

CHAPTER 8

PLAN IMPLEMENTATION, CONCLUSIONS AND RECOMMENDATIONS



Levee boil in 1995.

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PLAN IMPLEMENTATION, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes the procedures and cost-sharing requirements for implementing either of the plans.

IMPLEMENTATION REQUIREMENTS

DRAFT REPORT REVIEW AND PLAN SELECTION

This Draft Feasibility Report and the Draft EIS/EIR shall be available for a minimum period of 45 days for review by Federal, State, and local agencies as well as various groups and individuals.

FINAL REPORT AND APPROVAL

The final District report (Final Feasibility Report) will be completed based on the recommendations from the non-Federal sponsor and comments received on this Draft Feasibility Report. It will then be coordinated and submitted for Washington-level review and will be made available for a 30-day State and Federal agency review. At the same time, interested individuals and organizations will be able to provide comments on the Final Feasibility Report. The Washington-level reviewers will coordinate the public comments and make a recommendation to the Chief of Engineers. The recommended plan and proposed cost-sharing will be reviewed by the Assistant Secretary of the Army for Civil Works for consistency with current Federal policies and budgetary priorities. The Chief of Engineers will then submit the report to the Assistant Secretary of the Army (Civil Works), who will, in turn, submit the report to Congress. At this point, the project would be ready for Congressional authorization, which normally occurs as part of the biannual Water Resources Development Act legislation.

PROJECT FUNDING

Once the final report is approved and the project is authorized, construction funds will be requested. The project will be considered for inclusion in the President's budget based on national priorities, economic feasibility, level of local support, willingness of the non-Federal sponsor to fund its share of the project cost, and budgetary constraints that may exist at the time of funding. Budget recommendations will be based on evidence of support by the Reclamation Board of the State of California and its ability and willingness to provide its share of project costs. Once Congress appropriates the Federal share of funds for the project, the Assistant Secretary of the Army (Civil Works) and the non-Federal sponsor will sign a formal project cooperation agreement. This agreement will obligate the non-Federal sponsor to participate in implementing, operating, and maintaining the project according to requirements established by Congress and the Administration.

COST-SHARING REQUIREMENTS

In accordance with the Water Resources Development Act of 1986, as amended, the non-Federal sponsor's obligations for this project would include the following:

- Provide all lands, easements, rights-of-way and borrow and disposal areas needed for project construction and operation.
- Perform relocations and alterations of buildings, utilities, roads, highways, bridges (except railroad bridges), sewers, and other facilities required for construction of the project.
- Provide, during construction, a cash contribution of 5 percent of total project costs.
- If the total value of the above requirement is less than 35 percent of total flood damage reduction project cost, provide an additional cash payment during the period of construction to make the total non-Federal cost equal to 35 percent of total project costs.
- The total non-Federal first cost of the NED Plan will not exceed 50 percent of total project first cost.
- Operate, maintain, replace, repair, and rehabilitate the project after construction.
- If the selected plan is a Locally Preferred Plan (LPP) that is not fully Federally supportable, pay 100 percent of the additional cost of the LPP.

A letter specifying the non-Federal sponsor's willingness to meet these obligations will be included in the Final Feasibility Report. However, the non-Federal funds will not have to be provided until after Congress authorizes the project and appropriates construction funds and a project cooperation agreement is signed. Payment of the funds is to be made at intervals during construction as specified in the Project Cooperation Agreement.

COST APPORTIONMENT

GENERAL

As shown in Table 6-9, both the LCCFB Plan and the Modified Wide Setback Levee Plan are economically feasible. Neither plan includes uneconomic increments. The plan formulation analysis also demonstrates that the plans are independent of one another; that is, neither could be incrementally added to the other. Therefore, the basic cost-sharing apportionment methodologies apply to both plans. Tables 8-1, 8-2, 8-3, and 8-4 present the cost-sharing breakdown for the two plans.

Table 8-1. First Costs and Annualized Costs for the LCCFB Plan, Tentatively Recommended Plan (\$1,000)¹

Summary of First Cost	
Lands and Damages	8,577
Relocations	5,466
Channels and Canal	3,871
Levees and Floodwalls	10,718
Roads	233
Flood Control and Diversion Structures	3,801
Operating Equipment	1,200
Fish and Wildlife Mitigation	1,597
Cultural Resources Preservation ²	257
Planning, Engineering & Design	3,081
Supervision and Administration	2,182
Total First Cost	40,973
Interest During Construction	2,787
Total Investment Cost	43,761
Summary of Annual Costs	
Interest and Amortization	2,825
Operation and Maintenance	98
Total Annual Cost	2,923

¹The period of analysis is 50 years, and the Federal discount rate is 6 1/8 percent. All costs are expressed in October 2001 (fiscal year 2002) price levels.

²It is assumed that no cost will be required for cultural resources data retrieval.

Table 8-2. Cost-Sharing Breakdown for the LCCFB Plan, Tentatively Recommended Plan (\$1,000)¹

Summary of First Cost	Federal	Non-Federal	Total
Lands		8,577	8,577
Relocations		5,466	5,466
LERRD Total		14,043	14,043
Cash Contribution	24,881	2,049	26,930
Total First Cost	24,881	16,092	40,973
Percent of First Cost	61%	39%	100%

¹All costs are expressed in October 2001 (fiscal year 2002) price levels.

Table 8-3. First Costs and Annualized Costs for the Modified Wide Setback Levee Plan (\$1,000)¹

Summary of First Cost	
Lands and Damages	48,647
Relocations	43,308
Channels and Canal	4,980
Levees and Floodwalls	19,530
Railroad Modifications	6,753
Roads	1,081
Fish and Wildlife Mitigation	9,901
Cultural Resources Preservation ²	856
Planning, Engineering & Design	10,266
Supervision and Administration	7,272
Total First Cost	152,594
Interest During Construction	10,381
Total Investment Cost	162,975
Summary of Annual Costs	
Interest and Amortization	10,521
Operation and Maintenance	415
Total Annual Cost	10,936

¹The period of analysis is 50 years, and the Federal discount rate is 6 1/8 percent. All costs are expressed in October 2001 (fiscal year 2002) price levels.

²It is assumed that no cost will be required for cultural resources data retrieval.

Table 8-4. Cost-Sharing Breakdown for the Modified Wide Setback Levee Plan (\$1,000)¹

Summary of First Cost	Federal	Non-Federal	Total
Lands		48,647	48,647
Relocations		43,308	43,308
LERRD Total		91,955	91,955
Cash Contribution	60,639	91,955	152,594
Cost Share Adjustment	-35,758	35,758	
Total First Cost	24,881	127,713	152,594
Percent of First Cost	16%	84%	100%

¹All costs are expressed in October 2001 (fiscal year 2002) price levels.

COST SHARING

The non-Federal sponsor is responsible for all lands, easements, rights-of-way, relocations, disposal areas (LERRDs) required for the project and the Operation, Maintenance, Replacement, Repair, and Rehabilitation (OMRR&R) in perpetuity/project life. This is shown in the breakout of costs for the individual features of each project. In addition, the sponsor must provide a cash contribution equal to 5 percent of the construction first costs, shown in Table 8-2. This is the first adjustment shown in the

tables. The 5 percent cash contribution is required irrespective of the total cost of the LERRDs provided by the sponsor. In accordance with cost-sharing requirements, the sponsor must provide a minimum of 35 percent of the total construction costs. Because the Modified Wide Setback Levee Plan would be more expensive than the anticipated federally supportable NED Plan (LCCFB Plan), the additional costs of the Modified Wide Setback Levee Plan would be 100 percent non-Federal. That adjustment is the Cost Share Adjustment shown in Table 8-4. Based on this analysis, the Federal share of the first cost for the LCCFB Plan is \$24.9 million, and the non-Federal sponsor's share is \$16.1 million. For the Modified Wide Setback Levee Plan, the Federal share is \$24.9 million, and the non-Federal sponsor's share is \$127.7 million.

Detailed pre-construction, engineering, and design (PED) studies will be initiated as soon as funding becomes available. The results of these studies will be used to prepare plans and specifications for project construction. The non-Federal sponsor is required to provide 25 percent of the cost of the PED work. Credit will be given for the non-Federal sponsor's participation on the Design Coordination Team and activities related to records maintenance and auditing. The remainder of the share of non-Federal PED costs must be provided in cash at the start of PED studies. Adjustments will be made during construction so that the PED cost is shared in accordance with the authorized construction cost sharing for the project.

COST ESTIMATE

Costs presented are first costs at October 2001 price levels. The estimate accounts for future inflation and is based on the current first costs, the schedule at which contracts will be awarded, and assumed annual inflation percentages. The cost estimate represents the actual costs that Congress will need to appropriate and the local sponsors will provide in the future to construct the project. The cost estimate for the LCCFB Plan is \$41.0 million: \$24.9 million paid by the Federal Government and \$16.1 million paid by the sponsors. The estimate for the Modified Wide Setback Levee Plan is \$152.6 million: \$24.9 million paid by the Federal Government and \$127.7 million paid by the sponsors.

FINANCIAL ANALYSIS

The City of Woodland and the State of California, through the California Department of Water Resources (DWR), would jointly provide the non-Federal funding requirements for the project.

DEPARTMENT OF WATER RESOURCES

Financing Plan

Any plan involving funding from the DWR would be dependent on completion and approval of necessary planning and environmental documents and an appropriate cost-sharing agreement among participants.

DWR would pay its share of the Lower Cache Creek Flood Control Project from the general California State Fund for the payment of lands, easements, rights-of-way, relocations, disposal, planning, engineering, design, and construction of the project.

The City of Woodland is investigating ways to finance its portion of the project.

PROJECT COOPERATION AGREEMENT

Before construction is started, the Federal Government and non-Federal sponsor will execute a project cooperation agreement. This contract will define responsibilities of the Federal Government and the non-Federal sponsor for project construction and operation.

ESTIMATED PROJECT SCHEDULE*

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|---|---------------------|
| • 45-Day Public Review and Comment Period for Draft Feasibility Report and Draft EIS/EIR | 21 Mar – 6 May 2003 |
| • Respond to Comments on Draft Documents, Prepare and Process Final and Draft EIS/EIR | 7 May – Sep 2003 |
| • Division Engineer’s Public Notice of Final Report Availability | Oct 2003 |
| • 30-Day Public Review and Comment Period for Final Feasibility Report and Final EIS/EIR | Oct – Nov 2003 |
| • Chief of Engineers’ Report Signed and Forwarded | Feb 2004 |
| • Record of Decision for EIS by Assistant Secretary of the Army (ASA) for Civil Works (CW) | Apr 2004 |
| • Notice of Decision for EIR and Project Approval by the Reclamation Board | Apr 2004 |
| • ASA (CW) Coordination with OMB, OMB Clearance, ASA (CW) Transmittal to Congress | Feb - Oct 2004 |
| • Congressional Authorization (assumed via a Water Resources Development Act in 2004) | Oct 2004 |
| • President Signs Legislation Authorizing Project | Nov 2004 |
| • Corps and Non-Federal Sponsor Sign Agreement for Pre-Construction, Engineering, and Design (PED) Phase | Oct 2003 |
| • Initiate PED Phase, including Plans and Specifications (may begin after publication of Division Engineer’s Public Notice) | Nov 2003 |
| • Sign Project Cooperation Agreement (PCA) | Mar 2005 |
| • Complete Plans and Specifications | Jul 2005 |
| • Begin Project Construction/Implementation | Aug 2005 |
| • Physical Construction Completed/Begin Operation of Project | Dec 2007 |
| • Establishment Period for Mitigation Vegetation Completed | Dec 2010 |

* It is recognized that this schedule is subject to change due to availability of funding, potential delays in review and approval processes by Federal and non-Federal partners and concerned agencies, and public input (affected stakeholders, groups, persons).

CONCLUSIONS

The major conclusions drawn from the lower Cache Creek feasibility study are:

- There is a significant risk of flooding to Woodland and the surrounding area from Cache Creek.
- There are two plans identified in this study that could substantially reduce the flood risk.
- The LCCFB Plan, at a first cost of \$41.0 million, is the less expensive plan, but leaves the unincorporated area north of the city at risk from flood events greater than the design capacity of the existing levee system.
- The Modified Wide Setback Levee Plan, at a first cost of \$152.6 million, is much more expensive and has a marginal benefit-to-cost ratio. However, this plan reduces flood risk for both the city and unincorporated area. The Modified Wide Setback Levee Plan also has greater environmental effects, has a greater potential for ecosystem restoration along the creek, and takes more agricultural land out of production.

RECOMMENDATIONS

The tentatively recommended plan is the LCCFB Plan, and this plan also appears to be the least environmentally damaging plan. It is likely that this plan will be recommended by the Corps in the Final Feasibility Report.

The estimated first cost of the LCCFB Plan is \$41.0 million, and the estimated average annual OMRR&R cost is \$100,000. Once the Division Engineer's Public Notice is distributed, a Design Agreement is signed with the sponsor, and funding is available the Corps will initiate pre-construction, engineering, and design studies.

NON-FEDERAL RESPONSIBILITIES

The non-Federal partner shall, prior to implementation, agree to perform the following items of local cooperation:

1(a) Provide a minimum of 35 percent, but not to exceed 50 percent, of total project costs assigned to structural flood protection, as specified below:

- Enter into an agreement which provides, prior to construction, 25 percent of the pre-construction, engineering, and design (PED) costs;

- Provide any additional funds needed to cover the non-Federal share of PED costs;
- Provide, during construction, a cash contribution equal to 5 percent of the total NED project costs;
- Provide all lands, easements, and rights-of-way, including suitable borrow and dredged or excavated material disposal areas, and perform or ensure the performance of all relocations, except railroads, determined by the Government to be necessary for the construction, operation, and maintenance of the project;
- 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
- Provide, during construction, any additional costs as necessary to make its total contribution equal to at least 35 percent of the total project costs.

2(a) Provide and maintain necessary access roads, parking areas, and other public use facilities open and available to all on equal terms.

(b) For as long as the project remains authorized, operate, maintain, repair, replace, and rehabilitate the completed project or functional portion of the project, at no cost to the Government, in accordance with applicable Federal and State laws and any specific directions prescribed by the Government.

(c) Give the Government a right to enter, at reasonable times and in a reasonable manner, upon land that 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) Assume responsibility for operating, maintaining, replacing, repairing, and rehabilitating the project or completed functional portions of the project, including mitigation features, without cost to the Government, in a manner compatible with the project's authorized purpose and in accordance with applicable Federal and State laws and specific directions prescribed by the Government in the OMRR&R manual and any subsequent amendments. Operations and maintenance will include protecting the channels and other flood protection works from future encroachment or obstruction, including sedimentation and vegetation, that would reduce their flood-carrying capacity or adversely affect the proper functioning or efficient operation and maintenance of the project works. Monitor the status of completed mitigation and provide periodic reports on its condition, and provide repairs and replacement if needed, pursuant to the project Mitigation and Monitoring Plan, after the establishment period.

(e) 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.

(f) Hold and save the Government free from all damages arising from 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.

(g) 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.

(h) Perform, or cause to be performed, any investigations for 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.

(i) Assume complete financial responsibility for all necessary cleanup and response costs for 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.

(j) Agree that, as between the Federal Government and the non-Federal sponsor, 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, replace and rehabilitate the project in a manner that will not cause liability to arise under CERCLA.

(k) Prevent future encroachments on project lands, easements, and rights-of-way that might interfere with the proper functioning of the project. Ensure that construction and maintenance of any non-Federal flood protection features do not diminish the flood protection provided by the authorized project plan.

(l) Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policy 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 connections with said act.

(m) 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 the 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.”

(n) Comply with Section 402 of the Water Resources Development Act of 1986, as amended (33 USC 701b-12), which requires a non-Federal interest to have prepared a flood plain management plan within 1 year after the date of signing a project cooperation agreement. The plan shall be designed to reduce the effects of future flood events in the project area, including, but not limited to, addressing those measures to be undertaken by non-Federal interests to preserve the level of flood protection provided by the project. Provide an information copy of the plan to the Government upon its preparation.

(o) Publicize flood plain information in the area concerned and provide this information to zoning and other regulatory agencies for their use in preventing unwise future development in the flood plain and in adopting such regulations as may be necessary to prevent unwise future development and to ensure compatibility with protection levels provided by the project.

(p) Monitor city and county adherence to drainage master plans and performance and operations of detention basins or other facilities built to manage flows.

(q) Provide the non-Federal share of that portion of the costs of mitigation and 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 the cost-sharing provisions of the agreement.

(r) Participate and comply with applicable Federal flood plain management and flood insurance programs.

(s) Do 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.

(t) Inform affected interests, at least annually, regarding the limitations of the protection afforded by the project.

The recommendations contained herein reflect the information available at this time and current departmental policies governing formulation of individual projects. They do 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 recommendations may be modified before they are transmitted to the Congress as proposals for authorization and implementation funding. However, prior to transmittal to the Congress, the partner, the State, interested Federal agencies, and other parties will be advised of any modifications and will be afforded an opportunity to comment further.

Michael J. Conrad, Jr.
Colonel, Corps of Engineers
District Engineer