CESPN OM 1110-1-12

Planning, Engineering, Construction, Operations, Real Estate and PPMD QUALITY MANAGEMENT PLAN

DEPARTMENT OF THE ARMY
San Francisco District, Corps of Engineers
333 Market Street
San Francisco, California 94105-2197

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1. Purpose

This Quality Management Plan provides quality management procedures and policy to assure the production of quality civil works products and services from planning through construction, operation, and maintenance in the San Francisco District. This Quality Management Plan defines the roles and responsibilities of the Project Manager, Technical Functional Chiefs, the Project Delivery Team, and the Independent Review Team with respect to quality control activities. The quality of decision documents is of utmost importance to the credibility of the Corps. This has been emphasized many times in the past by the Director of Civil Works and the Assistant Secretary of the Army for Civil Works. Independent technical review policies and procedures will be evolving with time and experience. Flexibility and adaptability will be key components in achieving mature procedures and quality reviews.

2. Applicability

This plan applies to all technical activities of Planning, Engineering, Construction, Operations, Project and Program Management, and Real Estate of the San Francisco District having responsibilities for Civil Works, Hazardous, Toxic, Radioactive Waste (HTRW), Support for Others (SFO), and Real Estate. HTRW support is provided by SPD. The Sacramento District provides Real Estate support and their QMP described in Appendix G is also applicable to products they prepare for the San Francisco District. Sacramento District also provides support for Water Management

This plan is effective immediately and shall be reviewed annually and updated as appropriate.

3. References

(a) EC 1165-2-203, Technical and Policy Compliance Review.

(b) ER 5-1-11, U.S. Army Corps of Engineers Business Process.

(c) ER 1110-1-8159, Design Review and Checking System, DrChecks.

(d) CESPD R 1110-1-8, Quality Management Plan, dated 30 December 2002.

(e) ISO 8042:1994, Quality management and quality assurance-Vocabulary.

(f) ANSI/ISO/ASQC Q9001-1994, Quality Systems – Model for Quality Assurance in Design, Development, Production, Installation, and Servicing.

(g) South Pacific Division, Water Control Program, Program Management Plan, March 2003

(h) ER 11-1-XXX, Value Army Programs, 2004

4. Policy on Quality Management

It is the policy of the San Francisco District (SPN) to develop and implement quality management practices and systems, which assure technical products and services meet the agreed upon requirements of the customer and appropriate laws, policies, and technical criteria. Comments should follow (as much as possible) the basic format of: Concern, Basis for Concern, Significance of Concern, and Suggested Action. Adherence to quality principles and established quality assurance and quality control practices is integral with the roles and responsibilities of all

CESPN functions. Quality management practices outlined herein shall also be consistent with the USACE Business Process, other management practices prescribed by USACE, including Total Army Quality (TAQ), Value Engineering (VE), ISO 9000, and the Army Performance Improvement Criteria (APIC). General guidance on quality management responsibilities and practices applicable to all functional elements within SPN is given below. Exceptions to the general guidance and guidance specific to the unique responsibilities and programs within the Planning, Engineering, Environmental Planning, Real Estate, Construction, Regulatory, Operations, and Programs and Project Management elements are given in Appendices D through K, respectively.

5. Goals and Objective

The goal of Quality Control is the successful completion and delivery of quality projects and services to customers. The objectives of the process are to:

5.1 Provide enhanced quality through the review process of decision and implementation documents;

5.2 Reduce human resource requirements at the District to the maximum extent possible without compromising quality by reducing the amount of document revision required during the review process;

5.3 Provide a District interface to the quality assurance program of the South Pacific Division;

5.4 Provide a mechanism for continuous in-progress (seamless) review of documents as they are prepared to assure quality and minimize revision of completed documents;

5.5 Provide quality control activities without creating dedicated technical review positions; and

5.6 Provide a means of integrating policy review into technical review of decision documents.

6. Definitions

6.1 Acronyms: A list of acronyms used in this plan is given in Appendix M.

6.2 Contractor: Other than in-house forces, such as other Corps offices, other government agencies or private contractors.

6.3 Customer: The owner, client, local sponsor, user or beneficiary of a service or product.

6.4 Decision Documents: A decision document is any document prepared for the purpose of obtaining project authorization or modification, commitment of Federal funds for project implementation, and approval to spend/receive funds as a result of entering into agreements with other agencies or organizations including those to obtain Congressional authorization. Decision documents include both reports and agreements. Typical decision documents are: Reconnaissance Reports, Feasibility Reports, General and Limited Reevaluation Reports, Post Authorization Change Reports, Detailed Project Reports, Major Rehabilitation, and Evaluation Reports, Continuing Authority Project Reports, Dam Safety Reports, Dredged Material Management Plans, General Design Memoranda, PL84-99 Letter Reports, Local Cooperation Agreements, Project Cooperation Agreements, Real Estate Reports, documents developed in support of the Section 1135 Program (except Plans and Specifications), and NEPA documents. Documents not specifically classified as Decision Documents, for which Quality Control

procedures and Independent Technical Review will still take place, include reports related to the Planning Assistance to States, Flood Plain Management Services, and Support for Others Programs.

6.5 Design Checks and Other Internal Review Processes: Detailed project review and checking which must be carried out as routine management practices in each of the functional elements. Such review includes checking basic assumptions and calculations. These checks are performed by staff responsible for the work, such as supervisors and work leaders, and shall be performed prior to conduct of independent technical reviews. The internal review process shall be performed prior to conducting independent technical reviews. Independent technical review is a completely separate review from this checking by individuals involved in the work.

6.6 Implementation Documents: An implementation document is any document prepared for purposes of implementing a project in accordance with a previously approved decision document. Typical implementation documents are Design Memoranda, Basis for Design Reports, Feature Design Memoranda, and Plans and Specifications.

6.7 Independent Technical Review: A review by a qualified person or team, not affiliated with the development of a project/product, for the purpose of confirming the proper application of clearly established criteria, regulations, laws, codes, principles, and professional procedures. Independent Technical Review is tailored for each document by guidance contained in the Quality Control Plan and is characterized by its rigorous documentation requirements for establishing accountability.

6.8 Independent Technical Review Team (ITRT): An interdisciplinary group formed to perform the independent technical review. It is also referred to as "Review Team" in this QMP. The ITRT is defined in the Quality Control Plan.

6.9 Quality: The totality of features and characteristics of a product or service, which bear on its ability to satisfy stated or implied needs. Quality expectations are negotiated by the Project Delivery Team and are set forth in the Project Management Plan.

6.10 Project PDT: Also referred to as a Product Development Team. An interdisciplinary group formed to develop a product. It is this team that produces a decision or implementation document.

6.11 Quality Assurance (QA): Quality assurance is the oversight of the quality control processes to insure their effectiveness in the production of quality projects. CESPD provides oversight (QA) of the CESPN quality control process. CESPN provides oversight of contractors' quality control processes, and in effect provides quality assurance in that instance.

6.12 Quality Control (QC): The process employed to assure the performance of a task that meets the agreed upon requirements of the customer, appropriate laws, regulations, policies, technical criteria, and on schedule and within budget.

6.13 Quality Control Plan (QCP): A plan which establishes the documents and products to be reviewed, the review team and its responsibilities, the schedule and costs for reviews, the agreed upon requirements of the customer, appropriate laws, regulations, policies, and technical criteria for development of the study/product.

6.14 Quality Management Plan (QMP): A plan stating the quality management practices and business procedures to insure the quality of a technical product, encompassing all aspects of product development, including planning, engineering, real estate, and construction.

6.15 Project Manager: The person assigned the lead responsibility for coordinating and guiding the development of a decision or implementation document through activities of the PDT.

6.16 Responsible Functional Chiefs: The chiefs of the Engineering and Technical Services, Operations, Program and Project Management, and Real Estate are referred to as the responsible functional chiefs. Branch and Section supervisors are referred to as function chiefs.

6.17 Review Team: An interdisciplinary group formed to perform the independent technical review. Same as "Independent Technical Review Team" in this QMP.

6.18 Review Team Leader: The person who chairs all Review Team meetings and is responsible for providing leadership and coordination activities for the Review Team.

6.19 Seamless Review: In-progress seamless review by members of the Review Team during product preparation. It is provided by members of the Review Team at the request of their counterparts on the PDT, and is characterized by documentation of the scope of the review to minimize re-review during the follow-on completed document review. It will be conducted on an as needed basis, and documentation will be minimized when there is no controversy.

6.20 Technical Products: All deliverables are referred to as technical products, including real estate, decision and implementation documents, plans and specifications, which include the integration of technical products from multiple functional elements. They include completed deliverables that are ready for transmission to other members of the project delivery team, outside of the element that performed the work.

6.21 Technical Review: Technical Review is the focus on compliance with established policy, principles, and procedures using clearly justified and valid assumptions. It includes the verification of assumptions, methods, procedures, and material used in analyses based on the level of complexity of the analysis. It verifies the alternatives evaluated, appropriateness of data used, and level of data obtained. It also verifies the functionality of the product and verifies the reasonableness of the results including whether the product meets the customer's needs, are consistent with law and existing policy, and engineering and scientific principles.

6.22 Technical Review Strategy Session: The initial technical review strategy session forms the basis for a quality control plan for all major projects and is held early in the project development phase. All members of the project delivery (including representatives of the customer) and independent technical review teams as well as functional chiefs are required to participate in the initial TRSS.

6.23 Value Engineering (VE): A function oriented, systematic team approach to balance performance and cost. Typical value engineering studies are performed under the direction of an experienced facilitator using a multidiscipline team of project and stakeholders who break down the project into functional performance elements. Cost and benefits are assigned to each element and evaluated. Creative options are then sought when there is a mismatch between value and cost.

7. Quality Control Plan

7.1 Objectives: SPN shall be responsible for developing and following quality management practices and business procedures to assure quality projects. This includes all interim products that are required for the development of an end product, from the inception of planning through construction. These objectives shall be met by development and execution of Quality Management and Quality Control Plans.

7.2 Quality Control Plan (QCP): A QCP shall be prepared for every project or program, and updated as warranted. The QCP shall be incorporated into the Project (Program) Management Plan and include enough information to describe QC requirements to Team members unfamiliar with the process. A single QCP will be developed encompassing the Planning, Engineering, Reconnaissance, Feasibility, Preconstruction Engineering and Design (PED), Real Estate, and Construction aspects of a particular project or program. QCPs will be prepared at the beginning a project or program and updated as necessary during each phase i.e., Reconnaissance, Feasibility, and PED. QCPs will be prepared using information typically developed at a strategy review session. The QCP should include a requirement for consistency review between the decision or implementation document and any supporting NEPA document(s). The QCP will describe the level of detail determined to be necessary. A generic QCP may be developed and used for routine, minor products. Pre-approved generic QCPs will be used for most continuing authorities projects, most O&M projects, PL-99-662 Project Implementation Reports (PIR) & Plans & Specifications, Planning Assistance to States documents, and Flood Plain Management Services documents. QCPs and subsequent revisions will be approved by the appropriate District functional chief.

7.2.1 QCP Contents: As a minimum, a QCP will include the following:

(a) Name of Project or Program.

(b) Description of Project or Program.

(c) Name and location of customer.

(d) A statement of the quality control plan objective.

(e) A roster of the proposed Project Delivery Team.

(f) A roster of the proposed Independent Technical Review Team, with a statement of the technical qualifications of each member.

(g) A copy of the San Francisco District Technical Review Standard Operating Procedure (Appendix B).

(h) A citation of the quality guidelines that will be followed for technical review.

(i) A discussion of any proposed deviations from the SOP, including justification for the deviations.

(j) A list of completed documents to be reviewed by the Independent Technical Review Team.

(k) A milestone list and schedule for review activities. The milestone list will integrate any mandated Division milestones.

(l) A discussion of any unique, sensitive or high visibility items requiring special attention. Include major technical or policy issues that require clarification, and environmental constraints such as complying with records of decision.

(m) A cost estimate for conducting all separable elements of the independent technical review process consistent with cost code elements to be tracked in Open Plan and PROMIS.

(n) Views of the local sponsor.

(o) Schedule for periodic review and update of the QCP.

7.2.2 Updating of Quality Control Plans: Quality control plans, product specific and generic, shall be updated whenever significant changes require modification of the QCP. If these changes are not approved separately through Schedule and Cost Change Requests (SACCR) or changes to the PMP, the revised QCP shall be submitted to the appropriate District functional chief for review and approval.

8. Quality Control Activities

Functional chiefs, the project delivery team, the Project Planner, the review team, and the review team leader have significant roles and responsibilities in achieving quality projects. Below are the activities involved in assuring quality control. The utilization of interdistrict participation in the achieving of quality projects is encouraged and in some instances required.

8.1 Initial Technical Review Strategy Sessions: The initial technical review strategy session at the early developmental stages of a study/design to form the basis for the Quality Control Plan. This session will assure that all functional areas of expertise that are needed for the study/design are represented on the project delivery team and the independent technical review team and to plan the cost and schedule for the reviews. The use of cross-district participation on the project delivery team will be encourage to utilize expertise not present in the district

8.2 Independent Technical Review: Key to the successful execution of the quality control process for the products developed by the Planning, Engineering, and Real Estate Divisions, and their contractors is the independent technical review of a product. This review shall be accomplished by an independent technical review team (ITRT) composed of individuals having at least five years experience in disciplines involved in the type of product being developed and reviewed, and who were not involved in product development. The use of Regional Technical specialists for the ITRT is encouraged. The Team Leader shall be a senior staff member with technical competence to resolve disputes. Specific guidance on conduct of this quality control element is given in the individual subplans in the appendices to this document.

8.3 Seamless Review: Reviews between the Project Delivery Team and the Independent Technical Review Team counterparts at appropriate points through the project delivery process to discuss major assumptions and functional decisions, analytical approaches and significant calculations for the study/design. Interdistrict review of Civil Works decision documents is required. It is encouraged for implementation documents regardless of program. The quality management of all products developed by cross-district teams will follow QMP procedures.

8.4 Dispute Resolution: The ITRT leader shall review the products and ITRT comments and product development team responses to identify any outstanding disagreements between members of the product development team and the ITRT. Any disagreements shall be brought to

the attention of the appropriate functional chief to facilitate resolution of technical disagreements between product development and ITRT counterparts. If this interaction does not resolve the issue, the final decision shall be made by the responsible functional chief. The functional chief may consult with CESPD staff, who may serve as an unbiased sounding board; or major technical issues may be forwarded to CESPD for resolution.

8.5 Technical and Policy Issue Resolution: Issues involving technical and policy interpretation shall be brought to the attention of the chief of the responsible functional element for resolution. In some cases, the chief of the responsible functional element may hold an Issue Resolution Conference (IRC) to resolve major policy or technical issues. CESPD may be invited to the IRC and may also arrange for HQUSACE participation in the issue resolution conference. If an IRC is requested by the District to obtain technical or policy assistance on major issues from Division, the conference will be chaired by the Division. Division will also coordinate HQUSACE participation as appropriate.

8.6 Products Developed by Contractors: For products developed either wholly or partially by a contractor, development and execution of a QCP for the contractor product shall be the responsibility of the contractor. An overall quality control plan shall be developed by the District that outlines quality control activities by the District for that portion of the product developed by in-house forces and quality assurance activities by the District for overseeing the contractor's quality control activities. Examples are mitigation design, wetlands design, landscape architecture, mechanical and electrical design. The appropriate District functional chief shall review and approve the overall QCP for the total product. The functional chief will review and approve the contractor’s QCP; certify that all review comments by the contractor’s QC Team have been incorporated or addressed and assure that proper review certification by a principal of the firm is included in the review package. The functional chief will not conduct technical review.

8.7 Final Documentation and Quality Certification: Proper documentation is another key component of an effective quality control process. Significant comments, issues and decisions must be recorded and the entire process must leave a clear audit trail. The documentation and certification of the independent technical review and other quality control activities, and where appropriate the quality assurance processes prescribed in a product’s QCP, shall be made part of the project file and shall be included with the submission of a specific product to CESPD. QC certification requirements are outlined in Table A-3 of Appendix A and are also summarized below.

8.8 For interim (preliminary) products which the responsible functional chief either approves or transmits to CESPD, the responsible functional chief shall certify that the quality control process for that product has been completed and that all technical issues that have been identified have been resolved.

8.9 For final products that are either approved at the District or by CESPD or headquarters, the responsible functional chief shall recommend to the District Commander (DE) that the DE sign the certification. The District Commander’s certification shall not be down delegated.

8.10 A model QC certification for products developed either wholly or partially by in-house forces is provided in Appendix L.

8.11 For products developed by A-Es, the A-E shall execute an A-E Quality Control Certification (model provided in Appendix L) and provide a copy of this certification to the District. The A-Es independent technical review team leader shall recommend to a principal of the A-E firm that the principal sign the QC certification. The A-E's Quality Control Certification shall be made part of the overall quality control certification of the product.

8.12 For products either partially or wholly developed by A-E forces, SPN shall execute a Quality Assurance Certification (model provided in Appendix L). The responsible functional chief shall recommend to the District Commander that the DE sign the Quality Assurance Certification. The A-Es Quality Control Certification shall be made part of the overall quality assurance certification of the product.

9. Responsibilities

The roles and responsibilities of the participants in preparation and review of the products are described below and in the enclosed appendices.

9.1 Project Manager (PM): Project Manager Responsibilities: The PM is a member of the project delivery team. The PM will assure that adequate time and resources are provided to the independent technical review team for the review of the products. He is to monitor the progress of the review to assure a quality review is performed. The PM will assure certification requirements are met prior to approval by the District Commander and transmittal of a product to CESPD. The PM, along with the functional chiefs will conduct a review of SPN technical products prior to the quality control activities by the QC team. The PM is also responsible for a timely quality control activity and that it is conducted consistent with the PMP.

9.2 Project Delivery Team Member: PDT members will request seamless reviews as required for their completed parts of the product. This will assure a quality product prior to final review by the review team. The members will respond to comments from the review team in accordance with the schedule in the QCP. After backcheck, the members will participate in resolution of any disputes. If agreement cannot be reached, final resolution will be accomplished as outlined in paragraph 15 below.

9.3 The Project Manager:

(a) Assuring study schedules provide adequate time to perform independent technical review.

(b) Assuring the Review Team Leader is informed of significant meetings and conferences.

(c) Assuring that lessons learned from similar studies/designs are incorporated.

(d) Submitting completed documents requiring independent technical review to the Review Team Leader on schedule.

(e) Resolving or facilitating the resolution of policy and technical issues with the project delivery team members, the review team leader, and the review team members.

9.4 Review Team Members: The Review Team members are responsible for timely in-progress review of completed elements of the study/design. They are responsible for conducting and documenting the seamless reviews. The Review Team member is responsible for providing nearly immediate seamless review on request. The review team members will review the entire completed document, however they will concentrate on the parts that are relevant to their expertise. Comments will be constructive and contain the elements in paragraph 13 below. A back check will be conducted to assure all comments have been incorporated by the PDT or appropriately answered to the satisfaction of the reviewer. Disputes will be resolved as outlined in paragraph 15 below.

9.5 Independent Technical Review Team Leader:

(a) Preparing the QCP as directed by the responsible functional chief and revising the QCP as changes occur such as departure of a team member.

(b) Informing appropriate supervisors of significant disagreements between counterparts on Project Delivery and Review Teams.

(c) Recommending resolution of disagreements to Functional Chiefs, particularly when they involve issues that affect cross-functional areas.

(d) Keeping Functional Chiefs informed on policy issues.

(e) Coordinating the review of documents and other material identified in the QCP. The QCP will be prepared using information typically developed at a strategy review session.

(f) Chairing Review Team meetings.

(g) Submitting assessments on completed documents to Functional Chiefs.

(h) Maintaining Review Team files documenting the independent technical review process.

(i) Presenting review activities and findings at milestone conferences. Also preparing documents recording the significant technical review comments and the resolution of these comments. These documents also serve as memoranda for recording the decisions made at the milestone conference.

(j) Preparing lessons learned reports for use in improving the review process.

9.6 The District Functional Chiefs:

(a) Assuring the high quality of decision and implementation documents.

(b) Providing oversight and direction for resolving technical issues.

(c) Approving assignment of personnel to the Project Delivery and Review Teams.

(d) Participating in Technical Review Strategy Sessions.

(e) Identifying low risk projects, and the appropriate level of detail required for adequate technical review.

(f) Assuring independence of the Review Team.

(g) Advising the District Commander on the adequacy of completed documents.

(h) Assigning Review Team Leaders.

(i) Preparing formal directives for Review Teams.

(j) Resolving or facilitating the resolution of policy and technical issues identified during the independent technical review process.

(k) Administratively supporting Review Teams.

(l) Assuring that current policies are implemented in District planning and engineering documents.

(m) Chairing in-house technical review conferences.

(n) The Functional Chief with the lead responsibility for the product receiving independent technical review and shall be responsible for reviewing and approving the QCP.

(o) Monitoring customer satisfaction with District planning and engineering products.

9.7 Responsible Functional Chief. The chief of each functional element within CESPN have overall responsibility for the technical quality of products that are managed within the functional element.

10. Review Team Selection

Since careful coordination between these disciplines is required, the review team must include senior staff with broad technical and policy expertise. A goal will be the establishment of an informed, objective review team with full accountability to maintain objectivity. To assure this objectivity, the members of the review teams must be independent from those who perform the work. Supervisors of project delivery team members are not to be included on the review team. In addition, Project Planners of contracts that provide assumptions, clarify guidance or otherwise participate in the preparation of the products are not to be review team members. Review team members shall serve in a part time capacity and any one individual's review responsibilities shall not exceed 50% of their time. If sufficient staff is not available, or if specialized review expertise is required, Functional Chiefs shall supplement the review team with personnel from other districts, divisions, headquarters, centers of expertise, laboratories, the local sponsor's organization or by contract. Project or study funds shall be used to pay for the cost of conducting technical reviews. If review assistance is required, the expertise needed shall be found and the schedule and cost negotiated for the required services. The formation of the review team should consider regional interests, resources, special expertise requirements and unusual complexity.

For projects with Project Cooperation Agreements (PCA), all implementation design documents should be independently reviewed by another district.

11. Partnering

Cooperation, teamwork, and partnering between the PDT and the Review Team are essential to the production of a quality product. The PDT is responsible for the quality of the product. The Review Team members are responsible for the completeness, thoroughness, and accuracy of their reviews. The reviewer’s challenge will be to work closely with the Project Delivery Team to add value and minimize rework, but at the same time remain sufficiently uninvolved so that he or she does not lose impartiality or perspective.

12. Completed Document Review

Upon completion of the document identified by the quality control plan, the PDT Leader will forward copies of the document to the Review Team Leader who will distribute them to the Review Team. Review Team members will be expected to review the entire document, but will concentrate on those parts of the document that cover their areas of expertise. Their first action should be to assure the material reviewed and approved in the seamless reviews has been integrated as expected into the product/report. Reviewers will decide whether any of their earlier reviews need to be revisited. To maintain the concept of one review, material covered in earlier seamless reviews should not be reviewed again except when the presentation in the document is substantially different from the material previously reviewed or when it is the judgment of the Review Team that the technical material previously reviewed may be causing unreasonable or inconsistent results in the completed document.

13. Appropriate Comments

To enhance communication of review comments, and to assure that each expressed review concern is relevant to the decision to be made, all comments shall contain the following four elements:

(a) A clear statement of the concern. The information deficiency or incorrect application of policy or procedures in the report will be identified.

(b) The basis of the concern. The appropriate law, ASA (CW) /Corps policy, EC, ER, Design Criteria, guidance, or procedure that has not been properly followed in the decision or implementation document will be referenced.

(c) The significance of the concern. The importance of the concern with regard to plan formulation, economic feasibility, cost sharing, Federal interest, environmental compliance, design, and public acceptability will be indicated.

(d) The specific actions needed to resolve the concern. The actions that the project delivery team must take to resolve the concern will be identified.

14. Review Team Assessment

After individual Review Team members have completed their reviews, they may meet as a team to convert the individual comments into an assessment of the document. This assessment can be more than a compilation of individual comments. Comments will be consolidated into a consensus draft assessment of the document. This assessment may raise technical issues and questions concerning the document and can make suggestions for modifying the document. The PDT including PPMD, and the local sponsor's representatives can be given an opportunity to provide substantive, value added comments on the draft assessment. The final assessment will be submitted to the responsible Functional Chief. See Appendix E for the review documentation process for Engineering Implementation Documents.

15. Dispute and Policy Resolution

The Review Team Leader will review comments and checklists to identify disagreements between members of the PDT and the Review Team. If disagreements are found, the Review Team Leader will assure the PDT member's immediate supervisor has been made aware of any disagreement during the review. If the PDT member's supervisor also disagrees with the reviewer, the Review Team leader will document the supervisor's position on the matter by memorandum to the Review Team files. Technical issues will be raised with the appropriate functional chief for resolution. Major technical issues may be forwarded to Division Headquarters for resolution. If the disagreement involves interpretation of policy, the appropriate functional chief will be informed of the issue for resolution or referral to higher headquarters. All disputes related to the schedule and budgeted costs are to be referred through Programs and Project Management Division.

16. Review Documentation

Review Team files will be readily available to all members of the PDT and the Review Team. The files will also be available to higher Headquarters during quality assurance reviews,

Washington level policy reviews and review conferences. Accountability through proper documentation is key to quality control. All reviews must be documented by checklists or memorandum of review. DrChecks is required for review of all post authorization civil works documents. The Review Team files will include all review comments formatted in a comment, response, action taken and back check and all decisions made by technical functional supervisors during seamless review. All comments on draft assessments as well as conference MFRs will be kept on file. The review team files will be transferred to project files at the time of dissolution of the Review Team.

17. Technical Review Documentation File

The documentation to be placed in the QC/QA activities file and the project file will include the following: Documentation includes hard copy of e-mail messages.

(a) The final QCP, QCP approval letter and documents revising the QCP.

(b) One copy of each of the milestone documents reviewed by the review team.

(c) The Memoranda for the Record from the milestone conferences.

(d) The review MFRs and checklists prepared by the review team members following review of the milestone documents.

(e) Formal assessments to the Functional Chiefs on the review of the milestone documents, prepared by the review team leader.

(f) Documents related to resolving significant disagreements between the project delivery and review teams, or the significant disagreements related to the approval of Hydrology.

(g) The lessons learned report for use in improving the review process prepared by the review team leader.

(h) Documentation of the in-process seamless review which includes the DrChecks review report and may include the following: the scheduling MFR or e-mail message stating that the initial briefing has taken place and that a subsequent in-process seamless review will or will not be necessary. If the initial briefing identifies no need for further in-process seamless review, documentation of this conclusion, and the basis for it can be the only in-process seamless review documentation required. If a subsequent in-process seamless review is necessary, a tentative schedule should be provided.

(i) If a subsequent in-process seamless review is required. The review team member will prepare a checklist similar to that presented in Appendix C. The checklist should be initialed by the supervisor responsible for the product reviewed in order to indicate that the supervisor acknowledges the review has taken place.

(j) After any in-process seamless review the review team member may prepare a MFR to the review team leader to supplement the checklist. The MFR should include an evaluation of the adequacy of data, assumptions, acceptability of techniques, and procedures used, level of detail, compliance with policy, and guidelines, consistency of results, accuracy, and comprehensiveness. This MFR is required only to the extent necessary to supplement the checklist. If all points can be addressed in the checklist, the MFR is not required.

(k) Any documentation generated in the resolution of significant disagreements from the in-process seamless review.

(l) Review team assessment by Review Team Leader signifying closure of QC process.

(m) QC certification.

18. Quality Management Indicator (QMI) Report

The QMI is a performance based measurement system keyed to the concepts expressed herein prepared by ETS Division. Program areas to report shall include Civil Works, SFO, WFO, and other significant programs. The QMI report also shall include generic, programmatic and supplemental QCPs. The QMI report shall be presented at the district CMR. Copies of the QMI report shall be provided to the Director, DETS and Director, PM immediately after the District CMR. To support the data presented in the QMI report, a detailed breakdown by functional area showing specific projects requiring QCPs, date of initiation of project development and the date the QCPs were approved will be included. At a minimum, the summarized data for the QMI Reports shall include the following:

(a) The total number of projects by program area that require QCPs. This number is obtained by determining the total number of products under development in each respective program in the district and subtracting those that were initiated within 30 days of the QMI Report.

(b) The total number of projects and percentage of projects having an approved QCP. This should be presented by program and as a district wide number and percentage.

(c) The date of CESPD approval of the current District Quality Management Plan (QMP) and date of the next scheduled update.

19. QMP Point of Contact (POC)

The District Quality Management Advocate and POC for this plan Syed Burney. 415-977-8558

MICHAEL McCORMICK
Commanding

APPENDIX A
GENERAL TABLES

1. **Purpose.**

This appendix provides general tables as listed below:

Main Body of Appendix A	Tables
Table A-1	QCP Requirements
Table A-2	Approval Authorities Delegated to CESPD
Table A-3	Quality Control Certification Requirements
Table A-4	Sample District CMR - QMI Report

2. **Applicability.**

This appendix supplements the guidelines provided in the San Francisco District Quality Management Plan and applies to all activities of the district.

TABLE A-1
QCP REQUIREMENTS

The following is a list of projects/products produced in the Civil Works and HTRW Programs and is not necessarily all-inclusive. Next to each product is the suggested QCP type for that product. However, the QCP type used for an actual product must be tailored to the unique characteristics of the product and may differ from the suggestions on this list. All technical products shall require use of a QCP (individual, generic or programmatic), except those indicated as NR (NR = QCP not required). The district may wish to develop an individual QCP in lieu of using a generic or programmatic QCP for the requirements of products not covered under the latter plans. Specific details of QCP submittal requirements are addressed in the main body and subplans of the QMP.

TABLE A-1 QCP REQUIREMENTS		
DOCUMENT TYPE	**INDIVIDUAL**	**GENERIC/ PROGRAMMATIC**
DECISION DOCUMENTS		
General Investigations - Reconnaissance Report	X	
General Investigations - Expedited Reconnaissance Rpt		X
General Investigations - Feasibility Report	W/I PMP	
General Reevaluation Report	W/I PMP	
Limited Reevaluation Report	X	
Post Authorization Change Report	X	
Major Rehabilitation Evaluation Report	X	
Dam Safety Evaluation Report	X	
Dredged Material Management Plan	X	
Section 933 - Beneficial Use of Dredged Material	X	
Section 934 - Extension to Existing Shoreline Protection Project	X	
PL 84 - 99 Rehabilitation Report		X
Cost Allocation Report	X	
Real Estate Design Memorandum (REDM)	X	
IMPLEMENTATION DOCUMENTS		
Design Documentation Report (DDR)	W/I PMP	
Feature Design Memorandum	W/I PMP	
Plans & Specifications - Civil Works < $ 500,000		X
Plans & Specifications - Civil Works > $ 500,000	X	
HTRW < $ 2,000,000		X
HTRW > $ 2,000,000	X	
Design Analysis Report	X	
Hydrologic & Hydraulic Studies (Non-project Specific)		X

TABLE A-1 QCP REQUIREMENTS		
DOCUMENT TYPE	**INDIVIDUAL**	**GENERIC/ PROGRAMMATIC**
< $ 150,000		
Hydrologic & Hydraulic Studies (Non-project Specific) > $ 150,000	X	
Water Control Plans and Manuals		X
CONTINUING AUTHORITIES PROGRAM		
Section 14 Planning and Design Analysis		X
Sections 103, 107 and 111 DPR		X
Section 204 Initial Appraisal		X
Section 204, 205 and 208 DPR		X
Section 1135 and 206 PRP		X
Section 1135 and 206 DPR		X
OTHER DOCUMENTS		
Planning Assistance to State Report	X	
Floodplain Management Study Report	X	
Environmental Assessment/FONSI	X	
EIS (Standalone)	X	
PMPs, FCSAs, PCAs, PED Agreements, MOUs, MOAs, etc.		X

TABLE A-2
APPROVAL AUTHORITIES DELEGATED TO CESPD

Approval authority for the following programs and/or documents resides within CESPD. In some cases, approval authority has been delegated to the Districts, but the policy review and quality assurance role remains in CESPD. Delegated approval authority for a particular activity or project may be rescinded by HQUSACE at their discretion. The most current regulation for the particular program/activity should be referred to for additional details. The following table lists documents in this category but it should not be considered all-inclusive:

DOCUMENT TYPE	**NOTES:**
DECISION DOCUMENTS:	
PL 84-99 Rehabilitation Reports	
Dredged Material Management Plans	
IMPLEMENTATION DOCUMENTS:	
Continuing Authorities Program (CAP) Design Analysis Reports: (Section 14, 103, 107, 111, 205, 208)	Per 16 Jun 95 HQUSACE guidance, primarily all actions are delegated to Division. See EC 1105-2-211 for details.
Sections 1135 and 206 PRP and DPR	See details in EC 1105-2-206.
Section 204, Initial Appraisal and DPR	See dollar limitations in EC 1105-2-209.
Water Control Plans, Manuals, and Deviations	Per ER 1110-2-1400 dated 30 Sep 93, Para 6.
OTHER DOCUMENTS:	
Section 22, Planning Assistance to States	
Floodplain Management Services Study Reports	
Project Cooperation Agreements	If consistent with models.
PED Agreements	If consistent with models.
O&M REPORTS:	
Water Quality Management Plans	
O&M Manuals	
Master Plan and Amendments	

TABLE A-3 QUALITY CONTROL CERTIFICATION REQUIREMENTS[1/]		
	CERTIFICATION BY	
ITEM	DISTRICT COMMANDER	RESPONSIBLE FUNCTIONAL CHIEF[3/]
Projects Approved by CESPD or HQ	X	
Projects Approved by District	Varies By Program	
Interim (Milestone and Draft Products)		X
Decision Documents (Draft to HQ)[6/]		X
Decision Documents (Final)[6/]	X	
Final EIS (Standalone)	X	
CAP Reports (> $6 million)	X	
CAP Reports (< $6 million)		X
Sec 22 PAS Reports		X
FPMS Reports		X
Interim (Milestone) Products		[4/]
Expedited Recon (905b Rpt and PMP)		X
Design Documentation Reports	X	
PL 84-99 Rehabilitation Rpts	X	
Products Approved by District	X	
Water Control Manuals		X
O&M Manuals	X	
Dam Safety & Related Reports	X	
HTRW Projects >$ 2 million	X	
HTRW Proj < $2 mil (Generic QCP)		X
CW P&S > $500k	X	
CW P&S < $500k (Generic QCP)		X

TABLE A-3
QUALITY CONTROL
CERTIFICATION REQUIREMENTS[1/]

ITEM	CERTIFICATION BY	
	DISTRICT COMMANDER	RESPONSIBLE FUNCTIONAL CHIEF[3/]
H&H Studies (Generic QCP)		X
DD1391 Forms		[5/]
Interim (Milestone and Draft) Products		[4/]
PM Products:		
PM Products (FCSAs, PCAs,PED Agreements, etc.)		[2/]

NOTES:
1/ - See Main Body and Individual Subplans of QMP for specific requirements.
2/ - Single Reviewer experienced in development of this product; Responsible Functional Chief certifies either in transmittal letter to higher authority or in memo placed in project file.
3/ - Responsible Functional Chief normally will be a Division Chief at the District.
4/ - ITRT Leader ensures that all comments are resolved in a timely manner after the respective milestone
5/ - SPD has final QC responsibility for these products
6/ - Includes Decision Documents developed after Project Authorization

TABLE A-4
SAMPLE DISTRICT CMR - QMI REPORT

QMI REPORT FOR SPX DISTRICT (FY03 – 1st QTR) 31 Dec 02

TECHNICAL ELEMENT	HOW MANY REQUIRE QCP	HOW MANY WITH APPROVED QCP
ENGINEERING		
Dam Safety Evaluation Reports	3	2
Design Memorandums	8	8
P & S - CW	12	7
P & S - Mil and SFO	23	0
HTRW	12	0
Generic QCP	6	3
ENGINEERING SUBTOTAL	64	20
Percentage		31%
CONSTRUCTION –OPERATIONS		
Regulatory	1	1
Construction QAPs	75	75
CON-OPS SUBTOTAL	76	76
Percentage		100%
PLANNING		
Feasibility	8	7
Reconnaissance	13	10
Special Study	2	1
Planning Assistance	0	0
Ecosystem Restor Report	8	4
PLANNING SUBTOTAL	31	22
Percentage		71%
REAL ESTATE	4	4
REAL ESTATE SUBTOTAL	4	4
Percentage		100%
DISTRICT TOTAL	175	122
Percentage		70%

Current District QMP approved Jun01*; next update scheduled for Jun02.

APPENDIX B

STANDARD OPERATING PROCEDURES FOR QUALITY CONTROL OF DISTRICT PRODUCTS

The following operating procedure for independent technical review of decision and implementation documents will be followed unless specific exception is granted in the Quality Control Plan (QCP):

1. The Independent Technical Review Team (ITRT) Leader is assigned.

2. A QCP is prepared for the study/design. The QCP will be incorporated into Project Management Plans, where applicable.

3. A Technical Review Strategy Session is held to review the draft QCP. The finalized QCP is submitted to the Chief of the functional branch for review and approval.

4. The Functional Chief with lead responsibility for the project issues a review directive to the ITRT; i.e., a memorandum transmitting the approved QCP to the Review Team for their implementation.

5. The Project Manager assures that adequate time and resources are provided for the review. The Project Delivery Team (PDT)members and the ITRT counterparts coordinate, schedule, and conduct seamless single discipline reviews in accordance with the QCP.

6. The ITRT holds an organizational meeting and prepares a review plan (if required); i.e., a memorandum of the meeting identifying any additional specifics not covered in the QCP.

7. The PDT members requests reviews by ITRT counterpart as products are completed in accordance with the QCP and Review Plan.

8. Technical Reviews are conducted and documented on DrChecks, the Army's Design Review and Checking System. The use of DrChecks is required only for design reviews, however DrChecks may be used for the review of decision and other type documents.

9. The ITRT Leader reviews comments and responses for disagreements on technical issues and coordinates with the PDT and ITRT members to resolve any disagreements. The appropriate functional element chief is asked for resolution if a disagreement is not resolved.

10. The ITRT Leader reviews comments and responses for policy issues and coordinates with appropriate functional chief for possible referral to higher headquarters. Policy issues regarding Project Cooperation Agreements (PCA's) are the responsibility of the Deputy District Engineer for Project Management.

11. The ITRT Leader participates in technical review conferences, and Milestone Conferences.

12. The Project Manager along with the PDT members assess the completed comments, then prepare their responses.

13. The PDT responds to the ITRT assessment by responding through a formal memorandum, by listing each comment, responding with "Concur" or "Not Concur" and stating the "Action" taken..

14. The ITRT considers the responses by the PDT and identifies any remaining disagreements requiring resolution by appropriate functional element chief. Concurrences to the revisions or responses to the independent technical review are documented through a “Backcheck” memorandum and/or a Certificate of Completion.

15. The ITRT prepares a lessons learned report at the conclusion of the review.

16. The ITRT is dissolved. The Project Manager closes ITR process after all comments are satisfactorily resolved and upon the recommendation of the ITRT leader. The ITR and the records are transferred to project document files.

17. Functional Chiefs certify quality control and quality assurance reviews for the draft feasibility report. The District Commander certifies quality control and quality assurance reviews for the final feasibility report.

APPENDIX C

CHECKLIST FOR SINGLE DISCIPLINE SEAMLESS REVIEW

(To be supplemented by Technical Checklists
for Specific Technical Areas and Products)

1. Briefly describe the product (include name of project).

2. How was the service request received (provide office symbol, subject, and date of memo or describe content of verbal instruction), and were there any amendments?

3. In what format will the product be transmitted to the Study/Design team (provide office symbol, subject, and approximate date of memorandum)?

4. What is the level of detail (reconnaissance, survey, design, other)?

5. Do the study team member and the reviewer understand how the product will be used?

6. Is the level of detail appropriate?

7. Were appropriate guidelines, procedures, and criteria followed?

8. Has the reviewer proposed improvements or supplements to the product (yes/no, if yes the reviewer will provide details in memorandum)?

9. Does the reviewer believe appropriate time and attention was given to the product (yes/no)?

10. Has there been adequate communication among study team members concerning this product?

11. Was an independent calculations check performed before the review? By whom (name)?

12. Were any ambiguities, gaps, omissions or conflicting information or view points identified?

13. Were any policy problems encountered?

14. Does the study/design team member agree with the reviewer?

15. Were areas of disagreement discussed with study/design team member's supervisor?

16. Are Study/Design member comments attached (yes/no)?

17. Reviewer's comments and signature.

18. Study/Design team member's signature.

Footnotes:

a. Seamless review is conducted by a peer of the person whose work is being reviewed. A peer is defined as a person with the same (or higher) level of technical or managerial expertise as the person whose work is being reviewed.

b. Discussion regarding the study should be undertaken based on the highest professional standards. There needs to be formalized periodic review sessions when all specific aspects are addressed. Day-to-day conversations regarding the study are no substitute for these reviews and

should be used only to resolve or clarify specific issues; the independent perspective of the seamless reviewer must be maintained.

c. Seamless review is an extra effort, separate from the routine study activities performed daily by members of the study team. The study/design team member should see the seamless reviewer as being external to the normal activities of the team. Seamless review must be seen by all participants as an extra endeavor that demands special attention, time, and procedures, and be independent to, and supplement normal internal review processes.

d. Seamless review is a function with specified purpose, scope, format, and duration. All seamless review leads to a report to the individual whose work is being reviewed. This reporting characteristic distinguishes seamless review from other reviews.

e. Seamless review can be a one-time event or a series of reviews. Either way, each seamless review must be formally established, staffed, and resourced.

f. The seamless review report is disseminated in a way that permits immediate implementation of recommendations to facilitate quality projects in accordance with scheduled milestones.

g. Seamless review is paid for with project study funds.

h. Reviewers have no authority or responsibility for direction of the study.

i. Seamless review is not a validation of the activities of the study team or its members. Seamless review will adhere to an established schedule and cost outlined in QCP.

APPENDIX D

QUALITY CONTROL GUIDELINES OF PLANNING BRANCH PRODUCTS

1. Purpose

This appendix establishes the process to assure the production of high quality Civil Works planning documents and supplements the guidance provided in the basic Planning, Engineering, Construction, and Real Estate Quality Management Plan. It is intended to provide quality assurance and quality control guidance for conducting independent technical review of planning products within the San Francisco District (CESPN). The guidance establishes a framework of general policies and principles to achieve planning services and documents, which meet or exceed customer requirements, and are consistent with Corps policies and regulations. Independent technical review policies, and procedures will be evolving over time and with experience. Flexibility and adaptability will be key components in achieving mature procedures and quality reviews.

2. Applicability

2.1 This appendix applies to all activities of the CESPN Planning Branch, which are involved the preparation, review or approval of planning documents.

2.2 The quality management process that is established in this appendix applies to all decision and implementation documents which are developed as a part of the CESPN planning program, including the following:

2.2.1 Reconnaissance Reports, including Section 905(b) Analyses.

2.2.2 Feasibility Reports.

2.2.3 Post-Authorization Decision Documents, including General and Limited Reevaluation Reports.

2.2.4 Major Rehabilitation Reports involving either authorization or new investment decisions.

2.2.5 Dredged Material Management Plans.

2.2.6 Documents developed in support of the Continuing Authorities Programs (except Plans and Specifications).

2.2.7 Documents developed in support of the Planning Assistance to States and Flood Plain Management Services Programs.

2.2.8 Master Plans

2.2.9 Financial Capability Analyses.

2.2.10 Economic Updates, Reassessments and Economic Reevaluations

2.2.11 Environmental Impact Statements that stand alone without a decision document.

2.2.12 Project Management Plans for the Feasibility Phase (referred to as the Project Study Plan – PSP or Initial Project Management Plan – IPMP, in previous guidance).

2.2.13 Initial Appraisal Reports (Section 216)

2.2.14 Special Regional Studies

2.2.15 Planning Work For Others and Support for Others

2.3 The quality management process established in this appendix applies to all NEPA documents, including Environmental Impact Statements, Environmental Assessments, and other related environmental documents, regardless of the program for which the documents are prepared. The quality control plans for all decision and implementation documents managed by other functional organizations and supported by environmental documentation shall include an independent technical review to insure consistency between the environmental documentation and the decision and implementation documents.

2.4 Planning elements have significant input to other documents, even though other functional organizations are responsible for managing their preparation. The quality review processes for these documents are described in the other appendices to the Planning, Engineering, construction, and Real Estate Quality Management Plan.

2.5 Reports, memorandums, legal opinions, and other documents required to support the planning program, not an integral part of the Civil Works planning documents, and the responsibility of either Real Estate or Counsel, shall be reviewed, and approved in accordance with the procedures and guidance provided by the Directorate of Real Estate, HQUSACE, and the HQUSACE Chief Counsel.

3. References
(This appendix implements portions of the guidance presented in the following references:)

3.1 CESPD R 1110-1-8

3.2 ER 5-1-11, U.S. Project Management Business Process, dated 17 August 2001.

3.3 ER 1105-2-100 - Policy and Planning, Planning Guidance, dated 22 April 2000.

3.4 Environmental Operating Principles, announced by Lt. General Robert Flowers on March 26, 2002.

3.5 CESPD-ET-P Memorandum, dated 5 June 2000, subject: Expedited Reconnaissance Phase Studies.

3.6 CESPD-ET-P Memorandum, dated 31 July 2000, subject: Guidance for Post-Authorization Decision Documents.

3.7 CESPD-ET-P Memorandum, dated 31 July 2000, subject: Processing of Planning Reports in the South Pacific Division.

3.8 CESPD Regional Project Management Business Process, dated February 2000.

3.9 CESPD-DE Memorandum, dated 24 March 2000, subject: Establishment of District Support Teams.

3.10 Planning for Civil Works Programs, Engineer Inspector General Report, dated July 2000.

3.11 Principles and Guidelines for District Support Teams, January 2001.

3.12 CESPD-CM-P Memorandum, dated 19 June 2001, subject: Interdistrict Review of Decision Documents.

3.13 CECW-PM Memorandum, dated 4 September 2001, subject: Implementation of Section 222 of the Water Resources Development Act of 2000 (WRDA 00) – Enhanced Public Participation.

3.14 CESPD-CM-P Memorandum, dated 1 May 2002, subject: Study Initiation in the Civil Works Program.

3.15 CESPD-CM-P Memorandum, dated 7 May 2002, subject: Guidance for the Review of Projects Not Yet Under Construction.

3.16 CECW-PD Memorandum, dated 5 April 2001, subject: Planning Roles and Responsibilities.

4. Definitions

The definitions of terms used in this appendix are generally consistent with the definitions provided in the basic CESPN Quality Management Plan. Within the text of this appendix, certain definitions are expanded upon to place them in a context that is appropriate to the planning program. All definitions are consistent with ER 1105-2-100, Reference 3.3, which provides overall guidance for the planning program.

5. Relationship of the San Francisco District and South Pacific Division

5.1 San Francisco District (CESPN) Planning Branch is responsible for controlling quality for all planning documents it prepares, which includes both technical quality and policy compliance. To assist in the achievement of high quality, the district shall develop, carry out and keep up to date the planning portion of the CESPN quality management plan. The quality management plan shall establish district roles, responsibilities and processes consistent with this appendix. The

Planning Branch shall also be responsible for the development and implementation of quality control plans for decision and implementation documents covered by this appendix.

5.2 The South Pacific Division (CESPD) Planning and Policy Division is responsible for quality assurance for planning documents prepared by the Districts. The Planning and Policy Division, through its members on the District support teams described in Paragraph 6.3 (CESPD R 1110-1-8, APPX C, 30 December 2002) shall review and approve the planning portion of each district's quality management plan and shall provide oversight of the quality control processes. These representatives of the Planning and Policy Division shall also lead the policy compliance review for planning products approved at CESPD. This appendix does not address the Planning and Policy Division's roles and responsibilities for other CESPD functions of command and control, program management, and regional interface.

6. Organizational Responsibilities

6.1 Roles and Responsibilities. The planning functional chief, other functional chiefs, the project manager, the project delivery team, the review team and the review team leader all have significant roles and responsibilities in achieving quality planning products. The roles and responsibilities of all the participating individuals are described in the paragraphs below.

6.2 Functional Chiefs. The Planning Branch Chief in the San Francisco District is the planning functional chief. The planning functional chief shall have the overall responsibility for the technical quality of planning products. Specific responsibilities of the planning functional chief include approval of quality control plans for planning products and the quality certification of planning products. Responsibilities of the planning functional chief, as well as the planning organizations, are set forth in Reference 3.15. The District chief of the Construction/ Operations, Engineering and Real Estate Divisions, and the Deputy for Programs and Project Management, are also referred to as functional chiefs. At the discretion of the planning functional chief, chiefs of functional organizations such as economics, environmental resources and plan formulation may also be considered functional chiefs for the processes set forth in this appendix. In accordance with the U.S. Army Corps of Engineers Business Process (USACEBP), the functional chiefs are responsible for developing and maintaining a professional, technically competent workforce; establishing and maintaining the necessary systems, technical processes and environment to produce quality projects; and providing the technical oversight to assure production of quality projects. They are also responsible and accountable for the quality of the organization’s technical products, assigning qualified members to project teams, keeping commitments made in management plans, and ensuring their technical processes produce the desired results.

6.3 Project Manager. The project manager is the leader of the project delivery team. For the quality control of planning products, the project manager’s role is to provide adequate time and resources to the independent technical review team for the review of planning products and adequate time and resources to the project delivery team to respond to and resolve quality issues. Reference 3.2 describes the standard operating procedures for team establishment and the team processes. In accordance with these procedures, the project manager shall negotiate the cost and schedule for members of both the project delivery team and the independent technical review

team with the appropriate section chiefs. To preserve the independence of the technical review, the project manager will not, however, be a member of the independent technical review team. To ensure that quality expectations are met in accordance with the USACEBP, the project manager shall ensure that certification requirements are met prior to approval by the District Commander or transmittal of a product to CESPD.

6.4 Project Delivery Team Members. The study team, or project delivery team as used in this regulation, is responsible for delivering a quality project. Each member of the project delivery team is responsible for the quality of their own work, for keeping the commitments for completion of their portion of the study as documented in the Quality Control Plan and the Project Management Plan. The teams shall be assigned representatives that have expertise in plan formulation, economics, environmental, hydrology and hydraulics or coastal engineering, civil design, geotech, real estate and other disciplines, as required.

6.5 Review Team Members. Review teams shall be assigned representatives of the senior experienced staff, which mirror the expertise of the project delivery teams. A goal will be the establishment of an informed, objective review team with full accountability to maintain objectivity. To ensure this objectivity, the members of the review teams must be independent from those who perform the work. Supervisors of project delivery team members or, as indicated above, the project managers are not to be included on the review team. In addition, Project Planners of contracts that provide assumptions, clarify guidance or otherwise participate in the preparation of the products are not to be review team members. If sufficient staff is not available in a district, or if specialized review expertise is required, functional chiefs shall supplement the review team with personnel from other districts, divisions, HQUSACE, centers of expertise, laboratories, the non-Federal sponsor's organization or by contract. Interdistrict review of major decision documents is required and discussed below in Paragraph 9. Project or study funds shall be used to pay for the cost of conducting technical reviews. A district in need of review assistance shall find the expertise needed and negotiate the schedule and cost for the required services. Members of the District Support Team may provide assistance in this effort. The formation of the review team should consider regional interests, resources, special expertise requirements and unusual complexity.

6.6 Review Team Leaders. Review Team leaders will normally be selected from the pool of regional technical specialists who represent the planning function and described below. Since careful coordination between the disciplines is required, the review team leaders must be senior staff with broad expertise.

6.7 Regional Technical Specialists. The Engineer and Scientist Career Program Planning Board, in May 1997, directed that a strong career ladder for technical disciplines is essential to maintaining CESPN core competencies. With the District being fully responsible for the technical adequacy of products, the establishment of enhanced non-supervisory technical specialist positions at the District (GS-13 level) is imperative and a division-wide advisory panel was established. Technical specialist positions are regional in nature, including workload of the home District, as well as, the workload of the entire Division. A minimum of 25% of a regional technical specialist position is as a CESPD regional expert, which would include but not be limited to: leading independent technical review teams or serving as an independent technical

reviewer for other districts, trouble shooting or consulting on unresolved technical issues for other districts, performing audits, providing specialized training, participation on panels at the annual CESPD planning conference, or representing the entire Division at meetings and conferences. The other 75% of the position would be directed specifically at the home District's technical requirements.

6.8 Centers of Specialized Planning Expertise. In response to a request from the Director of Civil Works, CESPD evaluated opportunities to concentrate specialized planning expertise. The evaluation resulted in: 1) the identification of the economics workgroup in the San Francisco District as a regional center for deep-draft navigation economics, 2) the identification of the economics workgroup in the Los Angeles District as a regional center for coastal storm damage economics, and 3) the identification of virtual center in the Los Angeles District including members of the environmental resources branch and the economics workgroup as a regional center for recreation analysis for significant recreational development (defined as visitation greater than 500,000 per year). These centers of expertise shall either perform the specialized planning analyses or review such analyses, for all studies in the South Pacific Division. These centers would also coordinate with HQUSACE; the Institute for Water Resources (IWR) and similar centers in other regions to form communities of specialized planning expertise. These communities will facilitate the sharing of resources, share evaluation tools, verify economic models and share lessons learned.

7. CESPN Independent Technical Review

7.1 Independent Technical Review Process. Quality control is the appropriate evaluation of technical products and processes to ensure they meet customer requirements and are in compliance with applicable laws, regulations, and sound technical practices of the disciplines involved. This is to be accomplished through a process of independent technical review, which also includes policy compliance review. Quality assurance includes the oversight of the independent technical review process. The independent technical review process begins with a technical review strategy session, continues with seamless in-progress reviews and finishes with a comprehensive review of the final product.

7.2 Technical Review Strategy Session. The technical review strategy session shall form the basis for a quality control plan for all major studies. For feasibility studies and general reevaluation reports, this session shall be held during the preparation of the project management plan for the feasibility phase. For other types of major products, this session shall be held early in the product development phase. The planning functional chief shall chair the technical review strategy session. Also attending would be the project manager, other functional chiefs and representatives of the non-Federal cost-sharing sponsor. CESPD's planning program managers may also attend selected sessions, in a quality assurance role. In addition to establishing the independent review team, the participants shall establish the level of review, identify documents to be reviewed and identify policy or major technical issues needing to be brought to the attention of CESPD for resolution early in the study. This session should be combined with other initial formulation/scoping meetings. For products of an uncomplicated or routine nature, the planning functional chief may waive the technical review strategy session.

7.3 Quality Control Plans. Quality control plans shall be prepared using information developed at the technical review strategy session. Specific quality control plans shall be prepared for complex planning products. A generic quality control plan shall be prepared for small or low risk products, such as reconnaissance studies and most products prepared for the Continuing Authorities Program (CAP). In developing the quality control plan, the districts are encouraged to rely heavily on their approved quality management plans, through reference, and highlight only exceptions. For major studies entering the feasibility phase, and for the initiation of post-authorization reevaluation studies, the quality control plan shall be fully integrated into the project management plan and shall be certified by the planning functional chief. All other quality control plans for planning products shall be approved by the planning functional chief. A quality control plan, or a project management plan for the feasibility phase, shall, as a minimum, include the following:

7.3.1 A statement of quality control objectives.

7.3.2 A statement of the guidelines will be followed for the technical review.

7.3.3 A roster of the proposed project delivery team or, in the case of a generic plan, a list from which the roster would be selected.

7.3.4 A roster of the proposed technical review team with the number of years and bullet description of relevant experience for each member. Similarly, in the case of a generic plan, a list from which the roster would be selected.

7.3.5 A list of documents to be reviewed by the technical review team.

7.3.6 A list of quality objectives.

7.3.7 A milestone list and schedule for review activities that integrate the mandated division milestones.

7.3.8 A discussion of proposed deviations from the approved quality management plan.

7.3.9 The cost estimate for conducting the independent technical review.

7.4 Milestones: A detailed checkpoint system appears in Enclosure 1 to this Appendix. Enclosure 1 includes a standard set of review milestones to be used as checkpoints during the development and review of decision documents. Enclosure 1 describes the CESPD Milestone Conference Requirements.

7.5 Lessons Learned. The development of a CESPD-wide lessons learned program is being led by the CESPD Technical Engineering and Construction Division. In the interim, each district should take maximum advantage of lessons learned and share these lessons at appropriate workshops and conferences. The result of audits, which were conducted by CESPD to date, have identified a need to give special emphasis to the following items:

7.5.1 With and without project assumptions

7.5.2 Consistency with the process, terminology and other requirements of the Principles and Guidelines

7.5.3 Cost Apportionment (who pays), especially when a locally preferred plan is proposed

7.5.4 Commitments and unresolved issues in prior conference memorandums

7.5.5 Consistency between the decision document and the EIS

7.6 Products Developed by Contractors: The development and execution of a quality control plan for products developed by a contractor shall be the responsibility of the contractor. The contractor's quality control plan shall be reviewed and approved by the responsible functional chief at the district. In order to maintain contractor responsibility, the contractor shall be responsible for quality control of its own work. An overall quality control plan shall be developed by the District outlining quality control activities by the district for any portion of a product developed by in-house forces and quality assurance activities by the District for overseeing the contractor's quality control activities. These quality assurance activities shall include actions to define the work for the contractor and ensure that the contractor meets the requirements of the contract, and they shall also include an independent quality assurance review. The responsible functional chief at the District shall approve the overall quality control plan for the total product.

8. Review Procedures

(The following general procedures and guidelines will be used in the process of independent technical review.)

8.1 Seamless Single Discipline Review. To maintain a seamless review concept, products of individual project delivery team members shall, consistent with the scope and complexity of the products, receive technical review from review team members before they are released to other members of the project delivery team or integrated into the overall study. A memorandum of record shall be the basis for establishing accountability for the quality of the product and the review. The review team member shall prepare the memorandum, which shall become part of the review team's records. Specific issues raised in the review shall be documented in a comment, response, discussion, action required, action taken and, if appropriate, lessons learned format. Unresolved differences between the project delivery team and review team members shall be documented, along with the basis for the functional chief's decision on the issue. The software system DrChecks may be used, at the option of the District. These reviews should be completed prior to major decision points in the planning process so the technical results can be relied upon in setting the course for further study activities. The single discipline review shall be tailored for the size and complexity of each study or decision document or implementation document.

8.1.1 A determination will be made in the Strategy Session or by the functional Chief with lead responsibility for the QCP, regarding the complexity of the study and the appropriate level of detail required for single discipline review. The complexity decision will be addressed in the Quality Control Plan.

8.1.2 Seamless single discipline review will not substitute for normal internal review of products, which is the responsibility of each Study/Design Team member's first line supervisor.

8.1.3 Single discipline review will be documented essentially as specified in this appendix. The documentation will be furnished to the review team leader for inclusion in the technical review documentation file.

8.2 Product Review. The quality control plan shall identify products to be reviewed by the technical review team. The products would include: documentation for the major milestone conferences, documentation for mandatory issue resolution conferences, draft documents for public release and final documents. These products shall be essentially complete before review is undertaken and the branch and section chiefs shall be responsible for accuracy of the computations through design checks, supervisory review and other internal procedures, prior to the independent technical review.

8.2.1 Scope. The documents shall be reviewed using an interdisciplinary team approach. The document shall be reviewed for scope, adequate detail, compliance with guidelines and policy, consistency, accuracy, and comprehensiveness. The independent technical reviews will specifically address several areas of emphasis of particular important to planning products. The review shall ensure the document tells a story as a coherent whole, the steps of the analyses are consistent and follow logically, the assumptions are convincing and consistent, especially those related to the probable/most likely with and without project futures, and outstanding action items from the issue resolution conferences (RRC, FSM, AFB and FRC), milestone conferences and other reviews are adequately addressed.

8.2.2 Integration of Prior Reviews. At the beginning of a document review, team members shall review their counterpart's presentations in the document. The review shall determine whether prior seamless review activities have produced the technical product envisioned during the seamless review. Material reviewed in the seamless review phase shall not be subjected to additional detailed review, except when the presentation in the documents is significantly different from the work previously reviewed or it is the judgment of the review team the technical material may be causing the plan formulation process to produce unreasonable or inconsistent results.

8.2.3 Interdisciplinary Review. All members of the review team shall be expected to raise concerns in other functional areas. These concerns shall be addressed to the review team as a whole. The review team shall then work through the appropriate review team counterparts to resolve technical issues. Review team meetings shall be open to representatives of CESPD for quality assurance purposes. It is the responsibility of the review team leader to seek resolution of disagreements among review team members before referring issues to the project delivery team.

8.2.4 Content of Review Comments. Review comments should follow the suggested structure established by HQUSACE for their development of comments when they perform policy compliance review. Each comment should include: 1) a clear statement of the concern (information deficiency or incorrect application of policy or procedures), 2) the basis of the concern (law, policy, guidance), 3) significance of the concern, and 4) specific actions needed to resolve the concern.

8.2.5 Review Comment Style. Memoranda of review and comments on completed documents will clearly identify the specific concerns, the basis for each concern, and the potential impact of each comment on the study. Reviewers will identify a suggested course of action to address each concern with sufficient specificity to assure other members of the team understand the scope and implication of the comment. Internal MFR's prepared in this manner will greatly assist the Study Team Manager in managing the study and the Review Team in preparing an assessment of the completed document. In keeping with the Review Teams advisory role, the tone of the memoranda and assessments should be more suggestive than directive in nature, i.e., use terms like "should" rather than “will." The assessment should clearly represent the views of the entire Review Team or state otherwise. All comments will be documented to include a "response" and "action taken" to assure that no unresolved issues or concerns remain following each review activity.

8.2.6 Responses to and Resolution of Review Comments. The review team shall coordinate with the project delivery team to resolve the issues raised. Face to face communication is encouraged between the review team and project delivery team members. While E-mail is adequate for providing information, telephonic communication is preferred for communication. Along with a description of the scope of the review, all review comments shall be documented in a comment, response, discussion, action required, action taken format and, when appropriate, lessons learned. In those cases where a functional chief decides unresolved disputes between the project delivery team and the review team, the review documentation shall provide the basis for the functional chief's decision. As indicated above, the DrChecks software system may be used at the option of the District.

8.2.7 Final Documentation. Proper documentation is a key component of an effective independent technical review process. Significant decisions must be recorded and the entire process must leave a clear audit trail. The documentation of the independent technical review shall be included with the submission to CESPD. As an example, the review documentation for a final feasibility report will include memorandums from seamless single discipline review, memorandums from the milestone conferences and memorandums from the draft and final product reviews. The purpose of the review documentation is to show the full scope of the independent technical review and a summary of the review need not be prepared if action items are appropriately tracked.

8.2.8 District Certification. Documentation of the independent technical review shall be accompanied by a certification, indicating the independent technical review process was completed and all technical issues were resolved. This requirement is discussed further in Paragraph 17.

8.3 Certification of the Without-Project Hydrology. Because of the critical need to establish the without-project hydrology early in a flood control planning study, the chief of the District element that is responsible for the hydrological analysis shall certify the hydrology prior to the first milestone conference in the feasibility phase. This certification shall be included in the review documentation.

8.4 Dispute Resolution. The review team leader shall review the documentation to identify any outstanding disagreements between members of the project delivery team and the review team. Any disagreements shall be brought to the attention of the appropriate functional chief to facilitate resolution of technical disagreements between study and review team counterparts. If a dispute is between representatives from different functional organizations, then the issue shall be forwarded to the planning functional chief, who shall facilitate resolution. The appropriate functional chief shall make the final decision. The functional chief may consult with CESPD staff or regional technical experts that can serve as an unbiased sounding board, or major technical issues may be formally submitted to CESPD for resolution.

8.5 Policy Issue Resolution. Issues involving policy interpretation shall be brought to the attention of the planning functional chief for resolution or referral to CESPD. In some cases, the planning functional chief, may request CESPD to hold an issue resolution conference to resolve major policy issues. CESPD may also arrange for HQUSACE input or participation in the issue resolution conference.

8.6 Use of Checklists. Checklists may be used to guide the technical review and ensure that critical items are not overlooked. Checklists may be used to simplify the documentation of the review. Checklists may also be used to track outstanding action items for a particular study. The use of checklists shall not, however, eliminate the requirement to document specific comments. A checklist of items to consider during a review is included as Enclosure 1.

8.7 Extension of Review Time. Team members and interested parties may sometimes request extensions of review time established in the Quality Control Plan to furnish information or comment on the study. Such requests should be made in writing to the Planning Functional Chief who will evaluate the request as it affects the project schedule.

8.8 Issue Resolution Conferences (IRC) and In-progress Review Conferences (IPR). Review Team Leaders may with the approval of the Planning Functional Chief call IPR Conferences. Functional chiefs, the Review Team, the Study Team, and the local sponsor's representatives should attend any IPR. CESPD, and Headquarters elements should be informed in case they may wish to send representatives. The purpose of the IPR is to facilitate resolution of major issues as soon as possible. The IPR will be an informal discussion among those present. The Review Team Leader shall briefly summarize review issues and maintain a record of the conference. If an IPR is requested to obtain technical or policy assistance on major issues from SPD or if it is one of the mandatory IRC's such as a RRC or FRC, the conference will be chaired by SPD. Additional informal meetings within the District to discuss independent technical review may be requested by Functional Chiefs, Review Team Leaders or Study Managers at any time.

8.9 Documentation of Reviews. Review Team members will provide copies of memoranda of review and seamless review checklists to the Review Team files. Review Team members will also provide comments on documents reviewed to the file. Technical staff positions on technical issues raised during the review will be maintained in the file. A review team assessment will be prepared and filed on every document reviewed.

8.10 Planning Document Review: The quality control plan shall identify products to be reviewed by the technical review team. These products shall be essentially complete before

review is undertaken and the branch and section chiefs shall be responsible for accuracy of the computations through design checks and other internal procedures, prior to the independent technical review. The documents shall be reviewed using an interdisciplinary team approach. The document shall be reviewed for scope, adequate level of detail, compliance with guidelines, and policy, consistency, accuracy, and comprehensiveness. The independent technical review will address the items listed in Enclosure 1 to Appendix D.

8.11 Review Team Assessment. The assessment will summarize comments and as far as possible answer questions and concerns addressed in Appendix D, Enclosure 1. It is a compilation of the review documentation from the interim milestones. It will be sent to the Planning Functional Chief to decide what changes will be made to the report before it is finalized and submitted to the District Commander. The target date for completing the expedited reconnaissance report, (Section 905(b) Analysis) assessment is two weeks after receipt of the draft document.

9. Review of Decision Documents

9.1 Interdistrict Reviews. Reference 3.10, the July 2000 Engineer Inspector General Report, "Planning for Civil Works Programs", presented a set of recommendations for commanders to improve and retain the Corps' planning capability. One of the report's recommendations was "that division commanders, in accordance with the Regional Business Center concept, actively encourage more use of other districts for independent technical reviews." Interdistrict reviews will ensure the independence of reviews; thus, maintaining the credibility and integrity necessary for quality projects. Interdistrict reviews will also pide outstanding learning opportunities to understand the way other professionals tackle problems and to learn lessons from the experiences of others.

9.2 South Pacific Division Policy. Reference 3.12 established the policy of South Pacific Division for all decision documents for Congressional authorization shall undergo independent technical review by another district. These decision documents include both feasibility reports and post-authorization decision documents requiring Congressional authorization with an Alternative Formulation Briefing scheduled after 1 January 2002. Other documents may be also reviewed by another district at the request of the district producing the documents.

9.3 Review Management. All independent technical review work shall be included in the project management plan. As with other reviews, interdistrict review shall be planned in advance and conducted as a continuous and seamless activity with formal documentation prepared for each of the South Pacific Division milestones. The producing district shall ensure that the review team shall be given the full funding and time allotted in the project management plan to ensure a prompt and quality independent technical review. The reviewing district shall be accountable to meet reasonably established target dates to complete the independent technical review.

9.3.1 Review Team Alternatives. The composition of the independent technical review team may include team members from multiple districts (including districts outside the South Pacific Division), centers of specialized planning expertise, and from other qualified sources such as non-Federal sponsors and other Federal and State agencies. Alternatives available for interdistrict review include: establishment of an independent review team in another district,

establishment of a review team composed of regional technical experts from multiple districts or establishment of a multi-organization team that could include contractors, sponsors, different districts, and laboratories. In all cases, the leader of the independent review team would be a regional technical specialist from another district.

9.3.2 Interdistrict Review of Contractor Products. Paragraph 7.6, above, establishes the quality control responsibilities of a product, which is produced by a contractor are the responsibility of the contractor. The District is then responsible for quality assurance review. When products developed by a contractor are subject to interdistrict review, then the independent quality assurance review portion of quality assurance shall be provided by another District. This does not relieve the responsible District from appropriately managing and providing input to the contractor, and certifying the product.

10. Expedited Reconnaissance Phase Studies

10.1 Generic Quality Control/Study Plan. Guidance for expedited reconnaissance phase studies is provided in Reference 3.3. As directed in this guidance, each district shall prepare a generic quality control/study plan for the preparation of all expedited reconnaissance phase study products. The plan shall include a sample schedule and sample distribution of costs that would be adapted for each specific reconnaissance study. Within the first month after the initiation of an expedited reconnaissance study, the project delivery team shall be formed from potential candidates that are listed in the generic quality control/study plan and the plan shall be adapted for the implementation of the specific study.

10.2 Team Members. The further reliance on informed judgment emphasizes the need for even more experienced project delivery team members. Periodic peer consultation, rather than review will be included, especially after initial field investigations, to broaden and test the conclusions reached from the limited data available. Individuals participating in peer consultation will be selected from the same approved list as the project delivery team. These individuals shall be the most experienced in the planning process, with the ability to draw conclusions from limited data.

10.3 Independent Technical Review. The products developed during the expedited reconnaissance phase include the project management plan for the feasibility phase and a Section 905(b) Analysis. These products shall be subject to supervisory review. Independent technical review of these products shall be limited to a single recognized expert in planning procedures and the planning process. This individual shall be selected from a list that would, also, be included in the generic quality control/study plan. Independent technical review shall ensure documents reflect a coherent logic and assumptions and conclusions are convincing and consistent.

10.4 Mandatory Milestone Conference. As indicated in Reference 3.5, a CESPD mandated milestone conference shall be held to preview the reconnaissance findings and shall be used to establish a corporate district-sponsor position relative to the direction for the feasibility phase. A description of this conference is included in Reference 3.1, Appx. C. The conference will normally involve all members of the project delivery team who will participate in the identification of the process for completing outstanding items and resolving outstanding issues. CESPD's planning program manager and representatives of the proposed non-Federal cost-

sharing sponsor shall also be given the opportunity to attend. The independent document review shall occur between this interim milestone conference and the completion of the Section 905(b) Analysis. In accordance with Appendix H of Reference 3.3, the Section 905(b) Analysis shall be submitted to HQUSACE via e-mail and no formal transmittal letter is necessary.

10.5 Certification Requirement. The results of the independent technical review shall be included in a memorandum that shall be included with the planning functional chief's certification, which shall be placed in the project files and be subject to audit. In addition to indicating the independent technical review process was completed and all issues were addressed, the planning chief's certification of the project management plan for the feasibility phase shall indicate the proposed streamlining initiatives will result in a technically adequate product and quality control plan requirements were adequately incorporated into the project management plan for the feasibility phase. The certification shall be bound with the plan. Certification requirements are also discussed in Paragraph 17.

11. Feasibility Milestone Conferences

11.1 Milestone Conferences. The quality control plans shall include milestone schedules, shall be employed as a performance measurement system for project delivery teams and review teams working on planning products. For feasibility studies, this milestone schedule shall be developed to include all CESPD milestones included in Reference 3.1, Appx. C. Within a study schedule, CESPD mandated milestone conferences shall be scheduled to occur at significant decision points in the study process. The requirements for the CESPD mandated milestone conferences are included in Reference 3.1, Appx. C. One of the functions of the milestone conferences shall be to recognize key steps were accomplished. Performance at each milestone shall be documented with a memorandum to be signed by the planning functional chief. While the milestone requirements, which follow are specific to feasibility reports, the District shall establish appropriate internal milestones for other products in the quality control plans. At the initiation of the planning functional chief, additional milestone conferences may also be held.

11.2 Enhanced Public Participation. Reference 3.13 establishes procedures to enhance public participation in the development of feasibility studies. In addition to requiring an early public meeting, which CESPD had previously required as the F2 milestone, the procedures allow for the establishment of stakeholder advisory groups. Such groups shall be given the opportunity to participate in the mandated CESPD milestone conferences.

11.3 Level of CESPD Participation. When HQUSACE takes advantage of the opportunity to participate in a CESPD mandated milestone conference, the conference shall follow the guidance for other issue resolution conferences as indicated above in Paragraph 10.5 Appendix C, CESPD R 1110-1-8. In those cases where the District requires a formal CESPD or higher headquarters position regarding study issues and a meeting is the best vehicle for developing this position, a CESPD issue resolution conference may, also, be requested. Other milestone conferences will be chaired by the district planning functional chief, CESPD participation would be limited to informal consultation and oversight for quality assurance, and the conference memorandum shall be signed by the district planning functional chief.

11.4 Technical Review Requirements. Technical review shall be broken down into manageable parts corresponding to the CESPD mandated milestone conferences. Therefore, documentation developed in support of conference discussions shall be reviewed by the technical review team and, to the degree practicable, issues should be resolved in advance of the conference. 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.

11.5 Submittal of Pre-conference Documentation. Unless alternative arrangements are made, the district shall submit to CESPD five copies of the same pre-conference documentation furnished to the independent review team, or provide this same pre-conference documentation electronically. Before the conference is held, the review documentation from the review team shall also be provided to all conference participants. A major goal of the process is to prepare the conference participants to make decisions regarding the future course of the study, which can be compromised if there are many outstanding technical issues. Towards this end, it is desirable for the technical review team and the project delivery team to have resolved as many issues as possible prior to the conference. Because of time constraints, this activity may not be complete by the date of the conference. The review documentation provided to the conference participants should, to the degree possible, be annotated to indicate major issues that require discussion.

11.6 Areas of Special Emphasis. Each CESPD milestone conference held during the feasibility phase shall include a review of the status of the project management plan for the feasibility phase to clarify any potential changes in cost and schedule. Any requirements established in the approval of the reconnaissance phase shall be reviewed at each conference to ensure that specific study requirements established in the reconnaissance phase are addressed, and consistency with the Environmental Operating Principles established in Reference 3.4 will be reviewed. Also, the transmittal letter for the documentation in support of an AFB shall clearly outline all issues that should be addressed at the AFB.

11.7 Feasibility Scoping Meeting. Milestone conference requirements for studies undertaken through the expedited reconnaissance phase process are set forth in Reference 3.5. The first milestone conference in the feasibility phase has been expanded to incorporate the rescoping of the feasibility phase and HQUSACE participation is outlined in Appendix G of Reference 3.3. Pre-conference documentation must be provided to HQUSACE at least 35 days in advance of the conference. This documentation must clearly describe the assumptions and conclusions regarding the without project condition and provided a clear discussion of the formulation and screening of preliminary alternatives. The Certification of Without Project Hydrology for studies of all water resources related projects is required as a part of this milestone conference.

11.8 Start-Up Team Meeting. In order to review the findings of the previous studies, to review the Project Management Plan, and to set the direction for addressing future milestone requirements, a start-up team meeting/study area field visit will be held within a month after the study initiation (CESPD Milestone F1 for feasibility studies), in accordance with Reference 3.14. The project delivery team and the independent technical review team shall attend this meeting. Representatives of the CESPD district support team and the local sponsor will also be provided the opportunity to attend. This team meeting shall be held within 45 days of CESPD Milestone

F1 and it may be combined with other initial formulation/ scoping meetings and related field trips in the study area.

11.9 CESPD Alternative Review Conference (ARC), Alternative Formulation Briefing (AFB) or Feasibility Review Conference (FRC) Presentation. Upon completion of the evaluation of final plans, the Review Team Leader will prepare a presentation for the AFB or FRC. This presentation will describe the activities of the Review Team, summarize the assessment and identify policy issues the Review Team would like discussed. All members of the Review Team should be prepared to discuss comment responses and actions resulting from review findings in detail at the AFC, AFB or FRC. The Review Team will prepare an in-depth memorandum on the AFC, AFB or FRC.

11.10 Draft and Final Feasibility Reports Review. The study team will prepare the draft and final reports in accordance with PGM directive and submit it to the Review Team. The Review Team will give special attention to assuring the report is in compliance with the PGM. The Review Team will then prepare an assessment of the final feasibility report, obtain study team comments thereon, and submit the assessment to the Planning Functional Chief within two weeks after receiving the final feasibility report. Following certification of the final feasibility report by the District Commander, the Review Team will prepare a "lessons learned" report summarizing the team's review activities. This report concludes the review.

12. Post-Authorization Decision Documents

12.1 General Guidance. The development of post-authorization decision documents shall follow the same process and milestone system as used for feasibility phase studies. If adequate information exists to eliminate one or more of the milestone conferences, this shall be clearly indicated in an equivalent document to a Section 905(b) Analysis for the post-authorization review and coordinated with the CESPD planning member of the district support team. The ultimate processing requirements for the post-authorization decision document will depend on the approval authority of the proposed changes to the authorized plan. These authorities are specified in Reference 3.6. Generally, for changes, which are not significant, both technical and policy review will be accomplished at the District. Policy compliance review shall be accomplished at the Division for a decision document recommending significant changes to a project if the Federal cost of the project is less than $15,000,000. For a decision document recommending significant changes to a project where the Federal cost of the project is greater than $15,000,000, CESPD shall forward the documentation to HQUSACE for policy compliance review. The purpose of the CESPD and HQUSACE policy compliance reviews will be to ensure the study objectives were achieved at the appropriate analysis detail and policy issues regarding eligibility and consistency was resolved.

12.2 Economic Updates, Reassessments and Economic Reevaluations. Guidance for updating project economics and the definitions of the specific products are outlined in Reference 3.15. A generic quality control plan may be used for economic updates and reassessments, adapted to a particular project. The independent technical review may be accomplished by a single recognized expert in the process, selected from a list included in the generic quality control plan. A generic quality control plan may also be used for those limited reevaluation reports that are limited to economic reevaluations. More complex post-authorization decision documents will

require separate quality control plans, which may be integrated into the project management plan prepared for the study. For those decision documents approved at the district, the review documentation and certification shall be placed in the project file. For those documents requiring approval at a higher level, the certification and review documentation shall be submitted with the post-authorization decision document in accordance with Reference 3.6.

13. Engineering Appendices to Decision Documents and MCACES Cost Estimates

13.1 Engineering Appendices. An engineering appendix is an essential part of a feasibility report or post-authorization decision document for a Civil Works project. Similar to other portions of the decision document, the technical review of the engineering appendix is a district responsibility. For decision documents approved by the District, the policy compliance review shall also be a District responsibility. And, for any decision document not approved at the District, the ultimate policy compliance review of the engineering appendix is delegated to CESPD. Either a printed copy or an electronic copy of the engineering appendix shall be transmitted to CESPD with the draft decision document for policy compliance review. A printed copy of the engineering appendix shall be included with the submission of the final report since the appendix will be published with the final decision document that supports authorization and/or the signing of a PCA.

13.2 MCACES Cost Estimates. A cover memorandum to the MCACES cost estimate submitted with a final decision document will include a certification statement by the engineering functional chief stating the estimate was prepared in accordance with current guidance, the estimate has undergone an independent technical review and all issues, which were identified in the independent technical review were resolved.

14. Continuing Authorities

14.1 Quality Control. The quality control activities for the Continuing Authorities Program (CAP) shall follow the concepts established above. However, the District is encouraged to be innovative within this guidance to exercise efficient use of limited funds. Except for complex projects (multi-faceted characteristics, subject to numerous policy determinations, unique technical problems or potentials for numerous requirements for deviations to the model Local Cost Sharing Agreement), the plan for technical review may be established in a generic quality control plan developed for the specific continuing authorities programs.

14.1.1 Standing operating procedures for Preliminary Restoration Plans and Initial Appraisals shall be developed by each District to include supervisory review and oversight review by the designated District CAP or Section 1135 Coordinators, prior to transmission to CESPD.

14.1.2 A generic quality control plan may either establish a standing team for the review of documents covered by the generic quality control plan, or present a roster of reviewers from which an individual review team would be selected. The generic quality control plan will also identify products to be reviewed, durations required for review and required meetings and conferences. The generic quality control plan shall address all products prepared for the specific continuing authorities program.

14.1.3 The generic quality control plan will be adapted for a particular study, or a separate quality control plan will be prepared for approval by the planning functional chief, no later than 30 days after the initial work allowance for the decision document is received. Intermediate milestone conferences are encouraged and would be held at the option of the district. Review team members shall be included in discussions with the project delivery team as the proposed project is framed and products are identified.

14.1.4 Documentation, as described above in Paragraph 7.5.5, and certification of the district's independent technical review shall be submitted with the draft and final decision documents, which will also allow CESPD to perform a quality assurance check of the independent technical review process. The District Commander shall certify the final decision for all projects recommended by the District Commander.

14.2 Quality Assurance and Policy Compliance. Approval authority and policy compliance review for the CAP programs was delegated to CESPD. For these studies and projects, CESPD has both the quality assurance responsibilities for technical quality, as well as the quality control responsibility for policy. CESPD must; therefore, conduct a policy compliance review of studies and projects submitted by districts for CESPD approval. The district support team shall be responsible for the quality assurance and policy compliance review. The review will be led by the planning program manager who is a member of the district support team.

14.2.1 Issues arising over appropriate level of detail should be elevated to CESPD through the members of the district support team for early resolution.

14.2.2 Policy compliance issues associated with continuing authority studies may relate to factors such as formulation, Federal interest, cost-sharing, environmental compliance, etc. Prior to the release of a draft feasibility-type report (detailed project reports, etc.) for public review, the report will undergo a full policy compliance review. For low risk studies, the district shall conduct this review, but high-risk studies shall be submitted to CESPD for review before public release of the draft report. For purposes of definition, “low risk” studies in the Continuing Authorities Program are those not requiring the preparation of an Environmental Impact Statement (EIS) and the tentatively recommended plan would have a Federal cost less than $4 million. Studies requiring the preparation of an Environmental Impact Statement or the tentatively recommended plan would have a Federal cost greater than $4 million are considered “high risk”. [Note: $4M is a 57-80 percent threshold of the limit of Federal investment for flood control and ecosystem restoration authorities respectively.]

14.2.3 In those cases in which a District tentatively selects a project that would have a Federal cost less than $4 million and a finding of no significant impact (FONSI) is prepared, the District will include policy compliance review as an integral part of the independent technical review process to determine if any significant policy issue exists. The District shall resolve all policy issues prior to the release of the draft report for public review. If the District is unable to resolve a policy issue, the report shall be considered a high-risk study and submitted to CESPD for policy compliance review.

14.2.4 In all cases in which an Environmental Impact Statement is required for a continuing authority project irrespective of the Federal cost, the Federal cost is greater than $4 million and

the District is unable to resolve a policy issue, the District shall submit the report to CESPD for an initial policy compliance review. This review shall be initiated at least two weeks prior to the proposed release of a draft feasibility-type report for public review. Unless alternative arrangements are made, the District shall submit to CESPD five copies of the draft decision document and supporting documentation. Supporting documentation shall include a copy of the latest fact sheet, documentation of independent technical review and quality certification.

14.2.5 The Division review will use the checklist HQUSACE developed for policy compliance review of other decision documents, and is reproduced as Enclosure 1. Within ten working days, the District will be notified they may release the report for public review, or there are significant policy issues, which may materially effect the conclusions and recommendations in the report, which would cause the report not to be released. CESPD will continue its review, concurrent with the public review of the report, concluding this effort within 30 days from the receipt of the documents.

15. Planning Assistance to States and Flood Plain Management Services Products

15.1 District studies in support of the Planning Assistance to States Program and in support of the Flood Plain Management Services Program are subject to the same quality control requirements as other products. Quality control for smaller, low risk efforts may be managed through the use of a generic quality control plan developed for the program. Study efforts exceeding a $100,000 threshold shall have a specifically developed quality control plan.

15.2 Certification of products developed from the Planning Assistance to States Program or the Flood Plain Management Services Program shall be certified by the district planning chief. This certification, along with the technical review documentation shall be included in the district files and may be subject to audit.

16. Certification of Quality Control

16.1 Documentation of the independent technical review shall be accompanied by a certification, indicating the independent technical review process was completed and all issues were resolved. This requirement applies to all implementation and decision documents being approved by the District Commander, approved by the District project review board, documents being forwarded to CESPD for approval and all documentation being forwarded by Division to HQUSACE for review or approval.

16.2 For the feasibility study process, the certification requirements apply to all Section 905(b) Analyses, project management plans for the feasibility phase, pre-conference documentation for issue resolution conferences, alternative formulation briefings and the draft and final feasibility report submittals.

16.3 For decision documents including a signed recommendation of the District Commander to the Division Commander, such as a final feasibility report, post authorization decision document (GRR) or final report under a CAP, the certification shall follow the example included as Appendix H to the CESPD Quality Management Plan. This certification is to be signed by both the planning functional chief and the district commander and shall include the review

documentation as an enclosure. The planning functional chief shall certify other submittals and the certification may be included within the transmittal letter for the product and review documentation.

16.4 These certification responsibilities shall be specified in the District's quality management plan and cannot be delegated. Any certification requirements for significant modifications to a decision document resulting from policy review shall be specified in the CESPD guidance requiring the modifications.

17. Final Documentation and QC Certification

Proper documentation is a key component of an effective independent technical review process. Significant decisions must be recorded and the entire process must leave a clear audit trail. The documentation of the independent technical review shall be included with the submission to CESPD. For a final feasibility report, the review documentation will include memorandums from seamless single discipline review, memorandums from the milestone conferences and memorandums from the draft and final product reviews. The purpose of the review documentation is to show the full scope of the independent technical review. Documentation of the independent technical review shall be accompanied by a certification, indicating the independent technical review process was completed and all technical issues were resolved. This certification shall be in accordance with the requirement in the main text of this QMP.

18. Process Deficiency Corrections

Significant deficiencies may be revealed in a planning product, after it has been certified at the district. If a planning product is produced, which includes significant deficiencies, the district shall develop and implement a plan of corrective action to ensure such deficiencies are not repeated. Progress on implementing the plan of action shall be actively reported and monitored through the CESPD Executive Project Review Board process. This reporting requirement does not apply to any product, which was subject to an audit, as described in Paragraph 10.6 of CESPD R 1110-1-8, Appendix C, dated 30 December 2002.

ENCLOSURE 1*

SOUTH PACIFIC DIVISION FEASIBILITY PHASE MILESTONE SYSTEM

MIL (1)	MILESTONE NAME	DESCRIPTION
100	Initiate Feasibility Phase	SPD Milestone F1 (2) - This is the date the district receives Federal feasibility phase study funds. A public notice will be issued by the district in accordance with guidance implementing Section 222 of WRDA 2000
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.

1 MIL – Milestone number used in the PROMIS database.
2 F1 through F9 are the historical designations for the SPD Milestones.

- All Enclosures in this Appendix D are updated directly and unedited from CESPD R 1110-1-8, Appendix C, dated 30 December 2002

MIL(1)	MILESTONE NAME	DESCRIPTION
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 CESPD-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.

The following table provides the order and a typical example of durations for a 3-year feasibility study.

Milestone	Description	Duration (mo)	Cumulative (mo)
Milestone F1	Initiate Study	0	0
Milestone F2	Public Workshop/Scoping	2	2
Milestone F3	Feasibility Scoping Meeting	11	13
Milestone F4	Alternative Review Conference	9	22
Milestone F4A	Alternative Formulation Briefing	5	27
Milestone F5	Draft Feasibility Report	3	30
Milestone F6	Final Public Meeting	1	31
Milestone F7	Feasibility Review Conference	1	32
Milestone F8	Final Report to SPD	3	35
Milestone F9	DE's Public Notice	1	36
-	Chief's Report	4	40
-	Project Authoriztion	4	44

ENCLOSURE 2*

SOUTH PACIFIC DIVISION MILESTONE CONFERENCE REQUIREMENTS

1. RECONNAISSANCE PHASE

A CESPD mandated milestone conference shall be held to preview the reconnaissance findings and will be used to establish a corporate district-sponsor position relative to the direction for the feasibility phase. This conference shall be held prior to the submittal of the Section 905(b) Analysis to HQUSACE. The conference will normally involve all members of the project delivery team who will participate in the identification of the process for completing outstanding items and resolving outstanding issues. CESPD's planning program manager and representatives of the proposed non-Federal cost-sharing sponsor shall also be given the opportunity to attend. The memorandum summarizing the conference shall be signed by the planning functional chief within 10 days of the conference and distributed to all participants.

FEASIBILITY PHASE

A.1. F3 Milestone Conference:

The district project delivery team shall present the refinement of existing conditions, any new assumptions for the without project condition, results of additional public involvement, problems and opportunities, the identification of specific planning objectives and planning constraints, and the evaluation of the preliminary plans considered in the feasibility phase.

The technical review team leader shall summarize the results of the technical review and the resolution of issues. These issues would normally involve the refinement of the without project conditions and the formulation, design and evaluation of with-project conditions for the preliminary plans. A Without Project Hydrology Certification is required for studies of all water resources related projects including environmental restoration and flood damage reduction.

The study cost-sharing sponsor shall summarize the views of the agency and identify any plans that the agency wishes to include in the final array of alternatives.

The project management plan for the feasibility phase shall be reviewed and the conference shall serve as the HQUSACE Feasibility Scoping Meeting (FSM) to address potential changes in the project management plan for the feasibility phase. Instructions for the Feasibility Scoping Meeting are included as Exhibit G-3 of Reference 3.2.

Any policy questions shall also be raised at the milestone conference and if these cannot be resolved, the CESPD planning program manager shall raise them to the CESPD Chief, Planning and Policy Division or HQUSACE for resolution. Federal interest shall be reviewed.

This milestone conference shall mark the completion of an iteration of planning steps with the screening of preliminary plans and shall conclude with a consensus on the plans that will be considered in the final array of alternatives.

2.2. F4 Milestone Conference:

This conference shall mark the completion of the evaluations of the final array of plans and prepare for the alternative formulation briefing that will be held with HQUSACE.

The project delivery team shall present the evaluation of the final array of alternatives that will be presented in the feasibility study.

Again, the technical review team leader shall summarize the results of the technical review and the resolution of issues. These issues would normally involve the formulation, design and detailed evaluation of the with-project conditions for the final array of plans.

The study cost-sharing sponsor shall summarize the views of the agency and identify any issues that must be resolved prior to the selection of a locally preferred plan.

Federal interest shall be reviewed.

This conference shall reach a consensus that the evaluations are adequate to select a locally preferred plan and the NED Plan. The conference shall also identify policy issues that will be of concern at the alternative formulation briefing (AFB) and develop a listing of the issues that shall be presented at the AFB. There will be no surprises at the AFB and CESPD shall actively support the district.

ENCLOSURE 3

DECISION DOCUMENT CHECKLIST

This checklist is originally from the historic reference – EC 1165-2-203, Appendix B, Policy Compliance Review Considerations, an obsolete but often still useful circular.

All decision documents will receive a policy compliance review. Policy compliance review involves consideration of the development and application of decision factors and assumptions that are used to determine the extent and nature of Federal interest, project cost sharing and cooperation requirements, and related issues. Policy compliance review ensures that there is uniform application of clearly established policy and procedures nationwide and identifies policy issues that must be resolved in the absence of clearly established criteria, guidance, regulations, laws, codes, principles and procedures or where judgment plays a substantial role. Policy compliance also ensures that the proposed action is consistent with the overall goals and objectives of the Civil Works program. Items that will be considered during this review include, but are not limited to, the following:

1. Formulation.

(a) Will alternatives function safely, reliably, and efficiently, and are they sound from an engineering perspective?

(b) What is the without-project condition and what are the assumptions upon which it is based?

(c) Are the key assumptions underlying the predicted with-project conditions documented and justified as the most likely parameters?

(d) What alternatives, including different performance levels, have been considered?

(e) What is the rationale for screening out the alternatives that were not selected for implementation?

(f) What beneficial and adverse effects have been evaluated for the alternative plans that are studied in detail?

(g) Does risk and/or uncertainty inherent in the data or in the various assumptions of future economic, demographic, social, and environmental trends, have a significant effect on plan formulation?

(h) What are the assumptions regarding future conditions associated with the alternatives?

(i) What coordination has occurred with State, local, and Federal agencies, and how have their views been considered in formulating the recommended plan?

(j) For the flood damage reduction purpose, does the final array of alternatives include a primary non-structural alternative plan; or, a comprehensive flood management plan which includes both structural and non-structural

measures to reduce flood damages pursuant to the statutory requirements of WRDA 86 and 96, as amended? (Added)

2. Plan Selection.

(a) Is the selected plan the NED (or most cost effective) plan?

(b) If a departure from the NED (or most cost effective) plan is being recommended, what is the rationale to support the recommended departure?

(c) How do the benefits and costs of the NED (or most cost effective) plan compare to other candidate plans?

(d) Are there any international implications of the project, and if so, how have they been addressed?

(e) Are there any legal or institutional obstacles to project implementation, and if so, how have they been addressed?

(f) Does the Federal Power Agency indicate the marketability of the power produced based on the selected plan?

3. Economic Feasibility.

(a) What discount rate, price level, and amortization period were used to determine annual benefits and costs?

(b) What procedures were used to evaluate NED benefits?

(c) What are the bases for the economic projections?

(d) What separable features have been incrementally economically evaluated, and what are the separable B/C ratios?

(e) Have all anticipated project outputs, monetary and non-monetary, positive and negative, been included in the economic evaluation? If not, what outputs were omitted and why?

(f) What is the B/C ratio of the project and separable elements based on existing benefits?

(g) What contingency allowances were used for major cost items and what is the basis for them?

(h) What engineering and design, and supervision and administration charges were included in the estimate, and what is the basis for them?

(i) What items are included in annual OMRR&R costs, and how were they developed?

(j) Was interest during construction documented?

4. Environmental Evaluation.

(a) What studies and coordination were conducted in accordance with the National Environmental Policy Act of 1969 (NEPA) and other applicable environmental laws?

COMPLIANCE WITH U.S. WATER RESOURCES COUNCIL-DESIGNATED ENVIRONMENTAL STATUTES

Archaeological & Historic Preservation Act 1980, 16 USC 469, et seq.
Clean Air Act of 1972, as amended, 42 USC 7401, et seq.
Clean Water Act of 1972, as amended 33 USC 1251, et seq.
Coastal Zone Management Act of 1972, 16 USC 1451, et seq.
Endangered Species Act of 1973, 16 USC 1531, et seq.
Estuary Protection Act of 1963, 16 USC 1221, et seq.
Federal Water Project Recreation Act of 1965, as amended, 16 USC 460 l-5, to l-12 et seq.
Fish & Wildlife Coordination Act of 1958, 16 USC 661, et seq.
Land & Water Conservation Fund Act of 1965, 16 USC 460 l-4, to l- 11, et seq.
National Environmental Policy Act of 1969, as amended, 42 USC 4321, et seq.
National Historic Preservation Act of 1966, as amended, 16 USC 470
Rivers & Harbors Act of 1899, 33 USC 403, et seq.
Watershed Protection & Flood Control Act, of 1954, 16 USC 1001, et seq.
Wild & Scenic Rivers Act of 1968, 16 USC 1271, et seq.

(b) What studies were conducted to determine if there are potential or actual contaminated lands (hazardous and toxic wastes, pollutants, etc.) included in the land requirements?

(c) What preservation, conservation, historical, and scientific agencies and interests were consulted, what were their views, and how were their views considered during plan formulation?

(d) What incremental analysis was performed to determine the scope of the fish and wildlife mitigation plan?

5. Environmental Design Considerations.

(a) Is the project designed to be in concert with the environment and the sponsor and public views concerning the environment?

(b) Overall, is this project environmentally sound? To what degree does this project add or detract from the environment?

6. Engineering Appendix.

(a) Is there an engineering appendix to the feasibility report or similar section in other decision documents in accordance with ER 1110-2-1150?

(b) Does the report document that the cost estimate will remain relatively stable based on the engineering effort contained in the engineering appendix?

(c) Does the report document the design with clear references and assumptions?

(d) Has design criteria for the project been established and does it include functional requirements, non-Federal sponsor requirements, technical design, and environmental engineering considerations?

(e) If appropriate, has the U.S. Coast Guard been contacted to determine requirements for permits for any structures to be constructed or relocated over a navigable waterway?

(f) If no DM is to be prepared, does the engineering appendix provide a comprehensive discussion and complete documentation of the completed design?

7. Hydrology and Hydraulics.

(a) Is the analysis based on current hydraulic, hydrologic, and climatic data?

(b) Does the report provide the hydraulic and hydrologic studies necessary to establish channel capacities, structure configurations, interior flood control requirements, residual or induced flooding, etc.? Is the Certification of Without Project Hydrology for studies of all water resources related projects included as a part of this decision document?

(c) Have required physical and numerical modeling, including ship-simulation investigations, been performed in accordance with current guidance? If numeric modeling or other studies required by regulation are not to be performed, is the rationale for omitting these efforts documented and has the appropriate approval been obtained?

8. Surveying and Mapping.

(a) Does the report provide topographic maps to support the level of detail required to eliminate possibility of large quantity errors?

(b) Has suitable site-specific mapping been accomplished during PED?

(c) Has the report met the requirements listed in the table of required actions in ER 1110-1-8156 (Policies, Guidance, and Requirements for Geospatial Data and Systems)?

9. Geotechnical.

(a) Does the report document that a site investigation, subsurface explorations, testing and analysis been accomplished and present geotechnical information to support the type of project, foundation design, structural components and availability of construction materials?

(b) Does the report address any special construction features or procedures (dewatering, stage construction, etc.) and are they included in the estimate?

(c) Does the report provide the level of design necessary to document the cost estimate?

10. Structural Design.

(a) Does the report clearly present the results of alternatives needed to support the selected project site, configuration, and features, including main structures and major appurtenances?

(b) Does the report document the comparison of alternatives in sufficient detail to establish a realistic comparison of costs?

(c) Have appropriate additional studies or tests planned for later phases of the design been identified?

11. Hazardous, Toxic, and Radioactive Waste.

(a) Have HTRW areas been identified and the project designed to avoid HTRW?

(b) If HTRW cannot be avoided, have investigations been conducted by an approved HTRW design district to establish the type and extent of HTRW contamination and the impact and cost of needed response action?

12. Construction Materials and Procedures.

(a) Have potential sources and suitability of construction material for concrete, earth and rock borrow, stone slope protection; and for disposal sites been identified?

(b) Have preliminary construction procedures, construction sequence and duration, and a water control plan for each step of the proposed plan, been developed?

(c) Have construction equipment and production rates been determined for major items, in support of the work schedule and cost estimate?

13. Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R).

(a) Has an OMRR&R plan been developed for the project, and does it include detailed estimates of the Federal and non-Federal costs?

(b) Are budgets and schedules for the preparation of the necessary OMRR&R manuals included?

(c) Does the report include a discussion of primary and emergency power supplies based on local availability and reliable sources?

14. Cost Estimate and Schedule.

(a) Has the current working estimate supporting the NED plan been prepared using MCACES software and is it in Civil Works Breakdown Structure?

(b) Is the baseline estimate the fully funded project cost estimate and is it developed for the recommended scope and schedule established in the report?

(c) Does the estimate include all Federal and non-Federal costs for lands and damages, all construction features, planning, engineering and design and supervision and administration along with the appropriate contingencies and inflation associated with each of these activities through project completion?

(d) Do the contingencies reflect the risks related to the uncertainties or unanticipated conditions identified by the data and design detail available at the time the estimate was prepared?

(e) Is the final product a reliable, accurate cost estimate that defines the non-Federal sponsors obligations and supports project authorization within the established laws and regulations?

(f) Has the MCACES cost estimate report, which accompanies the final feasibility report, been certified by the engineering functional chief?

15. Value Engineering (VE).

(a) For projects with estimated cost of $2,000,000 or greater, has a Value Engineering Study been completed or is there a cost estimate and schedule for the study?

(b) If the district determines a VE study is not cost effective, has a formal waiver request been approved by the division commander, and has a copy of the approved waiver been forwarded to CEMP-EV?

16. Real Estate.

(a) Does the decision document contain a comprehensive Real Estate Plan (REP) that describes the real estate requirements needed to support all project purposes?

(b) Does the report provide a complete real estate cost estimate?

(c) Does the report document the thorough investigation of facility/utility relocations?

(d) Does the report provide the "Assessment of Non-Federal Sponsor's Real Estate Acquisition Capability" checklist of the Non-Federal Sponsor's legal and professional capability to acquire and provide all project lands, easements and rights-of-way in a timely fashion?

(e) Does the report provide a suitable acquisition and related real estate schedule?

17. Cost Sharing and Local Cooperation Requirements.

(a) What project purposes are addressed by the selected plan and how have costs been allocated to them?

(b) If recreation or fish and wildlife enhancement are included in multiple-purpose projects, has the appropriate letter of intent from the non-Federal sponsor been obtained in accordance with Public Law 89-72?

(c) What documentation is available to assure that local interests fully understand and are willing and capable of furnishing the local cooperation specified?

(d) How was the apportionment of cost to local interests calculated?

(e) Who are the beneficiaries of the project and are there special circumstances associated with the project that warrant consideration of increased non-Federal cost sharing?

(f) If the non-Federal sponsor is relying on non-guaranteed debt (e.g. a particular revenue source or limited tax, or bonds backed by such a source) to obtain remaining funds, what information is available to demonstrate the financial capability of the non-Federal sponsor and that the projected revenues or proceeds are reasonably certain and are sufficient to cover the sponsor's stream of costs through time?

(g) If the non-Federal sponsor is relying on third party contributions, is data available from the third party to insure financial capability and its legal commitment to the sponsor?

(h) Does the decision document contain a complete list of relevant Items of Local Cooperation?

18. Project Authorization. If the document is pre-authorization, have all elements necessary for congressional authorization been included in the report? If the decision document is post-authorization, is it in keeping with the project authorization? If not, is further authorization to be requested of Congress?

19. Technical and Legal Review.

(a) Has documentation of significant issues and possible impact; and their resolution been provided?

(b) Has certification of technical / legal review been provided?

20. Budget and Appropriation Decision. Is the document consistent with previous Washington-level decisions on the budget and on Congressional adds, including decisions on project or study scope, non-Federal participation, and cost sharing?

APPENDIX E

QUALITY CONTOL GUIDELINES OF ENGINEERING DOCUMENTS

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6. CESPD Involvement

1. Introduction

a. Purpose

These "Guidelines for Quality Control of Engineering Documents" defines the responsibilities and procedures by which the quality of engineering and design services and products from San Francisco District Engineering Branch are to be managed. The major programs for which these products are developed include flood control, navigation, coastal, restoration and O&M. The activities cited are founded on the requirements specified in ER 1110-1-12 (Engineering and Design Quality Management), dated 18 August 1999; and Corps goals of International Standards Organization certification. Each Project Management Plan is to be compatible with this document for improving the quality of engineering and design services delivered to customers of the U.S. Army Corps of Engineers, San Francisco District.

b. References

(1) CEMP-ET Memorandum dated 23 April 1997, SUBJECT: Department of Defense, Inspector General's Audit on the Use of Energy Conservation Measures in the Design of New Military Facilities.

(2) CESPD R 1110-1-8, South Pacific Division Quality Management Plan

(3) CESPD R 1110-1-10, Design and Construction Evaluations.

(4) EC 1165-2-203 Technical Policy Compliance Review.

(5) EP 1110-2-9, Hydrologic Engineering Studies Design.

(6) ER 1110-1-12, Engineering and Design Quality Management.

(7) ER 1110-1-8100, Laboratory Investigations and Testing.

(8) ER 1110-2-1150, Engineering and Design for Civil Works.

(9) ER 1110-2-1403, Engineering and Design - Studies by Coastal, Hydraulic, and Hydrologic Facilities and Others

(10) ER 415-1-11, Biddability, Constructibility, Operability, Environmental Reviews, Supplement CESPN OM-1110-2-1

c. Applicability

(1) This appendix supplements the guidelines provided in the main body of the Quality Management Plan and applies to all elements of the San Francisco District Engineering Branch responsible for the preparation of engineering products.

(2) The quality management process outlined herein applies to all engineering services and products including engineering sub-products provided to other functional organizations as input to their products.

(3) Exceptions. Due to its special requirements, Water Control Management has been classified as a unique function of the Corps as described in the Division Organizational Guidelines. The implementation of all water control management activities shall comply with existing regulations and guidance. Activities involved with developing water control plans, gathering and processing data in support of regulating decisions, and operation of the reservoirs in accordance with the

plans are collectively referred to as "Water Control Management." ER 1110-2-1403, Engineering and Design - Studies by Coastal, Hydraulic, and Hydrologic Facilities and Others EM 1110-2-3600 "Management of Water Control Systems", and ER 1110-2-240 "Water Control Management" are basic technical and policy references describing the mission and activities for the Corps water control management functions. Quality assurance and quality control of water control management products shall be performed at CESPD as prescribed in the existing engineering regulations and guidance and following the general quality management principles set forth in this quality management plan. Water Control and Water Management Support is also provided by the Sacramento District.

d. Policy Objective

The policy of the San Francisco District Engineering Branch is to deliver quality engineering products, on time, and within budget to our customers. The districts are responsible for the preparation of engineering products and the quality control necessary to produce those products. San Francisco District Engineering Branch is responsible for quality control of the engineering process. As such, the level of quality to be provided for each design effort shall be in conformance with properly developed customer requirements for each project as set out in ER 1110-1-12. All engineering and design services incorporated in or support in decision documents or implementation documents shall be prepared using a quality control plan.

e. Quality Management Plans

The district is responsible to prepare, and keep current, a Quality Management Plan for engineering and design products. The engineering quality management plan shall be a part of the overall District quality Management Plan and shall provide the general guidance for work produced by the Engineering Division of a district, including the input provided by other functional organizations which support the development of the engineering products. CESPD-MT-E shall evaluate and approve the engineering portions of the district Quality Management Plans.

f. CESPN Policy on Quality Assurance and Quality Control

It is the policy of CESPN to develop and implement quality assurance (QA) and quality control (QC) practices that ensure that technical products meet the agreed upon requirements of the customer and appropriate laws, policies, lessons learned, technical criteria and are on schedule and within budget. Adherence to quality principles and established quality assurance and quality control practices is integral with the roles and responsibilities of all District functions. QA and QC practices outlined herein shall also be consistent with other quality management practices prescribed by USACE, including Total Quality Management (TQM), and Value Engineering (VE).

2. Products Reviewed

ER 1110-2-1150 sets out engineering requirements, responsibilities, and procedures during all phases of civil works projects, including engineering, and project management functions. For

quality management, the product depends on the phase of design. The technical review process applies to all the decision documents and implementation documents. This appendix deals primarily with implementation documents. The quality control requirements for decision documents are presented in Appendix D. The products reviewed include the technical analyses and calculations performed by the disciplines included in Water Resources Hydraulics and Coastal Section, Geotechnical Section, Estimating and Specifications and Cost Engineering Section, and Civil Design Section and the Bay Model, and all NEPA documents including Environmental Impact Statements and Environmental Assessments, and all supporting documents which are prepared in support of the following documents; Design Documentation Reports, Feature Design Memorandums, and Plans and Specifications. Also included are products for military and SFO programs. The review will assure that the implementation documents are consistent with appropriate decision documents and NEPA and other environmental documents. The QMP for the Dam Safety Program is in Enclosure 1 to this appendix.

3. Quality Control Participants and Responsibilities

The main text of the CESPN Quality Management Plan defines the duties and responsibilities of the Study/Design Team, Team Leader, the Review Team, Review Team Leader, and the Project Manager in more detail The main text also defines the requirements for and content of Quality Control Plans for both Implementation and Decision Documents.

a. The Quality Control Plan shall address (at a minimum) the following:

(1) Name of Project/Product

(2) Description of Project/Product

(3) Name and location of customer

(4) A statement of the quality control plan objective.

(5) A statement of the quality guidelines that will be followed for the technical review.

(6) The Project Manager, who is the project leader and responsible for leading the project delivery team and members of the project delivery team.

(7) Members of the Independent Technical Review Team with a statement of the technical qualifications of each member in their respective areas of expertise. (Including Mandatory Centers of Expertise.)

(8) Major Milestones

(9) Unique, sensitive or high visibility items requiring special attention. Include items, which require technical or policy clarification, and environmental constraints such as complying with records of decision.

(10) A list of documents to be reviewed by the independent technical review team, and dates of scheduled reviews.

(11) Special interest items such as value engineering, cost controls, contractor evaluation procedures, acquisition strategy, etc.

(12) Partnering or conflict resolution procedures for the stakeholders.

(13) Discussion of constraints on the process, such as staying within budget, on time, and how these constraints may affect the quality of the finished product.

(14) A list of financial resources that shall be allocated to the quality control process, including review, and a breakdown by discipline and by product. The cost estimates for conducting the independent technical review shall be included as a separate line item in the study/project delivery cost estimate.

(15) The quality control plans for all engineering documents that are supported by NEPA or other environmental documentation shall include an independent technical review to ensure consistency between the environmental documentation and the engineering documents.

b. Approval of Quality Control Plans:. The Chief of Engineering Division shall certify (i.e. review and approve) the QCP for implementation documents assuring that the plan meets the customer's needs and conforms to Corps of Engineers requirements by reviewing and approving the QCP.

4. Technical Quality Procedures

a. Checklists

Checklists may be used to guide the independent technical review and insure that critical items are not overlooked. Checklists may also be used to simplify the documentation of the independent technical review. The use of checklists in the documentation would not, however, eliminate the requirement to document specific comments. Appendix D, Attachment 1 contains some checklist items for Engineering Branch implementation documents. Additional checklists will be included in subsequent revisions of the CESPN Quality Management Plan.

b. DrChecks: The Design Review and Checking System (DrChecks) will be utilized for all design reviews (i.e. implementation documents). DrChecks provides a centralized location to conduct reviews and document review comments, responses, and back checks.

c. Monitoring/Fostering Technical Competency: Assuring that the team members who perform the work have the knowledge, skills, and experience is an essential element of quality control and quality assurance. Quality assurance by SPD includes an evaluation of the district's development and maintenance of the technical competency for production and review. San Francisco District Engineering Branch will continually monitor and improve the level of technical competence in support of the District's TQM goal.

d. Contractors. Quality control of contractors work shall be required of the contractor. The CESPN will prepare a quality control plan that discusses the contractor’s quality control and it's relationship to the entire project. The contractor's quality control plan shall be approved at CESPN. CESPN’s quality control plan for the overall engineering product, including quality control of in house activities, and it's quality assurance of contractor activities, shall be approved by the district.

e. Hazardous Toxic Radiological Waste (HTRW): Reviews on projects with HTRW issues shall be similar to a Technical Review which focuses on compliance on established policy, engineering principles and technical procedures and ensuring that the products are consistent with environmental laws and engineering policy. HTRW projects or projects with HTRW issues

involve high specialized technical expertise and therefore most HTRW engineering work is normally accomplished by an outside HTRW consultant, or contractor, or by a larger US Army Corps of Engineers District such as Sacramento District. Reviews on HTRW projects must be conducted by an independent agency or organization with equal or better HTRW expertise.

f. Specific Discipline Peer Checks. Independent spot checking and review of each designer's assumptions, analyses, and calculations shall be performed throughout the design process. This effort shall be conducted by journeyman or senior personnel within the same technical discipline section. Due to the small size of Engineering Branch, project work assignments must be made carefully to insure that personnel not directly involved with the development of the project design being reviewed are available to accomplish peer checks.

g. Independent Technical Review Process: Quality control procedures shall include an independent technical review. ITR is a review by a qualified person or team, not affiliated with the development of a project/product, for the purpose of confirming the proper application of clearly established criteria, regulations, laws, codes, principles, and professional procedures. Independent Technical Review is tailored for each document by guidance contained in the Quality Control Plan and is characterized by its rigorous documentation requirements for establishing accountability.

h. Formation of Independent Technical Review Team (ITRT): The ITRT shall be assigned representatives from disciplines involved in product development, such as plan formulation, economics, environmental, hydrology, and hydraulics, and coastal engineering, water quality, HTRW, civil design, geotechnical, real estate, and other disciplines, as required. Since careful coordination between these disciplines is required, the ITRT must include senior staff with broad expertise. The members of the ITRT must be independent from those who perform the work. Supervisors and work leaders of product development team members shall not be included on the ITRT. Individual ITRT members shall serve in a part time capacity and 50% or less of their work shall be review. If sufficient staff is not available or if specialized review expertise is required, the review team leader and respective functional chiefs shall supplement the review team with personnel from other districts, other divisions, headquarters, centers of expertise, laboratories, the customer's organization or by contract. Project funds shall be used to pay for the cost of conducting technical reviews. CESPN shall find the expertise needed and negotiate the schedule and cost for the required services. The formation of the review team should consider regional interests, resources, special expertise requirements and unusual complexity.

i. Seamless Review: To maintain a seamless review concept, products shall receive a technical review before they are integrated into the overall product. A memorandum of record shall be the basis for establishing accountability for the quality of the product and the review. Each member of the ITRT shall prepare a memorandum documenting their comments, which shall become part of the ITRT's records. Specific issues raised in the review shall be documented in a comment, response, action required, and action taken format. Unresolved differences between the study/product development and ITRT members shall be documented.

j. Product Review: The QCP shall identify products to be reviewed by the ITRT. These products shall be essentially complete before review is undertaken and the branch and section chiefs shall be responsible for accuracy of the computations through design checks and other internal procedures, prior to conduct of an independent technical review. The products shall be reviewed using an interdisciplinary team approach. The products shall be reviewed for scope,

adequate level of detail, compliance with guidelines and policy, consistency, accuracy, and comprehensiveness as outlined in the QCP.

k. Integration of Prior Reviews: ITRT members shall review their counterpart's portions of the product. The review shall determine whether prior seamless review activities have produced the technical product envisioned during the seamless review. Material reviewed in the seamless review phase shall not be subjected to additional detailed review, except when the products is significantly different from the product previously reviewed; or if it is the judgment of the ITRT that the product is unreasonable or inconsistent with expectations outlined in the QCP.

l. Interdisciplinary Review: All members of the ITRT shall be expected to raise concerns in other functional areas. These concerns shall be addressed to the ITRT as a whole. The ITRT shall then work through the appropriate ITRT counterparts to resolve the issues/concerns. ITRT meetings shall be open to representatives of CESPD for quality assurance purposes and to the customer. It shall be the responsibility of the ITRT leader to seek resolution of disagreements among ITRT members before referring issues to the product development team members.

m. Responses to ITRT Comments: The ITRT shall meet with the study/product development team to resolve the raised issues. Along with a description of the scope of the review, all review comments shall be documented in a comment, response, action required, and action taken format. In those cases where unresolved disputes between the design team and the ITRT are decided by a Functional Chief, the review documentation shall provide the basis for the Functional Chief's decision.

n. Dispute Resolution: The ITRT leader shall review the documentation to identify any outstanding disagreements between members of the design team and the ITRT. Any disagreements shall be brought to the attention of the appropriate functional chief to facilitate resolution of technical disagreements between design team and ITRT counterparts.

5. Biddability, Constructibility Operability Environmental Reviews (BCOE)

In accordance with ER 415-1-11 and CESPN OM-1110-2-1 construction designs are reviewed by Construction, Environmental, and Operations personnel.

6. CESPD Involvement

To effectively execute its Civil Works mission, San Francisco District technical personnel should maintain an open partnership relationship with the South Pacific Division. To foster this partnership and enhance design quality initiatives, CESPD provides the following in support of SPN's civil works design program:

a. CESPD shall perform quality assurance of the engineering and design process. This shall include evaluation of command management review indicators and other measurements that are be developed.

b. Participate in design conferences on selected special interest projects to provide advice on technical issues as selected by CESPD or requested by SPN.

c. Review and provide comments on the A-E Guides prepared by San Francisco District.

d. Provide advice on design related technical issues.

e. Monitor design technical quality by spot-checking selected design documents as selected by CESPD or requested by SPN.

f. Periodically make staff visits to San Francisco District to evaluate adequacy of the design process and to promote technical interchange.

g. Conduct technical reviews of selected special interest projects, when requested by SPN.

h. Furnish other technical engineering management support as required or requested by SPN.

APPENDIX E
ATTACHMENT 1

QUALITY MANAGEMENT PLAN FOR THE DAM SAFETY PROGRAM

1. Purpose. This attachment provides specific information on the application of QC to the dam safety program and all documents related to that program. Although Engineering Branch and the Sacramento District Engineering Division have primary responsibility for this program, other offices, such as Planning Branch and Operations Division, also play a significant role. Warm Springs, Coyote and Del Valle dams are included in the program.

2. References.

a. CECW-A Memorandum No. 2, Implementation of New Technical and Policy Review Procedures, 14 April 1995.

b. CECW-EG, Guidelines for the Use of Technical Experts for the Geologic, Seismologic, Geotechnical and Materials Aspects for Civil Works Projects, 15 August 1997.

c. CECW-EP Memorandum, Engineering, Design and Dam Safety Guidance, 31 May 1995.

d. CESPD R 1110-1-2, Engineering Considerations and Instructions to Field Personnel

e. CESPD R 1110-1-7, Interagency Cooperation between the U.S. Army Corps of Engineers and State Dam Safety Regulatory Agencies.

f. EP 1110-2-13, Dam Safety Preparedness.

g. ER 415-1-1, Biddability, Constructibility, Operability, and Environmental Review.

h. ER 1110-1-1901, Project Geotechnical and Concrete Materials Completion Report for Major USACE Projects.

i. ER 1110-2-100, Periodic Inspection and Continuing Evaluation of Completed Civil Works Structures.

j. ER 1110-2-101, Reporting Evidence of Distress in Civil Works Structures.

k. ER 1110-2-110, Instrumentation for Safety Evaluation of Civil Works Projects.

l. ER 1110-2-112, Required Visits to Construction Sites by Design Personnel and CESPD Supplement 1.

m. ER 1110-2-1150, Engineering and Design for Civil Works Projects.

n. ER 1110-2-1155, Dam Safety Assurance Program.

o. ER 1110-2-1156, Dam Safety - Organization, Responsibilities and Activities.

p. ER 1110-2-1802, Reporting Earthquake Effects and CESPD Supplement.

3. Dam Safety Committee. The San Francisco District (SPN) Dam Safety Committee (DSC) shall conform to the guidance as given by the current version of ER 1110-2-1156 or CECW memorandum, which ever has precedence. The Dam Safety Committee (DSC) is responsible for the coordination and implementation of the dam safety program as set forth in reference g. The Chief Engineering Division Sacramento District (SPK) is the Dam Safety Officer and chairman of the DSC for SPN. The DSC will conduct a minimum of two meetings per year, or as needed. The QC responsibilities of the DSC include:

a. Ensure that organizational staffing of qualified personnel is sufficient and that the dam safety program is established and realistically funded.

b. Establish dam safety related work priorities.

c. Monitor and evaluate of all the dams and appurtenant structures and recommend remedial measures when necessary.

d. Establish a public awareness program and coordinate with sate agencies as required.

e. Conduct dam safety training.

f. Ensure each dam has an adequate surveillance plan.

4. Dam Safety During the Planning Process. An independent technical review team (ITRT) will conduct QC reviews of all planning documents for projects that include, or might include, dams. These documents include reconnaissance reports and feasibility reports. The sitting of dams is of particular concern during this process, in relationship to earthquake faults and foundation conditions. See Appendix D, Planning Subplan, for details of this review process.

5. Dam Safety During the Engineering and Design Process. An ITRT will conduct QC reviews of all engineering and design documents related to dam projects. These documents are described in reference m, and include DDRs, Supplement DDRs, plans, specifications, cost estimates and "Engineering Considerations and Instructions to Field Personnel" (reference d). See Appendix E, Engineering Subplan for details of this review process.

6. Dam Safety During the Construction Process. Dam safety considerations will be considered throughout the construction process. The CESPN Dam Safety Officer and Dam Safety Program Manager shall review all significant proposed construction modifications, both those proposed by the district's construction management office and those proposed by the construction contractor for and dam safety concerns. The CESPN Dam Safety Committee shall make visits to the site of construction to assure that the dam under construction or modification to is being adequately inspected and tested, that construction is adhering to the plans and specifications, and that good construction records are being kept in the proper format in accordance with the USACE record keeping system. Reference l provides guidelines on appropriate times to visit the

construction site. See Appendix H, Construction Subplan, for details. There are currently no Corps of Engineers dams under construction within SPN.

7. Dam Safety after the Construction Process. The safety of a dam after construction depends on periodic inspections and evaluations as described in reference c. Sacramento District (SPK) will conduct the inspections with participation by SPN. In accordance with reference i, paragraph 5c, as modified by reference c, SPN and SPK will review the inspection reports and the South Pacific Division headquarters office (SPDHQ) will approve the reports. Periodic inspection reports shall receive a through internal review and subsequently will undergo an ITRT review prior to being forwarded to SPDHQ for approval. Upon approval SPN will submit an electronic executive summary of the inspection report to HQ-DamSafety at HQUSACE in accordance with CECW-EP memorandum dated 14 April 2000.

8. Dam Foundation Reports and Embankment Reports. These reports are to be prepared by field personnel during construction and shortly after completion of the dam. They are extremely important documents for evaluating the performance of the dam, particularly in addressing any future questions that might arise regarding the safety of the structure. References b and i indicate that SPDHQ has approval authority for these documents; however, subsequent HQUSACE guidance is that technical review will only be conducted at the district level (reference a). These documents, therefore, will be treated in a manner similar to planning and design documents, so a Quality Control Plan (QCP) will be developed for each, and reviewed and approved by the District. An ITRT will be established to review the work. There are currently no Corps of Engineers dams under construction in SPN.

9. Instrumentation Reports. Reference k requires that instrumentation data, along with appropriate written evaluations, be consolidated yearly and sent to SPDHQ for review. The instrumentation reports for the SPN owned, operated, and maintained dams are written for SPN by SPK. These data and evaluations should receive a thorough independent technical review prior to being sent to SPDHQ.

10. Dam Safety Assurance Program (DSAP) Reports. DASP reports are reviewed and approved by HQUSACE in accordance with reference n. QCPs for these reports will be prepared and approval by SPDHQ. SPDHQ will also review selected documents, and attend In Progress Reviews and Technical Review Conferences.

11. Reporting Earthquake Effects. The Operations-Readiness Division is responsible for the immediate assessment of earthquake damage and notifying the Chief of ETS Division as required in reference p. The ETS Division in conjunction with SPK Engineering Division will formulate an inspection program, conduct post-earthquake inspections, process and analyze instrumentation data, evaluate the condition of structures, and prepare inspection reports. The reports will be reviewed internally before forwarding to higher HQ or State and County agencies.

12. Cooperation with State Dam Safety Agencies. The HQUSACE and SPDHQ have a policy of cooperating fully with state dam safety agencies (reference e). The California Division of Safety of Dams has a QA mission similar to SPDHQ, with the purpose of assuring that dams constructed within California are safe. They review dam designs and inspect dams under

construction. A dam may not be put into operation until it is certified as safe. Representatives of the District and SPDHQ meet regularly with the California Division of Safety of Dams representatives to discuss the safety aspects of dams being planned, designed and constructed by the Corps of Engineers in California.

APPENDIX E

ATTACHMENT 2
MILESTONES FOR CIVIL WORKS PROJECTS

Milestones for Civil Works projects are significant or important events in the execution of the project. Milestones are important tools for measuring progress along a pre-defined path to the completion of the project. The milestones that are defined below are not a complete list of all activities that must be performed to complete a project. These milestones are considered to be the major accomplishments that must be completed on schedule to help ensure that the overall final product is technically correct and satisfactory to the local sponsor. The numbers shown in parentheses indicate milestones tracked by SPD Programs and Project Management Division and included in the Project Executive Summary Report. Milestones tracked by headquarters as Command Management and Review (CMR) dates are identified by "(CMR)".

(a) Design Documentation Report Milestones:

D1 Design Document Report Initiated (400)
D2 General Design Conference (270)
D3 Technical Review Strategy Session
D4 Quality Control Plan Submitted to Chief Planning/Engineering Division
D5 Value Engineering Study Completed
D6 Submit Intermediate Design Documentation Report for Independent Technical Review
D7 Submit Near-Final Design Documentation Report for Independent Technical Review
D8 Local Sponsor Review Completed
D9 Quality Control Certification
D10 Design Documentation Report Approval (480)

(b) Plans and Specifications Milestones:

CESPN OM 1110-1-12

P1 Plans and Specifications (P&S) Initiated (500)
P2 Design Coordination Meeting
P3 Technical Review Strategy Session
P4 Quality Control Plan Submitted to Chief Planning Engineering Division
P5 Submit Intermediate P&S for Independent Technical Review
P6 Submit Near-Final P&S for Independent Technical Review
P7 Biddability, Constructibility and Operability (BCO) Review Conference
P8 Final Local Sponsor Review Meeting
P9 BCOE Certification

P10 Quality Control Certification
P11 Plans and Specifications Approval (290) (590) (CMR)
(c) Engineering During Construction Milestones:
C1 Pre-Advertise Contract in Commerce Business Daily
C2 Construction Contract Advertised (950)
C3 Government Estimate
C4 Bid Opening (951)
C5 Engineering Considerations and Instructions to Field Personnel Report
C6 Construction Contract Awarded (960) (CMR)
C7 Final O&M Manual Transferred to Local Sponsor (981)
C8 As-Built Drawings Transferred to Local Sponsor (982)

APPENDIX F
QUALITY CONTROL GUIDELINES OF ENVIRONMENTAL PLANNING DOCUMENTS

1. Purpose

This appendix establishes the process to ensure the production of high quality documents in the Environmental Planning Section, and supplements the guidance provided in the basic Planning, Engineering, Construction, and Real Estate Quality Management Plan (QMP) and the basic Planning Branch QMP. It is intended to provide quality assurance and quality control guidance for conducting independent technical review of Environmental Planning Section products within the San Francisco District (CESPN). This QCM plan establishes a framework of general policies and principles to achieve Environmental Planning Section services and documents that meet or exceed customer requirements and are consistent with Corps policies and regulations. Independent technical review policies and procedures will evolve over time and with experience. Flexibility and adaptability will be key components in achieving mature procedures and quality reviews

2. Applicability

2.1 This appendix applies to all activities of the CESPN Environmental Planning Section which involve the preparation, review, or approval of environmental planning documents. The quality management process that is established in this appendix applies to all decision and implementation documents which are developed as a part of the work of the Environmental Planning Section, including the following:

(a) Environmental Assessments (EAs)

(b) Findings of No Significant Impact (FONSI)

(c) Environmental Impact Statements (EISs)

(d) Supplemental EISs (SEISs)

(e) Documents prepared under the California Environmental Quality Act (CEQA), including Initial Studies, Negative Declarations, and Environmental Impact Reports

(f) Biological Assessments (BAs) under the Endangered Species Act

(g) Consistency determinations under the Coastal Zone Management Act

(i) Documents developed in support of the Continuing Authorities Programs,including Section 1135 and Section 206 studies and projects.

(j) Documents developed in support of the Planning Assistance to States, Planning Support For Others, and Flood Plain Management Services Programs.

2.2 The quality management process established in this plan applies to all documents listed above, regardless of the program for which the documents are prepared. The quality control plans (QCPs) for all decision and implementation documents that are managed by other functional organizations and that are supported by environmental documentation shall include an

independent technical review to ensure consistency between the environmental documentation and the decision and implementation documents.

2.3 Environmental Planning Section elements have significant input to other documents, even though other functional organizations are responsible for managing their preparation. The quality review processes for these documents are described in the other appendices to the Planning, Engineering, Construction, and Real Estate QMP and subordinate QMPs.

3. References

This appendix implements portions of the guidance presented in the following references:

(a) CECG/AASA(CW) Joint Memorandum, dated 31 March 1995, subject: Technical Review Process.

(b) CECW-A Policy Memorandum No.2, dated 6 April 1995, Subject: Civil Works Decision Document Review --Policy Compliance.

(c) CECW-A Memorandum, dated 14 April 1995, subject: Implementation of New Technical and Policy Review Procedures.

(d) CECW-A Memorandum, dated 18 April 1995, subject: Implementing Restructuring and Downsizing Major Subordinate Commands (MSC's).

(e) CECW-PW Memorandum, dated 25 July 1995, subject: Planning Guidance Letter 95-02, Alternative Review Process.

(f) CECW-PD Memorandum, dated 12 October 1995, subject: Planning guidance Letter 96-01, Reducing the Cost and Duration of Feasibility Studies.

(g) ER 1105-2-100 - Policy and Planning, Planning Guidance, dated 28 December 1990.

(h) Report of Task Force on Technical Review, dated December 1994.

(i) Division Organizational Guidelines Task Force Report, dated 27 January 1995.

(j.) Final Report, Task Force on Streamlining Feasibility Studies, dated 27 January 1995.

(k) CESPD Regulation No. 1110-1-8, dated 14 December 1998, subject: Directorate of Engineering and Technical Services QUALITY MANAGEMENT PLAN (l) CESPD-ETS Memorandum, dated 16 October 1998, subject: Expedited Reconnaissance Phase Studies.

4. Definitions

The definitions of terms used in this appendix are generally consistent with the definitions provided in the Planning, Engineering, Construction, and Real Estate QMP. A list of acronyms is provided in Appendix M.

5. Relationship of the San Francisco District and South Pacific Division

(a) The San Francisco District (CESPN) is responsible for controlling quality for all work that it accomplishes. To assist in the achievement of high quality, the District has developed and will carry out and keep up to date this QMP. This plan establishes the district roles, responsibilities, and processes consistent with the references.

(b) The South Pacific Division (CESPD) is responsible for quality assurance for all planning documents accomplished by CESPN. CESPD shall review and approve the CESPN QMP and the QCPs for all Environmental Planning Section products. CESPD shall provide oversight of the quality control processes. CESPD shall also perform policy review for Environmental Planning Section products that are approved at CESPD.

6. Organizational Responsibilities

(a) The chief of the Planning Branch: (1) Institutes quality control policy within the Environmental Planning Section;(2) Is responsible for maintaining and updating this QMP; (3) Fosters the development of quality control plans and procedures within the Planning Branch; and (4) Approves all completed Environmental Planning Section products and, where appropriate, recommends approval by the chief of the Engineering and Technical Services Division (ETS).

(b) The chief of the Environmental Planning Section: Develops and maintains QCPs and procedures for Environmental Planning Section products; Integrates QCPs and procedures into the section's work processes including NEPA compliance; Serves as the Environmental Planning Section quality control staffing manager and point-of-contract for quality assurance (QC Manager); Develops and maintains a roster of qualified in-house, other District, other Corps, sponsor, and contractor personnel for NEPA, Endangered Species Act, and Coastal Zone Management Act process review on the planning technical review team.

7. General Procedures:

The implementation of Environmental Planning Section quality control procedures is tied to the South Pacific Division's Survey Report Milestone System. It is envisioned that quality control involvement in a planning study will be seamless. Quality control procedures will be supported by existing traditional functional chief reviews and functional management reviews all of which are the current standard operating procedures in the San Francisco District. Detailed review and checking must be carried out as routine management practices in each of the respective functional elements. Such review includes checking basic assumptions and calculations. These checks are performed by staff responsible for the work, such as supervisors and work leaders, and shall be performed prior to conduct of independent technical reviews. Independent technical review is a completely separate review from this checking by individuals involved in creating a work product.

For documents produced in the reconnaissance phase of a study, periodic peer consultation (rather than review) will be included, specifically after the field investigations to broaden and test the conclusions reached from the limited data available. Independent document review of an documents would be limited to a single recognized expert in the technical and procedural aspects of environmental planning. This individual would be selected from a list that would be included in the quality control/study plan. The review would ensure that the documents reflect a coherent logic and that the assumptions and conclusions are convincing and consistent. The results of this review would be included in a memorandum which would be included in the final reconnaissance submittal to CESPD.

8. Review Team Members

The Environmental member of a review team shall be experienced and shall have expertise in

relevant environmental disciplines including biology and/or environmental law, as appropriate to the product being reviewed. Team members can consist of people from outside of the District and/or outside of the government.

9. Review Procedures

The following general procedures and guidelines will be used in the process of independent technical review.

(a) Integration of Prior Reviews: At the beginning of a document review,the review team member should review their counterpart's presentations in the document. The review shall determine whether prior seamless single discipline review activities have produced the technical product envisioned during the seamless review. Material reviewed in the seamless single discipline review phase shall not be subjected to additional detailed review, except when the presentation in the documents is significantly different from the work previously reviewed or it is the judgment of the review team that the technical material may be causing the plan formulation process to produce unreasonable or inconsistent results.

(b) Interdisciplinary Review: Members of the review team are expected to raise concerns in other functional areas. These concerns shall be addressed to the review team leader for his or her disposition under the Planning Branch QMP procedures.

(c) Checklists. Checklists are aids to channeling attention of the reviewer to critical issues. Checklists may be used to guide the technical review and insure that critical items are not overlooked. Checklists may be used to simplify the documentation of the review. Checklists may also be used to track outstanding action items for a particular study. The use of such checklists is very effective to minimize resources committed to the review process. Checklists are intended to provide guidelines for technical review and are not necessarily inclusive of all items that should be considered in the QC process. Attachment 1 is an extensive environmental checklist that can be used in conducting review of documents by Environmental Planning Section reviewers. Reviewers are encouraged to use and add to this list as their review experience increases.

(d) Sources of Information. The Environmental Planning reviewer has various information sources available including:

-Prior reports on the area under study

-Public laws (see checklist)

-General regulations for implementing Federal laws such as NEPA, the Endangered Species Act, and the Clean Water Act

-Corps regulations, pamphlets, circulars, and other guidance including (as applicable):

Planning Guidance Notebook (ER1105-2-100)

http://www.usace.army.mil/inet/usace-docs/eng-regs/er1105-2-100/toc.htm

Ecosystem Restoration Policy

http://www.usace.army.mil/inet/usace-docs/eng-regs/er1165-2-501/toc.htm

Ecosystem Restoration Supporting Policy

http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep1165-2-502/toc.htm

Regulations for implementing NEPA

http://www.usace.army.mil/inet/usace-docs/eng-regs/er200-2-2/entire.pdf

The reviewer has additional resources available, including study files and various biological and legal references available in the section and in the Office of Counsel, as well as policy direction from CESPD.

(e) Review Comment Style. Memoranda of review and comments on completed documents will clearly identify the specific concerns, the basis for each concern, and the potential impact of each comment on the study. Reviewers will identify a suggested course of action to address each concern with sufficient specificity to assure other members of the team understand the scope and implication of the comment. In keeping with the review teams advisory role, the tone of the memoranda and assessments should be more suggestive than directive in nature, i.e., use terms like "should" rather than “will." All comments will be documented to include a "response" and "action taken" to assure that no unresolved issues or concerns remain following each review activity.

Editorial comments shall not be included in the review comments unless the reviewer finds an issue that could cause a serious misunderstanding. Otherwise, editorial comments may be submitted directly to the study team member by the reviewer, outside of the QC process. Well-written, grammatically correct, and semantically correct documents reflect favorably on the Corps’ professionalism and competence.

(f) Extension of Review Time: Team members and interested parties may sometimes request extensions of review time established in the QCP to furnish information or comment on the study. Such requests should be made in writing to the project manager (PM) who will evaluate the request as it affects the project schedule.

(g) Contacting Other Offices: There may be times when information from agencies and Corps offices outside the District would materially aid the review effort. When information is needed, the Environmental Planning Section reviewer should ask the review team leader to obtain it under the procedures outlined in the Planning Branch QMP. Review team members are not precluded from responding to contacts from outside the District.

(h) Documentation of Reviews: Review team members will provide copies of memoranda of review, comments on documents reviewed, and seamless review checklists to the review team leader.

9. Seamless Single Discipline Review

To maintain a seamless review concept, products of individual study team members shall receive technical review from review team members before they are released to other members of the study team or integrated into the overall study. Seamless single discipline review may be conducted at the work station of the project/study/design team member for tasks and sub-tasks prior to their compilation into overall study/report documents. The single discipline review shall be tailored for the size and complexity of each study or decision document or implementation document. These reviews should be completed prior to major decision points in the planning process so that the technical results can be relied upon in setting the course for further study activities.

(a) Seamless single discipline review will not substitute for normal internal review of products which is the responsibility of the chief of Environmental Planning.

(b) Depending upon the size and complexity of the study work element, it is envisioned that most Study/Design Team members will receive a series of reviews during the preparation of a major project document. Underlying policy and design assumptions will be identified. Each review will include an evaluation of the adequacy of data, assumptions, acceptability of techniques and procedures used, level of detail, compliance with policy and guidelines, consistency of results, accuracy, and comprehensiveness.

(c) A memorandum of record shall be the basis for establishing accountability for the quality of the product and the review. The review team member shall prepare the memorandum which shall become part of the review team's records. Specific issues raised in the review shall be documented in a comment, response, action required, and action taken format.

(d) Unresolved differences between the study and review team members shall be documented, along with the basis for the section chief's decision on the issue.

(e) For large or complex study work elements, a formal, initialed checklist will be prepared which includes reviewed items, areas of agreement/disagreement, study team response, and supervisory decisions.

(f) For less complex study work elements, in-progress seamless reviews will be conducted as less formally described above. In general, in-process review will be conducted on an as needed basis, and documentation will be minimized when there is no controversy. In some cases, an informal partnering relationship will serve for the in-process seamless review. It is envisioned that in-progress seamless review would function on the manner described below:

(1) The review team member will coordinate informally with his study team member and the section chief.

(2) The review team member will be briefed by the study team member and section chief on the approach being used and any unique or unusual features of the work.

(3) The review team member, the study team member and the section chief will discuss the situation and determine when a in-process seamless review is necessary.

(4) The review team member will make informal notes for his own use and will document that the initial briefing has taken place with an e-mail message or brief memorandum to the review team leader. This documentation will state whether additional in-process seamless review is needed and include an estimated scheduled date for the in-process seamless review.

(5) If there is a major change in the direction of the assumptions used or the study direction described in the first briefing, it is the responsibility of the study team member to inform the review team member, so that an in-process seamless review can be scheduled.

(6) It is the responsibility of the study team member to informally notify the review team member when the work has reached a critical decision point or a significant work product has been completed which will be incorporated into one of the documents that will be reviewed by the review team as a whole.

(7) A single discipline review will be held if determined necessary by any one of the review team member, the study team member, or the section chief.

(8) When the preceding determination has been made, the section chief, the study team member, and the review team member will schedule a date at which the in-process seamless review will occur. If there is a reviewable work product, it will be provided to the review team member.

(9) The single discipline review will be documented essentially as specified in this memorandum. The documentation will be furnished to the review team leader for inclusion in the technical review documentation file.

10. Planning Document Review

Products to be reviewed by the technical review team shall be essentially complete before review is undertaken. The section chief shall be responsible for accuracy of the computations through design checks and other internal procedures, prior to the independent technical review. The documents shall be reviewed using an interdisciplinary team approach. The document shall be reviewed for scope, adequate level of detail, compliance with guidelines and policy, consistency, accuracy, and comprehensiveness. The independent technical review will address the items listed in Attachment 1 to this QMP.

11. Reconnaissance Report Review

The Environmental Planning Section reviewer should determine whether the generalized assessment of possible environmental impacts in the report is adequate. The reviewer will record omissions, inaccuracies, informational gaps, and inconsistencies that may need to be corrected before forwarding the report to the District Commander. One of the objectives of this review is to determine whether the report adequately presents the results and findings in a way that decision makers can reach independent conclusions regarding the reasonableness of the recommendations. If supplemental information is required by the reviewer, it will strongly suggest the report is inadequate. In his review comments, the reviewer should document any supplemental information, written or verbal, obtained and used in the review.

12. Draft Feasibility Report Review

The Environmental Planning Section reviewer performs a detailed review of the draft report to assure himself that the draft complies with the general evaluation guidelines set forth in ER1105-2-100 and responds to issues raised at the Reconnaissance Review Conference (RRC). The reviewer should also consider the views of the local sponsor and interests outside the Corps including other agencies and the public. The assessment of the draft feasibility report will answer the questions in and concerns addressed in Attachment 1. The above guidance on documenting supplemental information applies.

13. Alternative Formulation Briefing (AFB) or Feasibility Review Conference (FRC) Presentation

Upon completion of the draft report assessment, the Review team leader will prepare a presentation for the AFB or FRC. This presentation will describe the activities of the review team, summarize the assessment and identify policy issues the review team would like discussed. All members of the review team should be prepared to discuss draft report comment responses and actions resulting from seamless review findings in detail at the AFB or FRC. The review team will prepare an in-depth memorandum on the AFB or FRC.

14 Final Feasibility Report Review

The reviewer will give special attention to assuring the report is in compliance with the planning guidance memoranda. The reviewer will then prepare an assessment of the final feasibility report and forward it to the review team leader.

15. Responses to Review Comments

All review comments shall be documented in a “comment”, “response”, “action required” and “action taken” format. In those cases where unresolved disputes between the study team and the review team are decided by the section chief, the review documentation shall provide the basis for the chief's decision.

APPENDIX F
ATTACHMENT 1

ENVIRONMENTAL PLANNING SECTION REVIEW CHECKLIST FOR RECONNAISSANCE, FEASIBILITY AND REEVALUATION REPORTS

1. Environmental Issues Related to Plan Formulation

(a) Have the key assumptions underlying the predicted without-project environmental conditions over time been documented and justified?

(b) Are the assumptions convincing and consistent, especially those related to the probable with-project and without-project futures?

(c) Are the future with-project and without-project environmental conditions projected for the study site reasonable?

2. Compliance with Laws, Regulations, and Policy

(a) The reviewer must assure himself that the report under review complies with the environmental provisions of the following, as applicable:

Planning Guidance Notebook

http://www.usace.army.mil/inet/usace-docs/eng-regs/er1105-2-100/toc.htm

Ecosystem Restoration Policy

http://www.usace.army.mil/inet/usace-docs/eng-regs/er1165-2-501/toc.htm

Ecosystem Restoration Supporting Policy

http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep1165-2-502/toc.htm

Regulations for implementing NEPA

http://www.usace.army.mil/inet/usace-docs/eng-regs/er200-2-2/entire.pdf

(b) The reviewer must assure himself that the completed planning report complies with the provisions of the following laws (as applicable), to the extent reasonable at that stage of the study or design effort. In cases where compliance has not yet been achieved (e.g. permits have not been obtained yet), the reviewer shall check to see that this fact, its cause, and the planned method for achieving compliance are noted in the document.

-Clean Water Act of 1972, as amended 33 USC 1251, et seq.

-Coastal Zone Management Act of 1972, 16 USC 1451, et seq.

-Endangered Species Act of 1973, 16 USC 1531, et seq.

-Estuary Protection Act of 1963, 16 USC 1221, et seq.

-Fish & Wildlife Coordination Act of 1958, 16 USC 661, et seq.

-National Environmental Policy Act of 1969, as amended, 42 USC 4321, et seq.

-Rivers & Harbors Act of 1899, 33 USC 403, et seq.

-Watershed Protection & Flood Control Act, of 1954, 16 USC 1001, et seq.

-Wild & Scenic Rivers Act of 1968, 16 USC 1271, et seq.

(c) Reconnaissance and feasibility reports and accompanying NEPA documentation must conform to essential elements of the Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies.

3. Coordination.

Were all interested parties, including those listed below, given an opportunity for input and comment in preparation of the report, as required by statute and regulation and as otherwise appropriate for good planning? Have comments from the concerned public and interested agencies been appropriately documented, considered, and addressed? How was public and agency input considered in the planning process?

(a) The non-Federal sponsor(s)

(b) The public

(c) The resource agencies

(d) Local governments

(e) Other interested agencies and parties

4. Environmental Planning and Reporting

(a) Have environmental impacts of all reasonable alternatives been properly evaluated and displayed? Were unresolved environmental issues evaluated and discussed?

(b) Where appropriate, all plans must include environmentally-appropriate mitigation measures. The NEPA document and the decision document must be consistent as to the assessment and evaluation of alternatives and mitigation. Has appropriate environmental mitigation been included in all alternatives and evaluated in accordance with appropriate Corps guidelines?

(c) Were the recommended mitigation measures adequately discussed and justified, including use of incremental analysis in sizing and selecting the mitigation plan?

(d) Has the draft EIS (if present) been prepared and coordinated in accordance with ER 200-2-2?

(e) Have necessary technical studies been conducted?

(f) Will activities required of project beneficiary necessitate a Section 10 or Section 404 permit? If so, has the activities been included in the environmental documentation of the project as required by NEPA and the section 404 (b)(1) guidelines?

5. Risk and Uncertainty - Sensitivity Analysis

(a) Have the plans and their effects been sufficiently examined to determine the uncertainty inherent in the data and assumptions of future environmental events and trends?

(b) Has the uncertainty in data been adequately identified to provide a basis for evaluation of the reliability of estimates and projections?

(c) Does the report address the risk and uncertainty of the without-project condition assumptions

and does it test for sensitivity?

(d) Have the advantages and costs of reducing risk and uncertainty been adequately considered in the planning process?

6. Biological Concerns

(a) Is there compliance with the Fish and Wildlife Coordination Act? If partial compliance has been achieved, are provisions for full compliance included?

(b) Is the Fish and Wildlife Coordination Act Report (Draft or Final as appropriate) included, and was full consideration given to the report recommendations?

(c) Is there compliance with the Marine Research, Protection and Sanctuaries Act?

(d) Was full consideration given to recommendations provided by the National Marine Fisheries Service?

(e) Is there compliance with the Endangered species Act? If listed species (and/or proposed species) are affected, has the Biological Opinion (and/or conference report) been incorporated into the report, or is it pending?

(f) Were the fish and wildlife habitat losses fully mitigated? If mitigation was greater or lesser than the amount needed, were the reasons for this decision adequately documented?

(g) Should the report recommendation provide for acquisition of separable lands for fish and wildlife as part of project mitigation?

APPENDIX G

QUALITY CONTROL OF REAL ESTATE REPORTS
GUIDELINES FOR INDEPENDENT TECHNICAL REVIEW

1. Purpose: This memorandum establishes a process which will assure high quality real estate products within the Sacramento District. It provides quality assurance and quality control guidance for conducting independent technical reviews. This guidance establishes a framework of general policies and principles to achieve high quality real estate products and services which meet or exceed customer requirements and are consistent with Corps policies and regulations. It also establishes roles and responsibilities related to preparation of high quality projects and independent technical review of those products.

2. Applicability: This memorandum applies to all real estate elements having responsibility to produce real estate products in the Sacramento District. The independent technical review process will become effective on 1 October 1995.

a. All levels within the Branches are responsible for the development and maintenance of an effective quality assurance/quality control program.

b. The technical review process applies to all real estate services and products, including those real estate sub products which are integral parts of planning and engineering decision and implementation documents developed as a part of the Civil Works program. The process is divided into two categories as follows:

(1) Real Estate Products For use by Real Estate Customer or in house.
a. Inlease and Outgrant instruments not delegated
b. Real Estate Design Memorandums
c. Condemnation Assemblies
d. Quitclaim Deeds
e. Appraisal Reports
f. Determinations of last resort housing.
g. Disposal, transfer or exchanges not delegated
h. Surveys - E.O./Utilization not delegated
i. Audits

(2) Real Estate Products as Part of District Products

a. Real Estate Appendices to planning and engineering documents
b. Real Estate input to DPR's, PMR's, and O&M Plan.
c. Real Estate provides significant input to documents prepared by other functional organizations. The technical review processes for these documents will be described in appendices to this document.

3. References:

a. CECG/AASA(CW) Joint Memorandum, dated 31 March 1995, subject: Technical Review Process.

b. CECW-A Memorandum, dated 14 April 1995, subject: Implementation of New Technical and Policy Review Procedures.

c. CESPD-RE Office Memorandum, dated DRAFT, subject: Real Estate Technical Review.

4. Definitions:

a. Quality Control Plan (QCP): A technical management plan for each major technical product or program, which establishes the document to be reviewed, the review team, and a schedule for reviews associated with development of the product or the functioning of the process.

b. Quality Management Plan (QMP): A document which establishes the district's procedures for accomplishing its quality control responsibilities and specifically addresses the independent review process; and which identifies roles and responsibilities assigned for various positions and organizations in conducting independent technical review.

c. Independent Technical Review: The formal technical review, or seamless review, of real estate products or services, or components thereof, by persons not otherwise involved in production of the work.

(1) Seamless review is conducted by a peer of the person whose work is being reviewed. A peer is defined as a person with the same (or higher) level of technical or managerial expertise as the person whose work is being reviewed.

(2) Discussion regarding the product/project should be undertaken based on the highest professional standards. There needs to be formalized periodic review sessions when all specific aspects are addressed. Day-to-day conversions regarding the product are no substitute for these reviews and should be used only to resolve or clarify specific issues; the independent perspective of the seamless reviewer must be maintained.

(3) Seamless review is an extra effort, separate from the routine work activities performed daily by production team members. Team member/members should see the seamless reviewer as being external to the normal activities of the work product/project. Seamless review must be seen by all participants as an extra endeavor that demands special attention, time and procedures, and be independent to and supplement normal internal review processes.

(4) Seamless review is a function with specified purpose, scope, format, and duration. All seamless review leads to a report to the individual whose work is being reviewed. This reporting characteristic distinguishes seamless review form other reviews.

(5) Seamless review can be a one-time event or a series of reviews. Either way, each seamless review must be formally established, staffed, and resourced.

(6) The seamless review report is disseminated in a way that permits immediate implementation of recommendations to facilitate quality projects in accordance with scheduled milestones.

(7) Seamless review is paid for with project funds and is scheduled within the project/project requirements.

(8) Reviewers have no authority or responsibility for direction of the work product/project.

(9) Seamless review is not a validation of the activities of the work product, project or service being provided or of the individual/individuals, but it is a validation of the technical correctness of the product, project, or service.

d. Technical Review: Review of a product or service to ensure compliance with established law, policy, principles and procedures; and verification of: assumptions, methods, procedures, materials, evaluation of alternatives, appropriateness of data, reasonableness of results and potential for customer satisfaction.

e. Review Team: The individual/individuals responsible for performing independent technical review of documents previously requiring higher headquarters review or approval.

f. Management Review: Managers will continue to review all documents that do not require higher level approval for execution.

g. Production Team: The individual/individuals responsible for generating a real estate product.

h. Real Estate Manager: The district real estate individual assigned responsibility for guiding the development of the real estate product or service, and coordinating with the district's other technical organizations.

5. Independent Technical Review Responsibilities:

a. Functional Chiefs: The District Chief of Engineering, Planning, Real Estate, and Construction/Operations are referred to as functional chiefs. At the discretion of these functional chiefs, branch and section chiefs may also be considered functional chiefs for the processes set forth in this QMP. The District functional chiefs are responsible for:

(1) Ensuring the high quality of decision and implementation documents in addition to the quality control activity and checking of computations and drawing performed by members of the production team.

(2) Resolving technical issues.

(3) Participating in technical review strategy sessions.

(4) Ensuring the independent technical review by the review team.

(5) Ensuring that appropriate seamless review occurs through the normal supervisory process.

(6) Advising the District Engineer on adequacy of completed documents.

b. Real Estate Division Chief: In addition to the functional chief duties listed above, the Real Estate Division Chief is responsible for:

(1) Develop procedures and guidelines for accomplishing interdisciplinary real estate activities.

(2) Assure quality of Real Estate's technical review programs for all real estate products and services.

(3) Participate in issue resolution conferences.

(4) Monitor customer satisfaction with Real Estates products and services.

(5) Administratively supporting review teams.

(6) Facilitate resolution of policy issues.

c. Real Estate Manager: The Real Estate Manager is responsible for:

(1) Providing input to the real estate interdisciplinary team on product or service to be provided.

(2) Ensuring schedules provide adequate time and funding to perform interdisciplinary technical

product and service.

(3) Ensuring adequate funding for peer and supervisor review in labor cost estimates.

(4) Ensuring the Real Estate Product or service is provided to the customer on time and within budget.

d. Review Team Members: The review team members are responsible for:

(1) Providing timely review during interdisciplinary technical reviews.

(2) Preparing and submitting to the Review Team Chairperson a list of comments to the technical review of the Real Estate document or service.

(3) Participating in review team meetings and milestone conferences.

6. Independent Technical Review: The independent technical review which is described in the following paragraphs, is a process for implementing quality control of the products and services provided by Real Estate. Quality control is defined as evaluation of technical products and services to ensure that they meet customer expectations, and that they comply with laws, regulations and sound real estate technical practices. This process will begin with the preparation of a Quality Control Plan (QCP). As the development of the product or service proceeds, the independent technical review process will be implemented, including peer/supervisory reviews and interdisciplinary technical reviews.

a. Quality Control Plans: Individual quality control plans will be developed for each real estate product or service identified in this QMP. The model QCP is appended to this QMP (Appendix A). The QCP for each product or service includes the following:

(1) A statement of the quality control plan objective.

(2) A statement of the guidelines that will be followed for the technical review.

(3) A roster of individuals approved by CESPD-RE as qualified to provide technical review of the product or service.

(4) A list of the documents to be reviewed by the technical review team.

(5) A checklist of relevant policy and technical issues which may require resolution or guidance from higher headquarters.

(6) Checklists for integrated milestones and technical reviews.

(7) Provisions for feedback and lessons learned.

(8) Identification of quality indicators.

b. Document Review:

(1) Peer/Supervisor Review.

(A)Internal Review. As they have in the past,
technical functional chiefs will continue to be responsible for
the content of all products and services within their organization. They will be responsible for ensuring the products
and services are reviewed by peers, as appropriate, and by supervisors for the purpose of maintaining quality control.

(b) Scope of Review. Quality control will be maintained through peer/supervisor review and evaluation of
technical products to assure compliance with regulations and adherence to sound professional practices. This review will assess the adequacy of technical presentations in the product or service. Product or service will be reviewed for:

- Compliance with established principles and procedures and other appropriate guidance,
- adequacy of the scope of the product or service,
- appropriateness of data used, including level of detail,
- consistency, accuracy, and comprehensiveness.

c. Dispute and Policy Resolution. It is the responsibility of the review team member to resolve technical issues. Issues involving policy interpretation will be brought to the attention of the Chief of Real Estate for resolution or referral to higher headquarters.

d. Lessons Learned Report. After completion of the independent technical review, the review team member should prepare in coordination with other team members, a Lessons Learned Report. The Lessons Learned Report should be used to annually update the QMP.

e. Guidelines for the Review Process:

Appendix	Title	Date
	Real Estate Products For use by Real Estate Customer or Inhouse	
A.1.	Inlease instruments no delegated	
A.2.	Outgrant instruments not delegated	
B.	Real Estate Design Memorandums	
C.	Condemnation Assemblies	
D.	Quitclaim Deeds	
E.	Appraisal Reports	
F.	Determinations of last resort housing	
G.	Disposal, transfers or exchanges not delegated	
H.	Surveys - E.O./Utilization not delegated	
I.	Audits	

Real Estate Products as Part of District Products

J.1. Real Estate Appendices to planning and engineering documents
J.2. Real Estate input to DPR's, PMR's, and O&M Plan

QUALITY CONTROL PLAN - OUTGRANTING - CIVIL WORKS

1. Outgranting Quality Control Plan Objective: To review and ensure accomplishment of a Civil Works outgranting action through optimal organization of materials and personnel and the following of required procedures.

2. Guidelines for Technical Review. Reviewers must:

a. Understand the definitions in the OM, para. 4.d.

b. Understand the Park Master Plan and its associated changes and other pertinent documentation.

c. Understand the relationship of those documents to the requested outgranting action.

d. Consult as necessary the Park Manager and his staff, the Operations Area Manager, and the grantee.

e. Understand and comply with all supplemental guidance and policy involving this instrument. Guidance and policy changes incorporated into this instrument were authorized by the following correspondence and/or
communications:

.

Initials Date

3. Roster of staff approved by HQSPD to review Civil Works outgrant actions:

a. Name

b. Name

4. Documents to be reviewed by the Technical Review Team. Reviewers must read and understand the following:

a. Grantee's request and related documentation.

b. Report of Availability (ROA) by Park Manager:

i. Ensure that all aspects/sections of the ROA have been completed and a Determination of Availability has been made: Initials Date

ii. Appropriate findings and recommendations resulting from the site visit or other input were considered [ ], are attached [ ], or were added to the outgrant instrument [ ] as the following condition numbers: .
Initials Date

c. The memorandum from the Area Manager or other authority in the Operations Branch.

d. M&D outgrant file, if this is an action for an existing outgrant.

5. Review relevant policy and technical issues requiring resolution and/or guidance from higher authority, including:

a. CERE-MC Real Estate Policy Guidance Letter No. 4, 13 Sepember 1991, Subj: Environmental Considerations in Outgranting and Disposal of Non-Military Property Under COE Control.

b. CERE-E Real Estate Policy Guidance Letter No. 8, 6 October 1993, Subj: Value Conclusions of $2,500 or less for Acquisition or Outgrants.

6. Checklist of milestones and technical review:

a. Document preparation:

i. The correct standardized format from ER 405-1-12, or an otherwise authorized version, was selected and completed. Any changes aside from environmental, cultural, site specific, or operational conditions were coordinated with higher headquarters on and these changes were approved on The changes are detailed in Condition (No(s). .
Initials Date

ii. A plat [ ] and/or legal description [ ] have been made and are attached as Exhibit(s) No(s). Initials Date

iii. The authority for the official executing this instrument is contained in:

.
Initials Date

b. Coordination and Technical Check:

i. The technical check of this instrument was performed by on . This instrument was approved for legal sufficiency by , a Real Estate attorney on , and it has been stamped and signed to this effect.
Initials Date

ii. Review was [ ] was not [ ] made of coordination by action officer with the following offices: Appraisal [ ], Counsel [ ], Engineering [ ], Environmental/Historical Coordinator [ ], Park Representative [ ], Natural Resources [ ], Planning [ ], Real Estate Planning and Control Branch [ ], Regulatory Permits [ ], Resource Management [ ], Safety [ ], Others:
Initials Date

iii. Review was [ ] not [ ] made of coordination by action officer with the following parties/individuals who will be impacted by this proposed action:

(1) Name
Date
(2) Name
Date
Initials Date

7. Completion of Action:

a. The instrument was signed and dated by the grantee, executed on behalf of the Secretary of the Army, and a copy distributed to: Grantee [ ], Outgrant file [ ], M&D Inspection file [ ], Park Manager [ ], Others [ ] .
Initials Date

b. REMIS updated: Initials Date

c. What provisions, if any, were made for inviting and incorporating constructive criticism from M&D
customers?

.

Initials Date

d. What deficiencies and lessons learned, if any, were discussed between action officer and technical reviewers? (Attach separate page if
necessary)

.

Initials Date

e. Deficiencies identified in this Quality control activity of the outgrant action were resolved [ ] will be resolved [ ] not later than .
Initials Date

f. The following actions are recommended in order to improve M&D response on similar outgranting actions in the
future:

.

Initials Date

8. Certificate of Outgrant Instrument: I have reviewed the outgrant action and product in question and the accompanying
documentation, and I certify that all quality control actions were completed.

NAME

TITLE

DATE

APPENDIX G

ATACHMEMENT 1

TECHNICAL REVIEW FOR QUALITY MANAGEMENT PLAN OF APPRAISAL VALUATIONS

The Appraisal Branch has established procedures per ER 405-1-12 for technical review as follows:

LIST OF PRODUCTS TO BE REVIEWED:

Informal Value Estimates/Opinions of Value
Brief Appraisals
Reconnaissance Cost Estimates
Gross Appraisals
Site Specific Appraisals
Real Estate Planning Reports

STAFF QUALIFIED TO PROVIDE TECHNICAL REVIEW OF PRODUCTS:

Five of the nine appraisers in the Appraisal Branch are qualified reviewers with an approval authority of up to $750,000.

APPLICABLE REGULATIONS REQUIREMENTS:

ER 405 1-12 Real Estate Handbook
Chapter 2 - Real Estate Planning Report requirements
Chapter 4 - Valuation Reports requirements
Chapter 12 - Local Cooperation Project requirements
Uniform Appraisal standards for federal land acquisitions
Uniform standards of professional appraisal practice
Policy letters from Headquarters

CURRENT QUALITY CONTROL PROCEDURES

All completed work for the Appraisal Branch is reviewed and approved by a qualified review appraiser (review includes technical evaluation and proofreading for clerical and math errors).

Appraisals with valuation amounts above District authority are forwarded, with recommendations for approval/disapproval, to higher Headquarters for final review.

Appraisal Branch Chief authorizes reports be forwarded to client.

Appraisal Branch Chief is responsible to maintain a staff of qualified review appraisers.

ENCLOSURE 1

SACRAMENTO DISTRICT

REAL ESTATE DIVISION

QUALITY CONTROL PLAN
RECONNAISSANCE REPORT REAL ESTATE SECTION (RES)

1. Objective: Establish a standard procedure which will provide consistent independent technical review of Real Estate Sections contained in Reconnaissance Reports prepared by the Planning Division.

2. Applicability: As part of the quality control process, the Real Estate Division Chief will evaluate staff members and select those deemed qualified to perform technical review for Real Estate Sections of Reconnaissance Reports. Individuals assigned to perform the technical review will be the Real Estate representative of the District's Reconnaissance Review Team.

3. Approved Roster:

- Patrick Dwyer
- Gary House
- Carol Johnson
- Jody Meredith
- Susan Miller
- Lynn Oliphant
- Elizabeth Youn

4. Attached to this QCP is a checklist of relevant items required to be a part of the RES in compliance with established policies, regulations and laws. The checklist is provided to ensure consistent quality production of Reconnaissance RES's.

5. At the time a Technical Review Team is assigned to perform the independent technical review of the specified Reconnaissance Report, they will establish an integrated milestone checklist for their review.

6. It will be the responsibility of the Real Estate Review Team member to provide comments to the Team Leader and upon conclusion of the review process, a list of lessons learned.

RECONNAISSANCE REPORT

REAL ESTATE SECTION (RES) CHECKLIST

[ ] In general terms, is the RES well written and consistent with the level of detail presented in the overall Report?

COMMENT:

[ ] Are the LERRD's identified in the RES consistent with the lands identified in the Plan Formulation Section and Basis of Cost & Design Section of the Report?

COMMENT:

[ ] Is there an initial Real Estate Cost Estimate provided for the most viable alternative?

COMMENT:

[ ] Is there an estimate of the number of ownerships involved?

COMMENT:

[ ] Are the estates and acreages identified?

COMMENT:

[ ] Are PL 91-646 Relocations identified or discussed?

COMMENT:

[ ] If the facility/utility relocations are discussed in the Report, does the RES include lands needed for this item?

COMMENT:

[ ] Does the Baseline Cost Estimate include administrative costs to acquire LERRD's for both Federal and non-Federal sponsor?

COMMENT:

[ ] Has an IPMP been prepared?

COMMENT:

[ ] Does the IPMP accurately provide funds to each of the Real Estate disciplines for Feasibility Study efforts?

COMMENT:

SACRAMENTO DISTRICT
QUALITY CONTROL PLAN
FEASIBILITY REPORT REAL ESTATE PLAN

REAL ESTATE DIVISION

1. Objective: Establish a standard procedure which will provide consistent independent technical review of Real Estate Plans contained in Feasibility Reports prepared by the Planning Division and Design Documentation Reports prepared by the Engineering Division.

2. Applicability: As part of the quality control process, the Real Estate Division Chief will evaluate staff members and select those deemed qualified to perform technical review for Real Estate Plans of Feasibility Reports and Design Memorandums. Individuals assigned to perform the technical review will be the Real Estate representative of the District's Feasibility of Design Review Team.

3. Approved Roster:

- Patrick Dwyer
- Gary House
- Carol Johnson
- Jody Meredith
- Susan Miller
- Lynn Oliphant
- Elizabeth Youn

4. Attached to this ACP is a checklist of relevant items required to be a part of the REP in compliance with established policies, regulations and laws. The checklist is provided to ensure consistent quality production of Feasibility Reports and Design Memorandums.

5. At the time a Technical Review Team is assigned to perform the independent technical review of the specified Feasibility Report or Design Memorandum, they will establish an integrated milestone checklist for their review.

6. It will be the responsibility of the Real Estate Review Team member to provide comments to the Team Leader and upon conclusion of the review process, a list of lessons learned.

FEASIBILITY REPORT - REAL ESTATE PLAN (REP) CHECKLIST*

[ ] In general terms is the REP well written and consistent with the level of detail presented in other sections of the Report?

COMMENT:

[ ] Does the REP contain the project name and location, and reference to the Reconnaissance Report approval?

COMMENT:

[ ] Is there a General description of the project area and total acreage to be acquired?

COMMENT:

[ ] Are acreages broken down by estate for the various features, including discussions on the reasoning of the estates identified?

COMMENT:

[ ] Are there any non-standard estates proposed? If so, there must be a thorough discussion on why they are being proposed, as well as a statement that they must be approved by CERE-AP prior to acquisition.

COMMENT:

[ ] Are there any Federal lands within the project area? If so, the Federal estate, degree of interest required for the project purposes, and views of the local representative of the controlling agency must be clearly stated.

COMMENT:

[ ] Are there any sponsor owned lands within the project area? If so, there should be a discussion as to the interest owned, whether they are sufficient for project purposes, and whether they were previously provided as an item of local cooperation in a prior Federal project.

COMMENT:

[ ] Are there any other public owned lands within the project area? If so, there should be a discussion as to their availability for project purposes.

COMMENT:

[ ] Are there any project lands required which may be subject to application of the navigational servitude? If so, have the facts relative to the application of the servitude been thoroughly discussed?

COMMENT:

[ ] Does the REP have a statement of the number and cost of PL 91-646 relocations? If there are such relocations, are the number and cost including the number of persons, farms and businesses to be displaced and information regarding the availability of replacement housing thoroughly discussed? If there are no PL 91-646 relocations, a statement to that fact must be included in the REP.

COMMENT:

[ ] The REP should provide an assessment of the non-Federal sponsor's land acquisition experience and ability to acquire including authority to acquire through the eminent domain, etc.

COMMENT:

[ ] Does the REP have a Baseline Cost Estimate, presenting LERRD costs in a manner consistent with the presentation of project features in other sections of the Report? Is the source and approval of the cost estimates identified?

COMMENT:

[ ] Does the REP include mapping identifying the property requirements, estates, acreage and ownership for all project requirements?

COMMENT:

[ ] Does the REP discuss current or anticipated mineral activity on project lands? If there are mineral interests which may have an impact on operation of the project, is there a plan for acquiring mineral rights?

COMMENT:

[ ] Does the REP identify the proposed estates and include justification of each as they related to the project purpose?

COMMENT:

[ ] Has an acquisition schedule been prepared by the District and the non-Federal sponsor which meets major milestones identified for the project?

COMMENT:

[ ] Are there facility/utility relocations identified, including roads, railroads, pipelines, utilities, bridges, and cemeteries?

COMMENT:

[ ] Does the facility/utility relocations section of the REP match that section of the Engineering Design portion of the report?

COMMENT:

[ ] Has an Attorney's Opinion of Compensability been prepared, and is it discussed in the REP?

COMMENT:

[ ] Are additional lands required for the relocations, and if so, are they included and identified in the REP?

COMMENT:

[ ] Does the REP discuss whether the non-Federal sponsor, the Government, or the owner(s) will be responsible for the relocation and acquisition of new rights-of-way?

COMMENT:

[ ] Is there a discussion or statement to the existence of any HTRW or other related contaminates on lands within the project area?

COMMENT:

[ ] There needs to be some discussion of the attitude of the landowners pertaining to endorsement or opposition to the project.

COMMENT:

* Feasibility Report Checklist should be used for General Design Memorandum REP, and additionally as follows:

[ ] All assumptions cited in the Feasibility REP should at this point be converted to fact (i.e., sufficiency for project purposes of non-Federal sponsor owned lands, whether or not sponsor owned lands were previously provided as an item of local cooperation for a Federal project, etc.).

[ ] A final determination of compensability of facility/utility relocations, and the responsible party for the relocation effort.

[ ] The acquisition schedule at this point should be identified by construction contract or phase as scheduled in the overall project construction plan.

APPENDIX H

QUALITY CONTROL GUIDELINES OF CONSTRUCTION ACTIVITIES AND DOCUMENTS

1. Purpose. These guidelines define the policies, responsibilities, and procedures by which Construction Services Branch will provide quality construction services and products to meet our mission requirements. The foundation for these guidelines are specified in numerous documents, but generally fall within parts of the following documents:

1) ER 5-1-11, Project Management, 27 February 1998.
2) ER 1180-1-6, Contracts, Construction Quality Management, 30 September 1995.
3) ER 415-1-11, Construction, Biddability, Constructibility, Operability, and Environmental Review, 1 September 1994.
4) ER 415-2-100, Construction, Staffing for Civil Works Projects, 15 January 1993.
5) ER 5-7-1, Implementation of Project Management, 9 October 1992.
6) CEGS-01440 (October 1994) Guide Specifications for Military Construction, Construction Quality Control.
7) CEGS-01300 (December 1994) Guide Specifications for Military Construction, Submittal Procedures. Other sources of information and guides were used in the preparation of this document.

2. Applicability. These guidelines applies to all elements of Construction Services Branch and Field Offices responsible for awarding and supervising construction contracts.

3. Definitions.

a. Quality - Conformance to properly developed requirements. In the case of construction contracts, requisitions or purchase orders, these requirements are established by the contract specifications, scope of work or product description as well as any special conditions that may attached to a contract, requisition, permit or other scope of work.

b. Quality Management (QM) - Is all control and assurance activities instituted to achieve the quality established by the contract requirements, scopes of work or special conditions.

c. Contractor Quality Control (CQC) - Is the construction contractor's, vendor's or applicant's system to manage, control, and document his/her own, suppliers, subcontractors, and/or agents activities to comply with the contract requirements, scopes of work, or special conditions.

d. Quality Assurance (QA) - Is the system used by the Government which will fulfill its responsibility to be assured that the contractor, vendor, supplier, or applicant has a functioning CQC organization and that the specified end quality product is achieved.

4. Policy.

a. General. Obtaining quality is a combined responsibility of the construction contractor, vendor, sponsor or applicant and the Government. Their mutual goal must be to provide a completed quality product that meets the requirements specified. Every effort must be made to achieve a cooperative and professional relationship to reach the common goal of a quality product. It is the Governments role to verify the work performed meets the requirements and that controls are established and in place and operational to assure that the contractors, suppliers, vendors or applicants are producing the end quality product.

b. Contractor Quality Control. (1) Construction contracts will be required to contain the CQC in the contract specifications for construction contract over $1,000,000. Contracts below that threshold will be included as determined by the scope and complexity of the project. The normal instance will be to include the CQC provisions in the contract specifications. Regardless of the dollar amount at the contract. (2) For permits, a detailed set of special conditions will be included in each permit that specifies the additional requirements for the permittee to met in order to exercise that permit.

c. Government Quality Assurance. QA is required on all construction contracts, requisitions, and permits. The extent of the assurance shall be determined by the value and complexity of the individual type of contract, requisition or permit involved.

5. Contractor Responsibility.

a. General. The Field Offices administering construction type contracts will ensure that the contractor, suppliers or vendors providing the service be provided a copy of the ER 1180-1-6, dated 30 September 1995, Contracts, Construction Quality Management. It is the responsibility of the contractor to meet the requirements for staffing, quality control plans and submittal necessary to accomplished the CQC for each contract.

6. Government Responsibilities.

a. General. Quality Assurance is the process by which the Government assures end product quality. The process starts well in advance of construction or issuance of a permit and involves many reviews and meetings necessary to define the quality desired and then how that will be assured.

b. Planning. (1) prior to 1 December each year, the following will be accomplished at the District level: Develop a written Quality Assurance Organizational Operating Plan. The plan shall delineate how the QA operations for the coming year will be managed. This plan will be updated at least annually and more often, if changes warrant. This will follow the requirements of ER 1180-1-6.

(2) Prior to 1 October each year, the following will be accomplished: The Construction Services Branch shall prepare individual QA Organizational Operating Plan following the requirements of ER1180-1-6, addressing the specific contracts that will be managed by the office. Each contract shall have its own unique Quality Assurance Plan submitted in outline form with submission of the operating plan.

c. Implementation and Enforcement. ER 1180-1-6 contains specific requirements for activities to be performed by Quality Assurance Personnel (QAP) during construction. These actions should be addressed in the Individual Quality Plan developed above.

d. Hydrographic Surveying. A generic Quality Control Plan for in-house surveys and Quality Assurance plan for AE surveys will be prepared. The plans will address such topics as government personnel on board the AE's vessel, reviewing the data, closure check etc.

APPENDIX I

QUALITY CONTROL GUIDELINES FOR REGULATORY BRANCH PROJECT MANAGEMENT DOCUMENTS

1. Purpose: This enclosure provides the general policies and procedures for the execution of quality control activities in the Regulatory Branch, Construction-Operations and Readiness Division.

2. Applicability: This appendix supplements the guidelines provided in the main body of the Quality Management Plan and applies to all regulatory functions, activities, and products of the Construction-Operations Division, Regulatory Branch. The goal is to provide quality regulatory products and services to the regulated community and all other interested parties, consistent with all applicable laws, regulations, and the public interest.

3. References:

a. The appendix implements portions of the guidance presented in the following regulations:

33 CFR Part 325, Appendix C
33 CFR Part 325, Appendix B
33 CFR Parts 320-330
50 CFR Part 402
40 CFR Part 230

b. Enclosure 1 Los Angeles District Quality Management Guidance On Regulatory

4. Definitions: The definitions of terms used in this appendix are generally consistent with the definitions provided in the main body of the Quality Management Plan. Within the text of this appendix, certain definitions are expanded upon to place them in a context appropriate for the Regulatory Program.

5. Relationship of the Division and the District:

a. Division: CESPD-ET-CR is responsible for quality assurance for all regulatory functions accomplished by the Districts. CESPD-ET-CR shall review and approve the regulatory functions portion of each District's Quality Management Plan; provide oversight of the quality control process and provide policy review for regulatory functions and products within CESPD.

b. District: The District Regulatory Branch is responsible for controlling the quality of all work they accomplish, including standard and general permits, jurisdictional determinations, enforcement actions, and permit compliance. To assist in the achievement of high quality regulatory products, the District shall develop, carry out, and keep up to date our own Quality Management Plan. , as described in the DETS Quality Management Plan. The Quality Management Plan shall establish District roles, responsibilities, and processes consistent with this appendix. The District shall also be responsible for the development and implementation of Quality Control Plans for regulatory functions, activities, and products covered by this appendix.

6. Quality Control Responsibilities: Regulatory Branch Chiefs, Section Chiefs, and Regulatory Project Managers all have significant roles and responsibilities in achieving quality regulatory products. The roles and responsibilities of all participating individuals shall be described in the Quality Control Plans, and shall include the responsibilities described below.

a. Regulatory Branch Chief: The Branch Chief shall have the overall responsibility for the technical quality of regulatory products. It will be the responsibility of the Branch Chief to assure that the Quality Management/Control Plan is implemented and that any discrepancies discovered as a result of training, audits, field evaluations, or Command Assistance Visits are corrected.

b. Section Chiefs: Quality control is the appropriate evaluation of regulatory products, services, and processes to ensure that they meet the requirements of, and are in compliance with all applicable laws, regulations, and recognized technical practices of the disciplines involved. In large part, this shall be accomplished by the Section Chiefs through their independent review process of staff actions and products.

c. Quality Control Plans: Regulatory Branch Quality Control Plans shall be prepared for all branch products. The review and approval responsibility for QCPs has been delegated to the district. A Quality Control Plan shall, as a minimum, include the following:

(1) A statement of the Quality Control Plan objectives.

(2) A statement of the applicable regulations and guidelines, and regulatory actions and products covered by the plan.

(3) A statement of the quality control criteria, consistent with established regulations and policies, to evaluate the acceptability of regulatory products and actions produced by the Branch, including but not limited to, the proper application of regulations, guidance, and procedures; appropriate protection of the aquatic environment; and efficiency of actions consistent with established timelines goals.

(4) A statement of actions taken to insure that all Regulatory Branch products and actions meet the above identified criteria, such as training, audits of completed actions, and field evaluations of staff skills in making accurate jurisdictional determinations, including but not limited to, wetland delineations, ordinary high water mark determinations, and any other field skills required to perform their duties as Regulatory Project Managers.

d. Product Review:

(1) Products: The Quality Control Plan shall identify all regulatory products and actions produced by Regulatory Project Managers to be reviewed by Section and Branch Chiefs. These products include, but are not limited to: Standard Permits, General Permits, jurisdictional determinations, including wetland delineations, enforcement actions, and permit compliance. These products shall be essentially complete before review is undertaken, and the Section and Branch Chiefs shall be responsible for the technical and policy accuracy of all products and resultant decisions.

7. Quality Assurance Process: In addition to the oversight of technical and policy issues indicated above, quality assurance by CESPD-ET-CR shall include, but not limited to, the following activities:

a. Informal Consultation.

b. Review of Sample Regulatory Products.

c. Issue Resolution.

d. Technical Workshops.

e. Monitoring Technical Competency.

ENCLOSURE 1

LOS ANGELES DISTRICT
QUALITY MANAGEMENT GUIDANCE ON
REGULATORY FUNCTIONS

1. Background: The Regulatory program involves an array of complex and often conflicting environmental and development issues that require timely resolutions. Coordination often involves many stakeholders, and procedures must be carefully followed to minimize lawsuits. Policy and regulatory changes must be adapted quickly into the District's regulatory program to insure consistent and fair application to the regulated public. To insure consistent and correct application of Regulatory policies and procedures, and to meet established processing time goals, a quality control plan is necessary.

2. Applicable Regulatory Actions: This quality control plan is applicable to the following actions:

a. Individual permits (standard permits, establishment of regional general permits, and LOPs)
b. General permit verification determinations (nationwide and regional general permit verifications)
c. Jurisdictional delineations and determinations
d. Permit compliance inspections and determinations
e. Enforcement actions

3. Quality Control Criteria: The following criteria will be used to evaluate the quality and consistency of products or actions produced by the Branch. Goals for acceptable quality of products or services are shown on Table 1, attached. Actions failing to meet these criteria will be addressed by measures such as training and/or providing guidance to assure future compliance.

a. Application of Regulations, Guidance, and Standard Operating Procedures: Decisions and output will be based on the appropriate regulations, Regulatory Guidance Letters (RGLs), HQ, SPD, and SPL standard operating procedures, and branch policies to maintain consistency and quality control among the Project Managers (PMs).

b. Protection of Aquatic Environment: Permit, compliance and enforcement actions should strive for a result of no net loss of wetland and aquatic resource functions and values and should result in appropriate and practical measures to preserve and protect the aquatic environment.

c. Efficiency of Actions: Actions should be completed within established HQ permit processing time performance goals.

4. Regulatory Quality Control Plan: The following actions will be taken to insure that Regulatory products and actions meet the above criteria.

a. Training: New Regulatory Branch employees should attend the REG I PROSPECT training course within their first 7 months. If REG I cannot be taken during the first 7 months, the course would not be necessary. All Regulatory Project Managers will attend REG IIa, IIb, III, VI, and V PROSPECT training, and NEPA courses, as soon as practicable after assignment to the Branch. In addition, an annual refresher seminar will be provided for all Office and Section Chiefs (and to the extent that funds and slots are available, senior project managers) on updated policies and procedures to be used in the applicable regulatory actions. The Biennial National Regulatory Conferences and the Regional Regulatory Conferences (held in intervening years) will qualify as these annual seminars. Every 2 years the Regulatory Branch Chief will organize a 3-day in-house workshop for all PMs and supervisors to review changing regulations, policies and to address training needs. The South Pacific Division Regulatory Coordinator will be invited to participate to insure consistency within the Division.

b. Review of Completed Actions: The Branch Chief will use the quarterly report to measure overall performance and timeliness of completed actions. All permit decision documents are to be reviewed by the section chiefs. Section chief review will focus on consistency, quality, compliance with applicable regulations and policies, and facts to support the recommended decision. The Branch Chief will review, on a random basis, routine decision documents and other correspondence for overall quality and proper application of the regulations, policies and procedures. The Branch Chief will thoroughly review decision documents for all highly controversial and/or sensitive permit decisions. Permit compliance audits of standard individual permits will be based on random samples from lists generated by the OMBIL Regulatory Module permit tracking system and will be limited to projects causing the loss of over 0.5 acres of aquatic resources. At least 8 such actions will be reviewed annually. In addition, a random sample of 20 nationwide permit or regional general permit verification determinations and 8 permit modifications will be audited annually. Audit results will be reported on Table 2, attached.

c. Field Evaluations: At least annually, the Section or Office Chief will accompany each Project Manager to field site(s) and/or meetings to review and evaluate his/her skill in making wetland delineations, ordinary high water mark determinations, and skills in working with applicants and agencies in resolving or managing outstanding issues.

5. Quality Assurance: It will be the responsibility of the Branch Chief to assure that the quality control plan is implemented and that discrepancies discovered as a result of training, audits and field evaluations are corrected.

TABLE 1
REGULATORY PROGRAM
QUALITY CONTROL GOALS

Regulatory Action	Quality Control Goals
Individual Permits	1. Appropriate regulations, guidance, and procedures were used. 2. HQ performance standards for permits are met. 3. Public Notice issued within 15 days of complete application and contains, at minimum, information described at 33 CFR 325.3(a). Clear statement of basic and overall project purpose presented. 4. Comments sent to applicant within 15 days of close of Public Notice. 5. Decision made within 20 days of obtaining all necessary information. 6. Section 404 permits comply with 40 CFR 230 Subpart B (404(b)(1) Guidelines). 7. Reasonable and practicable mitigation measures required. Special conditions are enforceable and measurable. 8. Documentation complete and adequate to support decision.
General Permit Verifications	1. Appropriate regulations, guidance, and procedures were used. 2. Reporting GP's meet established time frames. 3. Non-reporting GP verification letters issued within 60 days of receipt. 4. Activity complies with terms/conditions of RGP or NWP and applicable regional conditions. 5. Impacts individually/cumulatively minimal.
Jurisdictional Delineations and Determinations	1. Jurisdictional delineations/determinations and ordinary high water mark determinations correct and made in conformance with current regulations (e.g., 33 CFR 328.3(e)), manual or guidance (e.g., 1987 Wetland Delineation Manual or 2001 Guidelines for Jurisdictional Determinations for Waters of the U.S. in the Arid Southwest).

Permit Compliance	1. Compensatory mitigation areas inspected for compliance with permit special conditions until such conditions are met. 2. Mitigation monitoring reports reviewed and comments provided, as appropriate. 3. Action taken to obtain compliance when non-compliance with permit conditions is determined with resolution following 33 CFR 326.4(d).
Enforcement Actions	1. Appropriate regulations, guidance, and procedures were used. 2. Report of violation prioritized and investigated within appropriate time frame depending on the magnitude and severity of the alleged violation. 3. C&D letter sent within 20 days of confirmation of violation. 4. Resolution by accepting A-T-F permit, voluntary or directed restoration, referral to EPA or DOJ, or other means are coordinated with Office of Counsel. 5. Restored areas and compensatory mitigation comply with Corps directives.

TABLE 2
QUALITY CONTROL
AUDIT RESULTS

ACTION ID NUMBER:_____ AUDIT TEAM MEMBERS:_____

TYPE OF ACTION: ___ Standard Permit; ___ Letter of Permission; ___ Permit Modification; ___ General Permit;
___ Jurisdictional Delineation/Determination; ___ Permit Compliance; ___ Enforcement Action

Regulatory Action	Quality Control Goals	Yes	No	N/
Individual Permits	1. Appropriate regulations, guidance, and procedures were used. 2. HQ performance standards for permits are met. 3. Public Notice issued within 15 days of complete application and contains, at minimum, information described at 33 CFR 325.3(a). Clear statement of basic and overall project purpose presented. 4. Comments sent to applicant within 15 days of close of Public Notice. 5. Decision made within 20 days of obtaining all necessary information. 6. Section 404 permits comply with 40 CFR 230 Subpart B (404(b)(1) Guidelines). 7. Reasonable and practicable mitigation measures required. Special conditions are enforceable and measurable. 8. Documentation complete and adequate to support decision.			
General Permit Verifications	1. Appropriate regulations, guidance, and procedures were used. 2. Reporting GP's meet established time frames. 3. Non-reporting GP verification letters issued within 60 days of receipt. 4. Activity complies with terms/conditions of RGP or NWP and applicable regional conditions. 5. Impacts individually/cumulatively minimal.			

Regulatory Action	Quality Control Goals	Yes	No	N/
Jurisdictional Delineations and Determinations	1. Jurisdictional delineations/determinations and ordinary high water mark determinations correct and made in conformance with current regulations (e.g., 33 CFR 328.3(e)), manual or guidance (e.g., 1987 Wetland Delineation Manual or 2001 Guidelines for Jurisdictional Determinations for Waters of the U.S. in the Arid Southwest).			
Permit Compliance	1. Compensatory mitigation areas inspected for compliance with permit special conditions until such conditions are met. 2. Mitigation monitoring reports reviewed and comments provided, as appropriate. 3. Action taken to obtain compliance when non-compliance with permit conditions is determined with resolution following 33 CFR 326.4(d).			
Enforcement Actions	1. Appropriate regulations, guidance, and procedures were used. 2. Report of violation prioritized and investigated within appropriate time frame depending on the magnitude and severity of the alleged violation. 3. C&D letter sent within 20 days of confirmation of violation. 4. Resolution by accepting A-T-F permit, voluntary or directed restoration, referral to EPA or DOJ, or other means are coordinated with Office of Counsel. 5. Restored areas and compensatory mitigation comply with Corps directives.			

APPENDIX J

QUALITY CONTROL GUIDELINES FOR OPERATIONS AND READINESS FUNCTION

1. Purpose: This appendix provides the general policies and procedures for the execution of quality assurance control activities in the Construction/ Operations and Readiness Division, Operations Technical Support Branch, and Readiness Branch and DMMO.

2. Applicability:

a. This appendix supplements the guidelines provided in the main body of the Quality Management Plan and applies to all activities of the Construction/Operations Division, Operations and Readiness activities.

b. The quality management process applies to all operations and readiness services and products, including those subproducts which are integral parts of decision and implementation documents developed as part of the Planning, Engineering and Operations and Readiness programs including the following:

(1) Planning Reports (Reconnaissance, Feasibility, etc.)

(2) Engineering Reports (Design Document Reports, etc.)

(3) Operations & Readiness Reports

c. Operations and Readiness Reports include Reservoir Regulation Manuals/Plans, Periodic Inspection Reports, Dam Safety Emergency Action Plans, Water Quality Management Plans, Operations and Maintenance Manuals, Master Plans and Operational Management Plans with their associated Updates, Supplements and Amendments. The technical review processes for all documents are described in the other appendices to this office memorandum.

c. Exception. Due to its special requirements, Natural Disaster Procedures are classified as a unique function of the Corps as described in the Division Organizational Guidelines. Quality assurance and quality control of these products shall be performed at CESPD as prescribed in the existing engineering regulations and guidance and following the general quality management principles set forth in this quality management plan. ER 500-1-1 prescribes the policies
for the Disaster Preparedness and Response Program with ER 50-1-26 providing a comprehensive evaluation process for this program. Checklists have been developed as part of both ER 500-1-1 and ER 500-1-26 to validate readiness oriented activities and to provide a consistent means of evaluating District Response Plans.

3. References:

a. ER 500-1-1, Natural Disaster Procedures

b. ER 500-1-26, Evaluation and Corrective Action

c. ER 1110-1-12, Quality Management

d. EC 1165-2-203 Implementation of Technical Policy Compliance Review

e. CECG/AASA(CE) Joint Memorandum, dated 31 March 1995, Subject: Technical Review Process

f. CECW-A Policy Memorandum No. 2, dated 6 April 1995, Subject: Civil Works Decision Document Review – Policy Compliance

4. Definitions: See main Quality Management Plan.

5. District Quality Control Responsibilities:

a. Objective: District Operations and Readiness activities shall be responsible for developing and following quality control management practices and business procedures to insure the quality of Operations and Readiness products and services. These objectives shall be met by development and execution of District Operations and Readiness Quality Management and Quality Control Plans.

b. Quality Control Activities:

(1) Responsibilities: The District Chief of Construction/ Operations and Readiness shall have overall responsibility for the technical quality of Operations and Readiness products and services. Other subordinate managers, leaders, and individuals within the Branches also have significant roles and responsibilities in achieving quality projects and services.

(2) Independent Technical Review: Independent technical review is applicable to only those reports, memoranda, and other documents prepared by Operations and Readiness that are an integral part of a Civil Works decision or implementation document. Key to the successful execution of the quality control process for the products developed by the Branches is the CESPN OM 1110-1-12 independent technical review of a product. This review shall be accomplished by individuals having expertise in disciplines involved in the type of product being developed and reviewed, and who were not involved in the product development.

APPENDIX K

QUALITY CONTROL GUIDELINES OF PROJECT MANAGEMENT DOCUMENTS

1. Purpose

This appendix establishes the process to assure the production of high quality, Civil Works project management documents. It is intended to provide quality assurance and quality control guidance for conducting independent technical review of project management products within the San Francisco District (CESPN). In addition, it provides overall responsibilities of the PM in quality management of SPN technical projects. The guidance establishes a framework of documents, which meet or exceed customer requirements, and are consistent with Corps policies and regulations. Independent technical review policies and procedures will evolve over time and with experience. Flexibility and adaptability are key components in achieving mature procedures and quality reviews.

2. Applicability

This appendix applies to all activities of the CESPN Programs and Project Management Division, which are involve in the preparation, review or approval of project management documents. The quality management process that is established in this appendix applies to all project management documents, includes the following:

(a) Feasibility Cost Sharing Agreement (FCSA)

(b) Project Cooperation Agreement (PCA)

(c) Design Agreement

(d) Project Management Plans (PMP)

(e) Memorandum of Agreements (MOA)

(f) Memorandum of Understandings (MOU)

(g) SPN Technical Products

3. References

This appendix implements portions of the guidance presented in the following references:

(a) ER 5-1-11, Program and Project Management Regulation, 27 February 1998.

(b) ER 5-7-1 (FR), Project Management, 30 September 1992. This ER has been superseded by reference a. ER 5-1-11.

(c) CECW-AG memorandum, Model Agreement for Pre-construction Engineering and Design (PED), 3 Dec 1996.

(d) CECW-B/CECW-A Memorandum, Agreement for Specifically Authorized Civil Works Projects and Separable Elements Involving Non-Federal Construction Work, Advances of Non-Federal Funds, or Contributions of Non-Federal Funds Work,

Advances of Non-Federal Funds, or Contributions of Non-Federal Funds for Construction in the Absence of Federal Appropriations-Guidance Memorandum.

(e) EC 1165-2-204, Processing Project Cooperation Agreements for Specifically Authorized projects and Separable Elements, 31 July 1997.

(f) ER 1165-2-124, Construction of Harbor and Inland Harbor projects by Non-Federal Interest, 1 October 1990.

(g) CECW-L/CECW-/CECW-P Memorandum, Integration of project Cooperation Agreements (PCA's) and Supporting project documents, 17 March 1994.

(h) ER 1165-2-204, Water Resources Policies and Authorities Processing Project Cooperation Agreements for Specifically authorized projects and Separable Elements, 31 July 1997.

4. Definitions

The definition of terms used in this appendix is generally consistent with the definitions provided in the main body of this Quality Management Plan. Within the text of this appendix, certain definitions are expanded upon to place them in a text that is appropriate for Civil Works project management.

5. Relationship of the San Francisco District (CESPN) and the South Pacific Division (CESPD)

(a) San Francisco District (CESPN) is responsible for controlling the quality of all work that it accomplishes. To assist in the achievement of high quality, the District has developed and will carry out and keep up to date this quality management plan. This plan establishes the District roles, responsibilities, and processes consistent with the references. CESPN is also responsible for the development and implementation of generic quality control plans for project management documents, which may be supplemented for products with unique issues.

(b) The South Pacific Division (CESPD) is responsible for quality assurance of all project management documents accomplished by CESPN. CESPD shall review and approve the CESPN quality management plan for project management products. CESPD shall provide oversight of the quality control processes. CESPD shall also perform policy review for project management products that are approved at CESPD.

6**. Organizational Responsibilities**

(a) The Chief of the Programs and Project Management Division institutes quality control policy within the Project Management Branch. The Division Chief is responsible for maintaining and updating this Quality Management Plan, foster the development of Quality Control Plans and procedures within the Project Management Branch; and approves all completed Project Management Branch products and, where appropriate, recommends certification by the District Commander.

(b) The Chief of the Project Management Branch develops and maintains Quality Control plans and procedures for project management products, and institutes Quality control plans and procedures into the process. The Branch Chief serves as the quality control staffing manager and point-of-contact for quality assurance for PMPs. The

Branch Chief develops and maintains a roster of qualified in-house, other District, other Corps, sponsor, and contractor personnel for PMP review team duties.

(c) The Chief of the Office of Counsel serves as the quality control staffing manager and point-of-contact for quality assurance of FCSAs, PCAs, MOAs, MOUs and Design Agreements. The Chief develops and maintains a roster of qualified in-house, other District, and other Corps personnel for review team duties. He is also responsible for signing a Certification of legal review for FCSAs, PCAs, MOAs, MOUs, and Design Agreements.

(d) The Project Manager is responsible for achieving quality project management products for assigned projects and is responsible for completion of FCSAs, PMPs, PCAs, MOAs, MOUs and Design Agreements, including SPN technical products. The Project Manager is responsible for assuring that the certification for the PMP is signed by the Deputy for Programs and Project Management (DPM) prior to the approval by the CESPN Project Review Board (PRB). He is also responsible for assuring that the Certification of Legal Review has been signed prior to transmitting FCSAs, PCAs, MOAs, MOUs and Design Agreements to Higher Headquarters for review and approval. Also, the PM will ensure adequate time and resources are provided to perform the independent review of all product. In addition, the PM is responsible for ensuring that certification requirements are met prior to transmittal to CESPD.

7. Product Review Procedures

(a) Project Management Plan

(1) Preparation. The project team must develop the PMP but the ultimate responsibility for the PMP is the Project Manager. Input from all the team members should be incorporated into the plan to accurately assess the cost and time involved for completing the project. This input shall be essentially complete before review is undertaken and the Branch and Section chiefs shall be responsible for accuracy of their information. Guidance to the development of the PMP can be found on the Project Management Business Process website. The QCP for activities during the implementation phase of a product shall be embedded within the PMP. The PMP and/or revisions thereto are to be presented to the customer for endorsement and to the CESPN PRB for approval.

(2) Independent Review. Independent review of the PMP shall be limited to a single recognized expert in project management policies and procedures, who has not directly participated in the project. This individual shall be selected from a list of qualified personnel, maintained by the Chief of the Project Management Branch. The reviewer will work with the Project Manager to resolve issues raised during the review with any unresolved issues brought to the DPM for resolution.

(3) Final documentation. Proper documentation is a key component of an effective review process. Significant decisions must be recorded and the entire process must provide a clear audit trail. The documentation of the review shall be included in the project file, where it will be available for audit. The purpose of the review documentation is to show the full scope of the review and to assure action items are appropriately tracked to a resolution or request for policy decision. Documentation and resolution of issues is the final step prior to CESPN certification.

(4) District Certification. The DPM will sign a certification for the PMP that indicates that the independent review process has been completed and that all issues have been resolved, prior to the approval of the PMP by the district PRB. The CESPN certification is the guarantee that the quality of the product is of the standard expected of the district.

(b) FCSAs, PCAs, MOAs, MOUs and Design Agreements

(1) Preparation. The PM is ultimately responsible for the preparation of the FCSA, PCA, MOA, MOU and Design Agreement for assigned projects. However, the PM is encouraged to delegate the compiling of these documents to the Assistant District Counsel, assigned to the project.
Legal involvement in the preparation of these documents is essential for identifying deviations to the latest approved model documents and to coordinate with project sponsor legal counsel for concurrence. The Assistant District Counsel is responsible for preparation of a deviation memorandum, if needed.

(2) Independent Review. Independent review of the above documents shall be limited to a single recognized expert in policies and procedures relating to the above documents, who has not directly participated in the project. This individual shall be selected from a list of qualified personnel, maintained by the Chief, Office of Counsel. The reviewer will work with the Assistant District Counsel and the Project Manager to resolve issues raised during the review and unresolved issues will be brought to the DPM for resolution.

(3) Final documentation. Proper documentation is a key component of an effective review process. Significant decision must be recorded and the entire process must leave a clear audit trail. The documentation of the review shall be included in the project file, where it will be subject to audit. The purpose of the review documentation is to show the full scope of the review and to assure action items are appropriately tracked to a resolution or request for Policy decision. Documentation and resolution of issues is the final step prior to CESPN certification.

(4) District Certification. The DPM will sign a certification for the above documents that indicates that the independent review process has been completed and that all issues have been resolved. A Legal Certification is also required. The CESPN certification is the guarantee that the quality of the product is of the standard expected by the District and the Legal Certification ensures the document is legally sufficient.

(c) SPN Technical Products. The PM is a member of the project delivery team. The PM will ensure that adequate time and resources are provided to the independent technical review team for the review of products. To ensure that quality expectations are met, the PM will ensure that certification requirements are met, the PM will ensure that certification
requirements are met prior to approval by the District Commander and transmittal of a product to CESPD. The PM, along with the Project Delivery Team will conduct a review of SPN technical products prior to their quality control activity by the QC Team. The PM is also responsible for a timely quality control activity and that it is conducted consistent with the PMP.

8. Quality Assurance Process

To effectively execute the Civil Works mission, CESPN personnel should maintain an open partnership relationship with CESPD. To foster this partnership and enhance quality initiatives, CESPD shall provide the following:

(a) Informal Consultation. The PM is encouraged to consult with the CESPD Program Manager, assigned to CESPN, on matters concerning technical and policy issues prior to submission of any documents to CESPD.

(b) Participation at the CESPN PRB. The CESPD Program Manager is encouraged to attend the monthly PRB.

(c) Review of Project Management Products. CESPD shall conduct quality assurance reviews of the quality control processes associated with project management products. These reviews are for the purpose of identifying systemic problems and possible improvements to the process and assure compliance with current policy.

9. Delegation of Signature Authorities

Paragraph 3 of this plan lists the ERs and policy memorandum that govern the delegation of signature authority for FCSAs, PCAs, MOAs, MOUs and Design Agreements. Generally, signature authority of PCAs and Design Agreements are governed by HQUSACE or ASA(CW). Signature authority of FCSAs, PCAs and Design Agreements is not delegated unless specifically requested by CESPN and approved by HQUSACE. For FCSAs, Design Agreements, and PCAs that do not deviate from the latest approved models, signature authority may be delegated to the District Commander, but care will be taken for projects that are not generally supported by the administration. For MOAs and MOUs, the signature authority is delegated to the District for routine memorandums. Controversial and high visibility memorandums should be coordinated with CESPD prior to execution.

APPENDIX L

MODEL QUATITY CONTROL CERTIFICATION

1. Purpose: The purpose of this model certification is to document that all parties responsible for the conduct of Quality Control of San Francisco District products, concur in the completion of this process as conducted and recorded in the document accompanying the certification. The content and sequence of the certifying individuals will depend upon the study or document being certified.

2. Internal Certification: A document modeled upon Attachment 1 to this appendix shall be furnished to the individuals who will sign the district's certification of QC completion.

3. District QC Certification: A document modeled upon Attachment 1 to this appendix shall be furnished to CESPD to certify completion of the district's QC process. There may not be agreement between review and product development team members that all issues have been resolved when a disagreement is decided by the functional chief. The review documentation will be attached.

ATTACHMENT 1

MODEL OF

DISTRICT ENGINEEER'S QUALITY CONTROL CERTIFICATION

(Products Developed by In-House Forces)

COMPLETION OF QUALITY CONTROL ACTIVITIES

The District has completed the (State level of study or product development) of (Project Name and Location). Certification is hereby given that all quality control activities defined in the Quality Control Plan appropriate to the level of risk and complexity inherent in the product have been completed. Documentation of the quality control process is enclosed.

GENERAL FINDINGS

Compliance with clearly established policy principles and procedures, utilizing clearly justified and valid assumptions, has been verified. This includes assumptions; methods, procedures and materials used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and the reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing Corps policy. The undersigned recommends certification of the quality control process for this product.

(Signature) (Date)

_____ _____

Chief, Responsible Functional Element

QUALITY CONTROL CERTIFICATION

As noted above, all issues and concerns resulting from independent technical review of the product are resolved. Resolution was completed through agreement between the PDA and ITRT or by resolution decided upon by the responsible function chief. The project may proceed to the (indicate next phase of product development).

(Signature) (Date)

_____ _____

District Commander

CERTIFICATION OF LEGAL REVIEW:*

The report for _____, including all associated documents required by the National Environmental Policy Act, has been fully reviewed by the Office of Counsel, San Francisco District and is approved as legally sufficient.

_____ _____

(Signature) (Date)

District Counsel

* This portion of the certification may be required for civil works related products per EC1165-2-203.

ATTACHMENT 2

MODEL OF
STATEMENT OF QUALITY ASSURANCE
CONTRACTOR DESIGN – SAMPLE

(To be used by the District to certify that an A-E or other Government contractor has completed the design and/or ITR and that the District has completed QA)

COMPLETION OF QUALITY ASSURANCE REVIEW

The (A-E) (other Government contractor) has completed the (type of study) of (project name and location). Notice is hereby given that all quality control activities, appropriate to the level of risk and complexity inherent in the project, as defined in the Quality Control Plan have been completed. Compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing Corps policy. The study/design was accomplished by (design agent's name) and the independent technical review was accomplished by (review agent's name). Their quality control certification is attached. The District has completed a quality assurance review and the subject project is compliance with the contract requirements.

(Signature) (Date)

_____ _____

Responsible Functional Chief

CERTIFICATION OF QUALITY CONTROL
AND QUALITY ASSURANCE REVIEW
Significant concerns and the explanation of the resolution are as follows:
(Describe the major technical concerns, possible impact, and resolution)
As noted above, all concerns resulting from independent technical review of the project have been considered.

(Signature) (Date)

_____ _____

District Commander

APPENDIX L
ATTACHMENT 3

MODEL
CONTRACTOR STATEMENT OF QUALITY CONTROL
(For Products Developed by A-E's or Other Government Contractor)

COMPLETION OF QUALITY CONTROL

The (A-E) (other Government contractor) has completed the (type of study) of (project name and location). Notice is hereby given that all quality control activities, appropriate to the level of risk and complexity inherent in the project, as defined in the Quality Control Plan have been completed. Compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing Corps policy. Documentation of the quality control process is enclosed. The undersigned recommends certification of the quality control process for this product.

(Signature) (Date)

_____ _____

Independent Technical Review Team Leader

CERTIFICATION OF QUALITY CONTROL

Significant concerns and the explanation of their resolution are as follows:
(Describe the major technical concerns, possible impact, and resolution)
As noted above, all concerns resulting from the independent technical review of the project have been considered.

(Signature) (Date)

_____ _____

(Principal w/A-E firm or Engineer of Record with Gov Ctr)

APPENDIX M

STANDARD CORPS ACRONYMS

A-E	Architect-Engineer
AFB	Alternative Formulation Briefing
ASA(CW)	Assistant Secretary of the Army (Civil Works)
ARMS	Automated Review Management System
BCOE	Biddability, Constructability, Operability, and Environmental
BRAC	Base Realignment and Closure
CAP	Continuing Authorities Project
CECG	Corps of Engineers, Commander and Chief of Engineers
CECW-A	Corps of Engineers, Civil Works, Policy Division
CERE-A	Corps of Engineers, Real Estate Directorate, Acquisition Branch
COE	Corps of Engineers
CESPD	South Pacific Division, Corps of Engineers
CESPD-MT	South Pacific Division, Corps of Engineers, Military and Technical Directorate
DCE	Design-Construction Evaluation
DETS	Directorate of Engineering and Technical Services
DDR	Design Documentation Report
DOD	Department of Defense
DPR	Detailed Project Report
EBS	Environmental Baseline Survey
EC	Engineering Circular
E&D	Engineering and Design
EIS	Environmental Impact Statement
ER	Engineering Regulation
FCSA	Feasibility Cost Sharing Agreement
FDM	Feature Design Memorandum
FRC	Feasibility Review Conference
FONSI	Finding Of No Significant Impacts
GE	General Expense
GDC	General Design Conference
GI	General Investigation
GRR	General Reevaluation Report

HAP	Homeowners Assistance Program
HQUSACE	Headquarters, U.S. Army Corps of Engineers
HTRW	Hazardous, Toxic and Radiological Waste
IRC	Issue Resolution Conference
ITRT	Independent Technical Review Team
LERR	Lands, Easements, Relocations, and Rights of Way
LRR	Limited Reevaluation Report
MILCON	Military Construction
MOA	Memorandum of Agreement
MSC	Major Subordinate Command
NEPA	National Environmental Policy Act
OMP	Operations Management Plan
O&M	Operation and Maintenance
PAS	Planning Assistance to States
PCA	Project Cooperation Agreement
PM	Project Manager
PMP	Project Management Plan
PMR	Project Modification Report
PRC	Project Review Conference
PRP	Preliminary Restoration Plan
PSP	Project Study Plan
QA	Quality Assurance
QAP	Quality Assurance Plan
QC	Quality Control
QCP	Quality Control Plan
REDM	Real Estate Design Memorandum
ROA	Report of Availability
RRC	Reconnaissance Review Conference
SFO	Support for Others
TQM	Total Quality Management
TRC	Technical Review Conference
USACE	U.S. Army Corps of Engineers
VE	Value Engineering