



**EAST SAN PEDRO BAY
ECOSYSTEM RESTORATION STUDY
PROJECT MANAGEMENT PLAN**

JULY 2009



EAST SAN PEDRO BAY
ECOSYSTEM RESTORATION STUDY
LOS ANGELES COUNTY, CALIFORNIA

FEASIBILITY PHASE
PROJECT MANAGEMENT PLAN

Los Angeles District
South Pacific Division

Date: July 2009

CONCURRENCE PAGE

As members of the Los Angeles District Project Review Board, we the undersigned, concur in the project management plan dated May 2009 for the East San Pedro Bay Ecosystem Restoration Study. We understand that the project management plan is a living management document that will be updated throughout the course of the study.

Name

Title

Signature

Date

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION STUDY
FEASIBILITY PHASE
PROJECT MANAGEMENT PLAN

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EAST SAN PEDRO BAY ECOSYSTEM RESTORATION STUDY

FEASIBILITY PHASE PROJECT MANAGEMENT PLAN

CHAPTER I – PURPOSE AND SCOPE

1. DEFINITION OF A PROJECT MANAGEMENT PLAN:

a. The project management plan for the feasibility phase, herein after referred to as the PMP, is an attachment to the Feasibility Cost Sharing Agreement (FCSA), which defines the planning approach, activities to be accomplished, schedule, and associated costs that the Federal Government and the local sponsor(s) will be supporting financially. The PMP, therefore defines a contract between the Corps and the local Sponsor(s), 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 feasibility study. The PMP describes the initial tasks of the feasibility phase, continues through the preparation of the final feasibility report, the project management plan for project implementation and design agreement, and concludes with support during the Washington-level review of the final feasibility report.

b. The PMP is a basis for change. Because planning is an iterative process without a predetermined outcome, more or less 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 provides a basis for change.

c. The PMP is a basis for the review and evaluation of the feasibility report. Since the PMP represents a contract among study participants, it will be used as the basis to determine if the draft feasibility report has been developed in accordance with established procedures and previous agreements. The PMP reflects mutual agreements of the district, division, sponsor and HQUSACE into the scope, critical assumptions, methodologies, and level of detail for the studies that are to be conducted during the feasibility study. Review of the draft report will be to 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 higher headquarters.

d. 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.

2. SUMMARY OF PROJECT MANAGEMENT PLAN CONTENTS:

This PMP is comprised of the following chapters:

- Chapter 1 - Purpose and Scope. This chapter includes the definition of the PMP and a summary of the PMP requirements.
- Chapter 2 - Section 905(b) Analysis. This chapter includes the approved Section 905(b) Analysis that includes an overview of the reconnaissance study findings, the plan formulation rationale and proposed streamlining initiatives. This chapter also documents any deviations from the approved Section 905(b) Analysis that have occurred during the negotiations of the FCSA.

- Chapter 3 - Work Breakdown Structure. A product based Work Breakdown Structure (WBS) defines the project, sub-projects, parent tasks and tasks that will be accomplished through the study.
- Chapter 4 - Scopes of Work. A detailed scope of the tasks and activities that describe the work to be accomplished, in narrative form, that answers the questions: "what, how, and how much". This chapter provides a reference to the detailed scopes of work that are included as Enclosure C to the PMP.
- Chapter 5 - Responsibility Assignment. An Organizational Breakdown Structure (OBS) will define "who" will perform work on the study. This allows the identification of the functional organization that will perform each of the tasks in a Responsibility Assignment Matrix (RAM).
- Chapter 6 – Feasibility Study Schedule. The schedule will define "when" key decision points, CESPDP milestone conferences and mandatory HQUSACE milestones will be accomplished.
- Chapter 7 - Feasibility Cost Estimate. This is the baseline estimate for the feasibility phase of the study.
- Chapter 8 - Quality Management Plan: This chapter supplements the district's Quality Management Plan. It highlights any deviations to the district's plan and lists the members of the study team and the independent review team.
- Chapter 9 - Identification of Procedures and Criteria: This chapter identifies references to the regulations and other guidance that covers the planning process and reporting procedures.
- Chapter 10 - Coordination Mechanisms: This chapter describes the study's public involvement program.

CHAPTER II

EAST SAN PEDRO BAY ECOSYSTEM RESTORATION STUDY
SECTION 905(b) (WRDA 86) ANALYSIS

See separate 905(b) file.

CHAPTER III – WORK BREAKDOWN STRUCTURE

1. LEVELS OF THE WORK BREAKDOWN STRUCTURE

The work breakdown structure is divided into the following four levels.

a. Level 1: The Project

b. Level 2: The Subprojects are established by the phase that is appropriated by Congress – in this case the feasibility phase of the study. This level includes the major products generated in the feasibility phase: the Feasibility Report, the PED Project Management Plan and the PED Agreement, which are identified in the first character of the work breakdown structure code.

c. Level 3: The Parent Tasks are generally identified as separate products that go into the final feasibility phase documentation. Examples of these subprojects include such items as the real estate report, the H&H report, etc. These parent tasks are normally identified with the responsibility of a particular functional organization. This level is generally identified in the second and third characters of the work breakdown structure code.

d. Level 4: The Tasks are major separable elements of the subprojects that are keyed to separately identifiable products that are developed for the major feasibility study milestones. These tasks are elements of work resulting in a deliverable product which have a beginning and an end, may be accomplished within one functional organization, can be described at a work order of detail and are the lowest level that will be specifically tracked with respect to cost and schedule. As an example, the cost estimates for the draft feasibility report would be an example of a task. Tasks can be described as the summation of activities that would be accomplished by a particular functional organizational between two of the milestone events. The milestones are defined in Enclosure B.

e. Level 5: The Activities are separate elements of work that are managed by the functional managers to whom the tasks are assigned and which may not necessary result in a deliverable work product to another organization. These activities are not tracked separately in terms of cost and schedule but are described in the scopes of work to the extent required to provide a clear understanding of the work required.

2. LISTING OF TASKS - WORK BREAKDOWN STRUCTURE

In accordance with the levels above, the following work breakdown structure indicates subprojects and parent tasks in bold type, followed by the subordinate tasks.

<u>WBS#</u>	<u>Description</u>
-	-
J0000	Feasibility Report (Feas)
JA000	Engineering Studies
JAA00	Feas - Surveys and Mapping except Real Estate and GIS
	Surveys and Mapping - Without Project Conditions
	Surveys and Mapping - With Project Conditions
	Surveys and Mapping - AFB documentation
	Surveys and Mapping - Draft Report
	Surveys and Mapping - Final Report
JAB00	Feas - Hydrology and Hydraulics Studies/Report (Coastal)

	H&H - Without Project Conditions & Preliminary Plans
	H&H - With Project Conditions for Final Plans
	H&H - AFB documentation
	H&H - Draft Report
	H&H - Final Report
JAC00	Feas - Geotechnical Studies/Report
	Geotech - Without Project Conditions & Preliminary Plans
	Geotech - With Project Conditions for Final Plans
	Geotech - AFB documentation
	Geotech - Draft Report
	Geotech - Final Report
JAE00	Feas - Engineering and Design Analysis Report
	Engr & Design - Without Project Conditions & Preliminary Plans
	Engr & Design - With Project Conditions for Final Plans
	Engr & Design - AFB documentation
	Engr & Design - Draft Report
	Engr & Design - Final Report
JAF00	Feas - Value Engineering
	ValueEngr - Without Project Conditions & Preliminary Plans
	ValueEngr - With Project Conditions for Final Plans
	ValueEngr - AFB documentation
	ValueEngr - Draft Report
	ValueEngr - Final Report
JB000	Feas - Socioeconomic Studies
	Socioecon - Without Project Conditions & Preliminary Plans
	Socioecon - With Project Conditions for Final Plans
	Socioecon - AFB documentation
	Socioecon - Draft Report
	Socioecon - Final Report
JC000	Feas - Real Estate Analysis/Report
	Real Estate - Without Project Conditions & Preliminary Plans
	Real Estate - With Project Conditions for Final Plans
	Real Estate - AFB documentation
	Real Estate - Draft Report
	Real Estate - Final Report
JD000	Feas - Environmental Studies/Report (Except USF&WL)
	Environ - Without Project Conditions & Preliminary Plans
	Environ - With Project Conditions for Final Plans
	Environ - AFB documentation
	Environ - Draft Report/EIS
	Environ - Final Report/EIS
JE000	Feas - Fish and Wildlife Coordination Act Report
	USFWS - Planning Aid Letter
	USFWS - Draft Coordination Act Report
	USFWS - Final Coordination Act Report

JF000	Feas - Geographic Information System Development
	GIS - Without Project Conditions & Preliminary Plans
	GIS - With Project Conditions for Final Plans
	GIS - AFB documentation
	GIS - Draft Report/EIS
	GIS - Final Report/EIS
JG000	Feas - HTRW Studies/Report
	HTRW - Without Project Conditions & Preliminary Plans
	HTRW - With Project Conditions for Final Plans
	HTRW - AFB documentation
	HTRW - Draft Report/EIS
	HTRW - Final Report/EIS
JH000	Feas - Cultural Resources Studies/Report
	Cultural - Without Project Conditions & Preliminary Plans
	Cultural - With Project Conditions for Final Plans
	Cultural - AFB documentation
	Cultural - Draft Report
	Cultural - Final Report
JI000	Feas - Cost Estimates
	Cost Estimates - Without Project Conditions & Preliminary Plans
	Cost Estimates - With Project Conditions for Final Plans
	Cost Estimates - AFB documentation
	Cost Estimates - Draft Report
	Cost Estimates - Final Report
JJ000	Feas - Public Involvement Documents
	Initial Public Meeting\NEPA Scoping
	Public Workshops in Support of Plan Selection
	Public Involvement Support to AFB
	Final Public Meeting
	Public Involvement Support to FRC
JK000	Feas - Plan Formulation and Evaluation
	Plan Formulation of Preliminary Plans
	Plan Formulation for Final Plans
	Plan Formulation - AFB documentation
	Plan Formulation - Draft Report
	Plan Formulation - Final Report
	Plan Formulation - Support to Division Commander's Notice
JL000	Feas - Final Report Documentation
	Reproduction and Distribution of F3 Documentation
	Reproduction and Distribution of F4 Documentation
	Reproduction and Distribution of AFB Documentation
	Reproduction and Distribution of Draft Report

	Reproduction and Distribution of Final Report
JMD00	Feas - Technical Review Documents
	Independent Technical Review - F3 Documentation
	Independent Technical Review - F4 Documentation
	Independent Technical Review - AFB Documentation
	Independent Technical Review - Draft Report
	Independent Technical Review - Final Report
JN000	Feas - Washington Level Report Approval (Review Support)
JP000	Feas - Management Documents
JPA00	Project Management and Budget Documents
	Programs and Project Management to F3 Milestone
	Programs and Project Management to F4 Milestone
	Programs and Project Management - AFB documentation
	Programs and Project Management - Draft Report
	Programs and Project Management - Final Report
	Programs and Project Management - DE's Notice
JPB00	Supervision and Administration
	S&A - Planning Division
	S&A - Engineering Division
	S&A - Real Estate Division
	S&A - PPMD
	S&A - Contracting Division
JPC00	Contingencies
L0000	PED Project Management Plan (PMP)
	PMP - Draft PMP
	PMP - Final PMP
Q0000	PED Cost Sharing Agreement

CHAPTER IV – SCOPES OF WORK

1. DETAILED SCOPES OF WORK

For each task that is included in the work breakdown structure, a scope of work is developed that describes the work that is to be performed. For each task, the scope describes the work, including specific activities, to be accomplished in narrative form. The scopes of work have been developed by the study team, which includes representatives of the non-Federal sponsor. The scopes also reflect the policy exceptions and streamlining initiatives that have been approved in the Section 905(b) Analysis. The detailed scopes of work for the feasibility study are organized by parent task in Enclosure C.

2. DURATIONS OF TASKS

The durations for the tasks are entered into the project's network analysis system (NAS) to develop the schedule that is included in Chapter VI – Schedule. The durations are based on negotiations between the Project Manager and the chiefs of the responsible organizations, as identified in Chapter V, Responsibility Assignment.

3. COSTS OF TASKS

Lastly, the scopes of work for the tasks are grouped by the parent tasks that they support. The total estimates for the parent tasks are then combined in the Feasibility Cost Estimate, Chapter VII. The cost estimates for the tasks are also based on negotiations between the Project Manager and the chiefs of the responsible organizations.

CHAPTER V – RESPONSIBILITY ASSIGNMENT

1. ORGANIZATIONAL BREAKDOWN STRUCTURE

The scopes of work represent agreements between the Project Manager and first line supervisors of functional organizations. The functions of these organizations in support of the project are defined by the work that is assigned. All organizations responsible for tasks, including the local sponsor and other agencies, are listed with their organization codes in the following Organizational Breakdown Structure (OBS).

OBS: USACE Los Angeles District

<u>Division/Branch/Section</u>	<u>Organization Code</u> <u>CESPD-</u>
Engineering//	ED-
Engineering/Design/Civil Design A/	ED-DA
Engineering/Design/Structural/	ED-DC
Engineering/Design/Cost/	ED-DS
Engineering/Geotechnical/Geology	ED-GG
Engineering/Geotechnical/Soils	ED-GD
Engineering/Hydraulics & Hydrology/	ED-HH
Engineering/Survey & Mapping/	ED-GS
Planning//	PD-
Planning/Economics/	PD-E
Planning/Environmental/Cultural	PD-RL
Planning/Environmental/	PD-RN
Planning/Water Resources/	PD-W
Planning/Water Resources/Watershed Studies Group	PD-WW
Project Management//	PM-
Project Management/Civil/	PM-C
Project Management/Programs/	PM-P
Real Estate//	RE
Real Estate/Planning/	RE-P

OBS: Local Sponsor and Other Agencies

<u>Name</u>	<u>Code</u>
City of Long Beach	COLB
U. S. Fish and Wildlife Service	USFWS
National Oceanographic and Atmospheric Agency	NOAA
Other Agencies/Counties/Cities and other Interest Groups stated in the Public Involvement section (JI000) in Chapter IV.	OTHER

2. RESPONSIBILITY ASSIGNMENT MATRIX

The scopes for each task are grouped by the parent task that they support and the primary responsible organization for each parent task is identified by the organization codes in the following Responsibility Assignment Matrix (RAM). This matrix identifies certain tasks that may be able to be performed by the local sponsor (COLB), as in-kind services.

<u>WBS#</u>	<u>Description</u>	District Org	Other
JAA00	Feas - Surveys and Mapping except Real Estate and GIS	ED-GS	COLB
JAB00	Feas - Hydrology and Hydraulics Studies/Report (incl. Coastal)	ED-HH	
JAC00	Feas – Geotechnical Studies/Report	ED-G	
JA000	Feas – Engineering and Design Analysis Report	ED-DA	
JAF00	Feas – Value Engineering	PM	
JB000	Feas – Socioeconomic Studies	PD-E	COLB
JC000	Feas - Real Estate Analysis/Report	RE-P	COLB
JD000	Feas – Environmental Studies/Report (Except USF&WL)	PD-RN	COLB
JE000	Feas - Fish and Wildlife Coordination Act Report		USFWS
JF000	Feas - Geographic Information System Development	ED-GIS	COLB
JG000	Feas - HTRW Studies/Report	ED-G	
JH000	Feas - Cultural Resources Studies/Report	PD-RL	COLB
JI000	Feas - Cost Estimates	ED-DS	
JJ000	Feas - Public Involvement Documents	PD-C	COLB
JK000	Feas - Plan Formulation and Evaluation	PD-C	
JL000	Feas - Final Report Documentation	PD-C	
JMD00	Feas - Technical Review Documents	PD-W	
JN000	Feas - Washington Level Report Approval (Review Support)	PM	
JPA00	Project Management and Budget Documents	PM	
JPB00	Supervision and Administration	All	
L0000	PED Project Management Plan for Project Implementation	PM-C	
Q0000	PED Cost Share Agreement	PM-C	

CHAPTER VI – FEASIBILITY STUDY SCHEDULE

1. SCHEDULE DEVELOPMENT

All schedules are developed using a Network Analysis System (NAS). The network is based upon the tasks that are listed in Chapter III, Work Breakdown Structure and the durations that are included in the detailed scopes of work in Chapter IV, Scope of Studies and Enclosure C. Major milestones that are defined in Enclosure B, CESPDP Milestone System, are also included in the schedules.

2. FUNDING CONSTRAINTS

Funding for the first Fiscal Year of the feasibility study is normally limited because of the uncertainty in the initiation of the feasibility phase. This constraint has been reflected in the development of the study schedule. Following the first year, an optimum schedule based upon unconstrained funding has been assumed for subsequent Fiscal Years.

3. LOCAL SPONSOR COMMITMENTS

Milestones become commitments when the project manager meets with the local sponsor(s) at the beginning of each Fiscal Year and identifies two to five tasks that are important for the district to complete during the Fiscal Year. These commitments would be flagged in the PROMIS database and monitored and reported on accordingly.

4. UNCERTAINTIES IN THE SCHEDULE

Because of the limited evaluations in the reconnaissance phase, the schedule must make appropriate allowances for uncertainty. As the Feasibility Study proceeds, the intended tasks and activities will be evaluated and refocused if necessary. A contingency has been included to account for small unintended, additional, tasks and activities necessary to complete an acceptable Feasibility Study. Significant changes to tasks and activities or adding other ones may require the schedule and cost to be readdressed.

5. MILESTONE SCHEDULE

The schedule for the milestones in the CESPDP Milestone System is as follows:

<u>Milestone</u>	<u>Description</u>	<u>Date</u>
Milestone F1	Initiate Study	Jun-2010
Milestone F2	Public Workshop/Scoping	Aug-2010
Milestone F3	Feasibility Scoping Meeting	Jul-2011
Milestone F4	Alternative Review Conference	Apr-2012
Milestone F4A	Alternative Formulation Briefing	Sep-2012
Milestone F5	Draft Feasibility Report	Dec-2012
Milestone F6	Final Public Meeting	Jan-2013
Milestone F7	Feasibility Review Conference	Feb-2013
Milestone F8	Final Report to SPD	May-2013
Milestone F9	DE's Public Notice	Jun-2013
Milestone F10	Chief's Report	Oct-2013
Milestone F11	Project Authorization	Feb-2014

CHAPTER VII – FEASIBILITY COST ESTIMATE

1. BASIS FOR THE COST ESTIMATE

a. The feasibility cost estimate is based upon a summation of the costs that were identified for the individual tasks in detailed scopes of work that are included in Enclosure C, Detailed Scopes of Work. Significant inflation could require the schedule and cost to be renegotiated.

b. Appropriate contingencies and contingency management are included to adequately deal with the uncertainty in the elements of the study. Experience has shown that approximately 20 to 25 percent of the study costs should be reserved for activities after the release of the draft report. Contingencies in this amount have been added to the cost estimate.

2. COSTS FOR FEDERAL AND NON-FEDERAL ACTIVITIES

The non-Federal sponsor must contribute 50 percent of the cost of the study during the period of the study. Not more than one-half of the non-Federal share may be made by the provision of services, materials, supplies or other in-kind services necessary to prepare the feasibility report. The feasibility cost estimate below includes credit for work that could be potentially accomplished by the non-Federal sponsor.

WBS#	Description	Federal Cost	Non-Fed	Total Cost
		+ Non-Fed Cash	In-Kind	
JAA00	Feas - Surveys and Mapping except Real Estate and GIS	\$60,000	\$300,000	\$360,000
JAB00	Feas - Hydrology and Hydraulics Studies/Report (incl. Coastal)	\$1,500,000	\$0	\$1,500,000
JAC00	Feas – Geotechnical Studies/Report	\$300,000	\$0	\$300,000
JAEO0	Feas – Engineering and Design Analysis Report	\$400,000	\$0	\$400,000
JAF00	Feas – Value Engineering	\$30,000	\$0	\$30,000
JB000	Feas – Socioeconomic Studies	\$200,000	\$100,000	\$300,000
JC000	Feas - Real Estate Analysis/Report	\$30,000	\$40,000	\$70,000
JD000	Feas – Environmental Studies/Report (Except USF&WL)	\$770,000	\$40,000	\$810,000
JE000	Feas - Fish and Wildlife Coordination Act Report	\$20,000	\$0	\$20,000
JF000	Feas - Geographic Information System Development	\$160,000	\$200,000	\$360,000
JG000	Feas - HTRW Studies/Report	\$50,000	\$0	\$50,000
JH000	Feas - Cultural Resources Studies/Report	\$20,000	\$20,000	\$40,000
JI000	Feas - Cost Estimates	\$120,000	\$0	\$120,000
JJ000	Feas - Public Involvement Documents	\$40,000	\$140,000	\$180,000
JK000	Feas - Plan Formulation and Evaluation	\$620,000	\$0	\$620,000
JL000	Feas - Final Report Documentation	\$100,000	\$0	\$100,000
JMD00	Feas - Technical Review Documents	\$70,000	\$0	\$70,000
JN000	Feas - Washington Level Report Approval (Review Support)	\$20,000	\$0	\$20,000
JPA00	Project Management and Budget Documents	\$120,000	\$0	\$120,000
JPB00	Supervision and Administration	\$120,000	\$0	\$120,000
L0000	Project Management Plan for Project Implementation	\$50,000	\$0	\$50,000
Q0000	PED Cost Share Agreement	\$20,000	\$0	\$20,000
JPC00	Contingencies	\$1,410,000	\$0	\$1,410,000
Totals of Federal and Non-Federal Work		\$6,230,000	\$840,000	\$7,070,000
Adjustment for Required Non-Federal Cash		-\$2,695,000	\$2,695,000	
Total Federal and Non-Federal Work		\$3,535,000	\$3,535,000	\$7,070,000

CHAPTER VIII – QUALITY CONTROL PLAN

1. QUALITY CONTROL PLAN OBJECTIVE

The quality control objective is to achieve feasibility phase documents and services that meet or exceed customer requirements, and are consistent with Corps policies and regulations.

2. GUIDELINES FOLLOWED FOR TECHNICAL REVIEW

The guidelines for independent technical review are set forth in the South Pacific Division Quality Management Plan, CESP R 1110-1-8, and in the corresponding District Quality Management Plan, CEP SL-OM-1105 1-2.

3. ROSTER OF THE PROJECT STUDY TEAM

Organization/Function	Name/Title	Address	Phone

4. ROSTER OF THE TECHNICAL REVIEW TEAM

Organization/Function	Name/Title	Experience

5. DOCUMENTS TO BE REVIEWED AND SCHEDULE FOR REVIEW ACTIVITES

a. All of the products of the tasks listed in the detailed scopes of work in Chapter IV, Scope of Studies, will be subject to independent technical review. Seamless Single Discipline Review will be accomplished prior to the release of materials to other members of the study team or integrated into the overall study. Section chiefs shall be responsible for accuracy of the computations through design checks and other internal procedures, prior to the independent technical review.

b. Independent product review will occur prior to major decision points in the planning process at the CESPDMilestones so that the technical results can be relied upon in setting the course for further study. These products would include documentation for the CESPDMandatory milestone conferences (F3 & F4), HQUSACE issue resolution conferences (AFB & FRC) and the draft and final reports. These products shall be essentially complete before review is undertaken. Since this quality control will have occurred prior to each milestone conference, the conference is free to address critical outstanding issues and set direction for the next step of the study, since a firm technical basis for making decisions will have already been established. In general, the independent technical review will be initiated at least two week prior to a CESPDMandatory milestone conference and at least two weeks prior to the submission of documentation for a HQUSACE issue resolution conference.

c. For products that are developed under contract, the contractor will be responsible for quality control through an independent technical review. Quality assurance of the contractor's quality control will be the responsibility of the district.

6. DEVIATIONS FROM THE APPROVED QUALITY MANGEMENT PLAN

No deviations from the Quality Management Plan are proposed.

7. COST ESTIMATE FOR QUALITY MANAGEMENT

The costs for conducting independent technical review are included in the individual scopes of work that are included in Chapter IV, Scope of Studies. Quality management activities of Branch and Division Chiefs are included in Supervision and Administration.

8. PMP QUALITY CERTICATION

The Chief, Planning Division has certified that 1) the independent technical 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. The signed certification is included as Enclosure D.

9. FEASIBILITY PHASE CERTIFICATION

The documentation of the independent technical review shall be included with the submission of the reports to CESP. Documentation of the independent technical review shall be accompanied by a certification, indicating that the independent technical review process has been completed and that all technical issues have been resolved. The certification requirement applies to all documentation that will be forwarded to either CESP or HQUSACE for review or approval. The Chief, Planning Division will certify the pre-conference documentation for the HQUSACE issue resolution conferences and the draft feasibility report. The District Commander will certify the final feasibility report, which includes the signed recommendation of the District Commander. This certification will follow the example that is included as Appendix H of the CESP Quality Management Plan and will be signed by the Chief, Planning Division and the District Commander.

CHAPTER IX IDENTIFICATION OF PROCEDURES AND CRITERIA

1. EVOLUTION OF THE PMP

The PMP describes all activities from the initial tasks of the feasibility phase through the preparation of the final feasibility report, the project management plan for project implementation and design agreement, and conclude with the district's support during the Washington-level review. As the PMP is based primarily on existing information, it will be subject to scope changes as the technical picture unfolds. While this PMP includes tasks through the completion of the feasibility study, the level of detail in the scopes of work are greater for those tasks that occur prior to the first milestone conference. This plan will be reviewed at the first milestone conference and additional detail will be added to the scopes of work for the subsequent tasks. During the feasibility phase of the study, the current PMP, including the documentation of agreements on changes to the conduct of the study, will be addressed at each of the CESPDP milestone conferences and at the formal issue resolution conferences with HQUSACE, including the AFB and FRC.

2. THE PLANNING PROCESS

The Water Resource Council's Principles and Guidelines (P&G) is the basic planning guidance, which establishes a six-step planning process. This process is a conceptual planning sequence for developing solutions to water resource problems and opportunities. The Planning Manual and Planning Primer, both published by IWR provide excellent coverage of the planning process. The South Pacific Division also provides training in the six- step process.

3. POLICY

The policies that govern the development of projects are contained in the DIGEST OF WATER RESOURCES POLICIES AND AUTHORITIES, EP 1165-2-1.

4. CORPS REGULATIONS

All of the Corps' current regulations are included on the HQUSACE homepage. The most important of these regulations is ER 1105-2-100, PLANNING GUIDANCE NOTEBOOK. Policy compliance review is addressed in EC 1165-2-203, TECHNICAL AND POLICY COMPLIANCE REVIEW. And, quality control is covered in the CESPDP Quality Management Plan, CESPDP R 1110-1-8. The review of the products will be accomplished with the review checklist that is provided in EC 1165-2-203 as Appendix B, POLICY COMPLIANCE REVIEW CONSIDERATIONS.

6. PROCESSING REQUIREMENTS

In addition to ER 1105-2-100, the South Pacific Division has provided additional guidance on the processing requirements for each of the milestone submittals. This guidance is contained in CESPDP-ET-P memorandum, dated 30 March 2000, subject: Processing of Planning Reports in the South Pacific Division.

CHAPTER X – COORDINATION MECHANISMS

1. CESPDP MILESTONES

Two of the milestones in the CESPDP milestone system have been established specifically for the purpose of providing a public forum to receive public input. The first of these is the initial public workshop. This workshop is an opportunity to present the study to the public, obtain input and public opinions, and fulfill the NEPA scoping meeting requirements. The second milestone in the system is the final public meeting. This meeting is after the release of the draft report for public review and is an opportunity to present the findings of the draft report to the public and receive public comment.

2. STUDY SPECIFIC PUBLIC INVOLVEMENT ACTIVITIES

In addition to the two public meetings mentioned above, this study includes six public outreach meetings. These meetings are designed to provide multiple opportunities for involvement of local and interested citizens and other interest groups and agencies. The Sponsor has primary responsibility for setting up and organizing these meetings. The Corps will participate in them.

ENCLOSURE A – PROJECT AREA MAP



ENCLOSURE B – CESPd MILESTONE SYSTEM

ENCLOSURE B

CESPD MILESTONE SYSTEM FEASIBILITY PHASE

MIL¹	MILESTONE NAME	DESCRIPTION
100	Initiate Feasibility Phase	SPD Milestone F1 ² - This is the date the district receives Federal feasibility phase study funds.
101	Feas Study Pub Wkshp (F2)	SPD Milestone F2 – This is a Public Meeting/Workshop to inform the public and obtain input, public opinions and fulfill scoping requirements for NEPA purposes.
102	Feas Study Conf #1 (F3)	SPD Milestone F3 – The Feasibility Scoping Meeting is with HQUSACE to address potential changes in the PMP. It will establish without project conditions and screen preliminary plans.
103	Feas Study Conf #2 (F4)	SPD Milestone F4 – The Alternative Review Conference will evaluate the final plans, reach a consensus that the evaluations are adequate to select a plan and prepare AFB issues.
124	Date of AFB	SPD Milestone F4A - Alternative Formulation Briefing (AFB) is for policy compliance review of the proposed plan with HQUSACE to identify actions required to prepare and release the draft report.
145	Public Review of Draft Report	SPD Milestone F5 - Initiation of field level coordination of the draft report with concurrent submittal to HQUSACE through SPD for policy compliance review.
162	Final Public Meeting	SPD Milestone F6 - Date of the final public meeting.
130	Feasibility Review Conference	SPD Milestone F7 - Policy compliance review of the draft report with HQUSACE to identify actions that are required to complete the final report.
165	Feasibility Report w\NEPA	SPD Milestone F8 - Date of submittal of final report package to CESPDP-ET-P, including technical and legal certifications, compliance memorandum and other required documentation.
170	MSC Commander's Public Notice	SPD Milestone F9 - Date of issue of the Division Commander's Public Notice. Congressional notification would occur two days prior. The report and supporting documentation would be forwarded to HQUSACE. This milestone is used as the completion of the feasibility report in the CMR

¹ MIL – Milestone number used in the PROMIS database.

² F1 through F9 are the historical designations for the SPD Milestones.

MIL¹	MILESTONE NAME	DESCRIPTION
310	Filing of Final EIS/EA	Date that the notice appears in the Federal Register. Letters for filing would be furnished by HQUSACE.
330	Chief's Report to ASA (CW)	SPD Milestone F10 - Date of the signed report of the Chief of Engineers.
320	ROD Signed or FONSI Signed	Date that the ROD is signed by the ASA(CW) when forwarded for authorization.
350	President Signs Authorization	SPD Milestone F11 - Date President signs authorizing legislation.

¹ MIL – Milestone number used in the PROMIS database.

ENCLOSURE C – DETAILED SCOPES OF WORK

The following sections provide a discussion of the work tasks with the corresponding activities, grouped by the appropriate Work Breakdown Structure (WBS) number.

The following activities and assumptions are included in the scopes contained below as well as their respective costs.

- (1) Study team members will participate in study team meetings.
- (2) Study team members will participate in site visit.
- (3) Study team members, when appropriate, will attend public and/or outreach meetings.
- (4) Study team members will prepare their respective documents prior to each milestone requiring documentation (F3, F4, F4A, F5, F8, and F9).
- (5) Formal technical review costs are not included as part of the documents preparation costs. They are included in their separable WBS number. However, informal technical review or seamless review is included in each task and activity estimate.
- (6) Supervision and Administration costs are included in the task and activity scopes and estimates.
- (7) Inflation and nominal cost changes are included in the study cost. If the national inflation rate is in excess of 3.5% in any year or significant cost changes occur, the PMP may need to be revised.

The work descriptions in their appropriate WBS number are included below. The WBS number is included in the parentheses ().

Feasibility Report (J0000)

The Feasibility Report WBS number encompasses all tasks to be performed during the preparation of the feasibility report documentation. Its primary function is for cost accounting and separating tasks from other phases of project implementation (i.e. from Reconnaissance, Planning Engineering and Design, and Construction).

Milestones (J0000)

The milestones are defined in Chapter II, Section 9 of this document. They all share the same WBS number as the Feasibility Report, discussed above. All milestones have zero duration, no cost and a specific end date. The milestones will be used to keep the study schedule on track and will be the primary focus for the Executive Management Committee.

Engineering Studies (JA000)

Engineering studies are comprised of Surveys and Mapping, Hydrodynamics and Hydraulics, Coastal Engineering, Geotechnical and Engineering Design and Cost Estimating. Each organization's tasks and activities are described below. The feasibility study, engineering appendix, will contain sufficient engineering detail to support recommendations and enhance decisions making ability related to project management plans, projects and other issues.

Surveys and Mapping (except real estate and GIS) (JAA00) (\$360,000)

Surveys and Mapping – Without Project Conditions: F3 – (City of Long Beach In-Kind Service)

This task includes the collection of various types of survey data, review of existing topographic and bathymetric data, organization of the data and the creation of maps to aid in defining the baseline condition within the project area. This information will be used to support other functional elements within the project delivery team.

The Surveyor-Engineer shall perform a topographic survey from a combination of aerial mapping, ground-based field surveying and hydrographic surveying. The survey data will be used for hydrologic, hydraulic, and other models in the evaluation of potential design alternatives. Aerial photographs will be ortho-corrected to ensure that they correspond with topographic mapping and can be easily added to GIS. Aerial mapping should include photography to allow for a map accuracy of 1"= 50' (1 ft. contour interval). Lidar data may be incorporated where available.

1. Scope of Services:
 - Review of existing topographic and bathymetric data
 - 1-ft contour interval
 - Mapping of 1 inch = 100 ft (for 2ft. contours) or Mapping of 1 inch = 50 ft. (for 1ft contours)
 - Digital color orthophotography
 - Label all levees, bridges, streets, and all other standard map labeling.
 - Bathymetric survey at locations within the East San Pedro Bay.
 - Cross-section of existing Long Beach Breakwater at three different locations.
2. Terrain Model Specifications:
 - Digital Terrain Model (DTM) in Triangular Irregular Network (TIN) format for mapped areas.
 - Ortho grade DTM for orthophotography
3. Deliverables:
 - Negatives (1 set)
 - Contact Prints (2 sets)
 - Photo Index
 - Microstation .DGN files with contours generated from the DTM
 - Terrain Model
 - DTM data in ArcGIS TIN/.e00, Microstation/Inroads dgn/.dtm, and ASCII text formats
 - Five sets Digital Ortho-photography, .75 pixels.
 - x,y,z .pts file format of mass points representing surface
 - Five sets of breakline .brk file used for creating surface
4. Reports (5 sets) to include:
 - Quality Assurance/Quality Control Report.
 - “Corpsmet95” metadata file.

All monuments set-found-used described on DA Form 1959 and in Wordpad format on CD.

Mapping is to be compiled in the 1983 North American Datum (NAD 1983) for horizontal control, and the 1988 North American Vertical Datum (NAVD 88) for vertical control. It must meet the “National Map Accuracy Standards”, “Federal Geodetic Control Standards” and the following Corps of Engineering Manuals:

- EM 1110-1-1807, “Standards Manual for U.S. Army Corps of Engineers Computer-Aided Design and Drafting (CADD) Systems”.
- EM 1110-1-1002, “Survey Markers and Monumentation” dated 14 September 1990
- EM 1110-1-1005, “Topographic Surveying” dated 31 August 1994.
- EM 1110-2-1003, “Hydrographic Surveying” dated 01 January 2002.
- EM 1110-1-1000, “Photogrametric Mapping” dated 01 July 2002.
- EM 1110-1-1003, “NAVSTAR Global Positioning System Surveying” dated 01 July 2003
- Corps of Engineers program “Corpsmet95” for metadata.

The completed CAD files shall be three-dimensional and fully operational and compatible on the Corps of Engineers system. The Los Angeles District is presently utilizing Intergraph MicroStation and Inroads. All drawings for the Corps shall be stored in Intergraph or MicroStation file format on Compact Disk(s) (CD). Each drawing shall have a separate file name and be stored individually on the disk(s). The files should also be delivered in ESRI data format.

Topographic maps, digital files and aerial ortho-photographs shall be supplied to the hydrologic / hydraulic sections of the Corps and other study team members.

Surveys and Mapping – With Project Conditions: F4

After review and evaluation of collected data, additional needs will be defined. Cost and schedule will be reviewed to obtain required information.

Surveys and Mapping – AFB Documentation: F4A

No additional mapping is planned after the F4 milestone.

Surveys and Mapping – Draft Report: F5

No additional mapping is planned after the F4 milestone.

Surveys and Mapping – Final Report

No additional mapping is planned after the F4 milestone.

Hydrology and Hydraulics Studies/Report (Coastal Modeling) (JAB00) (\$1,500,000)

This section describes preparation of wave transformation, shoreline morphology, water quality, and circulation modeling and evaluations for the greater East San Pedro Bay, Los Angeles River mouth and the adjacent beaches/facilities. The goal is to identify environmental restoration opportunities to restore and increase benthic habitat, restore fisheries, increase recreational opportunities and improve water quality in East San Pedro Bay. Flood control, Port of Long Beach wave protection, shoreline protection, and navigational aspects of the San Pedro Bay area must be maintained. The hydrodynamic model and water quality model developed for the project area will be coupled with the wave model in terms of boundary conditions. The circulation modeling will require a 3-dimensional formulation to account for river inflow buoyancy and vertical velocity gradients.

Coastal - Without Project Conditions: F3

The basic tasks in Coastal modeling include:

1. Collect and review existing information regarding topographic mapping; bathymetric information; tidal elevations; circulation; water quality; sediment transport, shoreline position, beach profiles, winds, waves and relevant coastal structure plans in order to establish baseline conditions. Review existing shoreline operational and maintenance requirements.
2. Coordinate with Corps of Engineers, City of Long Beach, relevant agencies and consultants to identify obtain and review all relevant coastal engineering reports and prepare a brief summary. Coordinate with GIS unit regarding data protocols.
3. Perform a field reconnaissance study to confirm baseline information by examining and verifying the collected information. Additional data collection efforts, such as tidal elevation, current velocity, wave height/period, water quality, shoreline position, beach profile and sediment characteristic measurements will be identified for further study in order to complete the establishment of the system baseline information. Coordinate with the Corps of Engineers to determine the preferred spatial and temporal coverage of the field data collection effort.
4. Evaluate and establish hydrodynamic, water quality and sediment transport characteristics of project sites under existing and future without project conditions by utilizing the information collected and reviewed from task 1 to task 3.
5. Prepare wave transformation, shoreline morphology, water quality, and circulation numerical models to encompass the East San Pedro Bay, (including the breakwater area, LA River, Port of Long Beach, local beaches, marinas, and military facilities) to assist in the preliminary development of the measures and alternative plans.
6. Develop design parameters for sizing and layout of project alternatives.
7. Attend meetings and prepare documents for the F3 milestone and participate in F3 conference.

Coastal - With Project Conditions: F4

1. Assist in developing and designing measures and alternatives for environmental restoration and recreational enhancement purposes. Hydrodynamic circulation, wave transformation, water quality and sediment properties are the major design criteria to be considered for the habitat restoration and recreational enhancements. All relevant design features, including breakwater modifications, reef structures, wave protection structures, shoreline protection structures, river training structures, existing Port/military facilities, beaches, marinas,, etc. will be incorporated in the alternative plans.

2. Coordinate with biologists and marine ecosystem specialists to develop the relationship between water quality improvement and ecosystem restoration benefits. Establish design criteria related to water quality, clarity, and nearshore habitat structural design/materials. Identify target depths and locations for the creation of reef and kelp habitats.
3. Perform computer simulation of wave transformation, shoreline morphology, water quality, and circulation numerical models for with-project conditions. Various alternatives and features will be modeled and simulated for design reference. Computation grids will be generated and tested. The coastal models will be simulated and verified against available data. Water quality and sediment transport models will be driven by the results of hydrodynamic and wave modeling (i.e. water elevations, velocities and shear stresses). Coordinate with GIS unit to appropriately integrate and display results.
4. Perform coastal engineering design based on computer simulation results of the alternatives. All the designs have to meet with the design specifications developed by the project team members. Iteration procedure will be adopted to refine the alternatives.
5. Attend meetings, coordinate as required and assist in plan formulation and selection of the preferred alternative plans.
6. Prepare coastal engineering documents for the F4 milestone and participate in F4 conference.

Coastal - AFB Documents: F4A

1. Attend meetings, incorporate comments and update report documents for the AFB milestone.

Coastal - Draft Report: F5

2. Attend meetings, incorporate comments and update report documents for the F5 milestone.

Coastal - Final Report: F8

1. Attend meetings, incorporate comments and update report documents for the F8 milestone
2. Respond to comments as necessary.

Geotechnical Studies/Report (JAC00) (\$300,000)

The Geotechnical work for this study will consist of characterizing the geologic setting and properties of the study area and presenting the findings in a geotechnical appendix. Detailed site-specific investigations will be conducted to fill in data gaps in existing information. These investigations may include drilling, sampling, coring and testing of soils as required for design. Descriptions of the activities follow.

Geologic Studies - Without Project Conditions (F3):

Geologic Framework Research. This task consists of summarizing existing published and/or unpublished information relating to:

1. Regional/Site Geology and Topography
2. Geologic Hazards, such as seismicity (regional and local), location of nearby faults, regional groundwater and subsidence (if any). Drill and case shallow observation wells to determine the depths of the local site groundwater at a particular site or reach of the channel.
3. Sources of construction stone. This task will research sources of any additional stone for proposed construction of wave/shoreline protection structures or reefs.
4. Field Explorations. This task covers preliminary field explorations to determine the soils types for foundation studies. Prior to initiating this task a field reconnaissance would be conducted in order to locate the sites for drilling and trenching and obtain rights-of-entry.
5. Laboratory Testing. Soils sampled from the drilling coring and grab sampling operations will undergo sieve analysis tests in order to determine their grain size and engineering characteristics in accordance with the Unified Soil Classification System.
6. Documentation of the Study. This task covers the documentation and technical review of the geologic studies and includes coordination required in assembling the Geotechnical Appendix. Plates, figures and tables will be prepared as a part of the Appendix.

Geology – With Project Conditions: F4.

1. Participate with others in the study team to develop measures and plans for potential projects.
2. Assess the impacts of potential conceptual alternatives.
3. Update the report.

Geology – AFB Documentation.

1. Update the report.

Geology – Draft Report: F5

1. Update the report.

Geology – Final Report: F8

1. Review and revise final report.
2. Attend and participate in meetings.

Soils – Without Project Conditions: F3

1. Research, collect, and review data.
2. Plan and participate in field explorations including soil sampling to determine presence of contaminants.
3. Prepare input to F3 document and draft appendix.
4. Review F3 document.
5. Attend and participate in meetings.

Soils – With Project Conditions: F4

1. Research, collect, and review data.
2. Participate in alternative development.
3. Preliminary design and construction considerations.
4. Prepare input to F4 document and draft appendix.
5. Review F4 document and draft appendix.
6. Attend and participate in meetings

Soils – AFB Documentation: F4A

3. Revise F4 document and draft appendix.

Soils – Draft Report

1. Review and revise draft report.
2. Attend and participate in meetings.

Soils – Final Report

4. Review and revise final report.
5. Attend and participate in meetings.

Engineering and Design Analysis/Report (JAE00) (\$400,000)

This study is expected to result in a recommended plan. Engineering and Design will be involved with the development and illustration of the alternatives and presentation of the design of the recommended plan, which includes breakwater modifications, reef creation, wave protection structures, shoreline protection structures, river training structures, navigational aids, etc. Conceptual layouts for all the features and alternatives will be prepared. Services for cost estimating are included under separate paragraph k. Cost Estimates (JH000). This section describes the general tasks that are planned for Engineering and Design.

Engineering and Design - Without Project Conditions: F3

1. Attend and participate meetings with study team in development of preliminary conceptual measures and plans for all identified management units.
2. Assist in preliminary development of measures and plans.
3. Perform field survey to identify preliminary impacts to existing facilities and shorelines.
4. Review, compile and integrate existing available and/or new topographical and hydrographic survey maps to prepare project drawings.
5. Prepare layouts for existing and without project conditions.
7. Cooperate with GIS format preparation for the project plans.
8. Prepare F3 documentation including drawings.
9. Attend F3 Conference.

Engineering and Design - With Project Conditions: F4

1. Assist in defining expected performance of the potential plans for the identified management units.
2. Prepare quantities for cost estimates for all alternatives.
3. Assist in plan formulation, in-house review, respond to comments, and support to the study manager and other study team members.
4. Develop design features and prepare quantities for cost estimates for all recommended plans.
5. Draft plans for expected recommended plans.
6. Prepare F4 documentation. Layout details for project alternatives and recommended plans including project drawings.
7. Attend F4 conference.

Engineering and Design - AFB Document: F4A

1. Attend meeting, update plans and designs.
2. Respond to comments, review and revise documents.

6. Refine conceptual design of recommended alternatives.

Engineering and Design - Draft Report: F5

1. Attend meeting, respond to comments and update plans and designs.
7. Prepare F5 documentation.

Engineering and Design - Final Report: F8

1. Attend meeting, respond to comments, review and revise plans, designs, documents and report.

Value Engineering (JAF00) (\$30,000)

A Value Engineering Plan (VEP) is required for all projects exceeding \$2,000,000 and a Review of the Cost Effectiveness of Design (VE Study) must be conducted on all projects that exceed \$10,000,000 (CESPD R 11-1-3). The purpose of the VEP is to assure the lowest level of project life cycle costs without sacrificing quality, aesthetics, operational capability, and maintenance capability. This VEP delineates the responsibilities of the Project Manager, the District's Value Engineering Officer (VEO) and the Local Sponsor to comply with VE requirements.

The Project Manager and the VEO are responsible for coordinating the VE studies and providing support to the overall VE effort as it relates to this project. The points of contact within the key District organizations are:

(a) - Project Manager:

TBD

Programs and Project Management Division
U.S. Army Corps of Engineers,
Los Angeles District
Telephone: (213) 452-4013

(b) - Value Engineering Officer (VEO) and VEP prepared by:

TBD

Value Engineering Officer,
U.S. Army Corps of Engineers,
Los Angeles District
Telephone: (213) 452-3747

The applicable laws, policy, regulations, and circulars are as follows:

(a) - Congressional Law - Section 911 of the Water Resources Development Act of 1986.

(b) - USACE Policy - Perform Value Engineering studies on all USACE projects with a programmed cost of \$2,000,000 or greater when cost effective.

(c) - Regulations and Circulars:

(1) AR 5-4 and OCE Supplement 1.

(2) ER 1110-2-150.

(3) EC 11-1-114

(4) CESPD Regulation 11-1-3.

(5) CESPD Guidance dated September 30, 2003

A Value Engineering Study on the East San Pedro Bay Ecosystem Restoration project has not been performed to date. The Local Sponsor has a vested interest in the project, and therefore would have an interest in the Value Engineering process. The Local Sponsor will be invited to participate fully in Value Engineering studies performed on the project, during the entire design and construction life of the project. The Project Manager and the VEO will coordinate the scheduling of the Value Engineering studies for the project. The project will be studied with one VE Study during the Feasibility Phase (F3 – F4) and one VE Study during the Planning, Engineering Design (PED) Phase. The Project Manager will coordinate the funding requirements for accomplishing the studies indicated above. Funding will be required during FY

2011 for the Feasibility Phase VE Study and during FY 2013 for the PED Phase VE Study. VE on this project will be accomplished with the following methods:

- (1) - Value Engineering Study(s).
- (2) - Value Engineering Proposals (to be submitted by Corps Employees and/or A-E contractors)
- (3) - Value Engineering Change Proposals (submitted by construction contractors).

The 1st VE Study will use the Feasibility Phase Report, as the basis for the VE Study. The 2nd VE Study should be accomplished prior to the completion of the plans and specifications during the PED Phase.

Value Engineering during construction, should be accomplished so as not to impact on the schedule for construction phases. Value Engineering at this stage is accomplished by VECP's and construction change orders and construction modifications.

It should be understood that all the time and money spent applying the Value Engineering effort will not always result in realized savings, but the effort and the cost should be considered as a cost of design and doing business.

Socioeconomic Studies (JB000) (\$300,000)

Environmental Benefit/Cost Analysis

Benefits for environmental projects are quantified in non-monetary terms (typically in terms of “habitat units” or “functional capacity units”). Since the benefits and costs for environmental projects are not measured in consistent terms, a direct benefit/cost analysis is not possible. Therefore, Corps policy requires completion of a Cost Effectiveness and Incremental Cost Analysis to assist in the plan evaluation and selection process.

Recreation Benefit/Cost Analysis - (City of Long Beach In-Kind Service)

Passive recreation features consistent with the primary goal of environmental restoration will be formulated for this feasibility study. Economic analyses required for this element will include: surveys and gathering of demographic information and determination of the economic impacts of the recreational enhancements with a particular emphasis on surfing and beachgoing.

Development Projections

Demographic projections will be developed to support projections of future, impacts on environmental values and demand for recreation.

Meetings & Coordination

Close coordination will be required between the Project Economist and the Study Manager, as well as other Study Team members. The Project Economist will attend Study Team meetings, site visits and meetings with local officials, if necessary. In addition, the Project Economist will meet regularly with the Economics Group Leader regarding study progress. The Project Economist will receive assistance in the study effort from other Economic Section staff, necessitating additional meetings and coordination. The Project Economist and the Economics Group Leader will attend major study conferences.

Report Documentation

Internal documentation will consist of notes on meetings, telephone conversations, methodology, field trips, assumptions, etc., which will become part of the project files. External documentation consists of preparing the Economic Appendices to be included in the overall Feasibility Report submissions, including: 1) F3 Report (Without Project Conditions); 2) F4 Report (Including preliminary analysis of alternatives and tentatively recommended plan); 3) Draft Feasibility Report (Including detailed analysis of recommended plan); and 4) Final Feasibility Report (Including revisions/modifications necessary to address technical, policy and public review comments).

Economics – Without Project Conditions: F3 (City of Long Beach In-Kind Service)

Tasks for Economics Section:

1. Assist in defining habitat values for baseline and future without-project conditions.
2. Define the recreation market area for the study area, based upon interviews with local experts and research. Develop an inventory of existing recreation resources in the study area. Survey sponsor(s) and stakeholders on recreation.
3. Determine recreation demand in the study area under without project conditions for the types of recreation that could be provided as part of a recommended plan.
4. **Population Projections**: Population projections for the study area will be assessed based upon a number of sources, including the US Census, state, county and city government agencies and state universities. Projections will be made at aggregate levels such as county and city, as well as for the study area specifically.

5. Land Use Projections: Aerial photography, land use plans and general plans will be analyzed to determine land available for development in the study area and its designation (residential by density, commercial, industrial, public, parks, etc), but not the lands subjected to environmental restoration. Future land use over the period of analysis will be projected in the study area based upon population projections for the study area, land available for development and land use designations.
6. Property inventory – In order to develop an inventory of property susceptible to flooding, overflow mapping will be required. For areas threatened by erosion or future flood mitigation requirements, a property inventory will be developed. Aerial photography and topographical elevation maps will also be required. Once delineations are available, a site survey will be conducted to determine the first floor elevations, condition, and construction class of floodplain/erosion zone properties. Square footage estimates will be developed through real estate databases and measurements from aerial photography if necessary. The cost estimate assumes that it will not be necessary to survey every building.
7. Determine Floodplain/Erosion Zone and Flood Mitigation Property Values – Based upon the square footage estimates, condition, and type of construction, depreciated replacement costs will be estimated for all floodplain/erosion zones and as specified flood mitigation properties. Contents will be estimated as a percentage of structure values. A site-specific content survey will not be conducted, since flood/erosion control are not the primary purposes of the feasibility study and existing flooding and erosion problems appear to be limited.
8. Prepare report documentation and participate in the F3 Conference.

Economics – With Project Conditions: F4

1. Habitat values for each alternative/management measure and increment (projected over period of analysis).
2. Identification of which measures that can and cannot be implemented together, dependencies, etc.
3. Estimates of ranges or standard deviations for habitat values and potential costs.
4. Cost Analysis – Coordinate with Cost Engineering and Environmental Resources to determine the costs of separable management measures and increments, including construction and operation and maintenance. Determine annualized costs for alternatives/measures based upon construction costs, periods of construction and the current federal discount rate.
5. IWR Plan Program Input/Preparation – Input average annual costs and average annual habitat values for all management measures and increments. Through coordination with Study Team, determine dependencies, etc., between alternatives and input into program. Also, incorporate probability distributions or ranges for benefit and cost estimates.
6. Run/Debug Program – Determine cost efficient and best-buy restoration plans utilizing the IWR-Plan model. Perform additional iterations to incorporate planning constraints, conduct “what if” analysis, refine estimates etc. Generate graphics displaying results of the incremental analysis, including the risk and uncertainty analysis.
7. Forecast potential recreation use/visitation for proposed recreation plans, based upon demand for the type of recreation in the study area, accessibility and location, projected changes in demographics, etc. In addition account for potential transfers of recreation from existing facilities.

8. Determine recreation values for the proposed recreation features using the Unit Day Value methodology outlined in the Planning Guidance Notebook (ER 1105-2-100).
9. Project recreation benefits based upon forecast usage and recreation values by activity type.
10. Analyze project cost estimates and complete benefit/cost analysis for recreation plans.
11. Analysis of Alternatives – With-project engineering data will be utilized to assess residual damages and benefits associated with each alternative. Benefit/Cost Analysis – Annualized estimates of project costs and benefits will be developed and the benefit/cost analysis will be completed to identify the National Economic Development (NED) plan for each site
12. For environmental restoration projects develop the National Ecosystem Restoration (NER) Plan.
13. Prepare report documentation and participate in the F4 Conference.

Economics – AFB Documentation: F4A

1. Revise report and participate in AFB conference if necessary.

Economics – Draft Report: F5

1. Financial Analysis/Assessment of Financial Capability
2. The Feasibility Study may result in the recommendation of specific projects for construction. As part of the Project Cooperation Agreement, a financial analysis must be prepared documenting that the Local Sponsor is capable of meeting its cost-sharing obligations for the proposed project. Economics will coordinate with Project Management to obtain projections of federal and non-federal projected expenditures by fiscal year, as well as a Statement of Financial Capability from the Local Sponsor. Historical financial statements (e.g., income statements, balance sheets, cash flow statements, etc.), pro forma statements, bond ratings, and other documentation will be analyzed to assess the Sponsor's financial capability. An Assessment of Financial Capability will be prepared for the District Commander's signature as part of the PCA.
3. Review and update report documentation per comments.

Economics – Final Report: F8

1. Review and update report documentation per comments.

Real Estate Analysis/Report (JC000) (\$70,000)

Real Estate: Real Estate Studies are required to determine the value cost of land necessary to construct any proposed projects. Real Estate tasks are limited in the F3 portion of the study.

Real Estate – With Project Conditions: F4 (City of Long Beach In-Kind Service)

1. Participate in the development of measures and plans. Coordinate with the Study Team and Sponsor.
2. Negotiate work requirements, coordinate with other offices on project data document findings associated with Real Estate study products.
3. Hold discussions with Sponsor regarding acquisition policies and procedures. Coordinate with Legal Branch on potential legal matters. Provide schedules for Real Estate acquisition (discuss with PM and Sponsor).
4. Assist in the development and evaluation of measures and plans.
5. Determine land requirements for measure and plans likely to proceed to evaluation.
6. Describe Lands, Easements, Right-of-Ways, Relocations and Disposal Areas (LERRD's). Describe requirements for construction, operation and maintenance including tasks required for relocations, borrow material and dredged or excavated material disposal.
7. Prepare Real Estate cost estimate. This work includes preparation of a preliminary market study and a detailed estimate of all real estate costs (inc. gross appraisal) associated with acquisition of the Project's real property requirements. Gross Appraisal must be prepared per Chapter 405-1-12, Chapter 4. Documents will also be used in crediting sponsor for lands, easements and right-of-ways for cost shared projects. Also includes technical review of gross appraisal.
8. Determine Right of Entry (ROE). Real Estate will coordinate requests and work with the Sponsor to obtain rights-of-entry for survey, HTRW, cultural resource, and geo technical exploration work required. ROE'S must be obtained before any testing can be done on privately owned property.
9. Prepare Real Estate Map. Coordinate with Engineering Div. and GIS analyst acreage required for Project. Also, prepare real estate preliminary and final take line drawings. Real estate map, including ownership, leases and other arrangements will be prepared as an overlay to the project map.
10. Prepare Real Estate Plan. Real Estate Division work product that supports Project Plan Formulation. Must be prepared in support of decision documents. Must include a discussion of the significant topics as per Chapter 405-1-12, Chapter 12. Real estate studies will be conducted by the Corps to determine lands, easement, rights-of-way, relocations and disposal areas (LERRDs) necessary for the project. The work includes completion of required investigations on property ownership and jurisdictions and preparation of an acquisition ion plan. The work may also include attorneys' opinion of compensability. The estimated value of the properties required for the Project, as a result of the gross appraisal described in the previous section, must be included in the Real Estate Plan.
11. Preparation of F4 documentation and Participation in Conference.

Real Estate – AFB Documents: F4A

1. Review documents if necessary

Real Estate – Draft Report: F5 (*City of Long Beach In-Kind Service*)

1. Respond to comments and update documentation.

Real Estate – Final Report: F8 (*City of Long Beach In-Kind Service*)

1. Provide input to the PMP. This task includes Real Estate's involvement in the preparation of the PMP. It also includes the Chief of Real Estate Division's endorsement of the PMP. This certifies that the real estate requirements, including schedule of acquisition, are adequately and accurately included in the PMP.
2. Respond to comments and update documentation.

Environmental Studies/Report (JD000) (\$810,000)

Environmental studies shall include an analysis of the existing conditions, future (50-year) without-project conditions, and future (50-year) with-project conditions for the effects of defined East San Pedro Bay management practices and ecosystem restoration alternatives. This analysis shall include, at minimum, examination of the physical environment (geology, topography, landform, seismicity); soils; climate; water resources; water quality; air quality; hazardous and toxic waste materials; biological resources including threatened and endangered species, standardized threatened and endangered species population monitoring, standardized wildlife species sampling, benthic restoration, reef restoration monitoring, cultural resources, land use; utilities, noise, transportation, and safety. The information will be documented in including an Environmental Impact Statement (EIS) for the East San Pedro Bay Ecosystem Restoration Plan (PLAN) with appropriate NEPA and CEQA documentation for one implementation project. Reproduction and distribution costs for the preliminary draft, draft, preliminary final and final EIS reports are included in this section of work. Potential costs for environmental mitigation are not included.

In addition to the general tasks discussed above, specific tasks also include:

Environmental – Baseline - Without Project Conditions: F3

1. Comprehensive review and collection of literature on of habitat, wildlife, special status species WITHOUT PROJECT (baseline historical).
2. Habitat Assessment: Baseline, without-project conditions for current habitat occurrence, juxtaposition, function and value, water quality, fish and wildlife, special status (threatened or endangered) species, and other pertinent environmental conditions will be surveyed, mapped (GIS - collaborate with GIS who will perform mapping as well as metadata), and adequately described at a level appropriate to this study, and at a level adequate to contribute to incremental analysis. A scientific habitat evaluation method will be used to assess habitat function and value. Several models are available [(e.g., HEP/HSI, (www.policy.fws.gov/ESMindex.html), CWHR (http://www.dfg.ca.gov/whdab/html/habitat_suitability_models.html#top), mHEP (Tetra Tech, Inc 2002)]. They can be HSI, community, functional, or other models.
3. Coordination with persons on ecosystem, in particular, reef and kelp restoration scientific experts of baseline conditions.
 - a. Water Quality Assessment: Environmental studies will include evaluation of baseline water quality conditions within the East San Pedro Bay. Effects of project alternatives on water quality will be evaluated. The analyses will be based on the review of existing water quality data collected by local and state agencies. Limiting values (i.e. loads, concentrations, etc.) that adversely affect recreational use, or wildlife and aquatic species shall be noted. (*City of Long Beach In-Kind Service*)
4. Soils/Sediments: Contaminant transport and distribution is often associated with soil and sediment particles suspended in the water during conditions of heavy runoff and streamflow from the LA River. The sediment surveys will assist in developing Total Maximum Daily Loads (TMDLs) by identifying potential sources of these contaminants and in forming strategies in the ecosystem restoration (collaborate with H&H staff who will perform modeling effort, as well as geotechnical staff for chemical analysis).
 - a. Comprehensive review and collection literature on contaminated soils/sediments within salt marsh WITHOUT PROJECT with emphasis on southern California salt marsh ecosystems.
 - b. Determine soil/sediment characteristics within study area boundary (collaborate with H&H who will perform modeling effort, except for chemical analysis).
 - c. Determine Fate and Transport of contaminated sediments of the baseline conditions within the project boundary via different fate and transport mechanisms: they can (collaborate with geotechnical staff who will perform effort).

- d. Determine contaminant types (heavy metals, pesticides, PCBs,...) and properties (water solubility, concentrations, and preferential pathways).
 - e. Determine contaminate mobility in soils/sediment (collaborate with geotechnical staff who will perform effort).
 - f. Develop sampling design with concurrence on background levels (collaborate with geotechnical staff who will perform effort).
 - g. Determine if Fate and Transport modeling (collaborated with H&H as well as geotechnical staff who will perform effort)
 - h. Seasonal monitoring: wet winter season (January-February); dry summer season (July-August) (collaborate with geotechnical staff who will perform effort).
 - i. Concentrations of several contaminants of concern, including mercury, selenium, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and the organochlorine (OC) pesticides, DDT and chlordane will be investigate and compared to back ground.
5. Ecosystem Restoration Goals and Objectives: Ecosystem restoration goals and objectives for the study area will be defined using an adaptive management approach. Overall goals and objectives may be set in terms of ecosystem restoration of habitats and vegetation types for an array of vertebrate species within the East San Pedro Bay. This task will require close coordination and input from other regulatory and resource agencies as well as local sponsors and in-house COE personnel.
 6. Species and habitat surveys, field investigations and data collection will be conducted with a standardized and consistent methodology as necessary to evaluate baseline and projected future with and without project conditions. This information will be collected at a level of detail commensurate with the dual goals of ecosystem restoration management and specific project implementation.
 7. Determine Essential Fish Habitat without project area with tidal prism hydrodynamics (GIS Mapping) (collaborate with GIS who will perform mapping as well as metadata).
 - a. Agency coordination with NOAA, National Marine Fisheries Service, and California Department of Fish and Game.
 8. The Fish and Wildlife Service final Planning Aid Report (PAR) will be incorporated into the F3 documentation as well as.
 9. Prepare an EIS for the PLAN and appropriate and CEQA documents.
 10. Respond to ITR comments of prepared documents.

Environmental – With Project Conditions: F4

1. Comprehensive review and collection literature on of habitat, wildlife, special status species WITH PROJECT (base line current)
2. Comprehensive review of all published and unpublished reports, drawings, aerial imagery of project area (collaborate with GIS who will perform mapping as well as metadata1).
3. An Adaptive Management approach will be applied to modeled effort over the entire project area to incorporate potential changes from phased portions of the project.
 - a. Determine reef , kelp and special aquatic habitat ecosystem functions and value success criteria using published success criteria based on applied ecological scientific research
 - b. Determine ecosystem restoration goals.

- c. Develop ecosystem restoration alternatives array based upon preliminary management units.
 - d. Determine number of references sites to be established for each vegetation or habitat type being restored.
 - e. Determine feasibility of Essential Fish Habitat for project area with tidal prism hydrodynamics (collaborate with GIS who will perform mapping as well as metadata) with National Marine Fisheries Service and the California Department of Fish and Game.
4. Habitat Assessment: Alternative assessments including no action alternative, with-project conditions for current habitat occurrence, juxtaposition, function and value, water quality, fish and wildlife, special status (threatened or endangered) species, and other pertinent environmental conditions will be surveyed, mapped (GIS), and adequately described at a level appropriate to this study, and at a level adequate to contribute to incremental analysis. A scientific habitat evaluation method will be used to assess habitat function and value. Several models are available [(e.g., HEP/HSI, (www.policy.fws.gov/ESMindex.html), CWHR (http://www.dfg.ca.gov/whdab/html/habitat_suitability_models.html#top), mHEP (Tetra Tech, Inc 2002)]. They can be HSI, community, functional, or other models.
 5. Water Quality Assessment : Compare and contrast water quality using sediment and contaminant loadings, trace constituents, toxic substances, pathogens, DDT, temperature, dissolved oxygen, conductivity, turbidity, urban and vegetative trash/debris, depth, and water movement criteria, for the array of ecosystem restoration alternatives The spatial and temporal (seasonal) distributions of constituents shall be quantified when possible for use in preparing potential restoration alternatives (collaborate with H&H who will perform modeling effort).
 6. Environmental Opportunities. Assist in the analysis of East San Pedro Bay and beach management alternatives that integrate ecosystem restoration and other project objectives. Emphasis will be given to measures or alternatives that are expected to restore benthic habitat, reef, kelp, water quality and circulation. Opportunities and alternatives shall be developed, when feasible, to enhance water quality and waves used for recreation or environmental restoration.
 7. Coordinate with study team.
 8. Prepare an Environmental Impact Statement (EIS) for the PLAN.
 9. Respond to comments and review prepared documents.
 10. The draft Coordination Act Report will be included in the F4 report documentation.

Environmental – AFB Documentation: F4A

1. Respond to comments, revise and update report documentation.

Environmental – Draft Report/EIS: F5

1. Respond to comments, revise and update report documentation.

Environmental – Final Report/EIS: F8

1. Respond to comments, revise and update report documentation.

U.S. Fish and Wildlife Service (USFWS) CAR & PAR(s) (JE000) (\$20,000)

Overview of USFWS actions and participations

USFWS – Planning Aid Letter: F3

1. Planning Aid Report. The USFWS will provide a Planning Aid Report (PAR) to the Corps prior to the F3 milestone. The report will describe baseline conditions, habitat evaluation methodology, and initial restoration measures. Literature search, review, and evaluation of published and unpublished literature, agency files, the Internet, etc.
 1. Formulation of project alternatives
 2. Review and analysis of project alternatives, determine biological impacts of each alternative, identify data gaps in biological information, and suggest new and/or mitigations to proposed alternatives.
 3. Habitat Assessment: Baseline, with-project conditions for current habitat occurrence, juxtaposition, function and value, water quality, fish and wildlife, special status (threatened or endangered) species, and other pertinent environmental conditions will be surveyed, mapped (GIS), and adequately described at a level appropriate to this study, and at a level adequate to contribute to incremental analysis. Baseline conditions of existing habitats or vegetation types for the study area boundary shall be evaluated using available information, aerial imagery of various scales, and a several standardized field survey. A scientific habitat evaluation method (e.g., HEP/HSI, HGM CWHR) will be used to assess habitat function and value. Several models are available.
2. Prepare a draft Planning Aid Report with Alternative Analysis and incorporate into F3 documentation.
3. Meetings and Coordination. The USFWS will meet with the Corps and other agencies and local sponsors to review study progress of assigned study tasks, update schedules, and for general coordination purposes.

USFWS – Draft Coordination Act Report: F4

1. Review, analysis, and evaluation of the selected project alternative to determine impacts and development mitigation to offset any unavoidable negative impacts.
2. Habitat Assessment: Baseline, with-project conditions for current habitat occurrence, juxtaposition, function and value, water quality, fish and wildlife, special status (threatened or endangered) species, and other pertinent environmental conditions will be surveyed, mapped (GIS), and adequately described at a level appropriate to this study, and at a level adequate to contribute to incremental analysis. Baseline conditions of existing habitats or vegetation types for the study area boundary shall be evaluated using available information, aerial imagery of various scales, and a several standardized field survey. A scientific habitat evaluation method (e.g., HEP/HSI, HGM CWHR) will be used to assess habitat function and value. Several models are available.
3. Prepare a draft Coordination Act Report (CAR).
4. Meetings and Coordination. The USFWS will meet with the Corps and other agencies and local sponsors to review study progress of assigned study tasks, update schedules, and for general coordination purposes.

USFWS – Final Coordination Act Report: F5

1. Coordination Act Report. The USFWS will provide a draft and final Coordination Act Report (CAR) by the F4 milestone that defines the environmental effects of selected restoration alternatives. The CAR will incorporate the findings of the technical team and any comments from interested parties.
2. Meetings and Coordination. The USFWS will meet with the Corps to review study progress of assigned study tasks, update schedules, and for general coordination purposes.

1 = collaborate with GIS who will perform mapping as well as metadata¹ or collaborate with H&H who will perform modeling effort, except for chemical analysis or collaborate with geotechnical staff who will perform effort means that the other function will perform the task and has provided the cost estimate, but will collaborate with the Environmental/Ecology function.

Geographic Information Systems (JF000) (\$360,000)

This task includes the collection, organization and creation of geospatial data, mapping and analysis, and data processing to aid in defining the baseline condition within the East San Pedro Bay focusing primarily on the study footprint, and the alternative selection process. GIS will be used to support and coordinate with other technical elements within the project delivery team and sponsor. Products of this study include the following: the creation of a comprehensive GIS database, geoprocessing, various maps, and spatial analysis characterizing habitats per alternative, and possibly an IMS (Internet Mapping Site). The data will be presented in two different scales (levels of detail). The first level of detail will be harbor-wide, while the project area will be mapped at a scale of 1:24,000 or less. Following a review and assessment of the available data, minor gaps will be identified and ranked according to relevance for baseline conditions. All data will be reviewed by the local sponsor and the Corps of Engineers to ensure copyright restrictions are protected prior to posting. Each separate discipline shall liaise with the Study Manager prior to collecting or producing geospatial data to ensure compatibility within the GIS.

The geodetic reference for horizontal positioning shall be based on the California State Plane Coordinate system Zone V, and the North American Datum of 1983 (NAD 83). The geodetic reference for elevations and vertical data shall be based on the North American Vertical Datum of 1988 (NAVD 88). Executive Order 12906 calls for the establishment of the National Spatial Data Infrastructure defined as the technologies, policies, and people necessary to promote sharing of geospatial data throughout all levels of government, the private and non-profit sectors, and the academic community. The information included in the GIS shall follow the SDS (Spatial Data Standard), as described by the CADD/GIS Technology Center, Federal Government. The Spatial Data Standards (SDS) were developed as a single comprehensive master and environmental planning data model for the Air Force, Army, and Navy Installations, as well as Corps of Engineers' civil works projects. The Spatial Data Standards were designed to complement Federal Geographic Data Committee (FGDC) data standards that address small-scale mapping (map scales greater than 1:24,000).

At this time, the following information is expected to be included in the GIS (subject to change during the course of the feasibility study):

- Ortho-rectified aerial photos of the project area to include all management units
- USGS Quadrangle maps covering East San Pedro Bay.
- Navigation aids
- Nautical chart information
- Political boundaries, city boundaries
- Utility information
- Existing infrastructure (roads, bridge crossings, major utility crossing and lines, landfills, and grade control structures).
- Hydrographic Data for East San Pedro Bay.
- Geotechnical sampling
- Seismic conditions at project study footprint
- Real estate ownership identification of lands within the survey area, identifying whether lands are public or privately owned.
- Access to East San Pedro Bay and management units
- Recreation facilities including beaches, harbors, marinas. etc.
- Known locations of Threatened, Endangered or other species of concern, and land use patterns for areas in the East San Pedro Bay.

Geographic Information Systems – Without Project Conditions: F3 (City of Long Beach In-Kind Service)

The GIS work effort will include the definition of the baseline conditions through the development of a comprehensive GIS database in ACOE digital and geospatial data standards. Historic and current maps and photos will be collected to obtain site reference and establish habitat objectives. GIS efforts will be summarized in the applicable appendices and F3 documents.

1. Collect and review existing geospatial data. Known sources for data and imagery include those listed but others will be sought for a more complete inventory during the study, starting with publicly available data and sponsor data holdings.
2. Coordinate with ACOE team members, local sponsors, consultants and relevant agencies to obtain, review and standardize all available geospatial data and prepare a brief summary/ data inventory. Coordinate with sponsor and ACOE team members to effectively integrate new data during its creation.
3. Identify data gaps to properly define baseline conditions.
4. Possibly build a GIS and IMS (Internet Map Service) to display results and provide public access to project information, coordinate with web study management and sponsor on hosting issues.
5. Evaluate need of GIS spatial analysis for future without project.
6. Attend public meetings, TAC (technical advisory meetings) and prepare documents in support of GIS appendix for the F3 milestone and participate in F3 conference.

GIS - Analysis and Mapping – With Project Conditions: F4 (City of Long Beach In-Kind Service)

1. Assist in developing and designing measures and alternatives for environmental restoration and other purposes as required to complete the with-project conditions scenario. Special effort will be directed to coordinating with Coastal Engineering, Hydraulic and Hydrodynamics, and Environmental Branch in development of maps and required spatial analysis.
2. Integrate, compile, and display information developed by others all other applicable ACOE team members and sponsor during the F4 study phase and make available for ACOE team and local sponsor(s) in support of the F4 development effort.
3. Perform spatial analysis of restoration alternatives. Analysis will provide habitat acreages for specific alternatives and will be performed in close collaboration with environmental and engineering departments regarding the methodology development and analysis results.
4. Attend public meetings, TAC (technical advisory meetings) and prepare documents in support of GIS appendix for the F4 milestone and participate in F4 conference.

GIS – AFB Documentation: F4A

1. Prepare documentation for Alternative Formulation Briefing (AFB) and attend meetings.

GIS – Draft Report: F5

1. Attend meetings, incorporate comments and update documents for the F5 milestone.

GIS – Final Report: F8

1. Attend meetings and update report documents for the F8 milestone.
2. Respond to comments as necessary.

Hazardous Toxic Radioactive Waste (HTRW) Studies/Reports (JG000) (\$50,000)

HTRW – Without Project Conditions: F3

This task will be conducted if problems with HTRW or contaminated sediments are identified in the geotechnical investigations. If HTRW concerns are identified, a response analysis will be initiated to identify and evaluate the proper mitigation alternatives to implement. The first alternative will be avoidance of the problem area. Activities to address the problem could include sampling and analysis to identify contaminants, concentration levels, delineation of site contamination, and assessment of potential threats to human health and environmental habitats, and estimates of cleanup or disposal costs. The Environmental Planner will inspect the project site, conduct interviews, and review all pertinent environmental documents for HTRW. A Phase 1 evaluation will need to be conducted if geotechnical investigations are not completed. The cost estimate provided herein does not include a Phase 1 evaluation.

HTRW – With Project Conditions: F4

1. Assist in developing and designing measures and alternatives for environmental restoration and other purposes as required to complete the with-project conditions scenario.
2. Attend public meetings, TAC (technical advisory meetings) and prepare documents in support of HTRW appendix for the F4 milestone and participate in F4 conference.

HTRW – AFB Documentation: F4A

1. Prepare documentation for Alternative Formulation Briefing (AFB) and attend meetings.

HTRW – Draft Report: F5

1. Attend meetings, incorporate comments and update documents for the F5 milestone.

HTRW – Final Report: F8

1. Attend meetings and update report documents for the F8 milestone.
2. Respond to comments as necessary.

Cultural Resources Studies/Report (JH000) (\$40,000)

The Cultural Resources Studies Task will be conducted in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, 36 CFR 800 "Protection of Historic Properties," and Corps Engineering Regulation 1105-2-100. This task will determine the impacts of alternative projects on historical and archaeological resources within the various project areas. Estimates are based on the assumption that there are very limited resources present, and will require minimal investigation; that Native American groups in the area are not active and will not require consultation. Changes to these assumptions would require additional time and funding.

Sufficient archival surveys will be conducted to identify and map cultural sites within projected Areas of Potential Effect (APEs) and will evaluate the eligibility of cultural sites for the National Register of Historic Places as necessary. The APE shall include the reaches and areas impacted by structural or non-structural project alternatives. As a starting point, a literature and data search of known sites and surveys will be conducted for the East San Pedro Bay and waterfront.

The end product of this task shall be a detailed report that describes all known or identified cultural resources within the APEs and assesses the potential impact of each project alternative on these resources. The report will also describe the potential range of preservation or mitigation efforts and the associated costs of these studies. The findings of this task will be documented in an Environmental Studies Appendix to the feasibility report.

Cultural Resources – Without Project Conditions: F3 - (City of Long Beach In-Kind Service)

1. Record search and field survey. Baseline conditions for Cultural Resources will be established based on review of existing information (Records and Literature. Review) including, but not limited to published and unpublished reports on previous archival and archeological investigations specific to the project area, known/recorded sites, and general culture history for the project area based upon previous research. The records and literature search will be conducted at the South Central Coastal Information Center, and involve review of archeological resources maps, historic topographic maps, and historic register lists. Historical registers include the National Register of Historic Places (2000), the *California State Historic Resources Inventory* (2000), the *California Points of Historical Interests* (1992) and the *California Historical Landmarks* (1996). All the searches are for data on cultural resources, including prehistoric, historic, cultural, and spiritual/religious sites within the project area. A search will be requested from the Native American Heritage Commission (NAHC) to determine that no sacred sites are recorded within the project area.

On-the-ground surveys will be conducted of areas to verify existing information, and to determine presence or absence of properties (cultural resources) within a specific portion or portions of the project area that have not been previously investigated. Identify previously unknown properties and evaluate for eligibility for National Register of Historic Places.

2. Attend and participate in meetings, site visits, and draft measure development.
3. Prepare documentation.

Cultural Resources – With Project Conditions: F4

1. Review, update, surveys. Obtain additional detail for with project conditions. Testing of Properties, if needed to determine National Register eligibility.
2. Coordination/Consultation with California State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800). The Corps determines the potential project Area of Potential Effect (APE), the presence/absence of National Register

eligible historic properties, and the effect of the project on the properties, and notifies SHPO of the determinations. Native American Consultation - Native American Issues will be addressed Section 106 of the National Historic Preservation Act, the American Indian Religious Freedom Act of 1978, the Native American Graves Protection and Repatriation Act of 1990, and Executive Order 13084 of May 14, 1999: Consultation and Coordination with Indian Tribal Governments all require that government agencies consult with Native Americans to determine their interests in federal projects. Based on a list provided by the NAHC, the Corps will notify Native American groups known to have an interest in the project area of the proposed project, and request comment.

3. Attend and participate in meetings.
4. Prepare documentation.

Cultural Resources – AFB Documentation: F4A

1. Revise and update documents as necessary. NEPA document input & final SHPO coordination.

Cultural Resources – Draft Report: F5

1. Revise and update documents as necessary. Cultural Resources Final Draft Report - Prepare final draft report of test results. Results of these studies shall be documented in NEPA documents. Develop MOA for treatment of historic properties, if necessary.

Without Project Conditions: F8

1. Revise and update documents as necessary. Final results of testing, treatment and mitigations required for historic properties, documented in NEPA documents.

Cost Estimates (JI000) (\$120,000)

Costs for possible measures will be developed as part of the initial alternative evaluations. Following the F4 milestone, a more detailed cost estimate will be performed for the most likely plans. Much of the cost estimates will be included in the environmental work effort since this is primarily an environmental restoration study. However, expected restoration efforts include elements of structural design. Estimates include the development of structural costs and the compilation of costs provided by environmental efforts.

Cost – Without Project Conditions: F3

1. Attend and participate in meetings and site visits.
2. Assist in the development of preliminary cost of measures.
3. Prepare report documents.

Cost – With Project Conditions: F4

1. The estimator shall prepare and furnish comparative cost estimates of the viable alternatives in a spreadsheet format (Excel). Initially, a screening process shall be used to review all the alternatives. Different levels of cost estimating detail may be appropriate at each level of screening. This screening process will narrow the number of alternatives to a final list, i.e., two to five viable alternatives for a more detailed assessment. The cost estimate for each viable alternative shall be prepared and furnished using the Microcomputer Aided Cost Estimating System (MCACES) software clearly identifying the Preferred Plan. MCACES estimates for each of the viable alternatives shall include appropriate comments describing the method of construction, assumptions used in developing the estimate, and the technical/design data available.
2. Upon completion of the comparative analysis, the estimator shall develop the Total Current Working Estimate (CWE) to support the Preferred Plan. The Total CWE is developed to support the recommended scope and schedule and shall also be prepared and furnished using the Microcomputer Aided Cost Estimating System (MCACES) software. The Total CWE is defined as the project Baseline Cost Estimate (BCE) and it includes construction features; lands and damages, Planning, Engineering and Design, (PED); Construction Management; and contingencies.
3. On occasions, the sponsor may request a plan different from the CWE. When this occurs, the estimator shall prepare a cost estimate for both the CWE and the Locally Preferred Plan. The CWE Plan and Locally Preferred Plan shall also be prepared and furnished using the MCACES software.
4. The CWE and the Locally Preferred Plan shall be formatted in accordance with the Current Work breakdown (CWBS) and an identified price level.
5. On the CWE and the Locally Preferred Plan, descriptive statements regarding the methods of construction, material sources and prices type of equipment required, access, haul distances, estimated production rates, placement procedures, environmental restrictions, crew sizes and labor rates, dewatering, job conditions, and other assumptions shall be included as appropriate in MCACES as notes.
6. Develop a construction schedule using the Microsoft Project scheduling software. The schedule must identify the sequence and duration of the tasks.
7. Coordinate with Project Delivery Team and Sponsor.

Cost – AFB Documentation: F4A

1. Respond to comments, review and revise documents as necessary.
2. Refine MCACES estimate for recommended alternative (maximum 2 alternatives).
3. Prepare draft cost engineering appendix and documents.

Cost – Draft Report: F5

1. Address comments originated from the ITRE and from other sources.
2. Prepare draft final cost engineering appendix and documentation.

Cost – Final Report: F8

1. Respond to comments, review and revise documents as necessary.

Public Involvement (JJ000) (\$180,000)

This task will include public meetings, workshops, hearings, and briefings, as well as the preparation and distribution of fact sheets and information papers to interested parties and local news agencies. One initial public meeting, approximately six outreach meetings during the study tenure and one final public meeting will be held. A Corps representative will also attend up to eight City of Long Beach meetings to provide information to and obtain information and opinions from the public. A web page, on the Long Beach City website, will be used as the central repository for electronic information. A draft of all information will be provided to the public, or placed on the website, and will be reviewed by the Study Manager. Responsibility for all public involvement will be shared between the Corps and the Sponsor.

The goals of this task are: 1) promote understanding of the planning process, and to a lesser extent, the design and construction processes in terms of potential projects; 2) obtain public input regarding problems, opportunities, constraints, alternatives, outputs, impacts, and costs; and 3) coordinate the East San Pedro Bay planning effort with the efforts of other Federal, state, and local agencies. Input and cooperation with interested agencies is a main goal. A preliminary list of some of the interested agencies and groups follows:

Stakeholders

- California Fish and Game Department
- California Regional Water Quality Control Board
- City of Long Beach
- City of Seal Beach
- California Coastal Conservancy
- Los Angeles County Department of Public Works
- Los Angeles County Department of Beaches and Harbors
- United States Fish and Wildlife Service
- United States Environmental Protection Agency
- Surfrider
- Heal the Bay
- US Navy
- Port of Long Beach
- US Coast Guard
- United States Army Corps of Engineers
- National Oceanographic and Atmospheric Administration
- THUMS Islands
- Peninsula Beach Preservation Group
- Long Beach Yacht Club
- Alamitos Bay Yacht Club
- Sink the Breakwater.Org
- Carnival Cruise Lines
- Jacobsen Port Pilots
- PMSA / SSA (Port of Long Beach operators)
- Kiteboarders

The end product of the Coordination and Public Involvement Task will be to summarize the information obtained from the following subtasks into a Public Involvement section for the final feasibility report.

Public Involvement - Initial Public Meeting/NEPA Scoping: and Public Involvement - Public Workshop in Support of Plan Selection: F3, F4

1. The Corps and the sponsor's study manager will develop and implement a series of public involvement outreach efforts. The first will be the official public meeting for NEPA Scoping. Additional periodic public outreach meetings will be organized primarily by the sponsor. These are designed to ensure the public and other interested parties have ample opportunity to participate and get involved in the planning process.
2. Other public outreach methods will be employed, such as workshops, and newsletters or via the Internet. These efforts will be determined during the study. A mailing list will be updated to include all potentially interested parties. Strategies to maximize public outreach will be developed.
3. An initial public meeting will be held early in the feasibility schedule to serve to introduce the study to interested parties. Scoping issues, concerns, and opportunities will be discussed. The following will be required:
 - Meeting facility
 - Stenographer
 - Audio/visual equipment
 - Meeting announcement/advertising
 - Presentation materials/handouts
 - Record of meeting/follow-up mailing to interested parties
 - Translator
4. All interested parties will continue to be informed of the progress of the study through periodic news releases and/or electronic newsletters. Prior to the Final Public Meeting, the Draft Feasibility Report will be released for review and comment to the public.
5. The sponsor may include a public awareness and education program targeting elementary schools and possibly secondary schools within the Long Beach area. Opportunities to link communities with school programs and public/private partnerships for restoring and monitoring the health of East San Pedro Bay ecosystems will be evaluated. These opportunities may include the use of the website and GIS database to be constructed for this study, field trips for students and parents, and guest speakers.
6. Review and update report documentation.

Public Involvement Support to AFB:

1. Continue public involvement activities.
2. Review and update project documentation.

Public Involvement – Final Public Meeting:

1. A Final Public Meeting will be held to present the findings of the Draft Feasibility Report. Direct input from the public will be obtained for incorporation into the Final Report. A professional recorder will prepare a final public meeting transcript.
2. Prepare report documentation.

Public Involvement – Support to FRC:

1. Respond as needed.

Plan Formulation and Evaluation (JK000) (\$620,000)

- i. Plan formulation and evaluation includes all efforts performed by study management at the Corps and the Sponsor. It includes attendance and participation at meetings, coordination between study team members and other interest groups, report writing and organization, evaluation and effectiveness assessment of six-step planning process defined below, as well as other tasks and activities. Plan formulation continues from beginning to end of the feasibility phase.
- ii. The planning process will follow these six steps:
 1. Identification of problems and opportunities within the study area.
 2. Inventory and forecast conditions of water and related land resources within the planning area relevant to the problems and opportunities.
 3. Formulate alternative plans.
 4. Evaluate alternative plans including impacts and effectiveness.
 5. Compare alternative plans.
 6. Select a plan to recommend.
- iii. Plan formulation is an iterative process. Early iterations involve problem identification and resource inventories and forecasts.
- iv. The report will be prepared in accordance with ER 1105-2-100, ER 5-7-1, EC 1105-2-206, EC 1105-2-208, P&G, NEPA, and other pertinent engineering, environmental, and economic guidance and regulations.
- v. All plan formulation activities will be conducted in close coordination with the Sponsor and other agencies. The public and interested agencies will be involved in public workshops and management meetings to ensure open communication is maintained throughout the study.
- vi. Technical input for plan formulation tasks is included in the respective scopes of work. Costs associated with these tasks reflect the coordination efforts of study management for the Corps and Sponsor.
- vii. Specific activities to be accomplished during the planning process are described below:
 1. Update and detail assessment of present conditions within the East San Pedro Bay. Provide a baseline condition for comparison with future with-project conditions. Gathered information will be entered into GIS as individual themes and/or tables.
 2. Future, without-project conditions will be forecasted. Time periods for future without-project forecasting will be defined during the course of the study. This condition will represent the “no-action” alternative.
 3. Objectives, opportunities, and constraints will be defined for the following Restoration Plan purposes:
 - Ecosystem Restoration
 - Recreation
 - Sediment Management
 - Shoreline and Wave Protection
 - Education (Schools/Volunteer)

4. A plan shall be developed that establishes the framework for community and school-based participation. Future East San Pedro Bay rehabilitation efforts can include: 1) clean-up of degraded environments; 2) curriculum guidelines for science programs involving field work, biology, botany, geomorphology, etc; 3) beach clean-up campaigns, and/or 4) education campaigns for management of wastes.
5. Criteria will be established and alternatives screened to eliminate those alternatives which may not be technically feasible, do not meet established objectives, or which violate physical, economic, and institutional constraints. Alternatives will not be eliminated solely because they violate an objective or constraint.
6. Alternatives passing the screening process will be evaluated according to completeness, technical feasibility, effectiveness, efficiency, acceptability, environmental effects, ability to meet objectives, and other evaluation criteria as developed during the course of the study. Conformance with Corps guidelines will be a consideration, but will not necessarily be grounds for rejecting an alternative that otherwise fit into the overall project purpose.
7. Costs, benefits, and environmental outputs for each alternative will be assessed at a reconnaissance level. Costs will include construction costs, land acquisition, and operation and maintenance. Environmental outputs will be measured in terms of habitat units using the U.S. Fish and Wildlife Service Habitat Evaluation Procedures (HEP) or other defensible scientific method. Tradeoffs between monetary and non-monetary project outputs will be evaluated.
8. Consultations with the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, the California Fish and Game Department, and the California Regional Water Quality Control Board will be done regarding maintenance and other regulated activities (public and private).
9. The decision-making framework leading to the recommended management plan will consist of: a) early and continued close coordination between the Corps, the Sponsor and other interested agencies, b) development and evaluation of alternatives using an incremental and cost effectiveness approach, and c) public involvement and stakeholder buy-in.
10. Institutional Assessment:
 - a. The Institutional Studies Task involves determining the financial and legal arrangements required to implement the recommended plans, including methods of financing the projects and operating and maintaining existing projects in a manner that will ensure long term restoration of the East San Pedro Bay ecosystem. A financial capability analysis will examine whether or not the Sponsor have the organizational, legal, and financial capability to undertake the required financial obligations for implementing and maintaining the project(s) after it is authorized for construction by Congress. The financing plan will determine the Federal, state and local interests in the financing and maintenance of elements of the recommended East San Pedro Bay plan. The information obtained from the following subtasks will be provided in a financial, legal, and cost recovery analysis section of the feasibility report.
 - b. *Financial Analysis and Planning.* This subtask will begin with a review of the current financial agreements in place for operation and maintenance of water resource related infrastructure, including an assessment of long-term local financial interest and capability. Cost sharing, alternative repayment options for any incidental project purposes, and other financial options will be defined. Financial discussions will be coordinated between the Sponsors, other interested agencies, and the public. The collected data will be evaluated, and a financial capability analysis will be performed. A

draft and final financial and cost recovery section of the feasibility report will be prepared. Interim status reports will be developed and fully coordinated with local, state and federal agencies during the course of the study. An authorized, local committee representing all legal entities will work closely with the Corps in the analysis, documentation, and drafting of this sub-report.

c. *Legal Responsibility for Remediation by Other Parties.* EC 1105-2-210, par. 6(c), prohibits the Corps of Engineers from participating in ecosystem restoration activities that would principally result in treatment of pollution problems caused by others who may still have a legal responsibility for remediation. District counsel will prepare a determination of potential liability for the remediation for present and past owners for project sites that appear to have federal interest for implementation and which may be impaired with pollution problems.

11. Study Management: The feasibility study will be managed as follows:

- a. The Study Managers will track and control the study to meet the established milestones dates.
- b. The manager will ensure that defined work is completed as agreed in this PMP.
- c. The study will be performed according to the milestones as described in Enclosure B. See Enclosure B for descriptions of milestones.
- d. Study management includes study, project, and program activities, in accordance with current guidelines outlined in ER 1105-2-100, ER 5-7-1, EC 5-1-48, EC 1105-2-206 and EC 1105-2-208, providing detailed information for the work done for others; establishing study milestones; assisting the development of networks to include work activities, task schedules, critical path networks, and funding schedules; directing, monitoring, and modifying assigned work items as required and agreed upon by the Sponsor; reviewing results and reports provided by the technical support staff; correspondence; report preparation and review; inter-organization coordination; and conference preparation and presentation. Coordination with the Project Manager involves periodic meetings held with the Sponsors to report on technical issues and the status of the study and in-kind services.
- e. The Study Managers will provide direction to members of the technical study team, and possibly to a East San Pedro Bay Steering Committee (if one is deemed appropriate). Technical coordination and inter-disciplinary planning are the responsibilities of the Study Manager. This will include monitoring the scope and progress of activities to ensure that the study is consistent with relevant planning and engineering guidelines and policy. Deviations in scope, that affect schedule and cost, will be coordinated with the Sponsor.
- f. The Study Managers will coordinate with East San Pedro Bay Steering Committee which will include: Representatives from the Corps, California Coastal Conservancy, Port of Long Beach, City of Long Beach, County of Los Angeles, California Department of Fish and Game, and other representatives from interested agencies and organizations. The Study Managers, Corps and Sponsor, intend to meet bi-monthly or as needed, with the LBHSC to discuss study progress, direction, data collection/analyses, additional information needs, local community concerns, in-kind deliverables, Corps and A/E contractor deliverables, product acceptance, and financial commitments.
- g. Executive Committee: The executive committee, defined in the FCSA, will meet as needed to focus project direction and resolve issues that cannot be resolved by the SMT, Study Manager or Project Managers.

Final Report Documentation (JL000) (\$100,000)

Report Documentation will be in accordance with ER 1105-2-100, , EC 1105-2-206, EC 1105-2-208 and ER 110-2-1150. Report preparation includes the compilation of all study team products into an initial draft report and a final report. The work will include collection and assembly of pertinent data, editing, typing, drafting, reproducing, and distributing the draft and final Feasibility Reports. The Environmental Impact Assessment (EIA) will be reproduced and distributed with funds shown in the Environmental WBS code, shown in Chapter II.

The study manager will be responsible for reproduction and dissemination of the draft and final reports for appropriate review and revision. All study team members will be involved in the formulation and review of the reports. Each draft report will have a comment and review period to ensure that findings and recommendations are coordinated and consistent.

Reproduction and Distribution of F3 Documentation

1. F3 Report. The report contents include a description of baseline conditions, current and likely future without project conditions, and a discussion of preliminary restoration alternatives and possible spin-off CAP studies and/or pilot projects.
2. Gather, assemble and edit report and appendices.
3. Reproduce documents.
4. Distribute documents.

Reproduction and Distribution of F4 Documentation

1. F4 Report. This draft includes the revised baseline, development and evaluation of alternatives and a preliminary recommended plan and a draft EIA.
2. Gather, assemble and edit report and appendices.
3. Reproduce documents.
4. Distribute documents.

Reproduction and Distribution of AFB Documentation

1. Gather, assemble and edit report and appendices.
2. Reproduce documents.
3. Distribute documents.

Reproduction and Distribution of Draft Report

1. Public Draft (F5). This draft report will include revisions based on comments received during review of the F4 documents. The F5 report will be released to the public and resource agencies for comment. A formal public meeting will be held during the public review period.
2. Gather, assemble and edit report and appendices.

3. Reproduce documents.
4. Distribute documents.

Reproduction and Distribution of Final Report.

1. Final Report (F8). The final report includes revisions based on comments received during the public review period. This final report documents are sent to Corps Headquarters for review and approval. They contain the final baseline condition, alternative development, evaluation and recommendation with supporting documentation including the Environmental Impact Assessment.
2. Gather and assemble report and appendices
3. Reproduce documents.
4. Distribute documents.

Technical Review Documents (JMD00) (\$70,000)

- i. Corps, CESPL-PD OM 1105-1-1, Independent Technical Review Guidelines will be followed.
- ii. Internal Seamless Peer Review will occur throughout the study phase and is the responsibility of each study team member's supervisor.
- iii. Corps Internal Independent Technical/Policy Review
 1. A Review meeting to establish the Quality Control Plan (QCP) will be held early in the study. The meeting agenda will include a review of milestones and schedules for reviews, identification of the key study tasks and activities and selection of the review team. The Review Team will perform their review prior to the specific milestones and document their comments. Division representatives will aid in resolving technical issues as needed.
 2. The Quality Control Plan will include the following items:
 - a. Establish goals for the QC process. These include:
 - § Provide enhanced quality through timely review of decision and implementation documents.
 - § Integrate policy review into technical review of decision documents.
 - b. Utilize guidelines to complete this review. These guidelines include CESPL OM:
 - § Independent Technical Review Guidelines for Planning, Engineering, Construction, Operations, and Real Estate.
 - § Standard Operating Procedure for Independent Technical Review.
 - § Checklist for Single Discipline Peer Review.
 - § Guidelines for Independent Technical Review of Pre-Authorization Decision Documents.
 - § Review Checklist for Reconnaissance, Feasibility and Reevaluation Reports.
 - § Index to Minimum Report Content.
 - § Independent Technical Review Management Checkpoint System for Reconnaissance, Feasibility, and Reevaluation Reports.
 - Review Team Members. The Review Team members will have technical expertise in their respective fields.
 - Review Schedule. This can include a schedule for periodic review and a time to update of the QC plan.
 - Other items: The QC plan can include a discussion of known policy questions needing clarification, a list of major technical issues that may require Headquarters' technical guidance, a statement of manpower and financial resources to be committed to the review, and views of the local Sponsor on the QC process.
3. Technical review team members prepare independent technical review comments and attend and participate in review conferences.

Washington Level Report Approval (Review Support) (JN000) (\$20,000)

There may be final comments and questions from Washington Level Review. This task will address general comments from Washington. If successful response to comments require substantive change to the report or will require additional work by support elements, a cost increase may need to be negotiated. The general assumption is that there will not be major comments from this review.

Management Documents (JP000)

Project Management and Budget Documents (JPA00) (\$120,000)

Project Management

Project management tasks and activities include tracking, controlling and reporting on overall project schedule and cost. The project manager also develops and negotiates the Project Management Plan for Planning Engineering and Design (PED) and negotiates and prepares Project Cooperation Agreements (PCAs). Meetings between the Corps and the Sponsor will be held periodically to coordinate and report on the status of the study tasks and activities and determine in-kind services and credits. The Project Manager (PM) will:

1. Coordinate with the Sponsor's representative early in the study process to determine appropriate financial and performance measurements per the FCSA. The determined metrics will be coordinated and reported at determined times throughout the study process.
2. Maintain study network
3. Coordinate with the Sponsor and negotiated status of in-kind services; coordinate cost-sharing procedures, management of budgets and schedules.
4. Review reports and participates in meetings to ensure study is on track and is being prepared in accordance with Corps and Sponsor guidelines and requirements.

Budget Documents

Program Management activities include preparation of budget and financial reports, coordination of Congressional fact sheets and similar documents. Budgetary management responsibilities include:

1. Interpret budgetary guidance.
2. Submit project data sheets, justification sheets and other testimonial fact sheets as required;
3. Monitor study funds, report budget forecasts, track obligations and expenditures, monitor project financial performance and coordinate with study and project managers.

Supervision and Administration (JPB00) (\$120,000)

Supervision and administration costs are included in each of the work elements. A key component of this task is the involvement of the Executive Committee. The Executive Committee is defined in the FCSA. They will meet periodically to guide and direct overall study direction.

Contingencies (JPC00) (\$1,410,000)

A contingency (Subaccount 18) of 25% has been included in the feasibility study cost. The contingency amount applies to all work described in this PMP. It applies to all Corps efforts and Sponsor efforts. The contingency can be used to cover cost overruns or additional work to help ensure that the study progresses and remains on schedule.

PED Project Management Plan (L0000) (\$50,000)

If an alternative has potential Federal interest, the PM will initiate work efforts to prepare a Project Management Plan (PMP) for the Planning Engineering and Design (PED) phase of the project. The PM will work with the study team and the Sponsor to ensure that the PMP will outline requirements during the PED phase. The PED PMP will be attached to and reference in the Project Cooperation Agreement (PCA).

PED Cost Sharing Agreement (Q0000) (\$20,000)

The PM is responsible to prepare and complete a negotiated Project Cooperation Agreement (PCA), which will reference the Project Management Plan for the Planning Engineering and Design (PED) phase of the recommended project. This task is for the PM and the Sponsor to develop and finalize a PCA.

ENCLOSURE D – QUALITY CONTROL CERTIFICATION

ENCLOSURE D

QUALITY CONTROL CERITIFICATION

COMPLETION OF QUALITY CONTROL ACTIVITIES

The District has completed the Project management plan for the East San Pedro Bay Ecosystem Restoration Study. All quality control activities defined in the generic quality control plan for reconnaissance phase products 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 independent technical review of the PMP have been resolved.

CERTIFICATION

Certification is hereby given that 1) the independent technical 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.

_____ Date

_____ Chief, Planning Division

ENCLOSURE E – LIST OF ACRONYMS

ENCLOSURE E

LIST OF ACRONYMS

AFB	Alternative Formulation Briefing
ASA (CW)	Assistant Secretary of the Army for Civil Works
CESPD	South Pacific Division (also SPD)
DE	Division Engineer (Division Commander)
EA	Environmental Assessment
EC	Engineering Circular
EIS	Environmental Impact Statement
EP	Engineering Pamphlet
ER	Engineering Regulation
FCSA	Feasibility Cost Sharing Agreement
FONSI	Finding of No Significant Impact
FRC	Feasibility Review Conference
H&H	Hydrology and Hydraulics
HQUSACE	Headquarters, U.S. Army Corps of Engineers
HTRW	Hazardous, Toxic and Radioactive Waste
MSC	Major Subordinate Command
NAS	Network Analysis System
NED	National Economic Development
NEPA	National Environmental Policy Act
OBS	Organizational Breakdown Structure
P&G	Water Resources Council's Principles and Guidelines
PED	Planning Engineering and Design
PMP	Project Management Plan
PPMD	Programs and Project Management Division
PROMIS	Project Management Information System
PSP	Project study plan (now referred to as a PMP)

RAM	Responsibility Assignment Matrix
ROD	Record of Decision
S&A	Supervision and Administration
SPD	South Pacific Division (CESPD)
USF&WL	U.S. Fish and Wildlife Service
WBS	Work Breakdown Structure
WRDA	Water Resources Development Act