and Ventura Counties, California

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on ecosystem restoration for the Malibu Creek watershed. It is accompanied by the report of the Los Angeles District Commander. This report is in response to a resolution of the House of Representatives Committee on Public Works and Transportation adopted 5 February 1992, which requested review of pertinent reports "in the interest of shore protection, storm damage reduction, and other purposes along the shores of Southern California from Point Mugu to the San Pedro Breakwater and nearby areas within Ventura County and Los Angeles County, California." Preconstruction engineering and design activities will continue under the study authority cited above.
2. The reporting officers recommend authorizing a Locally Preferred Plan (LPP) to restore the Malibu Creek ecosystem. The principal features of the plan include:
 - a. removal of the Rindge Dam concrete spillway apron and the concrete arch;
 - b. removal of 780,000 cubic yards of impounded sediment;
 - c. placement of the impounded sand layer in the nearshore along the Pacific Coast shoreline;
 - d. disposal of remaining impounded sediment at a landfill in the watershed; and
 - e. modification and/or removal of eight partial aquatic upstream habitat barriers on the Cold Creek and Las Virgenes Creek tributaries to Malibu Creek.
3. A monitoring and adaptive management period will begin upon completion of construction of each feature and continue until ecological success criteria are met, but for no more than ten years. All features are located in Los Angeles and Ventura Counties. The recommended plan was developed in coordination with federal, state and local agencies.
4. The recommended plan is a deviation from the National Ecosystem Restoration (NER) Plan and is the LPP for ecosystem restoration. The LPP is greater in cost than the NER Plan. On 22 March 2018, the Assistant Secretary of the Army for Civil Works

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approved a policy exception to allow the identification of the LPP as the recommended plan. Because the recommended plan is an LPP, the non-federal sponsor is responsible for 100 percent of the costs above the NER Plan.

5. The California Department of Parks and Recreation (CDPR) is the non-federal cost sharing sponsor for the project. In accordance with the cost sharing provisions of Section 103 of the Water Resources Development Act (WRDA) of 1986, as amended (33 U.S.C. 2213), the federal share of the total project first costs would be 65 percent of the first cost of the NER Plan, and the non-federal share would be 35 percent of the first cost of the NER Plan plus 100 percent of the incremental costs of the LPP. Based on October 2020 price levels, the NER Plan has an estimated total project first cost of \$264,999,000 and provides ecosystem restoration outputs of 152.5 average annual habitat units (AAHUs) measured using a Habitat Evaluation Procedure approach. The LPP adds removal of the Rindge Dam spillway and includes an alternate approach to the transport and placement of sand along the Pacific Coast nearshore environment, addressing CDPR safety, aesthetics and recreation concerns. The recommended plan has an estimated total project first cost of \$279,209,000, with the same restoration outputs as the NER Plan of 152.5 AAHUs. The federal share of the total project first cost of the recommended plan is estimated at \$172,249,000 (62 percent) and the non-federal share is estimated at \$106,960,000 (38 percent). The non-federal cost includes the value of lands, easements, rights-of-way, relocations and dredged or excavated material disposal areas estimated at \$12,494,000. The total estimated monitoring and adaptive management costs for the recommended plan over five years are \$9,403,000.

6. Based on a 2.5 percent discount rate and a 50-year period of analysis, the total average annual costs of the project are estimated at \$10,927,000, including operation, maintenance, repair, replacement and rehabilitation. All project costs are allocated to the authorized purpose of ecosystem restoration. The average annual cost per AAHU is \$71,700.

7. Cost effectiveness and incremental cost analysis techniques were used to evaluate the alternative plans to ensure that an efficient aquatic ecosystem restoration plan is recommended. The cost of the recommended aquatic ecosystem restoration features is justified by restoring 525 acres (152.5 AAHUs) along 18 miles of Malibu Creek and its tributaries. Implementation of the plan would restore the connectivity, biodiversity and natural riverine processes along Malibu Creek and tributaries. The recommended plan establishes a more natural sediment transport regime from the watershed to the Pacific Coast shoreline as well as the removal and placement of impounded sediment to nourish the Pacific Coast shoreline and nearshore habitats. It will reconnect the aquatic corridor to provide access to additional spawning and rearing habitats for aquatic species including the Pacific lamprey, arroyo chub, western pond turtle and the federally endangered southern California steelhead. Riparian habitat connectivity will be restored for migratory animals including mammals, reptiles and amphibians.

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8. In accordance with the U.S. Army Corps of Engineers 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 District Quality Control review, Agency Technical Review, Independent External Peer Review, and a headquarters policy and legal compliance review. The Independent External Peer Review was completed by Battelle Memorial Institute. All comments from the above referenced reviews have been addressed and incorporated into the final documents.

9. Washington-level review indicates 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 U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Land Related 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.

10. I concur with the findings, conclusions, and recommendations of the reporting officers and advise that the recommended plan be authorized with such modifications thereof as in the discretion of the Chief of Engineers may be advisable. My recommendation is subject to cost sharing and other applicable requirements of federal laws and policies. Federal implementation of the recommended plan would be subject to the non-federal sponsor agreeing to comply with applicable federal laws and policies, including but not limited to agreeing to:

a. Provide the non-federal share of project costs including 35 percent of the costs of the identified NER Plan, and 100 percent of the costs of the LPP increment, 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 all lands, easements, and rights-of-way, perform or ensure the performance of all relocations, and provide relocation assistance, as determined by the Federal Government to be required for the initial construction or the operation and maintenance of the project, all in compliance with applicable provisions of the Uniform Relocation and Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. 4601-4655) and the regulations contained in 49 C.F.R. Part 24;

(3) Provide, during construction, any additional funds necessary to make its total contribution equal to at least 35 percent of the NER Plan costs;

(4) Provide 100 percent of the costs of the LPP increment;

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b. 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 outputs produced by the project, hinder operation and maintenance of the project, or interfere with the project's proper function;

c. Shall not use the project or lands, easements, and rights-of-way required for the project as a wetlands bank or mitigation credit for any other project;

d. Operate, maintain, repair, rehabilitate, and replace the project, or functional portions of the project, including any mitigation features, except as limited by Section 1161 of WRDA 2016, Public Law 114-322 (33 U.S.C. 2330a(e)), 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;

e. 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;

f. 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;

g. 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; and

h. 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.

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11. The recommendations contained herein reflect 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 recommendations 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.

A handwritten signature in black ink, appearing to read "S.A. Spellmon". The signature is fluid and cursive, with a large initial "S" and "A" followed by "Spellmon".

SCOTT A. SPELLMON
Lieutenant General, USA
Chief of Engineers