

MINUTES OF THE BOARD OF SUPERVISORS
OF SAN BERNARDINO COUNTY, CALIFORNIA

FCD, Gen'l.
FCD, All River
Agree. No. 93-1119

November 23, 1993

3-104/1.00

FROM: **KEN A. MILLER, Director**
Transportation/Flood Control

SUBJECT: **AGREEMENT WITH U.S. ARMY CORPS OF ENGINEERS FOR SEVEN OAKS DAM**
WATER CONSERVATION FEASIBILITY STUDY

RECOMMENDATION: Acting as the governing body of the Flood Control District, approve agreement with U. S. Army Corps of Engineers (CORPS) which outlines the responsibilities between the CORPS and the Flood Control District (FCD) as Local Sponsor for the Seven Oaks Dam Water Conservation Feasibility Study.

BACKGROUND: The CORPS has completed a reconnaissance study for water conservation at Seven Oaks and Prado Dams and has determined to pursue a Feasibility Phase Study to investigate water conservation potential at the Seven Oaks Dam.

REASON FOR RECOMMENDATION: Board approval is required to enact this agreement.

REVIEW BY OTHER DEPARTMENTS: This agreement was reviewed by Deputy County Counsel Charles Scolastico on November 4, 1993.

FINANCIAL DATA: There will be no financial impact to the Department. This feasibility study requires Local Sponsor funding of 50 percent of the total cost. Local Sponsor funding to be provided by San Bernardino Valley Municipal Water District, (72.05%), and Western Municipal Water District of Riverside County, (27.95%), under separate agreement with a total commitment of \$1,090,000.

PRESENTER: Ken A. Miller

cc: Flood Control Dist. w/8 agr.
for signature
CORPS c/o Flood Control Dist.
Auditor
Human Res./Af. Action
Risk Management
PWG
File w/agr.

vg

Action of the Board of Supervisors

AGREEMENT NO. 93-1119

APPROVED BOARD OF SUPERVISORS
COUNTY OF SAN BERNARDINO

MOTION	MOVED	AYE	AYE	SECOND	ABSENT
	1	2	3	4	5

EARLENE SPROAT, CLERK OF THE BOARD

BY *Earlene Sproat*

DATED: NOVEMBER 23, 1993

ITEM 35



**SAN BERNARDINO COUNTY
FLOOD CONTROL DISTRICT**
F A S
CONTRACT TRANSMITTAL

FOR COUNTY I ILY

E	New	Vendor Code	Dept.	Contract Number		
M	Change		SC	93-1119		
X	Cancel		A	Contractor's License No.		
County Department			Dept.	Orgn.	Amount of Contract	
Transportation/Flood Control			097	097		
Flood Control District Contract Representative				Ph. Ext.		
Mina Ghaly				387-2571		
Fund	Dept.	Organization	Appr.	Obj/Rev Source	Activity	GRC/PROJ/JOB Number
Commodity Code			Estimated Payment Total by Fiscal Year			
Project Name			FY	Amount	I/D	FY
Seven Oaks Dam Water						
Conservation Feasi-						
bility Study						

CONTRACTOR See Signatures

Birth Date _____ Federal ID No. or Social Security No. _____

Contractor's Representative _____

Address _____ Phone _____

Nature of Contract: *(Briefly describe the general terms of the contract)*

An agreement between the U.S. Army Corps of Engineers (Government) and San Bernardino County Flood Control District (Sponsor) that outlines the responsibilities and guidelines to perform a Water Conservation Feasibility Study behind Seven Oaks Dam.

THIS IS NOT A CONTRACT
THIS IS A COVER
TRANSMITTAL ONLY

(Attach this transmittal to all contracts not prepared on the "Standard Contract" form.)

Approved as to Legal Form <u>[Signature]</u> County Counsel Date <u>11-9-93</u>	Reviewed as to Affirmative Action <u>[Signature]</u> Date <u>11-9-93</u>	Reviewed for Processing <u>[Signature]</u> Agency Administrator/CAO Date _____
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AGREEMENT
BETWEEN THE UNITED STATES OF AMERICA
AND
SAN BERNARDINO COUNTY, CALIFORNIA
FLOOD CONTROL DISTRICT
FOR THE
SEVEN OAKS DAM WATER CONSERVATION STUDY, CALIFORNIA

THIS AGREEMENT, entered into this 23rd day, of Nov., 1993, by and between the United States of America (hereinafter called the "Government"), represented by the District Engineer executing this Agreement, and the San Bernardino County Flood Control District (hereinafter called the "Sponsor"),

WITNESSETH, that

WHEREAS, the authority to study the feasibility of Water Supply and Conservation Storage at Prado Dam in Riverside County, California, is section 401(a) of the Water Resources Development Act of 1986 ("WRDA 86"), Public Law 99-662; and

WHEREAS, the authority to study the feasibility of Water Supply and Conservation Storage at Seven Oaks Dam in San Bernardino County, California, is the Resolution of the Committee on Public Works of the House of Representatives dated May 8, 1964; and

WHEREAS, the Corps of Engineers has conducted a reconnaissance study of water conservation along the Santa Ana River at Seven Oaks and Prado Dams, pursuant to House Report 101-96, June 20, 1986, and has determined that further study in the nature of a "Feasibility Phase Study" (hereinafter called the "Study") is required to fulfill the intent of the study authority and to complete the extent of the Federal interest in studying the feasibility of providing water conservation at Seven Oaks Dam, California, and that no additional authority is required for an operational modification at Prado Dam for the change in seasonal water conservation; and

WHEREAS, the Sponsor has the authority and capability to furnish the cooperation hereinafter set forth and is willing to participate in study cost sharing and financing in accordance with the terms of this agreement; and

WHEREAS, the Sponsor and the Government both understand that entering into this Agreement in no way obligates either party to implement a project and that whether a project is supported for authorization and budgeted for implementation depends on the outcome of this feasibility study and whether the proposed solution is consistent with the Principles and Guidelines and with the budget priorities of the Administration, and that at the present time, favorable budget priority is being assigned to

projects providing primarily commercial navigation and flood or storm damage reduction outputs; and

WHEREAS, the Water Resources Development Act of 1986 (P.L. 99-662) specifies the cost sharing requirements applicable to the study;

NOW THEREFORE, the parties agree as follows:

ARTICLE I - DEFINITIONS

For the purposes of this Agreement:

a. The term "Study Cost" shall mean all disbursements by the Government pursuant to this Agreement, whether from Federal appropriations or from funds made available to the Government by the Sponsor, and all Negotiated Costs of work performed by the Sponsor pursuant to this Agreement. Such costs shall include, but not be limited to: labor charges; direct costs; overhead expenses; supervision and administration costs; and contracts with third parties, including termination or suspension charges; and any termination or suspension costs (ordinarily defined as those costs necessary to terminate ongoing contracts or obligations and to properly safeguard the work already accomplished) associated with this Agreement.

b. The term "Study Period" shall mean the time period for conducting the Study, commencing with the issuance of initial Federal feasibility funds following execution of this Agreement, and ending when the report is submitted to the Office of Management and Budget (OMB) by the Assistant Secretary of the Army for Civil Works (ASA(CW)) for review of consistency with the policies and programs of the President.

c. The term "Negotiated Cost" is the fixed fee for a work item to be accomplished by the Sponsor as in-kind services as specified in the Initial Project Management Plan (IPMP) incorporated herein and which is acceptable to both parties.

ARTICLE II - OBLIGATIONS OF PARTIES

a. The Sponsor and the Government, using funds contributed by the Sponsor and appropriated by the Congress, shall expeditiously prosecute and complete the Study, currently estimated to be complete in 37 months from the date of this Agreement, substantially in compliance with Article III herein and in conformity with applicable Federal laws and regulations, the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies, and mutually acceptable standards of engineering practice.

b. The Government and the Sponsor shall each contribute, in cash and in-kind services, fifty (50) percent of all Study Costs, which total cost is currently estimated to be \$2,180,000 (October 1993 price levels), as specified in Article IV herein; provided, that the Sponsor may, consistent with applicable Federal statutes and regulations, contribute up to 25 percent of the Study Costs as in-kind services; provided further, the Government shall not obligate any cash contribution by the Sponsor toward Study Costs until such cash contribution has actually been made available to it by the Sponsor.

c. No Federal funds may be used to meet the local sponsor share of study costs under this Agreement unless the expenditure of such funds is expressly authorized by statute as verified by the granting agency.

d. The award of any contract with a third party for services in furtherance of this Agreement which obligates Federal appropriations shall be exclusively within control of the Government. The award of any contract by the Sponsor with a third party for services in furtherance of this Agreement which obligates funds of the Sponsor and does not obligate Federal appropriations shall be exclusively within control of the Sponsor, but shall be subject to applicable Federal statutes and regulations.

e. The Government and the Sponsor shall each endeavor to assign the necessary resources to provide for the prompt and proper execution of the Study, and shall, within the limits of law and regulation, conduct the Study with maximum flexibility as directed by the Executive Committee established by Article V, herein.

f. The Government will not continue with the Study if it determines that there is no solution in which there is a Federal interest or which is not in accord with current policies and budget priorities unless the Sponsor wishes to continue under the terms of this Agreement and the Department of the Army grants an exception. If a study is discontinued, it shall be concluded according to Article XII and all data and information shall be made available to both parties.

g. The Sponsor may wish to conclude the Study if it determines that there is no solution in which it has an interest or which is not in accord with its current policies and budget priorities. When such a case exists the study shall be concluded according to Article XII and all data and information shall be made available to both parties.

ARTICLE III - INITIAL PROJECT MANAGEMENT PLAN

Appendix A, the Initial Project Management Plan (IPMP), furnished with the Reconnaissance Report, is hereby incorporated into this Agreement. The parties to this Agreement shall substantially comply with the Initial Project Management Plan in prosecuting work on the Study. The following modifications, to be approved by the Executive Committee, shall require an amendment to this Agreement:

- a. any modification which increases the total study costs by more than 15 percent; (Appendix-A pp. 16 & 17)
- b. any modification in the estimated cost of a Study work item or any obligation for a Study work item, which changes the total cost of that work item by more than 15 percent; (Appendix-A, pp. 16 & 17)
- c. any extension of the completed schedule for a Study work item of more than thirty (30) days; (Appendix-A, p. 17) or
- d. any reassignment of work item between the Sponsor and the Government. (Appendix-A, p. 16)

ARTICLE IV - METHOD OF PAYMENT

- a. The Government shall endeavor to obtain during each fiscal year the appropriation for that fiscal year at least in the amounts specified in the Initial Project Management Plan incorporated herein. Subject to the enactment of Federal appropriations and the allotment of funds to the District Engineer, the Government shall then fund the Study at least in the amounts specified in the Initial Project Management Plan herein.
- b. The Sponsor shall endeavor to obtain during each Government fiscal year the cash contribution for that Government fiscal year at least in the amounts specified in the Initial Project Management Plan incorporated herein and, once it has obtained funds for a cash contribution, shall make such funds available to the Government. The Government shall withdraw and disburse funds made available by the Sponsor subject to the provisions of this Agreement.
- c. Funds made available by the Sponsor to the Government and not disbursed by the Government within a Government fiscal year shall be carried over and applied to the cash contribution for the succeeding Government fiscal year; provided, that upon study termination any excess cash contribution shall be reimbursed to the Sponsor after a final accounting, subject to the availability of appropriations, as specified in Article XII herein.

d. Should either party fail to obtain funds sufficient to make obligations or cash contributions or to incur Study Costs in accordance with the schedule included in the Initial Project Management Plan incorporated herein, it shall at once notify the Executive Committee established under Article V herein. The Executive Committee shall determine if the Agreement should be amended, suspended, or terminated under Article XII herein.

ARTICLE V - MANAGEMENT AND COORDINATION

a. Overall study management shall be the responsibility of an Executive Committee consisting of the Los Angeles District Commander; the Deputy District Engineer for Project Management; the Los Angeles District Chief of Planning Division; and the Chief Engineer for the San Bernardino County Flood Control District.

b. To provide for consistent and effective communication and prosecution of the items in the Initial Project Management Plan, the Executive Committee shall appoint representatives to serve on a Study Management Team.

c. The Study Management Team will coordinate on all matters relating to the prosecution of the Study and compliance with this Agreement, including cost estimates, schedules, prosecution of work elements, financial transactions and recommendations to the Executive Committee for termination, suspension or amendment of this Agreement.

d. The Study Management Team will prepare periodic reports on the progress of all work items for the Executive Committee.

ARTICLE VI - DISPUTES

a. The Study Management Team shall endeavor in good faith to negotiate the resolution of conflicts. Any dispute arising under this Agreement which is not disposed of by mutual consent shall be referred to the Executive Committee. The Executive Committee shall resolve such conflicts or determine a mutually agreeable process for reaching resolution or for termination under Article XII herein.

b. Pending final decision of a dispute hereunder, or pending suspension or termination of this Agreement under Article XII herein, the parties hereto shall proceed diligently with the performance of this Agreement.

ARTICLE VII - MAINTENANCE OF RECORDS

The Government and the Sponsor shall each keep books, records, documents and other evidence pertaining to Study Costs and expenses incurred pursuant to this Agreement to the extent and in such detail as will properly reflect total Study Costs. The Government and the Sponsor shall maintain such books, records, documents and other evidence for inspection and audit by authorized representatives of the parties to this Agreement. Such material shall remain available for review for a period of three (3) years following the termination of this Agreement.

ARTICLE VIII - RELATIONSHIP OF PARTIES

a. The parties to this Agreement will act in an independent capacity in the performance of their respective functions under this Agreement, and neither party is to be considered the officer, agent, or employee of the other.

b. To the extent permitted by applicable law, any reports, documents, data, findings, conclusions, or recommendations pertaining to the Study shall not be released outside the Executive Committee or the Study Management Team; nor shall they be represented as presenting the views of either party unless both parties shall indicate agreement thereto in writing.

ARTICLE IX - OFFICIALS NOT TO BENEFIT

No member of or delegate to the Congress, or other elected official, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom.

ARTICLE X - FEDERAL AND STATE LAWS

In acting under its rights and obligations hereunder, the Sponsor agrees to comply with all applicable Federal and State laws and regulations, including Section 601 of Title VI of the Civil Rights Act of 1964 (Public Law 88-352) and Department of Defense Directive 5500.II issued pursuant thereto and published in Part 300 of Title 32, Code of Federal Regulations, as well as Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army."

ARTICLE XI - COVENANT AGAINST CONTINGENT FEES

The Sponsor warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon

agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the local sponsor for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this Agreement without liability, or, in its discretion, to add to the Agreement or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or other contingent fee.

ARTICLE XII - TERMINATION OR SUSPENSION

a. This Agreement shall terminate at the completion of the Study Period; provided that prior to such time and upon thirty (30) days written notice, either party may terminate or suspend this agreement without penalty.

b. Within ninety (90) days upon termination of this Agreement the Study Management Team shall prepare a final written accounting of Study Costs, which shall display disbursements by the Government of Federal funds, cash contributions by the Local Sponsor, and credits for the Negotiated Costs of the Local Sponsor. Subject to the availability of funds, within thirty (30) days thereafter the Government shall reimburse the Local Sponsor for the excess, if any, of cash contributions and credits given over fifty (50) percent of total Study Costs. Within thirty (30) days thereafter, the Local Sponsor shall provide the Government any cash contributions required so that the total Local Sponsor share equals fifty (50) percent of the total Study Costs.

IN WITNESSETH WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

SAN BERNARDINO COUNTY
FLOOD CONTROL DISTRICT

BY *R.L. VanAntwerp*
R.L. VanAntwerp
Colonel, Corps of Engineers
District Engineer

BY *John D. Wisely*
Chairman, Board of Supervisors
Dated: NOV 23 1993 *93-1119*

SIGNED AND CERTIFIED THAT A COPY OF THIS AGREEMENT HAS BEEN DELIVERED TO THE CHAIRMAN OF THE BOARD

By: *Hoda Emiche*
Deputy Clerk of the Board of Supervisors of San Bernardino County, California
Dated: NOV 23 1993

APPROVED AS TO LEGAL FORM

By: *[Signature]*
County Counsel of San Bernardino County
Dated: 11-9-93

Appendix A - Initial Project Management Plan

APPENDIX A

INITIAL PROJECT MANAGEMENT PLAN

INITIAL PROJECT MANAGEMENT PLAN
SEVEN OAKS DAM WATER CONSERVATION STUDY, CALIFORNIA
FEASIBILITY PHASE
SCOPE OF STUDY

PURPOSE AND SCOPE

The purpose of this Initial Project Management Plan (IPMP) is to identify the work items, funding schedules, and to estimate the cost of investigation required in the feasibility phase of the Seven Oaks Dam Water Conservation Study, California. Because it was determined during the reconnaissance phase of the Seven Oaks/Prado Dam Water Conservation Study that there may be a Federal interest in water conservation at Seven Oaks Dam and that no additional authority is required for an operational modification to Prado Dam for the change in seasonal water conservation as proposed by the study, this IPMP deals with the Feasibility Phase for water conservation at Seven Oaks Dam. The Feasibility Study will contain sufficient engineering and design to enable further refinement of project features, prepare the baseline cost estimate, develop a design and construction schedule, and allow preparation of plans and specifications on the selected plan to start immediately following receipt of PED funds. In order to clarify cost-sharing responsibilities, the study obligations of the Corps of Engineers (referred to as "The Corps" hereafter) and the non-Federal sponsor, the San Bernardino County Flood Control District (referred to as the "Local Sponsor" hereafter), are identified in accordance with the Water Resources Development Act of 1986 (WRDA, 1986).

DESCRIPTION OF THE STUDY AREA

The study area includes Seven Oaks Dam and reservoir, currently scheduled for completion in the year 1997. This 550-foot-high earth rockfill dam, with a gross capacity of 145,600 acre-feet, will be located in the steep walled Upper Santa Ana River Canyon, approximately 1 mile from the canyon mouth at the confluence of the Santa Ana River and Government Canyon. Seven Oaks Dam and reservoir is completely within the boundaries of the San Bernardino National Forest. The dam would control a drainage area of 177 square miles.

FEASIBILITY STUDY COORDINATION

Overall study management shall be the responsibility of an Executive Committee consisting of the Los Angeles District Commander; the Deputy District Engineer for Project Management; the Los Angeles District Chief of Planning Division; and the Chief Engineer for the San Bernardino County Flood Control District. The Executive Committee will be assembled to

coordinate the study, and will oversee the overall study by 1) maintaining a working knowledge of the feasibility study, 2) assisting in resolving emerging policy issues, 3) assuring that evolving study results and policies are consistent and coordinated, 4) directing the Study Management Team, and 5) ratifying decisions made by the Study Management Team. The Executive Committee will also ensure that the approved IPMP is followed, the study schedule and budget maintained, and that appropriate policies and guidelines are followed.

The Study Management Team will consist of a Corps Planning Manager, a Corps Project Manager, and a designated Study Manager from the Local Sponsor. The Study Management Team will oversee the studies to ensure the establishment of desired mutual roles, interests, and study objectives. The Study Management Team will implement overall direction of the study provided by the Executive Management Committee and work to ensure that Corps policy, local sponsor objectives, and the framework provided by the IPMP is followed. In addition, the Study Management Team will make sure that the study schedule and budget are maintained, that sound technical judgement is followed, and that multi-disciplinary studies and decisions are made in accordance with applicable guidelines and policies. The Study Management Team will ensure that adequate input to the study process is received from the appropriate Federal, State, and local agencies, interested organizations and individuals.

WORK TASKS AND RESPONSIBILITIES

The Seven Oaks Water Conservation Feasibility Study will concentrate on the viable water conservation alternatives described in the Reconnaissance Study with the focus on formulating and optimizing the alternatives for implementation. The Feasibility Study will include the following study tasks: public involvement; environmental studies; hydrologic studies; geotechnical studies; study management; institutional studies; plan formulation; economic studies; design studies; survey and mapping; cost estimation; fish and wildlife studies; cultural resource studies; real estate studies; report preparation; and review. Study progress and intermediate results will be reviewed and approved on a quarterly basis by the Executive Committee. Actual meeting dates will be negotiated and agreed upon at the first Executive Committee meeting. At the beginning of the study, Engineering Service Requests (ESR's) will be issued by the Study Management Team detailing specific study tasks, funding, milestones, and the form and detail of the expected product. The Study Management Team will finalize a critical path network detailing the start and finish times of each study element, in conjunction with the actual funding schedule.

The following is a description of the major Feasibility Study tasks and the responsibilities for accomplishment of these

tasks. At the beginning of each task, the non-initiating agency, either Corps or Local Sponsor, may review any planned work or contract of the other for adequacy. At the completion of each task, the non-initiating agency may review and approve the results of the work before it is considered complete. Review and assessment of the adequacy of the work will be accomplished by the Study Management Team and its technical staff. The Term "In-Kind" is defined as those tasks completed by the local sponsor in substitution of a cash contribution. The major study tasks for Seven Oaks Water Conservation and their expected costs are summarized in Table 1.

FEASIBILITY STUDY MANAGEMENT

This task will be accomplished primarily by the Corps, in coordination with the Local Sponsor. It includes all management activities, in accordance with current guidelines outlined in ER 1105-2-100, ER 5-7-1, and EC 5-1-48. This includes study scheduling, providing detailed information for the work done for others, issuing Engineering Service Requests (ESR's), establishing study milestones, developing networks to include work activities, task schedules, critical path networks and funding schedules, directing, monitoring, and modifying assigned work items and funds as required and agreed upon by the local sponsor, reviewing results and reports provided by the technical support staff, budget preparation for current year and out years, correspondence, report preparation and review, inter-organization coordination, conference preparation and presentation, point-of-contact responsibilities, and the development and negotiation of the LCA, MOA's and other customer agreements. Periodic meetings will be held between the Corps and the Local Sponsor to report on the status of the study and possible in-kind services. Monthly status reports covering selected financial and performance measurements will be provided by the Corps. Study Management Team meetings will be held on a quarterly basis, or more frequently if necessary.

Study management will ensure that all required tasks and coordination are performed, resulting in the production of a quality Feasibility Report document. Study management will maintain coordination with the multi-disciplinary study teams to ensure effective and timely decision making. Study management will monitor the scope and progress activities of study to ensure that the study remains on track, within budget and on schedule, and that any potential impacts on scope, schedule and cost are fully coordinated with the Executive Committee and resolved.

If the Feasibility Study results in a plan recommended for Federal participation, the plans and procedures required for project implementation will be defined by a Project Management Plan (PMP). The PMP will include preparation of pre/post con-

struction hydraulic data collection plans; preparation of a water quality control plan (if found necessary); and the coordination of O&M studies that need to be completed. Management activities will also include coordination and documentation of all MCACES estimates and revisions to these estimates. The Project Management Plan (PMP) will cover tasks, schedules, costs and management framework and direction for the project through construction.

Budgetary management responsibilities include tracking and documenting the funds and budget (accounting) of the study; document appropriations, interpretation of current and future budgetary guidance; submittal of project data sheets and justification sheets and other testimonial fact sheets as required; monitor and reprogram study funds; execute current year and future funds; processing schedules of monthly obligations and expenditures; monitor project financial performance; assess District manpower allocations versus available funds; set up and document all cost key accounts, and review of pre- and post-labor reports.

PLAN FORMULATION

This task will be primarily a Federal responsibility, with input from the Local Sponsor. Plan formulation will be in accordance with ER 1105-2-100, P&G, NEPA, and other pertinent engineering, environmental, and economic guidance and regulations. Plan formulation will identify the National Economic Development (NED) Plan. The report will identify and evaluate the locally preferred plan, if different from the NED plan. Plan formulation also includes reviewing and refining the plans selected for study during the feasibility phase and other plans developed during the course of study, and developing required plans such as the "no action" plan. This task includes identifying the NED plan, considering any environmental impacts and the views of the public, and formulating mitigation measures. The costs and benefits associated with each plan will be determined, and trade-offs required to select the recommended plan for implementation will be identified. Plan formulation includes application of engineering, economic, environmental, and other criteria to the specific problems, needs, and constraints of the study area to develop and analyze various methods, measures, and plans and their contributions to, and effectiveness in addressing the specific problems. It is an iterative and constant review process that requires team participation and constant review, reformulation, and public support. Critical to the process of plan formulation will be the development of the without-project condition as a basis for comparison and evaluation of alternatives, and the recommendation of any key project features and/or related mitigation requirements. Plan formulation will also include an evaluation of advance engineering and construction plans for applicability to Section

104 credit.

The annual and periodic activities and responsibilities for operating and maintaining (O&M) the completed project will be described and closely coordinated with other requirements (e.g., cost estimates and environmental monitoring). The general magnitude of these activities will be described for all alternatives in detail; however, more detail will be provided for the alternative(s) recommended for implementation. All requirements of 33 CFR 208 and other Federal regulations specifying operation and maintenance requirements will be clearly described so that the Local Sponsor's future responsibilities will be known.

PUBLIC INVOLVEMENT

Responsibility for this task will be shared between the Corps and the Local Sponsor, with the Local Sponsor performing most of the work. This task primarily consists of coordinating the study scope and results with the public; conducting public meetings and workshops; and responding to public inquiries. Also included is preparation of a public involvement plan upon initiation of the Feasibility Study. This plan will guide activities throughout the study.

The Corps will provide the Notice of Initiation of the Feasibility Study, provide public information summaries toward the end of the study, assist the Local Sponsor with local coordination, prepare and conduct the final public meeting, and provide necessary local, State and Federal coordination for the study.

The Local Sponsor will be responsible for hosting public meetings, completing follow-up documentation and maintaining mailing lists.

SURVEYS AND MAPPING

This work will be performed by the Corps and the Local Sponsor. This work will include review of existing surveys and maps of the study area; development of a topographic map at a scale of 1"=100 ft. with 2 foot contour intervals for all water conservation pool alternatives, including review of aerial photographs of past and present watershed conditions; creation of 2 sets of aerial photographs of the area defined above at a scale of approximately 1:2000, and plates, for inclusion in the appendix. Mapping is required to be compiled in 1929 Datum and must meet U.S. Bureau of the Budget's "United States National Map Accuracy Standards", and comply with Federal Geodetic Control Committee 1984 "Standards and Specifications for Geodetic Control Networks", and Corps Engineering Memorandums 1110-1-1002, Survey

Markers and Monumentation; 1110-1-1003, 14 June 1991, "NAVSTAR Global Positioning System Surveying"; and 1110-1-1807, Parts 1 to 4, dated 30 July 1990, "Standards Manual for U.S. Army Corps of Engineers Computer-Aided Design and Drafting (CADD) Systems".

HYDROLOGY

This task will be done by the Corps. Hydrologic study tasks include annual and seasonal analyses for present and future conditions for the recommended plan and various alternatives at Seven Oaks Dam. The recommended plan is described as the operation of Seven Oaks Dam as presented in the Santa Ana River Phase II GDM. The alternatives of 2300, 2375 and 2418 feet will be studied. Computer runs will be made to simulate the flood season (November through February), the transition period for seasonal pool expansion (March) and the seasonal expanded pool period (April through August). Annual and seasonal elevation-duration frequency curves will be constructed for each alternative. Average annual quantities for water conserved will be determined. Effects on water quality, reservoir sedimentation, and ground water as a result of the expanded pool alternatives will be investigated. Documentation will be provided at the completion of the study.

Report review, response to comments, and support to the Study Manager are included in the work effort. The Corps work effort also includes preparation of work and cost estimates for the Project Management Plan (PMP).

GEOTECHNICAL STUDIES

This task will be performed by the Corps. Review of previous geotechnical studies of the area, shall be conducted. The Corps will be responsible for conducting the field investigations and performing laboratory testing according to a Plan of Study developed by the Corps. The Corps will be responsible for inspecting and supervising the investigation and testing, the analysis of data and all other tasks defined below.

Study tasks for the Geology segment include a literature search and review of existing data; review of construction foundation grouting data; a field reconnaissance of the study area; and preparation of input to the appendix to accompany the feasibility report, including text and plates; summarizing all study findings; in-house report review; response to comments; and geotechnical support to the Study Manager and others during the study phase.

Study Tasks for the Soils Design segment includes a review of existing data, field reconnaissance, field investigation, laboratory tests and analysis. The analysis will include

embankment seepage, underseepage through the dam foundation and abutment stability. A seismic stability analysis of the embankment for the 50,000 Acre-Feet storage level will be performed using a Finite Element Analysis for a pool at elevation 2418 with Maximum Credible Earthquake loading applied. A joint probability analysis will be formulated. Additionally, seismic design criteria for the dynamic evaluation of the appurtenances will be provided. The geotechnical appendix will document the results of the investigation and analysis, and provide conclusions and recommendations.

Field investigation and laboratory testing will be performed in the first two quarters of the feasibility phase in order to allow sufficient time for input to the plan formulation process.

The geotechnical section of the appendix will include a risk analysis of the joint probability of the design earthquake with water conservation pool elevations. This work also includes preparation of the text, tables, and plates for inclusion in the appendix, feasibility report review, response to comments and support to the study manager, and preparation of work and cost estimates for the Project Management Plan (PMP).

DESIGN

This work will be conducted by the Corps. The work effort will include design and cost estimates of all alternative plans and estimates of average annual operations, maintenance and replacement costs. The design will consist of civil, structural, mechanical and electrical. Work effort would include field reconnaissance and review of existing data pertinent to analyzing each alternative and selected plan. For each alternative, design will include analysis of the existing structures for the proposed operating plan. Results of Geotechnical, Materials, and Hydraulic design including sedimentation analysis will be incorporated into each alternative. Specific items to be evaluated are access to the upstream intake structure, and structural modifications to the intake structure and/or new upstream chamber requirements, modifications or replacement required for all mechanical and electrical systems for each operating plan. Criteria would be established based on consultation with the Waterways Experiment Station (WES) and Portland District for structural and hydraulic modifications. Assistance for dynamic evaluation of the appurtenances would be provided by WES. Each discipline would quantify additional operations, maintenance and replacement costs attributable to each operating plan. A general discussion of the OMR&R requirements, the scheduled frequency and distinguishing the additional requirements would be required.

Work will include preparation of material for comparison of each alternative showing the required changes for each operating plan and support in the development of the cost estimate. The

selected plan would be developed to the required level of detail to proceed to plans and specifications from the feasibility report. Work effort includes technical coordination and providing technical information for each alternative, report preparation and review, coordination and responses to comments and support to the study manager.

HYDRAULICS

This task will be performed by the Corps. The work effort will consist primarily of hydraulic design support for all alternative plans. The plans will be developed for modifications of existing facilities to accommodate the operations required for each of the water conservation pool levels selected for study. The major hydraulic design tasks will include assistance in plan formulation, developing operational and design criteria, determining the geometry for the modifications to the outlet works tunnel, determining design hydraulic loads on existing and proposed structures, selecting and sizing gates and valves, determining requirements for trash control, and developing revisions to the ratings for the outlet works. The hydraulic design effort will be coordinated as required with Seven Oaks Dam hydraulic design staff at the Portland District and with hydraulic design specialists at the Waterways Experiment Station. Other tasks will include an analysis to determine the effects of the proposed water conservation pools on rates and locations of sediment deposition within the reservoir, and development of the hydraulic data required for water quality studies.

COST ENGINEERING

This work will be accomplished by the Corps. Detailed first and annual baseline costs, including operation and maintenance and replacement, will be developed in the MCACES format. The estimates will be prepared in accordance with EC 1110-2-538, EC 1110-2-263, "Civil Works Construction Cost Estimating", and EC 11-2-157, "Fully Funded Estimate". A detailed basis of estimate and sensitivity analysis will be developed. All estimates shall be prepared as both first-cost (existing prices) and fully funded cost.

ECONOMIC STUDIES

This task will be accomplished by the Corps. The work will include the following tasks:

- a) Service Area Determination - This task includes a review of the water distribution system in the Seven Oaks area, discussions with local water agency officials and review of needs and requirements of water agencies in the area.

b) Estimate Future Water Supplies - All sources of supply will be analyzed for availability in the service area. Data will be obtained from various sources including water utilities, state and local planning agencies and State water resource agencies. The analysis will be accomplished by time period and include existing water supplies, institutional arrangements, additional water supplies, probability of water supply, and water quality. Particular attention will be directed to recently laws allowing transfer of water between agricultural users and municipalities. Consideration will also be given the effects of water conservation measures on future supplies.

c) Project Future Water Use - Future water use will be projected by sector in consideration of seasonal variation. Projections will be based on an analysis of those factors that may determine variations in levels of water use. Future water use by sector will be projected for each of the following sectors: residential, commercial, industrial, and additional uses such as public service and unaccounted-for losses. The IWR or MWD-MAIN program will be used to complete this task. The determinants of demand for each sector, such as price of water and sewer service, income, number and type of housing units and population per unit, industrial mix, and level of economic activity will be identified. A relationship between future levels of water use and relevant determinants of water demand will be identified. Finally the water use will be forecast, and presented by time period.

d) Identify the Deficit Between Future Water Supplies and Use - Comparison of projected water use with future water supplies will be made to determine deficit. An analysis of intensity, frequency and duration of expected deficits will be accomplished.

e) Identify alternatives without Federal Plan - Alternative plans that are likely to be implemented by communities in the absence of any Federal alternative will be identified. Various alternatives to the Federal plans will be tested for acceptability, effectiveness, efficiency, and completeness. The plans will be identified through analysis of the total water resources of the region, allowing for present and expecting competing uses. Any institutional barriers to the alternative plans will be identified. Alternative plans will be ranked and displayed on a least cost analysis. The most likely alternative will be selected as the basis for Federal plan benefits.

f) Compute M&I Water Supply Annualized Benefits - Benefits will be computed based on annualized cost of the most likely alternative. Any differences in treatment, distribution and other costs compared to the most likely alternative will be explained. **Input Required** - Water yield for all alternatives.

g) A risk analysis will be completed which analyzes the joint probability at various pool elevations for the design earth quake.

ENVIRONMENTAL STUDIES

This work will be performed by the Corps. This task includes collecting environmental data that define existing and future conditions. The alternative features studied in detail will be evaluated, and the environmental impacts and mitigation features will be identified.

The Environmental Evaluation (EE) prepared in the reconnaissance phase will be expanded into a Draft and Final Environmental Assessment (EA). If problems not identified during the reconnaissance phase warrant it, an Environmental Impact Statement (EIS) may have to be prepared at additional cost. The document (EA or EIS) will evaluate the environmental effects of the alternative plans. This report will be coordinated with Federal, State, and local governments and agencies as well as interested groups and individuals.

Mitigation measures for fish and wildlife and other affected resources will be refined and a monitoring program developed, if necessary. Any land required for mitigation will be identified. A plan will be developed for fish and wildlife resources mitigation. A monitoring plan will be developed to record the success of the mitigation measures.

After a preferred plan is developed and before the EA/EIS is completed, any sites which may be eligible for the National Register will be identified, and a mitigation plan, if needed, will be developed in consultation with the State Historic Preservation Officer (SHPO) and a Determination of Effect will be coordinated with both the SHPO and, if needed, the Advisory Council on Historic Preservation (see Cultural Resources).

In coordination with U.S. Fish and Wildlife, a Coordination Act Report (CAR) will be prepared to determine a viable preferred plan.

A Section 404b (1) evaluation of water quality impacts will be developed and coordinated with State and Federal water quality agencies to ensure adequate consideration has been given to water quality and in order to acquire water quality certification, or, if appropriate, an exemption.

Requirements of Section 7 of the Endangered Species Act will be completed during the feasibility study, including a biological assessment and formal consultation with the U.S. Fish and Wildlife Service (FWS), if necessary.

Adherence with Executive Order 11988 for Flood Plain Management and other pertinent environmental statutes and regulations are to be noted in the EA/EIS.

All regional planning policy documents will be examined.

Preparation of the EA/EIS will include ecological and biological support staff services, cultural resources support staff services, field reconnaissance where required, coordination of U.S. Fish and Wildlife Service funding for the Coordination Act Report, and a Hazardous and Toxic Waste (HTW) investigation.

Environmental Studies tasks include a literature search and review of existing reports for archaeological, historical, and environmental resources, field survey under NEPA and Section 106 to establish base-line conditions, preparation of materials, including text and plates, for inclusion in the appendix, establishment of future "without-project" conditions, determination of impacts and effects of the alternatives, Fish and Wildlife Coordination and Cultural Resources coordination, analysis of necessary mitigation, assisting in plan formulation, development and preparation of all appropriate NEPA documents, in-house report review, response to comments, and support to the Study Manager and others during the study phase.

FISH AND WILDLIFE STUDIES

This task will be done by the Corps, in coordination with staff from other agencies. The work includes studies conducted by FWS in support of the above-mentioned Environmental Studies by agreement with the Corps as required by the Fish and Wildlife Coordination Act. The FWS will form an interagency team to conduct a Habitat Evaluation Procedure (HEP) or other similar studies (e.g., instream flow incremental methodology) to define impacts and determine the amount of required mitigation. In these studies, baseline conditions and project-induced environmental effects will be evaluated, and types and amounts of mitigation for habitat losses will be determined. This task also includes management of the FWS work agreement. A FWS Coordination Act Report will be prepared that will refine environmental effects of the selected alternative, summarize the HEP or other study findings, and incrementally analyze alternative mitigation strategies acceptable to the FWS for all alternatives studies in detail.

The Fish and Wildlife Studies will provide data to be included in the technical appendix prepared by Environmental Studies, preparation of materials, including text and plates, for inclusion in the appendix, in-house report review, response to comments, and support to the Study Manager and others during the study phase.

and relocations; existing easements or interests; Consideration of Federal and State rules concepts for local Cooperation Projects; and preparation and negotiation of a permit from the Forest Service, which may include any right of entry.

The real estate section of the appendix will provide a summarization of all tasks performed in providing the above information; the work will include preparation of materials, including text and plates, for inclusion in the appendix; performing required investigations; coordination of writing of the real estate section of the appendix; in-house report review; response to comments; and support to other technical and nontechnical elements during the study phase.

INSTITUTIONAL STUDIES

This task will be accomplished by the Corps and consists primarily of determining the financial and legal arrangements required to implement the recommended plan, including methods of financing the projects. A financial capability analysis will examine whether or not the Local Sponsor has the organizational, legal, and financial capability to undertake the required financial obligations for implementation of the project after it is authorized for construction by Congress. Studies include determining the political and institutional arrangements of the study area and identifying attitudes and customs regarding the management and use of the resources. The results of the study will be provided in a financial and cost recovery analysis section of the Feasibility Report.

This task will also include estimating alternative repayment options for any incidental project purposes.

REPORT PREPARATION

This work will be the responsibility of the Corps, in coordination with the Local Sponsor. The work will include collection and assembly of pertinent data, writing, editing, typing, drafting, reviewing, revising, reproducing, and distributing the draft and final Feasibility Reports, Environmental Assessments, and related technical documents and appendices.

This task also includes work items necessary to support the review process from the signing of the Feasibility Report to the request by the Assistant Secretary of the Army for Civil Works (ASA(CW)) to the Office of Management and the Budget (OMB) for the views of the administration. These items could also include answering comments, attending meetings of the Board of Engineers for Rivers and Harbors, and revising the report.

STUDY CONTINGENCY

This work covers any requirements for additional rewriting, unforeseen technical modifications, reformulation, or documentation as a result of the Washington-level review process. Any costs that are incurred after the end of the feasibility phase (i.e., submittal of the report to the OMB by the ASA) but prior to Preconstruction Engineering and Design will be 100 percent Federal.

FEASIBILITY STUDY COST ESTIMATE

The feasibility study cost estimate for Seven Oaks Dam Water Conservation Study is \$2,180,000 (see Tables 1 and 2). All feasibility phase study costs are required to be cost-shared between the Corps and the Local Sponsor on a 50-50 basis. Further, the Local Sponsor will provide, at a minimum, half of its share as a cash contribution. Table 1 outlines the tasks to be performed, the estimated cost of each task, and study obligations for the Corps and Local Sponsor. Supervision and administration is covered under each task cost as overhead.

The Feasibility study cost estimate is based on October 1993 price levels, and is subject to revision for inflation for the out years. Inflation adjustments will be administered to the appropriate tasks at the current year approved rate. Changes in costs due to inflationary adjustments will not require a revision to the FCSA.

The cost estimate for the feasibility study is separated into fiscal years and quarters. Table 2 outlines the costs for each quarterly period during the feasibility study. The Corps will provide periodic reports to the Sponsor, which would include "Selective F&A Data Base Record, Form 666". The Local Sponsor will provide the Corps, on a quarterly basis, similar finance and accounting data that would record the work-in-kind efforts by the Local Sponsor. The value of in-kind services will be based on the equivalent government cost.

FEASIBILITY STUDY SCHEDULE

The final Feasibility Report, with Engineering Appendix, and EA/EIS are scheduled to be submitted to the South Pacific Division (SPD) approximately 37 months after initiation of the Feasibility Study. The signing of the FCSA is scheduled to take place 1 month prior to initiation of the study. A technical review conference (TRC) shall be held not later than 18 months into the feasibility study to verify the necessity of the field investigations and design studies. The Division Engineer's issuance of the Public Notice which completes the Feasibility

Phase, is scheduled to occur 1 month after the final Feasibility Report is submitted.

COORDINATION BETWEEN THE CORPS AND THE SPONSOR

The Executive Committee is scheduled to meet, at a minimum, at the signing of the FCSA, at the Public Meeting, and at the concluding Feasibility Review Conference (FRC). The Committee will also meet periodically to discuss the project status and to handle changes in study scope that would result in an increase in total study cost or major changes in study direction, and at required Issue Resolution Conferences, if necessary. The Study Management Team will meet approximately every 6-8 weeks.

Financial coordination will include quarterly financial statements composed of expenditures and obligations. The Corps will also provide quarterly reports to the Local Sponsor, which would include "Selective F&A Data Base Record, Form 666". The Local Sponsor will provide to the Corps, on a quarterly basis, similar finance and accounting data that will record cash expenditures and work-in-kind efforts by the Local Sponsor. Cost-sharing cash payments will be made to the Corps on or about November 30, 1993, December 31, 1993, March 31, 1994, June 30, 1994, September 30, 1994, December 31, 1994, March 31, 1995, June 30, 1995, September 30, 1995, December 31, 1995, March 31, 1996, June 30, 1996, and September 30, 1996. The first payment will be made upon initiation of the study for the amount expected to be expended during the time until the next scheduled payment as outlined above. A final audit of the cost-sharing agreement and reconciliation of cash payments will be made at the conclusion of the study. The Corps will also furnish to the Local Sponsor a monthly progress report, detailing the status of each study task.

TABLE 1
 FEASIBILITY STUDY COST ESTIMATE (x\$1000)
 SEVEN OAKS DAM WATER CONSERVATION STUDY

<u>Task</u>	<u>Corps</u>	<u>Sponsor</u>	<u>Contract</u>	<u>Total</u>
01 Public Involvement	15	35		50
13 Feasibility Study Mgmt.*	280			280
02 Institutional Studies	40			40
14 Plan Formulation	360	20		380
07 Economic Studies	160		10	170
11 Design	420			420
08 Surveys and Mapping	10	10		20
11 Cost Engineering	68			68
05 Environmental Studies	100			100
06 Fish and Wildlife Studies	25			25
09 Hydrology	100			100
09 Hydraulics	130			130
10 Geotechnical Studies				
Soils Design	87		80	167
Geology	25			25
04 Cultural Resource Studies	25			25
12 Real Estate Studies	30			30
15 Report Preparation	<u>50</u>			<u>50</u>
Subtotal	1925			2080
Study Contingency	100			100
<hr/>				
Total	2025	65	90	2180
Contracts	90	0		
SubTotal	2115	65		
Cash Adjustment	-1025	+1025		
50% of Study Cost	1090	1090		

* Feasibility Study Management includes study management, program management, and project management activities

TABLE 2
 FEASIBILITY STUDY COST ESTIMATE (x\$1000) BY QUARTER
 SEVEN OAKS DAM WATER CONSERVATION STUDY

	FY94				FY95				FY96				FY97 1st	Task Total
	1st*	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th		
01 Pub. Inv.	25												25	50
13 St. Mgmt	20	20	20	25	20	20	20	25	20	25	20	20	25	280
02 Ins. St.														40
14 Pl. Form.	30	30	30	30	30	30	30	30	30	30	30	25	25	380
07 Econ.	20	10	10	20	10	10	20	20	20	10	10	10		170
11 Design	50	50	50	50	50	50	50	40	15	15				420
09 Hydraul.	20	20	20	20	20	20				10				130
08 Survey	5	5			5	5								20
11 Cost Eng					10	10	10	10	10	10			8	68
05 Environ.	10				20	20	20		10	10	10			100
06 F&W			13	12										25
04 Cult. Res.					13	12								25
09 Hydrol.	15	15	15	15	10	5	5		5	5	5			100
10 Soils Design	10	80	30	20	20					7				167
10 Geology	5	5	5	5					5					25
12 Real Est.	5				10	10			5					30
15 Rpt. Prep					20	10				10	10			50
Rev. Cont.												50		100
Total	215	235	193	197	238	192	175	140	130	132	95	105	133	2180
Labor	215	155	193	187	238	192	175	140	130	132	95	105	133	2090
Contract	0	80	0	10	0	0	0	0	0	0	0	0	0	90
Federal	108	117	97	98	119	96	88	70	65	66	47	53	66	1090
Non-Fed	107	118	96	99	119	96	87	70	65	66	48	52	67	1090
In-Kind	30	10	5	0	5	0	0	0	0	0	0	0	15	65
Cash	77	108	91	99	114	96	87	70	65	66	48	52	52	1025
FY Total	107	118	96	99	119	96	87	70	65	66	48	52	67	1090
Federal	108	117	97	98	119	96	88	70	65	66	47	53	66	1090
Non-Fed	107	118	96	99	119	96	87	70	65	66	48	52	67	1090

* Start date November 1, 1993.

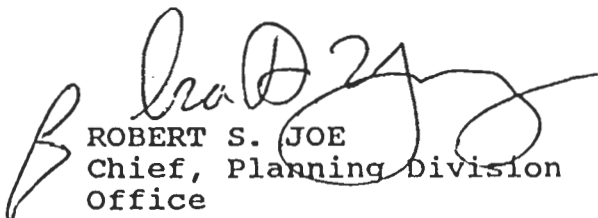
Statement of Certification


Initial Project Management Plan
Seven Oaks Dam Water Conservation Study

Feasibility Phase
Los Angeles District, Corps of Engineers


This is to certify that the undersigned have reviewed, and concur in the scope, structure, and cost estimate for the subject study in the amount of \$2,180,000.00 based on October 1993 price and salary levels.

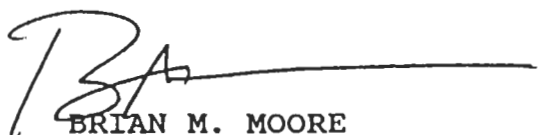
Los Angeles District


ROBERT S. JOE
Chief, Planning Division
Office


PATRICIA GRABLIN
Chief, Programs Management


ROBERT S. KOPLIN
Chief, Engineering Division



CARL F. ENSON
Chief, Con-Ops Division


BRIAN M. MOORE
Deputy District Engineer
(Project Management)


BERNARD J. MEIROWSKY
Chief, Contracting Division


VIRGIL D. TAYLOR
Chief, Real Estate Division


MARTIN DENSE
Resource Management Office


FOR STEPHEN E. TEMMEL
Office of Counsel

CULTURAL RESOURCES STUDIES

This task will be done by the Corps. The cultural resources studies will determine the impacts of the alternative plans on historical, architectural, and archaeological resources. All studies 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.

In consultation with the State Historic Preservation Officer (SHPO), the Corps will conduct sufficient archival and field surveys to identify cultural sites within the study's Area of Potential Effect (APE) and will evaluate the eligibility of all cultural sites for the National Register of Historic Places. A detailed report will be prepared which will describe all cultural resources within the APE and assess the impacts of each project alternative on these resources for inclusion in the Environmental section of the appendix. The report will also describe the range of additional future preservation or mitigation efforts and the associated costs of these studies.

If project alternatives are found that will have an effect on sites eligible for the National Register, the Corps will proceed with further consultation with the SHPO and will afford the Advisory Council on Historic Preservation and other interested parties an opportunity to comment. If necessary, the Corps may enter into a Memorandum of Agreement with the SHPO, ACHP and non-federal sponsor to stipulate ways to avoid or reduce the effects of project alternatives on cultural resources. Preservation or mitigation of cultural resources will be considered in more detail for the plan recommended for construction in any advanced planning for the project.

REAL ESTATE STUDIES

This work will be conducted by the Corps in accordance with Draft Chapter 12, ER 405-1-12. It will include a gross appraisal of land costs and damages required for economic evaluations of alternative plans. Rights of entry will be obtained as may be necessary for cultural, environmental, and engineering studies. Detailed identification of ownership and tentative real estate maps based on project design and mitigation requirements will be developed in accordance with ER 405-1-12. Costs, including acquisition and administrative, will be identified in the Code of Accounts format required by EC 1110-2-538.

Tasks to be performed shall include the following: identification of the project area; specific data about surrounding areas including significant trends; property/project data; site data (easements/encumbrance); required improvements