Lower Walnut Creek

California

General Reevaluation Phase

Project Management Plan

US Army Corps of Engineers®

February 2003

Revised – April 2003

Forward

Document Objectives

A project management plan (PMP) is the primary attachment to any cost-sharing agreement between the U.S. Army Corps of Engineers (Corps) and a non-Federal sponsor. For the Lower Walnut Creek General Reevaluation Report, the PMP describes the pertinent management and planning methods, defines the activities to be accomplished, and establishes the schedule and budget necessary for successful completion of this project phase. The PMP reflects an agreement between the non-Federal sponsor, the Sacramento District (SPK), the South Pacific Division (SPD), and the U.S. Army Corps of Engineers Headquarters (HQUSACE) regarding the procedures, scope, schedule, and budget associated with the development of the General Reevaluation Report (GRR).

In summary, the primary objectives of this PMP are to communicate the following about the study:

- Briefly describe the history of the project and watershed,
- Explain relevant management strategies for product development,
- Outline an appropriate planning methodology for the report,
- Establish the scope, budget, and schedule associated with successful completion.

Study Objective

The Corps uses a Post-Authorization Decision Document to present the results of investigations or analysis conducted on a project subsequent to Congressional authorization. A General Reevaluation Report is a specific type of Post-Authorization Decision Document used when the investigation involves more than one facet of the project's formulation.

In the case of the Lower Walnut Creek project, the primary objective of the GRR is to determine the extent of Federal interest in modifying the project to include ecosystem restoration as a project purpose.

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1. Project Introduction

A. Historical Perspective

Prior to World War II, Walnut Creek was a natural stream meandering through the vast grasslands and pastures of the watershed. The stream's habitat supported a wide range of vegetation and wildlife. However, the primary land uses within the watershed evolved from ranching and farming to heavy industry during and following the war. The industrialization of the area resulted in significant residential and commercial growth. As developers sought to increase the amount of land available in the region, the eventual channelization and other flood protection measures employed on Walnut Creek would permanently change the diversity of vegetation and wildlife present in the ecosystem.

The original flood control features of the project were authorized in 1960. The original Walnut Creek Project includes about 22 miles of channel improvements consisting of channel enlargement, channel stabilization, and levees along Walnut Creek and the lower reaches of San Ramon and Las Trampas Creeks, channel improvement of Pine and Galindo Creeks and backwater levees on Lower Grayson and Pacheco Creeks. Original project flood control features were completed in September 1999 and modifications to a channel cover were completed in November 2001. The past emphasis on flood control objectives within the watershed resulted in the loss of important riparian vegetation critical to a number of listed species indigenous to the area. The completed Walnut Creek Project extends from the Suisun Bay to the city of Walnut Creek. The project area included the cities of Walnut Creek, Pleasant Hill, and Concord.

A multitude of studies have been conducted within the Walnut Creek watershed including but not limited to the following:

- Walnut Creek Flood Control Project, Wildlife Mitigation Phase 2 [Drop Structure #1 to Concord Avenue] Letter Supplement No. 6 to Design Memorandum No. 1 – *December 1993*
- Feasibility Report for Flood Control, Walnut Creek Basin, California – *November 1992*
- Phase 1 Environmental Site Assessment, Five Creeks, Contra Costa County, California – *June 1992*

- Walnut Creek Basin Seismic Refraction Survey Along San Ramon and Green Valley Creeks – *December 1991*
- Walnut Creek Basin, California, Letter Report – *February 1989*
- Grayson Creek and Walnut Boulevard Channel Draft Interim Feasibility Report for Flood Control, Walnut Creek Basin, California – *September 1973*
- Survey Report for Flood Control in the Walnut Creek Basin, California – *April 1958*

B. Authorization

Study authority for the "Walnut Creek drainage area, Contra Costa County, California" was provided under the Flood Control Act of 1950 (PL 81-516). Subsequent authority for construction of the Walnut Creek Project was provided under the Flood Control Act of 1960 (PL 86–645). The project was extended under the discretionary authority of the Chief of Engineers to include the lower reaches of Pine and Galindo Creeks in June 1970 and an upstream reach of Pine Creek in December 1973.

The authority to initiate a general reevaluation of the project was provided under House of Representatives Report 107-112 as follows:

> *"Lower Walnut Creek, California.* – The Committee has provided $250,000 for the Corps of Engineers to conduct a General Reevaluation Report which will detail a new project alternative that incorporates riparian restoration goals with flood control objectives." – **House of Representatives Report 107-112**

C. Project Description

The project area is about 25 miles northeast of San Francisco within California's Contra Costa County. The study area is located along Walnut Creek from its confluence with Suisun Bay upstream approximately 5.5 miles to Drop Structure No. 1 near the Willow Pass Road overpass. A map of the study area has been enclosed in Appendix A for further reference.

- Project Area is approximately 180 square miles
- Study area is a commercial and industrial center
- Population in the study area is more than 400,000
- Walnut Creek includes habitat for more than 250 wildlife and fish species
- Aquatic habitats include: brackish; fresh water; estuary; and salt marsh

D. Study Objectives

This phase of the Lower Walnut Creek Project will reevaluate the traditional methods of operating and maintaining a flood control facility for the purposes of incorporating

ecosystem restoration objectives. The existing floodway is a classic trapezoidal earth channel that has historically been de-silted in order to maintain the original design capacity. This General Reevaluation will study alternative methods to this practice including but not limited to the setback of levees along the lower reaches of the creek to recreate a larger floodplain. These alternatives will focus on providing the capacity necessary for flooding while creating additional wetlands, riparian habitat, and the potential for revegetation throughout the floodplain. The project will also explore the feasibility of providing fish passage beyond the first major drop structure for listed species such as steelhead and Chinook salmon.

This study will focus on mutually benefiting both the residents of Contra Costa County as well as the plant and animal species present throughout the floodway. In order to mitigate for the temporal impacts of project construction, local stakeholders have acquired a 126-acre piece of property at the mouth of Walnut Creek that will allow for the creation of salt marsh and upland habitats. East Bay Regional Parks District (EBRPD) intends to construct a recreational staging area on this property at the intersection of their Bay and Iron Horse Trails. Likewise, the study will evaluate the benefits of extending the Iron Horse Trail along the 5-mile length of the project in order to provide public access to the corridor.

In summary, the primary objectives of the GRR are to explore the following topics:

- Improve the terrestrial and aquatic ecosystems within the floodway,
- Continue to meet existing flood control capacity requirements,
- Identify and develop additional potential recreational opportunities.

E. Non-Federal Sponsorship

The non-Federal sponsor for this phase of the Lower Walnut Creek Project is the Contra Costa County Flood Control and Water Conservation District (CCCFCWCD).

2. Management Strategies

A. Project Management Plan

The project management plan (PMP) is an attachment to the Feasibility Cost Sharing Agreement, which defines the planning approach, activities to be accomplished, schedule, and associated costs that the Federal Government and the local sponsor will be supporting financially. The PMP, therefore defines a contract between the Corps and the local sponsor, and reflects a "buy in" on the part of the financial backers, as well as those who will be performing, and reviewing, the activities involved in the study. The PMP describes the initial tasks of the study, continues through preparation of the draft report, the project management plan for project design, and concludes with support during the Washington-level review of the final report.

The PMP provides the basis for change. Because planning is an iterative process without a predetermined outcome, changes in costs and time may be required to accomplish reformulation and evaluations of the alternatives. Changes in scope will occur as the technical picture unfolds. With clear descriptions of the scopes and assumptions outlined in the PMP, deviations are easier to identify. The impact in either time or money is easily assessed and decisions can be made on how to proceed.

The PMP is a basis for the review and evaluation of the general reevaluation report. Since the PMP represents a contract among study participants, it will be used as the basis to determine if the draft report has been developed in accordance with established procedures and previous agreements. The PMP reflects mutual agreement between the Corps and the non-Federal sponsor regarding the scope, critical assumptions, methodologies, and level of detail for the studies that are to be conducted during the general reevaluation phase. Review of the draft report will insure that the study has been developed consistent with these agreements. The objective is to provide early assurance that the project is developed in a way that can be supported by the organization and the administration.

The PMP is a study management tool. It includes scopes of work that are used for funds allocation by the project manager. It forms the basis for identifying commitments to the non-Federal sponsor and serves as a basis for performance measurement.

B. Project Delivery Team

In order to remain competitive in the modern business world, the Corps must rely on a project delivery team (PDT) to create products, maintain and improve quality, and solve problems. These teams are composed of representatives from both the Corps and the non-Federal sponsor but may be expanded to include contractors, consultants,

and recognized experts. The use of a team is essential to project success when the phase involves:

- Complex tasks
- Multi-disciplinary involvement
- Unclear solution
- Efficient use of resources
- Creativity
- Innovative technical methodologies

A team member's ability to work effectively on a team and to deliver a high-quality product is directly related to his or her understanding of the characteristics of a high-performing team member. The top ten characteristics of a high-performing team member are:

- Enthusiasm
- Willingness to learn
- Flexibility
- Shares knowledge
- Project-focused
- Competent
- Sense of humor
- Effective communicator
- Identifies problems and offers solutions
- Carries the workload of others when needed

Definition of a Team:

"A small number of people with complementary skills who are committed to a common purpose and who are working interdependently to achieve specific performance goals using an approach for which they hold themselves mutually accountable."

– Mr. Jon R. Katzenbach and Mr. Douglas K. Smith

The PDT for this project is expected to recognize these characteristics and collaboratively work toward the goal mutual respect. A complete list of the PDT members has been enclosed in Appendix B.

C. Communication

1) Team Communication

Communication is the hallmark of a successful team. Timely, clear, and concise communication, both written and verbal, among all of the team members including the non-Federal sponsor will be critical in completing the Lower Walnut Creek project. Furthermore, effective communication with local stakeholders, the public, and the media may also be necessary to complete the project successfully.

In order for the PDT to collaboratively work toward a goal of mutual respect, each team member must build a climate of trust through communication. Team member should consider the following guidelines during team interaction:

- Communicate openly and honestly with each other
- Listen actively in order to understand
- Communicate with awareness of the impact on others
- Provide feedback with a focus on behavior, not the person
- Keep each other informed
- Proactively address rumors and harmful statements
- Disagree respectfully

2) Public Communication

During the course of the Lower Walnut Creek General Reevaluation, the PDT will engage local stakeholders, the public, or the media. **Any questions or requests for information should be referred to either the Project Manager or Lead Planner for either the Corps or the non-Federal sponsor.** The Project Managers for both organizations, in close coordination with the Lead Planner, will serve as the primary points of contact for involvement with local stakeholder groups and community coalitions. On a situational basis, a project manager or the Lead Planner will request supporting services from the PDT. The contact information for both Project Managers and the entire PDT has been enclosed in Appendix B.

At this time, only the **Contra Costa Watershed Forum (CCWF)**, has been identified for recurring contact and involvement. Detailed information, such as the following summary, can be found at the following Internet address:
http://www.aoinstitute.org/cocowaterweb/index.htm

Contra Costa Watershed Forum (CCWF) is an open committee of fifty diverse individuals and organizations concerned with the health of the resources and watersheds of Contra Costa County, California. From intermittent streams to the great basins that shed water into the creeks and water supply system, the members of the CCWF work together to find common approaches to making water resources into healthy, functional, attractive, and safe community assets.

D. Sponsor Feedback

The Corps has established a process to encourage feedback from non-Federal partners and sponsors regarding the progress of product development for individual projects. The process has been designed to offer the sponsor an opportunity to identify specific issues that may not be otherwise easy to discuss in a team meeting or over the telephone.

The foundation of this feedback cycle is the opportunity for the non-Federal sponsor to communicate directly with the Project Manager and/or one member of the Sacramento District's Corporate Board regarding specific project issues. Each non-Federal sponsor will be assigned a point of contact from the corporate board and the

appointment is typically based on the project's current phase of work. The Corporate Board member assigned to the Lower Walnut Creek General Reevaluation is:

Mr. Kenneth E. Hitch
Chief, Planning Division
(916) 557-6699

The feedback process utilizes a quarterly review cycle as shown in Table 1. This process is initiated upon the execution of a cost-sharing agreement as discussed in Section 3.C.

Table 1: Sponsor Feedback Cycle

Quarter	Dates	USACE Participation	Method
1st	April – June	Project Manager	Meeting
2nd	July – Sept.	PM & Senior Executive	Meeting
3rd	Oct. – Dec.	Project Manager	Meeting
4th	Jan. – March	PM & Senior Executive	Teleconference

E. Conflict Resolution

The PDT may experience conflict during the course of this study; and, although conflict can represent healthy team communication, the resolution of disagreement is necessary for the successful completion of any product. As shown in Table 2, there are many skills that can be employed by an individual team member to resolve disputes and disagreement. For additional information on the skills described in Table 2, visit the Conflict Resolution Network web site at: http://www.crnhq.org/twelveskills.html.

During the course of this study, the following three forms of disagreement may occur:

1) **Case 1** – Disagreement between members of the PDT;
2) **Case 2** – Disagreement between the Federal and non-Federal sponsor;
3) **Case 3** – Disagreement between the PDT and the ITRT.

If the skills described in Table 2 are not sufficient to resolve a specific disagreement, two formal dispute resolution processes are available.

For Case 1 and Case 3, the PDT may employ the **Issue Resolution Process** as defined by *Corporate Board Guidance Memorandum # 99 – 03* dated 7 March 2001. In general, the Project Management Business Process (PMBP) used by the Corps assumes issues will be identified and resolved using teamwork, communication, and sound scientific data; however, the team may proceed according to Figure 1 if other attempts at conflict resolution fail. Specifically for Case 3, successful resolution will

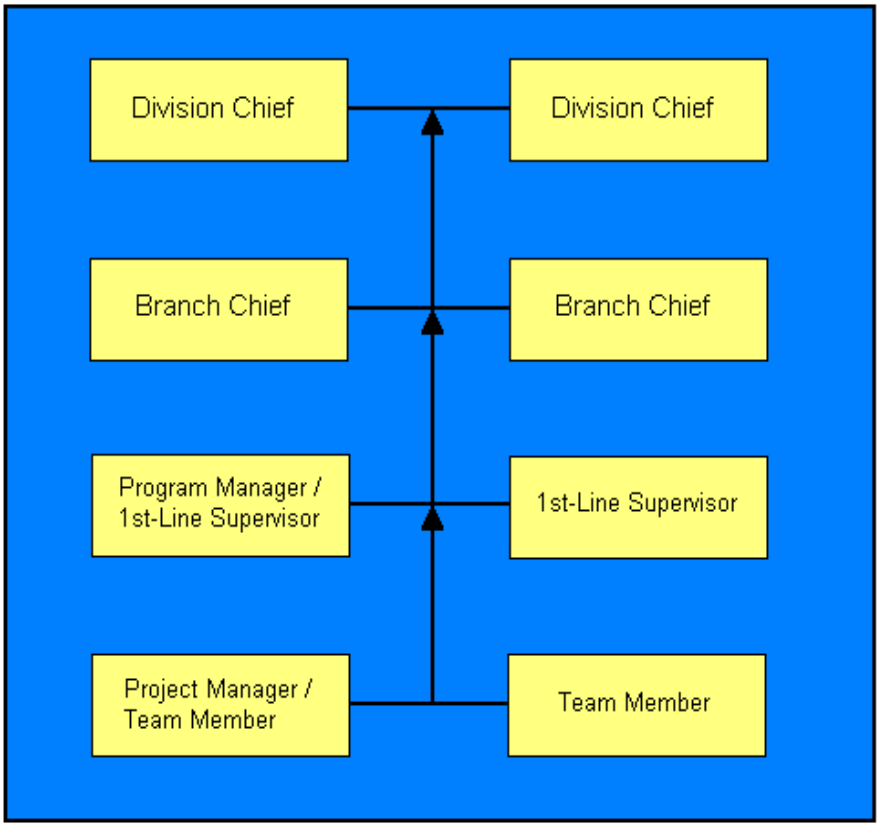
involve elevation of the issue through equivalent managers in two separate district offices. For additional information on the resolution of ITRT disputes, reference Paragraph 3.d.1 of Appendix E.

Table 2: Conflict Resolution Skills

SKILL	DESCRIPTION
Broaden Perspective	Look at the issue in its larger context, including the following: acknowledge differences; evaluate a long-term timeframe; recognize resistance; and, be open to change.
Negotiation	Create and use strategies to work toward agreement. This includes: focus on the problem, not the person; emphasize needs, not positions; and, create options.
Development of Options	Develop solutions as a group, using the following strategies: researching; brainstorming; building a solution together; or creating alternatives.
Mapping the Conflict	For each issue, define who is involved, the common needs and mutual concerns.
Appropriate Assertiveness	Use strategies to attack the source of conflict, not the person / people involved. Use "I" statements, to express your own viewpoint; do not say what the other party involved should or should not do.

For Case 2, the Project Managers for the Corps and the non-Federal sponsor may elect to elevate the issue within their respective organizations. The first step would involve a meeting of the Executive Committee as described in Article IV, Section A of the associated Feasibility Cost-Sharing Agreement. If, upon the conclusion of such a meeting, the issue remains unresolved, the non-Federal sponsor may request an appointment with the Project Review Board (PRB). The PRB is chaired by the Sacramento District Commander, Colonel Michael J. Conrad, Jr. and is comprised of the District's Corporate Board. The board convenes monthly and appointments should be scheduled through the Corps' Project Manager at least two-weeks in advance.

Figure 1. Issue Resolution Framework



F. Change Management

During the course of the investigation, the Project Delivery Team will likely identify unexpected problems or encounter unknown variables that were not included in the study budget or schedule. These problems, ranging from minor to major in scope, require a formal procedure for change management.

Depending on the scope and impact of the change, three potential alternatives courses of action are available as follows:

1. Course of Action #1: Within 10% PMP Contingency
    a. Approval – Project Manager with PDT Consensus
    b. Documentation – Meeting minutes or equivalent

2. Course of Action #2: Less than 5% of FCSA Value
    a. Approval – Deputy for Project Management
    b. Documentation – Schedule & Cost Change Request (SACCR)

3. Course of Action #3: Greater than 5% of FCSA Value
    a. Approval – Project Review Board
    b. Documentation – SACCR and revised PMP

The project manager for the Corps and the non-Federal sponsor will review and execute all changes jointly. Team members will submit a description of the change, a suggested course of action, and the estimated impact to the project manager for review and approval from the appropriate level of authority.

G. Quality Management

The primary quality management objective is to provide services and produce documents that meet or exceed the non-Federal sponsors requirements and are consistent with the policies and regulation that govern the Corps. Quality reviews will be performed by each of the following:

- Technical elements
- Project Delivery Team members,
- Independent Technical Review Team (ITRT)
- District Support Team – SPD staff
- Division Support Team – HQUSACE staff

These elements will review products for completeness; conformance to applicable laws, regulations, policies, and guidance; accuracy; sound technical practice; and comprehensibility. The overall quality management of the General Reevaluation Report will be conducted in strict accordance with CESPD R 1110-1-8 dated 30 December 2002 and titled, "Quality Management Plan".

The ITR team will be chaired by a senior planner and will be composed of members from other Corps' Districts as well as the non-Federal sponsor. In order to promote efficient communication and conclusive documentation between the PDT and ITRT, the use of DrChecks, an Internet-based automated information system, will be recommended as the preferred method of virtual communication.

A complete description of the quality management practices necessary for the successful completion of this phase is described in the Quality Control Plan. The Quality Control Plan has been included as Appendix E.

3. Study Description

A. Study Objective

The primary objective of the Lower Walnut Creek GRR is to determine the extent of Federal interest in modifying the project to include ecosystem restoration as a project purpose.

B. Planning Process

During a study, the six planning steps that are set forth in the Water Resource Council's Principles and Guidelines are repeated to focus the planning effort and eventually to select and recommend a plan for authorization. This process is a conceptual planning sequence for developing solutions to water resource problems and opportunities. The six planning steps are:

1) Specify problems and opportunities
2) Inventory and forecast conditions
3) Formulate alternative plans
4) Evaluate effects of alternative plans
5) Compare alternative plans
6) Select recommended plan

During multiple iterations of these planning steps, the emphasis placed on each step differs based on the phase of the project. In the early iterations such as the reconnaissance phase, the step of specifying problems and opportunities is emphasized; however, the five other steps are not ignored since the initial screening of preliminary plans that results from these steps is very important in the scoping of the feasibility phase.

In order to determine the extent of Federal interest in modifying the project to include ecosystem restoration as a project purpose, the PDT will investigate, develop, refine, and evaluate specific project related problems and opportunities, planning objectives, and planning constraints as follows:

- Problems and Opportunities: The evaluation of public concerns often reflects a range of needs, which are perceived by the public. These needs are described in the context of problems and opportunities that can be addressed through water and related land resource management.
- Planning Objectives: The national objectives of National Economic Development and National Ecosystem Restoration are general statements and not specific enough for direct use in plan formulation. The water and related land resource problems and opportunities identified in this study are stated as specific planning objectives to provide focus for the formulation of alternatives. These planning objectives reflect the problems and opportunities and represent desired positive changes in the without project conditions.

- Planning Constraints: Unlike planning objectives that represent desired positive changes, planning constraints represent restrictions that should not be violated.

C. Work Breakdown Structure

The primary objective of this section is to identify major features of work associated with the Lower Walnut Creek General Reevaluation Study. The intent is to describe the project delivery team's best estimate of the tasks necessary to successfully meet the goals and objectives of the reevaluation.

The work breakdown structure (WBS), in conjunction with the milestone schedule and total study cost estimate found in this section, represents the study baseline. Specific information regarding each functional organization, including a responsibility matrix and detailed scopes of work, can be found in Appendix H – Responsibility Matrix & Detailed Scopes of Work.

Each scope of work has been developed to represent only specialized tasks of substantial size and assumes the inclusion of at least the following items by each team member: 1) Team Meeting Attendance; 2) Site Visits; 3) Travel; 4) Review of Existing Documentation; and, 5) General Coordination.

> " Sometimes when I consider what tremendous consequences come from little things…I am tempted to think…there are no little things." – Bruce Barton

1) Surveys & Mapping

A. **Topographic Mapping**. Assess topographic mapping needs for project; determine if full topographic and hydrographic mapping exists and/or can be obtained and developed to support hydraulic, sedimentation, and ecosystem restoration analyses. The ideal topographic mapping would include planimetric, topographic (contours), and digital orthographic photo coverage. A minimum of a 2-foot contour interval is appropriate for feasibility studies.
B. **Cross-Sectional Surveys**. If required in lieu of full topographic mapping, coordinate layout of cross-sections along creek and adjacent land within the study area with the hydraulic PDT member and conduct survey(s).
C. **GIS Platform.** Development of a GIS database that integrates data from all significant technical disciplines for general accessibility using standard desktop software. Database would include pertinent data associated with the project's hydrology; hydraulic, geotechnical, environmental, civil, and structural engineering; environmental resources; real estate; and economics.
D. **Study Area Base Maps**. Collect / acquire aerial photographs to display general physical topography. Product should serve as base map for the GIS platform; therefore, selection of the vertical datum (1988 recommended) must be coordinated with other technical elements.

E. **Special Use Maps**. Revise or segment base maps to display specific features such as land use, soil types, cultural and environmental resources, HTRW sites, project alternatives and features, floodplains, political boundaries, etc.

2) Hydrology & Hydraulic Studies

A. **Hydrology**. Update the project hydrology for the 5, 10, 25, 50, 100, 200, and 500-year events. Coordinate with PDT to identify low-flow hydrology required for ecosystem restoration and develop low-flow hydrology. Provide without project hydrology certification for F3 Conference.
B. **Hydraulic Studies**. Obtain and review any existing hydraulic models (e.g., HEC-2 decks, HEC-RAS) if they exist from previous studies. Develop hydraulic base hydraulic model. Obtain as-built bridge plans of all existing and proposed new bridges. Develop bridge inventory and include in hydraulic model. Obtain and review current FEMA floodplain mapping for use as an indicator for general trends. Obtain and review any hi-water data and aerial photo coverage from past events for model calibration. Develop floodplains for current, future without project, and future with project conditions. Conduct hydraulic modeling for each alternative. Develop channel and levee/floodwall heights and alignments for alternatives. Research and apply technologies used to design a "maintenance free" floodway.
C. **Ecosystem Restoration**. Obtain criteria for fish passage at drop structure(s). Obtain complete list of information regarding desired/target and/or endangered species and their corresponding limitations/criteria (e.g., seasonality of concern, max velocities, min depths, temperatures, etc.)
D. **Sediment Studies**. Use existing sedimentation data where available and collect additional samples as required to conduct detailed analysis including sediment samples (i.e., bed gradation samples, measurements of suspended and bedload material). Complement data with data including historic bed profiles and/or cross sections. Develop sediment transport model and channel stability model. Perform sediment yield analysis, channel stability analysis, sediment transport analysis, and tidally influenced sediment transport for current and with-project conditions.
E. **Risk Analysis.** Coordinate with the lead planner, economist and the geotechnical engineer regarding the evaluation of each potential alternative in accordance with the latest risk analysis guidance.
F. **Technical Documentation.** Prepare Engineering Appendix and related documentation to describe and summarize all data and subsequent analysis performed in support of the primary objectives and requirements of the study. The documentation will be in a report form for incorporation into the F3 Conference Report, F4 and F4A Conference Reports, Draft, and Final General Reevaluation Reports according to current guidance.

3) Geotechnical Studies

A. **Existing Conditions.** Conduct literature reviews; identify project features; perform geotechnical subsurface exploration of existing flood control features

and conduct the associated laboratory analysis. Investigation may include physical exploration or other methods necessary to characterize performance of existing levees and their associated foundations for weakness and seepage issues. Incorporate geomorphology and geohydrology study as necessary.

B. **Risk Analysis.** Coordinate with the lead planner, economist and hydraulic engineer regarding the evaluation of each potential alternative in accordance with the latest risk analysis guidance. Conduct investigative explorations necessary to support geotechnical risk analysis.
C. **Borrow Sources.** Identify potential undeveloped borrow sources and evaluate existing commercial sources for suitable borrow material, collect samples, and perform laboratory analysis.
D. **Project Alternatives.** Provide conceptual geotechnical requirements for each design alternative. Conduct preliminary geotechnical investigations for NED, NER, and LPP alternatives that involve levee raising or setback to determine an acceptable alignment and suitable foundation material conditions. Required analysis may include slope stability, seepage, and settlement.
E. **Seismic Analysis.** Conduct preliminary seismic analysis for any new or reconfigured concrete structures including drop structures, vehicle or pedestrian bridges, floodwalls, etc.
F. **Technical Documentation.** Prepare documentation to describe and summarize all data and subsequent analysis performed in support of the primary objectives and requirements of the study. The documentation will be in a report form for incorporation into the F3 Conference Report, Draft, and Final General Reevaluation Reports.

4) Engineering & Design Analysis

A. **Technical Lead**. Engineering coordination including lead technical support to the PDT. Engineering responsibilities will include independent field investigations and coordination with the non-Federal sponsor regarding design considerations. Coordination of all engineering elements as necessary for development and completion of the draft and final Basis of Design documents.
B. **Civil Engineering.** Conceptual design to potentially include setback or raised levees for each alternative. Detailed design of selected alternative including design consideration as necessary for cost estimation. Analysis may include sediment traps, reconfiguration of the drop structure, Ellenwood Creek reconnection, and miscellaneous recreational features such as bike trails and underpasses. Develop quantities for preliminary cost estimates and determine utility relocations. Basis of Design documentation to include all engineering assumptions and preliminary operations and maintenance requirements.
C. **Engineering Technician Support.** Preparation of documentation including narrative, graphics, figures, tables, drawings, and plates for the draft and final Basis of Design documents.
D. **Structural Engineering.** Prepare conceptual designs and quantities for bridge extensions/relocations/underpasses, fish weirs, floodwalls, and other structural features included in the alternatives.

5) Economic Studies

A. **Structures Inventory.** Gather and compile property and structure characteristics including but not limited to foundation heights, square footage, and usage for the purposes of determining value.
B. **Assess Economic Damages/Benefits.** Determine existing economic conditions and potential future with- and without- project conditions, including identification and comparison of benefits and costs of alternative plans. The damage assessment should include the value of all pertinent structures, property, agricultural crops, automobiles, roads, and associated traffic disruption and emergency response costs. Describe economic differences between the authorized and proposed projects.
C. **Incremental Analysis of Habitat Restoration Features.** Assist the lead planner and the lead environmental resource specialist in determining the benefit of various restoration elements.
D. **Risk Analysis.** Coordinate with the lead planner, geotechnical, and hydraulic engineers regarding the evaluation of each potential alternative in accordance with the latest risk analysis guidance.
E. **Institutional/Financial Plan.** Determine the financial and legal arrangements required to implement the recommended plan, including a financial capability analysis of the non-Federal sponsor.
F. **Technical Documentation.** Prepare documentation to describe and summarize all data and subsequent analysis performed in support of the primary objectives and requirements of the study. The documentation will be in a report form for incorporation into the F3 Conference Report, Draft, and Final General Reevaluation Reports.

6) Real Estate Analysis

A. **Rights-of-Entry.** Coordinate with the PDT and the CCCFCWCD regarding the acquisition of the necessary rights-of-entry to conduct surveying, mapping, soil sampling, water sampling, and other miscellaneous data collection. The non-Federal sponsor is primarily responsible to arrange for study-related rights of entry.
B. **Real Estate Survey of Lands Targeted for Potential Acquisition or Easements.** Includes physical takings analysis and preliminary real estate acquisition maps.
C. **Borrow and Disposal Sites.** Coordinate with the PDT and the CCCFCWCD regarding the early identification and availability of potential undeveloped and commercial borrow and disposal properties for project use.
D. **Appraisals for Real Estate Requirements Associated With the Favored Alternatives.** Complete estimates/appraisals for potential plans.
E. **Technical Documentation.** Prepare and provide the Real Estate Plan and associated documentation to describe and summarize all data and subsequent analysis performed in support of the primary objectives and requirements of the study. The documentation will be incorporated into the F4 and F4A Conference Reports, Draft, and Final General Reevaluation Reports.

7) Environmental Studies / Documentation

A. **Conduct Surveys**. Surveys for federally and state-listed, sensitive, or rare plant and wildlife species will be conducted to determine the existing conditions within the project area. These surveys will be conducted along the project site and at potential borrow material and staging area locations in support of the GRR/EIS-EIR and a Biological Assessment. The existing conditions will be used in determining the potential project impacts and future conditions for biological resources. Existing conditions will also be used to determine appropriate protection for biological resources upon completion.

B. **Environmental Documentation**. A joint environmental impact statement (EIS) and environmental impact report (EIR) will be prepared to evaluate the effects of the alternative plans and to satisfy requirements of NEPA (CEQ regulations and ER 200-2-2), CEQA, and other Federal environmental laws.

C. **Environmental Compliance**.

i. *Endangered Species Act:* Complete the Section 7 consultation process to satisfy requirements of the Endangered Species Act (ESA). A biological assessment will be prepared to evaluate the effects of the selected alternative on listed or proposed species. Field surveys will be conducted where necessary to determine the presence of listed or proposed species. If existing survey information is inadequate, a scope of work will be prepared and a contract issued for additional surveys of listed plants, animals, and/or invertebrates associated with vernal pools in areas not previously surveyed that may be affected by the alternatives. Biological opinions issued by USFWS and NMFS will be reviewed and comments prepared and furnished to both.

ii. *Clean Water Act:* Develop a water quality assessment, prepare 404(b)(1) evaluation, and determine impacts of alternative plans to wetlands and identify mitigation requirements; comply with regulatory requirements for processing application for Section 401 State Water Quality Certification for selected alternative with the Regional Water Quality Board; and develop delineation of wetlands in affected areas based on available information and additional surveys conducted under contract.

iii. *Clean Air Act:* Perform an air quality assessment; conduct conformity analysis if air emissions exceed *de minimus* standards for conformity with State Implementation Plan; determine impacts of alternatives, and develop appropriate mitigation. Coordinate analysis with local sponsor.

iv. *Coastal Zone Management Act:* Coordinate as necessary.

D. **Habitat Evaluation Procedure (HEP).** The Service will conduct the necessary HEP analyses, and provide recommendations. The Corps will participate with the Service in assessing impacts using HEP or other appropriate methodology. The work will include attending meetings to determine evaluation species and models, cover types, and mitigation strategies; mapping, and field work to collect habitat data, and review and comment of HEP reports and meeting memos, etc.

E. **Alternative Formulation Participation.** Participate in establishing without-project conditions, developing alternatives, and perform general coordination with other elements, attend study team meetings and planning milestone meetings, assist in preparing materials for milestone conferences, advise on environmental aspects of alternatives, and coordinate planning requirements with U.S. Fish and Wildlife Service (Service).
F. **Mitigation and Monitoring Plan/Incremental Cost Analysis.** Based on impact analyses, develop rough estimate of required ecosystem restoration features and costs for alternative plans; develop a more detailed mitigation plan and costs for the recommended plan; and complete an incremental analysis report to accompany the planning report.
G. **Investigate Opportunities for Ecosystem Restoration.** Serve as lead technical expert for the identification, development, and selection of aquatic and terrestrial ecosystem restoration opportunities. Coordinate closely with the lead planner and PDT incorporate the NER Objective into the recommended plan.
H. **Incremental Analysis of Habitat Restoration Features.** Lead PDT in determining the benefit of various restoration elements.

8) Fish & Wildlife Coordination

A. **Fish and Wildlife Coordination**: Prepare and negotiate scope of work with USFWS for Draft and Final FWCA reports; administer transfer of funding; supervise the work of the Service; provide required information to Service, such as description of alternatives, map of areas affected, etc; and lead cooperative effort with NMFS, DFG and USFWS as necessary.
B. **Coordination Act Report**. The Service will prepare a draft and final FWCA report and provide recommendations. The draft and final FWCA reports will be incorporated as attachments to the draft and final EIS. Obtain letters of concurrence for threatened and endangered species from USFWS and NMFS.

9) HTRW Studies

A. **HTRW Study and Report.** Investigate and conduct general research of study areas and adjacent properties with potential for HTRW-related issues. Document and summarize all data and subsequent analysis in a report for incorporation into the draft and final GRR.
B. **Environmental Sampling and Analysis.** Sample sediment in the existing floodway, and sample soil in areas proposed for floodway expansion. Potentially sample groundwater if deemed appropriate in areas proposed for major grading or where contaminant migration is suspected. Perform laboratory analysis on all samples for a wide suite of potential contaminants.

10) Cultural Resource Studies

A. **Cultural Resources Survey, Documentation, and Compliance.** Survey the study area for cultural resources, including historic, archeological, and

paleontological. This will include a survey of existing conditions, plan recommendation, and Section 106 compliance.

11) Cost Engineering

A. **Preliminary Cost Analysis.** Develop preliminary cost estimates for the purposes of evaluating and comparing potential project alternative for selection of a recommended plan.
B. **Value Engineering Study.** Preparation of support materials necessary to conduct and complete a value engineering evaluation during the study according to recent guidance. The task also includes identification of the value engineering team, development of value engineering recommendations, and value engineering certification.
C. **Total Project Cost Estimate.** Preparation and certification of a total project cost estimate associated with the design and construction of the selected project alternative including: engineering and design, construction, construction management, mitigation, and all non-Federal costs. The total project cost estimate for the recommended plan will also include: first and annual cost estimates for OMRR&R, interest during construction, inspection, and replacement.

12) Public Involvement & Outreach

A. **Public Involvement for Plan Formulation.** The lead planned and Lead Environmental Resource Specialist will serve as primary contact responsible for technical and logistical preparation of the F2 Milestone (public scoping meeting) and the F6 Milestone (public meeting on draft report). Responsible to capture public feedback and comments from each event. Incorporate pertinent public comments into the appropriate project documentation. Coordinate with Public Affairs Office for development and implementation of a Public Involvement Plan, if necessary.
B. **Public Scoping for Environmental Documentation.** Prepare and publish notice of intent in Federal Register; prepare mailing list for notice and invitation to public workshops; assist with public workshops and other public involvement activities. Responsible to capture public comments in an MFR.

13) Plan Formulation & Evaluation

A. **General Study Coordination (F1 – F9).** Develop, coordinate, and execute planning program for feasibility study and related requirements including the project schedule, budget, and documentation in coordination with PDT. Provide guidance and technical leadership on planning requirements. Attend and participate in meetings PDT, sponsor, concerned agencies, stakeholders, public, officials, Corps echelons, etc. Coordinate, communicate, and meet with project delivery team and sponsor to discuss plan formulation, scoping, and environmental compliance issues. Ensure compliance with pertinent planning regulations, policies, guidance, and quality management plans and practices. Assist or lead the PDT in the execution of risk analysis, document

preparation, incremental analysis, milestone conferences, stakeholder involvement, and document coordination.

B. **Identify Problems and Opportunities.** Reference historical documents and conduct a site visit to determine current study area characteristics. Evaluate and describe existing and future without-project condition. Evaluate existing and future conditions and resources for related problems. Identify opportunities to solve the problems. Investigate current community based master plans to identify and incorporate recreational opportunities into the study. Identify constraints, planning objectives, and evaluation criteria. Incorporate into F3 Conference document.

C. **Plan Formulation and Evaluation (pre-F3).** Develop planning objectives and constraints, refine, evaluate, compare and screen assess potential measures that will be refined into alternative plans, including required nonstructural and no-action plans. Develop, evaluate, compare and screen preliminary alternative plans. Incorporate into F3 Conference document.

D. **Evaluate and Compare Alternatives to Fully Develop Rationale for Recommended Plan.** Develop, evaluate, compare and screen alternatives. Evaluate alternatives for completeness, effectiveness, efficiency, acceptability, and costs and benefits. Provide data and coordinate with the biologist, economist, engineers, and real estate specialists as necessary to define the scope of each alternative plan. Evaluate potential impacts, while evaluating natural and cultural resources, land use, and socioeconomic data. Based on the evaluation and comparison of each of the alternatives, as well as input from the sponsor and public comments, select a recommended plan for implementation. Identify compliance with the NED Objective, LPP, NER, LEDPA, etc. Perform cost allocation and cost-sharing.

14) Report Documentation

A. **Report Preparation.** Compile, compose, publish, and reproduce all planning documents including: in-progress reports, F3 Conference Document (Feasibility Scoping Meeting), F4 Conference Document (Alternative Review Conference), F4A Conference Document (Alternative Formulation Briefing), Draft GRR (F5), F7 Conference Document (Feasibility Review Conference), Final GRR (F8), Division Engineer's Notice (F9), and subsequent review documentation requests. Revise documents based on technical and policy review comments. Prepare for and conduct F3, F4, F4A, F6, and F7 milestone conferences. Facilitate and expedite the processing of documents with CESPD and HQUSACE.

15) Independent Technical Review

A. **Independent Technical Review.** At a minimum, an independent technical review will be conducted on the F3 Conference Report, the F4 and/or F4A Conference Reports, the Draft GRR, and the Final GRR. The ITR team will be chaired by a senior planner and will be composed of members from other Corps' Districts as well as the non-Federal sponsor. The independent

technical review will be conducted in accordance with procedures established in the Quality Control Plan enclosed as Appendix E of this PMP.

16) HQUSACE Report Review & Approval

A. **Document Reproduction & Submission.** Reproduction of the report and assembly of required documentation necessary for submission to SPD.
B. **Review Coordination.** Coordination between SPK, SPD, HQUSACE, and the non-Federal sponsor for the review, approval, and processing of the study.
C. **Review Documentation & Certification**. Formal documents representing responses provided by the PDT to comments developed during review.

17) Project Management & Budget Documents

A. **Project Management.** Project Manager is responsible for the cost and schedule of the project and each deliverable. In conjunction with the PDT, the project manager will support the development of the study scope and appropriate quality standards. The project manager will resource, support, and monitor study progress and develop Schedule and Cost Change Requests (SACCR), updates to the PMP, or amendments to the FCSA.
B. **Annual and Interim Budget Documentation**. A budget analyst is responsible for the preparation and submission of annual Federal budget documentation, continuing coordination with the non-Federal sponsor regarding cost-sharing accounting, distribution of project funding to the PDT, and coordination of the final audit as required to closeout the cost-sharing agreement.
C. **Coordination and Communication.** The project manager is responsible for the general coordination and communication associated with the project in close coordination with the PDT. Coordination may include scheduling and leading PDT meetings, ensuring the integration of non-Federal in-kind services, and interfacing with local stakeholders for input and feedback. General communication may include status reporting to senior management; distribution of pertinent historical project documentation; and the dissemination of meeting agendas, minutes, and other relevant project data.

18) Project Management Plan Development (PED)

A. **PMP Development**. Develop the Project Management Plan associated with the pre-construction engineering and design phase of the project.
B. **PMP Negotiation**. Coordinate submission and review of the PMP with the non-Federal sponsor for execution.

19) Cost-Sharing Agreement Negotiation (PED)

A. **PED Agreement Development**. Revise model cost-sharing agreement for pre-construction engineering and design (PED) phase of the project.
B. **PED Agreement Negotiation**. Coordinate submission and review of the model cost-sharing agreement with the non-Federal sponsor for execution.

D. General Reevaluation Phase Schedule

Based on the primary objectives established in Section 1.D for this general reevaluation, the overall study schedule will generally resemble that of a feasibility investigation. The PDT anticipates that this general reevaluation will be conducted over a 36-month period according to the schedule of the major study milestones provided in Table 3. A detailed, graphical representation of the overall study schedule using a network analysis system can be found in Appendix H titled, MS Project – Study Schedule.

Table 3: General Reevaluation Phase Milestones

Milestone	Description	Task Duration	Total Duration	Date
F1	Initiate Study	0	0	March-03
F2	Public Workshop/Scoping	2	2	May-03
F3	Feasibility Scoping Meeting	11	13	April-04
F4	Alternative Review Conference	9	22	January-05
F4A	Alternative Formulation Briefing	5	27	June-05
F5	Draft Feasibility Report	3	30	September-05
F6	Public Meeting	1	31	October-05
F7	Feasibility Review Conference	1	32	November-05
F8	Final Report to SPD	3	35	February-06
F9	DE's Public Notice	1	36	March-06
-	Chief's Report	-	-	-
-	Project Authoriztion	-	-	-

E. Total Study Cost Estimate

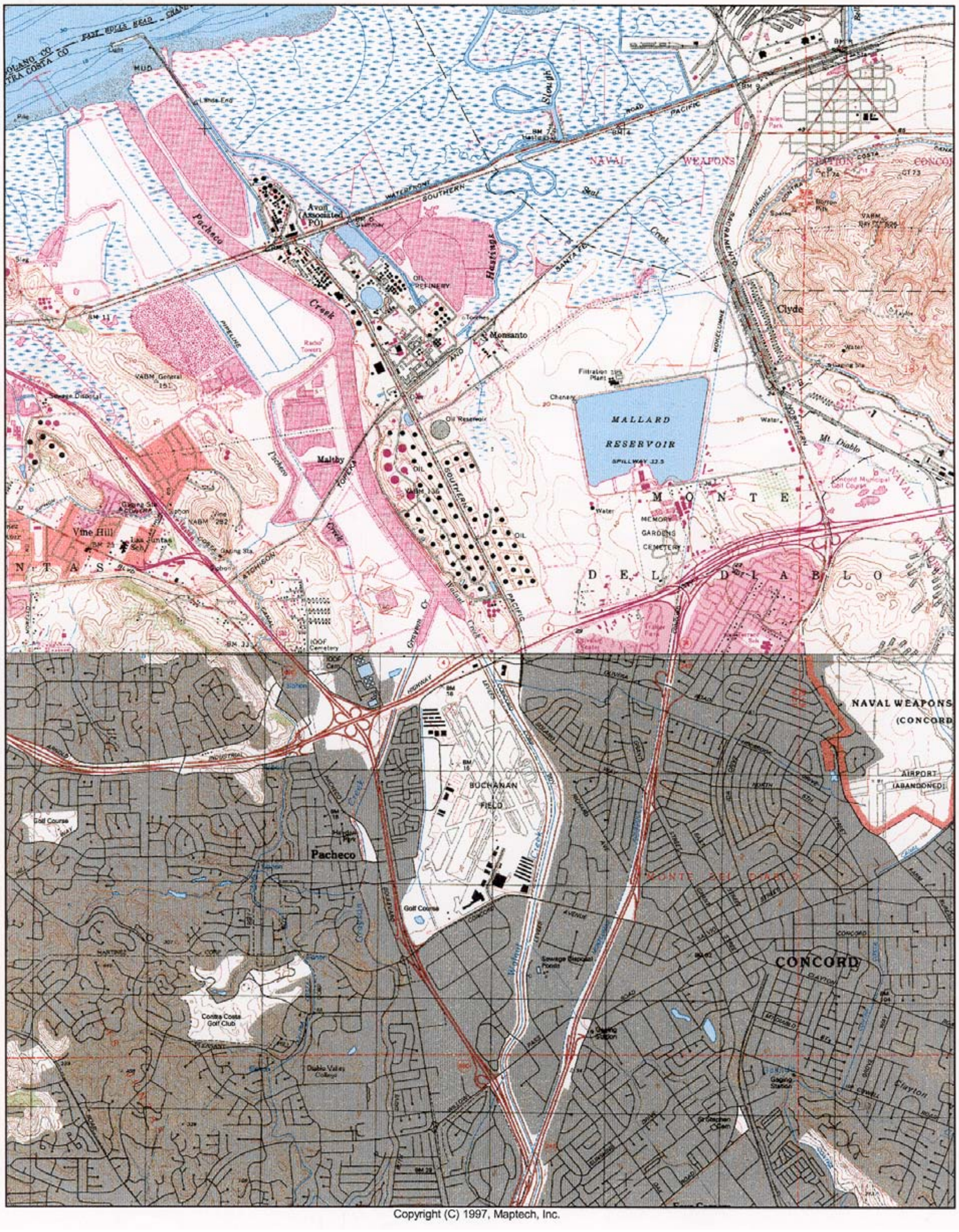
The non-Federal sponsor has requested that the General Reevaluation Phase of the Lower Walnut Creek Project be conducted under a Feasibility Cost-Sharing Agreement (FCSA). This agreement requires the overall cost of the reevaluation to be shared equally by both parties. Furthermore, the non-Federal sponsor may elect to contribute their half of the study cost as any combination of cash payments and in-kind services. A summary of the funding necessary to ensure successful completion of this project phase is presented in Table 4. A detailed, tabular representation of the overall resource estimate using a Corps developed automated information system can be found in Appendix I titled, PROMIS – Resource Estimate.

Table 4: General Reevaluation Phase Budget

Task Description	Fed. Cost	Non-Fed. Cost	Total
Surveys and Mapping	$50,000	$200,000	$250,000
Hydrology and Hydraulics Studies	$200,000	$250,000	$450,000
Geotechnical Studies	$60,000	$150,000	$210,000
Engineering and Design Analysis	$100,000	$90,000	$190,000
Economic Studies	$65,000	$25,000	$90,000
Real Estate Analysis	$20,000	$40,000	$60,000
Environmental Studies / Documentation	$225,000	$175,000	$400,000
Fish and Wildlife Coordination	$50,000	$10,000	$60,000
HTRW Studies	$125,000	$25,000	$150,000
Cultural Resources Studies	$20,000	$40,000	$60,000
Cost Estimates	$30,000	$0	$30,000
Public Involvement and Outreach	$20,000	$20,000	$40,000
Plan Formulation and Evaluation	$500,000	$100,000	$600,000
Report Documentation	$60,000	$0	$60,000
Technical Review Documents	$215,000	$25,000	$240,000
HQUSACE Review and Approval	$30,000	$20,000	$50,000
Project Management	$150,000	$150,000	$300,000
Project Management Plan for PED	$30,000	$10,000	$40,000
PED Cost Sharing Agreement	$10,000	$10,000	$20,000
In-Kind Services Subtotal:	$1,960,000	$1,340,000	$3,300,000
Distribution	59%	41%	
Contingency (10%)	$196,000	$134,000	$330,000
Cash Correction	- $341,000	$341,000	
TOTAL:	$1,815,000	$1,815,000	**$3,630,000**

Appendix A

Project Area Map



Appendix B

Project Delivery Team

Project Delivery Team

Name & Organization	Title	Telephone	E-MAIL
Eric Nagy CESPK-PM-C	Project Manager	(916) 557-5114	Eric.E.Nagy@usace.army.mil
Kevin Emigh CCCFCWCD	Project Manager	(925) 313-2233	Kemigh@pw.co.contra-costa.CA.US
Katrina Chow CESPK-PD-WC	Plan Formulator	(916) 557-6724	Katrina.C.Chow@usace.army.mil
Mark Boedtker CESPK-ED-D	Civil Engineer	(916) 557-6637	Markus.S.Boedtker@usace.army.mil
Roger Norris CESPK-ED-D	Structural Engineer	(916) 557-7299	Roger.A.Norris@usace.army.mil
Kathy Siebenmann CESPK-ED-E	Environmental Chemist	(916) 557-7180	Kathleen.F.Siebenmann@usace.army.mil
Melisa Helton CESPK-PD-RP	Environmental Specialist	(916) 557-7948	Melisa.N.Helton@usace.army.mil
Arden Sansom CESPK-PD-BK	Economist	(916) 557-7910	Arden.K.Sansom@usace.army.mil
Ed Flint CESPK-ED-G	Geotechnical Engineer	(916) 557-7427	Edward.E.Flint@usace.army.mil
Scott Stonestreet CESPK-ED-D	Hydraulic Engineer	(916) 557-7719	Scott.E.Stonestreet@usace.army.mil
Daniel Kramer CESPK-ED-D	Hydrologist	(916) 557-7129	Daniel.E.Kramer@usace.army.mil
Mike Garrett CESPK-RE	Real Estate Specialist	(916) 557-6880	Michael.J.Garrett@usace.army.mil
Sherman Fong CESPK-ED-C	Cost Engineer	(916) 557-6983	Sherman.C.Fong@usace.army.mil
Valarie Albrecht CESPK-PM-C	Budget Analyst	(916) 557-7749	Valarie.Albrecht@usace.army.mil
Dennis Potter CESPK-CO-C	Construction Engineer	(916) 557-7329	Dennis.L.Potter@usace.army.mil
Art Belanger CESPK-ED-C	Value Engineer	(916) 557-6972	Arthur.T.Belanger@usace.army.mil

SPD & HQUSACE Support Team Members

Name & Organization	Title	Telephone	E-MAIL
SPK-DST (SPD)			
Marcelo Pascua, Jr. CESPD-CM-C	Program Manager	(415) 977-8232	Marcelo.G.Pascua@usace.army.mil
Boni Bigornia CESPD-CM-B	Planning Specialist	(415) 977-8102	Boniface.G.Bigornia@usace.army.mil
Leon Holden CESPD-MT-E	Engineering Specialist	(415) 977-8663	Leon.Holden@usace.army.mil
Marilyn Rodriguez CESPD-MT-R	Real Estate Specialist	(415) 977-8188	Marilyn.M.Rodriguez@usace.army.mil
Dan Dykstra CESPD-OC	Legal Specialist	(415) 977-8211	Daniel.J.Dykstra@usace.army.mil
Phil Turner CESPD-CM-O	Operations Specialist	(415) 977-8058	Philip.R.Turner@usace.army.mil
MSC Support Team (HQUSACE)			
Vince Montante CECW-BC	Team Leader	(202) 761-4108	Vince.Montante@usace.army.mil
Robyn Colosimo CECW-PM	Planning & Policy	(202) 761-7767	Robyn.S.Colosimo@usace.army.mil
Brian Bryson CECW-BW	Programs	(202) 761-1896	Brian.D.Bryson@usace.army.mil
William Bayert CERE-C-WR	Real Estate	(202) 761-7525	William.K.Bayert@usace.army.mil

Appendix C

Management Plan Approval

Lower Walnut Creek General Reevaluation Report
Project Management Plan

Signature indicates consent with Lower Walnut Creek General Reevaluation Phase Project Management Plan dated February 2003.

Michael W. Connelly 19 Jun 03
Col. Michael J. Conrad, Jr. Date
District Engineer

2/27/03
Eric Nagy, Date
Project Manager

Kenneth E Hitch 3-3-03
Ken Hitch, Date
Chief; Planning Division

for Mark Charlton, Date
Chief; Programs and Project Management

Thomas E Trainer 3/3/03
Thomas Trainer, Date
Chief; Engineering Division

2/28/03
Marvin Fisher, Date
Chief; Real Estate Division

Karen Durham-Aguilera 3 MAR 03
Karen Durham-Aguilera Date
Chief; Construction-Operations Division

Non-Federal Sponsor

Maurice Shui 6/12/03
Maurice Shui, Date
Chief Engineer;
Contra Costa County
Flood Control & Water Conservation District

Appendix D

Acronyms & Abbreviations

Acronyms and Abbreviations

1. **AFB** – Alternative Formulation Briefing
2. **ASA(CW)** – Assistant Secretary of the Army for Civil Works
3. **CAR** – Coordination Act Report
4. **CCCFCWCD -** Contra Costa County Flood Control & Water Conservation District
5. **CCWF** – Contra Costa Watershed Forum
6. **CEQA** – California Environmental Quality Act
7. **CESPD** – Corps of Engineers South Pacific Division
8. **CESPK –** Corps of Engineers Sacramento District
9. **Corps** – U.S. Army Corps of Engineers
10. **DFG –** Department of Fish and Game
11. **DST** – District / Division Support Team
12. **EBRPD** – East Bay Regional Parks District
13. **EIS –** Environmental Impact Statement
14. **EIR** – Environmental Impact Report
15. **ESA –** Endangered Species Act
16. **FCSA** – Feasibility Cost Sharing Agreement
17. **FEMA** – Federal Emergency Management Agency
18. **GIS** – Geographic Information System
19. **GRR –** General Reevaluation Report
20. **HEC** – Hydrologic Engineering Center
21. **HEP –** Habitat Evaluation Procedure
22. **HQUSACE –** Headquarters, U.S. Army Corps of Engineers
23. **HTRW –** Hazardous, Toxic, and Radioactive Waste
24. **ITRT** – Independent Technical Review Team

25. **LEDPA** – Least Environmentally Damaging Preferred Alternative
26. **LPP** – Locally Preferred Plan
27. **MFR** – Memorandum for Record
28. **NED** – National Economic Development
29. **NEPA** – National Environmental Policy Act
30. **NMFS –** National Marine Fisheries Service
31. **OMB** – Office of Management and Budget
32. **PCA –** Project Cooperation Agreement
33. **PDT** – Project Delivery Team
34. **PED** – Pre-Construction Engineering and Design
35. **PL** – Public Law
36. **PM** – Project Manager
37. **PMBP –** Project Management Business Process
38. **PMP –** Project Management Plan
39. **PRB** – Project Review Board
40. **PROMIS** – Project Management Information System
41. **QCP** – Quality Control Plan
42. **QMP –** Quality Management Plan
43. **ROD –** Record of Decision
44. **RWQCB –** Regional Water Quality Control Board
45. **SACCR** – Schedule and Cost Change Request
46. **USACE** – U.S. Army Corps of Engineers
47. **USFWS –** United States Fish and Wildlife Service
48. **WBS** – Work Breakdown Structure
49. **WRDA** – Water Resources Development Act

Appendix E

Quality Control Plan

CESPK-PM-C 24 February 2003

QUALITY CONTROL PLAN

GENERAL REEVALUATION REPORT
LOWERWALNUT CREEK, CALIFORNIA

1. References:

a. ER 5-1-11, U.S. Army Corps of Engineers Business Process; 17 August 2001.
b. ER 1105-2-100, Planning Guidance Notebook; 22 April 2000.
c. ER 1110-1-12, Quality Management; 1 June 1993.
d. CESPD R 1110-1-8, Quality Management Plan; 30 December 2002.
e. CESPD-ET-P Memorandum; Expedited Reconnaissance Phase Studies; 5 June 2000.
f. CESPD-ET-P Memorandum; Processing of Planning Reports in the South Pacific Division; 31 July 2000.
g. Quality Management Plan for Sacramento District; 21 January 2000.

2. Objective

The objective of this Quality Control Plan (QCP) is to establish a basis of review that will result in the production of a high-quality general reevaluation report. Quality control is defined as the evaluation of technical products and processes to ensure compliance with applicable laws, regulations, policies, and sound technical practices of each discipline.

3. Quality Management Methodology

a. Quality Control Plan: The QCP is a project-specific document that provides a framework for developing the project and conducting the technical review. The QCP is included as an appendix of the Project Management Plan (PMP). The QCP identifies the project documents to be reviewed, the development team, the review team, and the schedule and costs for both product development and review. A QCP is prepared for every project and service. The PDT develops the QCP when the product is resourced for development by in-house staff.

b. Roles & Responsibilities:

1. **Project Manager -** The PM ensures adequate funding for the PDT and ITR teams, verifies that QC certification requirements are completed prior to product approval, monitors partner satisfaction, and facilitates issue resolution.

2. **Project Delivery Team (PDT) -** The PDT develops technical data, prepares technical documents, and allows sufficient time for an ITR. PDT members are responsible to: request seamless review sessions with their ITR counterparts during project development; respond to ITR comments according to the ITR schedule; and, participate in dispute resolution.

3. **Independent Technical Review Team (ITRT) -** The ITRT includes senior technical and policy experts (with 5+ years of experience) and mirrors the PDT in disciplines. The ITRT provides unbiased, independent, and seamless review of each major project product. ITR Team members may be from any technical discipline, support office, cost-share partner, or consultant; however, the ITRT should not include any PMs or RMs.

4. **ITRT Chairperson -** The ITRT Chair coordinates the ITR of documents and materials identified in the QCP with the ITRT, PDT, PMs, RMs, and others. The selection of the ITRT Chair is a cooperative effort between the PM, RM, and Functional Chief; however, the ultimate decision rests with the Functional Chief responsible for the project phase. It is the ITRT leader's responsibility to distribute review materials and reports to the ITRT members for comment. The ITRT Chair shall: review all comments; resolve any disagreements between disciplines; eliminate duplicate comments; consolidate all comments into an organized set by discipline; and, forward the comment set to the PM and PDT. The ITRT Chair shall also: lead ITR meetings; ensures proper documentation of the review process; and facilitate (along with the PM) resolution of disagreements between the ITRT and PDT. The ITRT Chair assists the PM in monitoring ITRT costs and schedules, keeps the Functional Chief and PM informed of review status, and makes a formal recommendation to the Functional Chief regarding certification.

5. **Resource Manager (RM) -** The 1st Line Supervisor assigns personnel to the PDT and ITRT, participates in the technical review strategy session, resolves discipline-specific technical issues, and provides mentoring for technical product development. The RM is also responsible for the quality of discipline-specific technical products.

6. **Functional Chief -** The Functional Chief ensures the quality of primary project products including decision documents and plans and specifications. The Functional Chief mediates the resolution of technical issues, approves the QCP / QCC, and advises the Commander on the adequacy of the completed product for final certification. The Functional Chief also chairs in-house technical review conferences.

7. **CESPD District Support Team (DST)** – The primary role of the District Support Team is to assist the district in delivering quality products to their

customers. In the context of quality management, this includes providing oversight and quality assurance of the district's overall quality management program, assisting the district with project specific issues, performing policy reviews for delegated actions, and processing district products through Washington.

8. **Project Partner -** The partner must communicate their technical and quality management requirements for the project and participate as PDT and potentially as ITRT members.

c. Seamless Review: The review team needs to be actively involved throughout the project development process and must maintain constant communication with the PM, ITRT Chair, PDT, and RMs. In order to ensure that the efforts of each discipline are in compliance with current policy and technical criteria, each technically specific sub-product must be reviewed before integration into the overall project. PDT members must consult with their ITRT counterparts at appropriate points throughout project development to discuss: major assumptions; functional decisions; analytical approaches; and, significant calculations in order to preclude the possibility of significant comments arising during the final ITR. Each discipline is responsible to engage their own counterpart at the appropriate time, document the discussions and resulting agreements, and transmits this information to the ITRT Chair and PM. All seamless review sessions should be documented and included with the formal ITR documentation for QC certification.

d. Independent Technical Review: An ITR is conducted by the ITRT following completion of the draft and final products. The ITRT findings are documented in a Memorandum for Record (MFR) that is distributed to the PDT. The ITRT Chair prepares a lessons-learned report at the conclusion of the final ITR.

1. **Review Methodology** - The ITRT is assembled with the initiation of product development process to facilitate early seamless review. The first ITR will be conducted following completion of the draft documents. The ITRT will generate a formal ITR MFR. Based on the nature of the feedback, a formal comment review conference may be held between the ITRT and the PDT. The PDT responds to the ITR MFR through a memorandum to the ITRT Chair. The ITRT considers the responses to the review comments and identifies any disagreements requiring resolution. Any issues which cannot be agreed upon between the PDT and ITRT shall be elevated for resolution. If necessary, the PDT prepares a formal MFR addressing issue resolution decisions, citing decisions reached, the organizational elements involved, and individual(s) responsible for the decision(s). The PDT revises the project documents according to the ITR feedback and develops a final set of responses that are submitted to the ITRT for verification. The ITRT Chair assembles the QC Certification package, prepares final documentation for the review process, and certifies

that the project QC review is complete. The QC Certification package is forwarded to the PM for the coordination with the responsible Functional Chief and the District Commander for formal approval. Finally, the ITRT Chair is responsible for compiling a lessons-learned report at the conclusion of the ITR effort.

2. **Comment Structure** – Each ITRT comment shall contain the following four elements:

   - A clear statement of the concern, including information on the deficiency or incorrect application of policy, procedures, or criteria;
   - The basis of the concern as it relates to law, policy, guidance, criteria, or partner/client requirements;
   - Significance of the concern, and how the concern could affect the technical or decision-making process; and,
   - The specific actions needed to resolve the concern.

   Typographic errors and other minor stylistic changes should not be included in the formal ITR MFR. These comments should be forwarded to the PM and the PDT independently.

3. **Roles and Responsibilities** –

   - ITRT Chair. The ITRT Chair functions primarily as a review facilitator for large and/or complex projects. The ITRT Chair reviews both the QCP and PMP for any special or unique conditions and coordinates review of each product. During the review process, the ITRT Chair will (a) encourage all ITRT members to develop substantive comments; (b) verify that each comment is complete; (c) raise "red flags" quickly when problems arise; (d) minimize redundancy among ITRT comments by consolidating comments; (e) apply a standard of consistency to the comments; (f) ensure that the review comments are substantive, constructive, and relevant to the project; and (g) encourage all ITRT members to actively engage in seamless review. Furthermore, the ITRT Chair (a) ensures continuing backcheck of PDT correction efforts until full resolution is accomplished; (b) prepares the ITR MFR including a crosscheck of project requirements, major assumptions, and other critical concerns; (c) assembles the QC certification package for approval; and (d) maintains the in-progress ITRT files. As appropriate, the ITRT Chair presents the ITR activities, findings, and issues at milestone conferences. The ITR Chair may be asked to attend PDT meetings in an advisory role concerning ITR issues and in informal PDT seamless review and milestone conferences.

   - ITRT Members. ITRT members are responsible for the development of meaningful discipline-specific comments that are expressed in a

clear and concise manner. ITRT members shall participate in the Issue Resolution Process in a professional manner, seeking the best possible solution, and conduct a backcheck to ensure that all resolved issues have been appropriately addressed in the ITR and project documents. ITRT members are expected to regularly participate with their PDT counterparts in the seamless review process.

4. Product Description

The Lower Walnut Creek, California, General Reevaluation Report was initiated in March 2003. The last known decision document completed by the U.S. Army Corps of Engineers is the: **Walnut Creek Flood Control Project, Wildlife Mitigation Phase 2 [Drop Structure #1 to Concord Avenue] Letter Supplement No. 6 to Design Memorandum No. 1, December 1993.**

5. Quality Objectives

The Lower Walnut Creek, California, General Reevaluation Report will be reviewed according to the following quality objectives:

- Assumptions used as the basis of the feasibility phase;
- Identification of planning objectives and constraints;
- Consistency with Corps authority and budget policy;
- Range of alternatives considered;
- Justification for policy exemptions and streamlining initiatives.

6. Review Schedule

The review process schedule will coincide largely with the overall product development schedule; however, several additional milestones are applicable solely for the development and engagement of the ITRT, as follows:

Event	**Study Milestone**	**Review Milestone**
Technical Review Strategy Session	-	*29 January 2003*
PMP Review and QCP Approval	-	*3 March 2003*
Assemble Technical Review Team	-	May 2003
F3 Pre-Conference Document	April 2004	February 2004
F4 / F4A Pre-Conference Document	January 2005	November 2005
Draft GRR & EIS-EIR	September 2005	July 2005
Final GRR & EIS-EIR	February 2006	December 2006

The PDT anticipates a need of four (4) week to conduct an ITR. Since SPD and HQUSACE requires receipt of each draft product four (4) weeks in advance of the respective conference, the initiation of each formal ITR will be eight (8) weeks prior to the scheduled conference date.

7. Review Cost Estimate

The review process will consist of five events: 1) seamless review; 2) ITR of the F3 Conference Report; 3) ITR of the F4 or F4A Conference Report; 4) ITR of the draft general reevaluation report; and, 5) ITR of the final general reevaluation report. The costs associated with all five review events have been incorporated into the cost estimate for Technical Review Documents, as shown in Table 4 of Section 3.D of the PMP. A detailed breakdown of this estimate has been compiled as follows:

Event	Team Size	Total Days	Estimated Cost
Seamless Review	13	65	$58,500
F3 Pre-Conf. Doc.	8	32	$28,800
F4 Pre-Conf. Doc.	10	40	$36,000
Draft GRR & EIR	13	65	$58,500
Final GRR & EIR	13	65	$58,500
Total		**267**	**$240,300**

This estimate assumes different levels of review across the review team for each product as well as participation by one member from the non-Federal sponsor's organization. The estimate calculates cost at the burdened labor rate of $900.00 per person-day.

8. Project Delivery Team (PDT)

The members of the Project Delivery Team, including their functional organization and contact information, are listed in Appendix B of the PMP.

9. Independent Technical Review Team (ITRT)

In accordance with recent guidance, the Independent Technical Review of any post-authorization decision document scheduled for transmittal to Congress for authorization must be reviewed by another Corps district. Due to the magnitude of this new policy and the previously established study schedule, an Independent Technical Review Team has not yet been assembled. The PM in close coordination with the Lead Planner and the PDT will establish an interdistrict ITRT by the F2 Milestone.

10.Quality Control Certification

The District has completed the Project Management Plan for the General Reevaluation Phase of the Lower Walnut Creek Project and all of the necessary quality control activities have been completed. Compliance with clearly established policy principles and procedures, utilizing justified and valid assumptions, has been verified, including whether the PMP meets the non-Federal sponsors needs and is consistent with law and existing Corps policy. All issues and concerns resulting from the review of the PMP have been resolved.

CERTIFICATION

Certification is hereby given that 1) the review process for this PMP has been completed, 2) all issues have been addressed, 3) the streamlining initiatives proposed in this PMP will result in a technically adequate product, and 4) appropriate quality control plan requirements have been adequately incorporated into this PMP. In summary, the study may proceed into the feasibility phase in accordance with this PMP.

3-3-03
Date

Ken Hitch,
Chief, Planning Division

Appendix F

Regulations & Guidance

Regulations and Guidance

1. *Flood Control Act of 1950*, 81st Congress, Public Law 81-516. Section 205, Original Study Authority.

2. *Flood Control Act of 1960*, 86th Congress, Public Law 86-645, Section 205, Original Project Authorization.

3. *Energy and Water Development Appropriations Bill,*107th Congress, Public Law 107-112, Reevaluation Study Authority.

4. Planning Guidance Notebook, ER 1105-2-100, April 2000.

5. CRM Learning Internet Address: http://www.crmlearning.com/scripts/product.asp

6. Conflict Resolution Network Internet Address: http://www.crnhq.org/twelveskills.html

7. *Corporate Board Guidance Memorandum # 99 – 03,* issued by Col. Michael J. Walsh, 7 March 2001.

8. South Pacific Division Policy and Guidance Internet Address: http://www.spd.usace.army.mil/cwpm/public/plan/pdguide/guide.htm

9. *CESPD Regulation 1110-1-8*, Quality Management Plan, 30 December 2002.

10. *CESPD Regulation 1165-2-203*, Technical Policy Compliance Review, October 1996.

11. Engineering Circular 1105-2-210, Ecosystem Restoration in the Civil Works Program.

Appendix G

Study Milestone Descriptions

Study Milestone Descriptions
General Reevaluation Phase

Identifier	Milestone Name	Description
F1	Initiate Study	Date the FCSA is signed by both parties.
F2	Public Workshop	Public Meeting/Workshop to inform the public and obtain input, public opinions and fulfill scoping requirements for NEPA purposes.
F3	Feasibility Scoping Mtg.	Feasibility Scoping Meeting with HQUSACE to address potential changes in the PMP. It will establish without project conditions and screen preliminary plans.
F4	Alternative Review Conf.	Alternative Review Conference will evaluate the final plans, reach a consensus that the evaluations are adequate to select a plan and prepare AFB issues.
F4A	Alt. Formulation Briefing	Alternative Formulation Briefing is for policy compliance review of the proposed plan with HQUSACE to identify actions required to prepare and release the draft report.
F5	Draft Feasibility Report	Initiation of field level coordination of the draft report with concurrent submittal to HQUSACE through SPD for policy compliance review.
F6	Final Public Meeting	Date of the final public meeting.
F7	Feasibility Review Conf.	Policy compliance review of the draft report with HQUSACE to identify actions that are required to complete the final report.
F8	Final Feasibility Report	Submission of final report package to SPD including technical and legal certifications, compliance memorandum and other required documentation.
F9	DE's Public Notice	Issuance of the Division Commander's Public Notice. Congressional notification occurs two days prior. The report and supporting documentation would be forwarded to HQUSACE. Used as the completion of the feasibility report.
-	Final EIS/EA	Date that the notice appears in the Federal Register. Letters for filing would be furnished by HQUSACE.
-	Chief's Report	Final Report signed by the Chief of Engineers and forwarded to the ASA-CW.
-	ROD/FONSI Signed	ROD is signed by the ASA(CW) when sent for authorization.
-	Authorization Signed	President signs authorizing legislation.

Appendix H

Responsibility Matrix
and
Detailed Scopes of Work

Primary Task	Federal Sponsor															**Non-Federal Sponsor**
	Project Manager	Lead Planner	Environmental Specialist	Archeaologist	Economist	Lead Civil Engineer	Hydraulic Engineer	Hydrologist	Geotechnical Engineer	Chemist	Real Estate Specialist	Cost Estimator	Surveyor	GIS Specialist	ITR Chairperson	
Surveys & Mapping		S				S							S	S		**P**
Hydrology & Hydraulic Studies					S		**P**	**P**	S							S
Geotechnical Studies					S		S		**P**							S
Engineering & Design Analysis						**P**	S		S	S						S
Economic Studies					**P**		S		S							S
Real Estate Analysis		S				S					**P**					**P**
Environmental Studies & Documentation		S	**P**													S
Fish & Wildlife Coordination			**P**													R
HTRW Studies						S				**P**						R
Cultural Resource Studies			S	**P**												S
Cost Estimates		S				S						**P**				R
Public Involvement & Outreach		**P**	**P**													S
Plan Formulation & Evaluation		**P**	S			S										S
Report Documentation	S	**P**													R	R
Technical Review Documents		S													**P**	R
HQUSACE Review & Approval	S	**P**													S	R
Project Management	**P**															**P**
Project Management Plan for PED	**P**															S
PED Cost-Sharing Agreement	**P**															S

P - Primary Organization - Lead Organization Primarily Respoinsible for Task

S - Supporting Organization - Substantially Assisting in Analysis or Providing Significant Information

R - Reviewing Organization - Providing Critical Input Through Review Process

Detailed Scopes of Work will be included upon execution of the FCSA.

Appendix I

MS Project – Study Schedule

ID	Task Name	Dur	Start	Finish	Pred	Act Start	Act Finish
1	**Lower Walnut Creek Restoration GRR**	**371 days**	**03/25/02 08:00 AM**	**03/30/03 05:00 PM**		**03/25/02 08:00 AM**	**NA**
2	General Project Development	52 days	03/25/02 08:00 AM	05/15/02 05:00 PM		03/25/02 08:00 AM	05/15/02 05:00 PM
3	**Cost-Sharing Agreement**	**319 days**	**05/16/02 08:00 AM**	**03/30/03 05:00 PM**	2	**05/16/02 08:00 AM**	**NA**
4	**Assemble Project Delivery Team**	**78 days**	**05/16/02 08:00 AM**	**08/01/02 05:00 PM**		**05/16/02 08:00 AM**	**08/01/02 05:00 PM**
5	Project Introduction Meeting	1 day	05/16/02 08:00 AM	05/16/02 05:00 PM		05/16/02 08:00 AM	05/16/02 05:00 PM
6	Appoint Team Members	28 days	05/17/02 08:00 AM	06/13/02 05:00 PM	5	05/17/02 08:00 AM	06/13/02 05:00 PM
7	Initial Site Visit	1 day	07/17/02 08:00 AM	07/17/02 05:00 PM		07/17/02 08:00 AM	07/17/02 05:00 PM
8	Research & Review Existing Data	49 days	06/14/02 08:00 AM	08/01/02 05:00 PM	6	06/14/02 08:00 AM	08/01/02 05:00 PM
9	**Project Management Plan (PMP)**	**212 days**	**08/01/02 08:00 AM**	**02/28/03 05:00 PM**	8	**08/01/02 08:00 AM**	**NA**
10	Prepare PMP	120 days	08/01/02 08:00 AM	11/28/02 05:00 PM		08/01/02 08:00 AM	11/28/02 05:00 PM
11	Review PMP	30 days	11/29/02 08:00 AM	12/28/02 05:00 PM	10	11/29/02 08:00 AM	12/28/02 05:00 PM
12	Revise PMP	36 days	12/29/02 08:00 AM	02/02/03 05:00 PM	11	12/29/02 08:00 AM	02/02/03 05:00 PM
13	Technical Review Strategy Session	1 day	01/29/03 08:00 AM	01/29/03 05:00 PM		01/29/03 08:00 AM	01/29/03 05:00 PM
14	Finalize PMP	30 days	01/30/03 08:00 AM	02/28/03 05:00 PM	13	01/30/03 08:00 AM	NA
15	**Feasibility Cost-Sharing Agreement**	**56 days**	**02/03/03 08:00 AM**	**03/30/03 05:00 PM**	12	**02/03/03 08:00 AM**	**NA**
16	Prepare Agreement	7 days	02/03/03 08:00 AM	02/09/03 05:00 PM		02/03/03 08:00 AM	02/09/03 05:00 PM
17	**Review Agreement**	**14 days**	**02/10/03 08:00 AM**	**02/23/03 05:00 PM**	16	**02/10/03 08:00 AM**	**NA**
18	Internal Review	7 days	02/10/03 08:00 AM	02/16/03 05:00 PM		02/10/03 08:00 AM	NA
19	External Review	7 days	02/17/03 08:00 AM	02/23/03 05:00 PM	18	02/17/03 08:00 AM	NA
20	Revise Agreement	7 days	02/24/03 08:00 AM	03/02/03 05:00 PM	17	NA	NA
21	**Finalize FCSA**	**28 days**	**03/03/03 08:00 AM**	**03/30/03 05:00 PM**	14,20	**NA**	**NA**
22	Local Sponsor Endorsement	21 days	03/03/03 08:00 AM	03/23/03 05:00 PM		NA	NA
23	USACE Endorsement	7 days	03/24/03 08:00 AM	03/30/03 05:00 PM	22	NA	NA
24	**General Reevaluation Report**	**1165 days**	**04/01/03 08:00 AM**	**06/08/06 05:00 PM**	23FS+1 c	**NA**	**NA**
25	**Non-Federal Services**	**1160 days**	**04/02/03 08:00 AM**	**06/04/06 05:00 PM**		**NA**	**NA**
26	Project Management	1160 days	04/02/03 08:00 AM	06/04/06 05:00 PM		NA	NA
27	Surveying & Mapping	75 days	05/18/03 08:00 AM	07/31/03 05:00 PM	35	NA	NA

ID	Task Name	Dur	Start	Finish	Pred	Act Start	Act Finish
28	Hydrology & Hydraulics	120 days	08/16/03 08:00 AM	12/13/03 05:00 PM	37	NA	NA
29	Geotechnical Engineering	45 days	08/16/03 08:00 AM	09/29/03 05:00 PM	37	NA	NA
30	Environmental Studies	60 days	08/16/03 08:00 AM	10/14/03 05:00 PM	37	NA	NA
31	**Federal Services**	**1165 days**	**04/01/03 08:00 AM**	**06/08/06 05:00 PM**		**NA**	**NA**
32	**F3 Conference Report**	**373 days**	**04/01/03 08:00 AM**	**04/07/04 05:00 PM**		**NA**	**NA**
33	Initiate GRR	1 day	04/01/03 08:00 AM	04/01/03 05:00 PM		NA	NA
34	Prepare for Public Scoping Mtg	45 days	04/02/03 08:00 AM	05/16/03 05:00 PM	33	NA	NA
35	Initial Public Scoping Mtg (F2)	1 day	05/17/03 08:00 AM	05/17/03 05:00 PM	34	NA	NA
36	**Prepare for F3 Conference**	**325 days**	**05/18/03 08:00 AM**	**04/06/04 05:00 PM**	**35**	**NA**	**NA**
37	Survey & Map Study Area	90 days	05/18/03 08:00 AM	08/15/03 05:00 PM		NA	NA
38	Establish Geotechnical Baselin	60 days	08/16/03 08:00 AM	10/14/03 05:00 PM	37	NA	NA
39	Conduct Environmental Resou	75 days	08/16/03 08:00 AM	10/29/03 05:00 PM	37	NA	NA
40	Update Hydrology	60 days	08/16/03 08:00 AM	10/14/03 05:00 PM	37	NA	NA
41	Develop Floodplains	100 days	10/15/03 08:00 AM	01/22/04 05:00 PM	40	NA	NA
42	Determine Economic Damages	75 days	01/23/04 08:00 AM	04/06/04 05:00 PM	41	NA	NA
43	GRR Scoping Meeting (F3)	1 day	04/07/04 08:00 AM	04/07/04 05:00 PM	36	NA	NA
44	**F4 Conference Report**	**421 days**	**04/08/04 08:00 AM**	**06/02/05 05:00 PM**		**NA**	**NA**
45	Identify & Develop Alternatives	270 days	04/08/04 08:00 AM	01/02/05 05:00 PM	43	NA	NA
46	Alternative Review Conference (F4)	2 days	01/03/05 08:00 AM	01/04/05 05:00 PM	45	NA	NA
47	Evaluate & Select Alternative	100 days	01/05/05 08:00 AM	04/14/05 05:00 PM	46	NA	NA
48	Submit Draft Report for Review	1 day	04/15/05 08:00 AM	04/15/05 05:00 PM	47	NA	NA
49	Prepare for AFB	45 days	04/16/05 08:00 AM	05/30/05 05:00 PM	48	NA	NA
50	Alternative Formulation Briefing (F4	3 days	05/31/05 08:00 AM	06/02/05 05:00 PM	49	NA	NA
51	**Draft GRR**	**91 days**	**06/03/05 08:00 AM**	**09/01/05 05:00 PM**	**50**	**NA**	**NA**
52	Prepare Draft GRR	90 days	06/03/05 08:00 AM	08/31/05 05:00 PM		NA	NA
53	Submit Draft GRR (F5)	1 day	09/01/05 08:00 AM	09/01/05 05:00 PM	52	NA	NA
54	**Final GRR**	**280 days**	**09/02/05 08:00 AM**	**06/08/06 05:00 PM**		**NA**	**NA**

ID	Task Name	Dur	Start	Finish	Pred	Act Start	Act Finish
55	Final Public Meeting (F6)	40 days	09/02/05 08:00 AM	10/11/05 05:00 PM	53	NA	NA
56	GRR Review Conference (F7)	30 days	10/12/05 08:00 AM	11/10/05 05:00 PM	55	NA	NA
57	Final GRR (F8)	90 days	11/11/05 08:00 AM	02/08/06 05:00 PM	56	NA	NA
58	Division Engineer's Notice (F9)	30 days	02/09/06 08:00 AM	03/10/06 05:00 PM	57	NA	NA
59	Chief of Engineers' Report	90 days	03/11/06 08:00 AM	06/08/06 05:00 PM	58	NA	NA

Appendix J

PROMIS – Resource Estimates

Resource Plan

19-FEB-03

Project: Lower Walnut Creek/GRR (3366)
Version: LWC-GRR 2 (21)

		Amount	Contingency	Total
Resource Plan: 1 - Lower Walnut Creek Restoration GRR - 59CG65 (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - 59CG65 (16-MAY-02 / 30-MAR-03) - 22Q000				
CIVIL PROJ MGMT SECTION	(LABOR)	6,422.13	10,000.00	16,422.13
CIVIL PROJ MGMT SECTION	(LABOR)	200.00	0.00	200.00
CIVIL PROGRAMS SECTION	(LABOR)	14,140.00	0.00	14,140.00
		20,762.13	10,000.00	30,762.13
	Resource Total:	20,762.13	10,000.00	30,762.13
Resource Plan: 2 - Lower Walnut Creek Restoration GRR - L9GD85 (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - L9GD85 (16-MAY-02 / 30-MAR-03) - 22Q000				
CENTRAL VALLEY SECTION	(LABOR)	13,013.00	0.00	13,013.00
		13,013.00	0.00	13,013.00
	Resource Total:	13,013.00	0.00	13,013.00
Resource Plan: 3 - Lower Walnut Creek Restoration GRR - 7J1GL0 (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - 7J1GL0 (16-MAY-02 / 30-MAR-03) - 22Q000				
GEOLOGY & MAPPING SECTION	(LABOR)	2,000.00	0.00	2,000.00
		2,000.00	0.00	2,000.00
	Resource Total:	2,000.00	0.00	2,000.00
Resource Plan: 4 - Lower Walnut Creek Restoration GRR - K801JG (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - K801JG (16-MAY-02 / 30-MAR-03) - 22Q000				
CIVIL DESIGN BRANCH	(LABOR)	340.00	0.00	340.00
CIVIL DESIGN SECTION B	(LABOR)	4,000.00	0.00	4,000.00
		4,340.00	0.00	4,340.00
	Resource Total:	4,340.00	0.00	4,340.00
Resource Plan: 5 - Lower Walnut Creek Restoration GRR - 09751F (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - 09751F (16-MAY-02 / 30-MAR-03) - 22Q000				
ENVIRONMENTAL PLANNING SEC	(LABOR)	5,363.28	0.00	5,363.28
		5,363.28	0.00	5,363.28
	Resource Total:	5,363.28	0.00	5,363.28
Resource Plan: 6 - Lower Walnut Creek Restoration GRR - GD8596 (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - GD8596 (16-MAY-02 / 30-MAR-03) - 22Q000				
ECONOMICS BRANCH	(LABOR)	1,720.37	0.00	1,720.37
		1,720.37	0.00	1,720.37
	Resource Total:	1,720.37	0.00	1,720.37

Resource Plan

19-FEB-03

Project: Lower Walnut Creek/GRR (3366)
Version: LWC-GRR 2 (21)

		Amount	Contingency	Total
Resource Plan: 7 - Lower Walnut Creek Restoration GRR - 8G7212 (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - 8G7212 (16-MAY-02 / 30-MAR-03) - 22Q000				
PLANNING & CONTROL BRANCH	(LABOR)	1,284.00	0.00	1,284.00
PROJECT SECTION	(LABOR)	1,284.00	0.00	1,284.00
		2,568.00	0.00	2,568.00
	Resource Total:	2,568.00	0.00	2,568.00
Resource Plan: 8 - Lower Walnut Creek Restoration GRR - DL1KHB (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - DL1KHB (16-MAY-02 / 30-MAR-03) - 22Q000				
COST ENGINEERING BRANCH	(LABOR)	964.56	0.00	964.56
		964.56	0.00	964.56
	Resource Total:	964.56	0.00	964.56
Resource Plan: 9 - Lower Walnut Creek Restoration GRR - G01KL4 (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - G01KL4 (16-MAY-02 / 30-MAR-03) - 22Q000				
CONSTRUCTION BRANCH	(LABOR)	225.00	0.00	225.00
QUALITY ASSURANCE SECTION	(LABOR)	275.00	0.00	275.00
		500.00	0.00	500.00
	Resource Total:	500.00	0.00	500.00
Resource Plan: 10 - Cost-Sharing Agreement - 2LFCC8 (16-MAY-02 / 30-MAR-03)				
L00000 Cost-Sharing Agreement - 2LFCC8 (16-MAY-02 / 30-MAR-03) - 25000				
HYDRAULIC DESIGN SECTION	(LABOR)	2,620.16	0.00	2,620.16
		2,620.16	0.00	2,620.16
	Resource Total:	2,620.16	0.00	2,620.16
Resource Plan: 11 - Lower Walnut Creek Restoration GRR - 06HF27 (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - 06HF27 (16-MAY-02 / 30-MAR-03) - 22Q000				
CENTRAL VALLEY SECTION	(LABOR)	6,472.00	0.00	6,472.00
		6,472.00	0.00	6,472.00
	Resource Total:	6,472.00	0.00	6,472.00
Resource Plan: 12 - Lower Walnut Creek Restoration GRR - 9G1D22 (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - 9G1D22 (16-MAY-02 / 30-MAR-03) - 22Q000				
ENVIRONMENTAL DESIGN SEC	(LABOR)	8,667.00	0.00	8,667.00
ENVIRONMENTAL ENG SECTION	(LABOR)	1,456.00	0.00	1,456.00
		10,123.00	0.00	10,123.00
	Resource Total:	10,123.00	0.00	10,123.00
Resource Plan: 13 - Lower Walnut Creek Restoration GRR - L9GD85 (25-MAR-02 / 08-JUN-06)				

Resource Plan

19-FEB-03

Project: Lower Walnut Creek/GRR (3366)
Version: LWC-GRR 2 (21)

		Amount	Contingency	Total
Resource Plan: 13 - Lower Walnut Creek Restoration GRR - L9GD85 (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - L9GD85 (16-MAY-02 / 30-MAR-03) - 22Q000				
SAN JOAQUIN BASIN BRANCH	(LABOR)	2,807.00	0.00	2,807.00
		2,807.00	0.00	2,807.00
	Resource Total:	2,807.00	0.00	2,807.00
Resource Plan: 14 - Lower Walnut Creek Restoration GRR - H5C6LK (25-MAR-02 / 08-JUN-06)				
L00000 Cost-Sharing Agreement - H5C6LK (16-MAY-02 / 30-MAR-03) - 22Q000				
STRUCTURAL DESIGN SECTION	(LABOR)	3,000.00	0.00	3,000.00
		3,000.00	0.00	3,000.00
	Resource Total:	3,000.00	0.00	3,000.00
*****Resource Estimates Not Assigned To A Resource Plan*****				
A00000 Draft GRR - (03-JUN-05 / 01-SEP-05) - 22M0L0				
CENTRAL VALLEY SECTION	(LABOR)	199,993.39	0.00	199,993.39
CIVIL DESIGN SECTION B	(LABOR)	29,995.60	0.00	29,995.60
CIVIL PROJ MGMT SECTION	(LABOR)	50,089.37	0.00	50,089.37
CIVIL PROJ MGMT SECTION	(WKBOTHCOE)	75,000.00	0.00	75,000.00
COST ENGINEERING BRANCH	(LABOR)	30,018.82	0.00	30,018.82
ECONOMICS BRANCH	(LABOR)	5,004.54	0.00	5,004.54
ENVIRONMENTAL DESIGN SEC	(LABOR)	24,992.28	0.00	24,992.28
ENVIRONMENTAL PLANNING SEC	(LABOR)	25,054.29	0.00	25,054.29
HYDRAULIC DESIGN SECTION	(LABOR)	5,028.16	0.00	5,028.16
PROJECT SECTION	(LABOR)	19,995.12	0.00	19,995.12
SOIL DESIGN SECTION	(LABOR)	10,000.58	0.00	10,000.58
		475,172.15	0.00	475,172.15

Resource Plan

19-FEB-03

Project: Lower Walnut Creek/GRR (3366)
Version: LWC-GRR 2 (21)

		Amount	Contingency	Total
Resource Estimates Not Assigned To A Resource Plan* **				
A00000 F4 Conference Report - (08-APR-04 / 02-JUN-05) - 22M0L0				
CENTRAL VALLEY SECTION	(LABOR)	199,993.39	0.00	199,993.39
CIVIL DESIGN SECTION B	(LABOR)	29,995.60	0.00	29,995.60
CIVIL PROJ MGMT SECTION	(LABOR)	50,089.37	0.00	50,089.37
CIVIL PROJ MGMT SECTION	(WKBOTHCOE)	40,000.00	0.00	40,000.00
ECONOMICS BRANCH	(LABOR)	20,018.17	0.00	20,018.17
ENVIRONMENTAL ANAYL SEC	(LABOR)	19,989.29	0.00	19,989.29
ENVIRONMENTAL DESIGN SEC	(LABOR)	75,062.44	0.00	75,062.44
ENVIRONMENTAL PLANNING SEC	(LABOR)	175,012.68	0.00	175,012.68
HYDRAULIC DESIGN SECTION	(LABOR)	20,032.81	0.00	20,032.81
SOIL DESIGN SECTION	(LABOR)	10,000.58	0.00	10,000.58
WATER MANAGEMENT SECTION	(LABOR)	24,994.39	0.00	24,994.39
		665,188.72	0.00	665,188.72
A00000 Final GRR - (02-SEP-05 / 08-JUN-06) - 22M0L0				
CENTRAL VALLEY SECTION	(LABOR)	95,021.73	0.00	95,021.73
CIVIL DESIGN SECTION B	(LABOR)	9,998.53	0.00	9,998.53
CIVIL PROJ MGMT SECTION	(LABOR)	45,080.44	0.00	45,080.44
CIVIL PROJ MGMT SECTION	(WKBOTHCOE)	70,000.00	0.00	70,000.00
ENVIRONMENTAL PLANNING SEC	(LABOR)	9,992.33	0.00	9,992.33
		230,093.03	0.00	230,093.03
J00000 F3 Conference Report - (01-APR-03 / 07-APR-04) - 22M0L0				
CENTRAL VALLEY SECTION	(LABOR)	99,996.69	0.00	99,996.69
CIVIL DESIGN SECTION B	(LABOR)	29,995.60	0.00	29,995.60
CIVIL PROJ MGMT SECTION	(LABOR)	50,089.37	0.00	50,089.37
CIVIL PROJ MGMT SECTION	(WKBOTHCOE)	30,000.00	0.00	30,000.00
ECONOMICS BRANCH	(LABOR)	40,036.35	0.00	40,036.35
ENVIRONMENTAL DESIGN SEC	(LABOR)	24,992.28	0.00	24,992.28
ENVIRONMENTAL PLANNING SEC	(LABOR)	75,015.93	0.00	75,015.93
GEOLOGY & MAPPING SECTION	(LABOR)	25,004.54	0.00	25,004.54
HYDRAULIC DESIGN SECTION	(LABOR)	75,023.28	0.00	75,023.28
SOIL DESIGN SECTION	(LABOR)	40,002.34	0.00	40,002.34
WATER MANAGEMENT SECTION	(LABOR)	75,060.54	0.00	75,060.54
		565,216.92	0.00	565,216.92

Resource Plan

19-FEB-03

Project: Lower Walnut Creek/GRR (3366)
Version: LWC-GRR 2 (21)

		Amount	Contingency	Total
Resource Estimates Not Assigned To A Resource Plan* **				
J00000 Non-Federal Services - (02-APR-03 / 04-JUN-06) - 22M0L0				
CIVIL PROJ MGMT SECTION	(INKINDCONT)	10,000.00	0.00	10,000.00
CIVIL PROJ MGMT SECTION	(INKINDCONT)	20,000.00	0.00	20,000.00
CIVIL PROJ MGMT SECTION	(INKINDCONT)	25,000.00	0.00	25,000.00
CIVIL PROJ MGMT SECTION	(INKINDCONT)	40,000.00	0.00	40,000.00
CIVIL PROJ MGMT SECTION	(INKINDCONT)	90,000.00	0.00	90,000.00
CIVIL PROJ MGMT SECTION	(INKINDCONT)	100,000.00	0.00	100,000.00
CIVIL PROJ MGMT SECTION	(INKINDCONT)	150,000.00	0.00	150,000.00
CIVIL PROJ MGMT SECTION	(INKINDCONT)	175,000.00	0.00	175,000.00
CIVIL PROJ MGMT SECTION	(INKINDCONT)	200,000.00	0.00	200,000.00
CIVIL PROJ MGMT SECTION	(INKINDCONT)	250,000.00	0.00	250,000.00
		1,060,000.00	0.00	1,060,000.00
L00000 Cost-Sharing Agreement - 2LFCC8 (16-MAY-02 / 30-MAR-03) - 25000				
SOIL DESIGN SECTION	(LABOR)	3,000.00	0.00	3,000.00
WATER MANAGEMENT SECTION	(LABOR)	1,714.14	0.00	1,714.14
		4,714.14	0.00	4,714.14
	Resource Total:	3,000,384.96	0.00	3,000,384.96
	Project Total:	**3,076,638.46**	**10,000.00**	**3,086,638.46**

Appendix K

Legal Certification

CERTIFICATION OF LEGAL REVIEW
OF THE
LOWER WALNUT CREEK, CALIFORNIA
GENERAL REEVALUATION PHASE REPORT

The Feasibility Cost Share styled Agreement identified as a General Reevaluation Phase Report for the Lower Walnut Creek, California, Project including all associated documents, has been fully reviewed by the Office of Counsel, Sacramento District. Said Phase Report/Agreement is approved as legally sufficient.

DATE: 20 Feb 03

for Carl E. Korman
District counsel