



DEPARTMENT OF THE ARMY  
SOUTH PACIFIC DIVISION, U.S. ARMY CORPS OF ENGINEERS  
1455 MARKET STREET  
SAN FRANCISCO, CALIFORNIA 94103-1399

17 APR 2009

CESPD-PDC

MEMORANDUM FOR Commander, San Francisco District, ATTN: CESPN-PF,

Subject: Review Plan approval for the Corte Madera Creek, Marin County, California Flood Risk Management Feasibility Study.

1. The attached Review Plan for the Corte Madera Creek, Marin County, California Flood Risk Management Feasibility Study has been prepared in accordance with EC 1105-2-410.
2. The Review Plan will be made available for public comment, and the comments received will be incorporated into future revisions of the Review Plan. The Review Plan has been coordinated with the Flood Risk Management Planning Center of Expertise (PCX) of the South Pacific Division which is the lead office to execute this plan. For further information, contact the PCX, at 415-503-6852.
3. The Review Plan includes independent external peer review.
4. I hereby approve this Review Plan, which is subject to change as study circumstances require, consistent with study development under the Project Management Business Process. Subsequent revisions to this Review Plan or its execution will require new written approval from this office.

5 Encls

1. District Memo
2. Review Plan
3. FRM-PCX Memo
4. FRM-PCX Checklist
5. SPD Checklist

  
JANICE L. DOMBI  
COL, EN  
Commanding



DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO  
CORPS OF ENGINEERS  
1455 MARKET STREET  
SAN FRANCISCO, CALIFORNIA 94103-1398

CESPN-ET-PF

10 March 2009

MEMORANDUM FOR: Commander, South Pacific Division (ATTN: CESPN-PD-C,

SUBJECT: Request for Approval of Review Plan for the Corte Madera Creek, Marin County, California Flood Risk Management Feasibility Study

1. In accordance with EC 1105-2-410, Review of Decision Documents, dated 22 August 2008, the subject Review Plan is provided for approval by the Commander, South Pacific Division (Enclosure 1). This is the first submittal of a Review Plan for the subject study.
2. This Review Plan is in compliance with the EC and has been coordinated with the applicable Planning Centers of Expertise (PCX). The PCX for Flood Risk Management is designated as the lead PCX. The PCX concurrence memorandum is provided as Enclosure 2.
3. Please address any questions about this Review Plan to \_\_\_\_\_ who is serving as the project planner. Upon approval of this Review Plan, please provide notification to this office so we can post it to the San Francisco District public website. Upon posting of the approved Review Plan, the District will notify the vertical team. I appreciate your quick attention to this matter.

Sincerely,

Chief, Planning Branch  
San Francisco District

Encls

MEMORANDUM FOR

San Francisco District

SUBJECT: Corte Madera, California, General Reevaluation Study Review Plan

1. The Flood Risk Management Planning Center of Expertise (FRM-PCX) has reviewed the Review Plan (RP) for the subject study and concurs that the RP satisfies peer review policy requirements outlined in Engineering Circular (EC) 1105-2-410 Review of Decision Documents, dated 22 August 2008.
2. The review was performed by \_\_\_\_\_ New Orleans District. The RP checklist documenting the review is attached.
3. The FRM-PCX recommends the RP for approval by the MSC Commander. Upon approval of the RP, please provide a copy of the approved RP, a copy of the MSC Commander approval memorandum, and the link to where the RP is posted on the District website to \_\_\_\_\_ Program Manager for the FRM-PCX and \_\_\_\_\_ lead Regional Technical Specialist for the FRM-PCX
4. Thank you for the opportunity to assist in the preparation of the RP. Please coordinate the Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Model Certification efforts outlined in the RP with me as needed.

Encl

Program Manager, FRM-PCX

---

---

**REVIEW PLAN**

**CORTE MADERA CREEK, MARIN COUNTY, CALIFORNIA  
FLOOD RISK MANAGEMENT  
GENERAL REEVALUATION REPORT**

**SAN FRANCISCO DISTRICT**

---

---

**MARCH 2009**

Revision 1 – N/A  
FRM-PCX Review

---

---

**REVIEW PLAN**

**CORTE MADERA CREEK GENERAL REEVALUATION REPORT, MARIN COUNTY,  
CALIFORNIA  
FLOOD RISK MANAGEMENT**

**SAN FRANCISCO DISTRICT**

---

---

1. PURPOSE AND REQUIREMENTS .....	1
A. Purpose .....	1
B. Requirements .....	1
2. PROJECT DESCRIPTION .....	5
A. Decision Document .....	5
B. General Site Description .....	6
C. Project Scope .....	6
D. Problems and Opportunities.....	8
E. Potential Methods.....	8
F. Product Delivery Team.....	8
G. Vertical Team .....	8
H. Model Certification.....	8
I. Value Engineering .....	10
3. AGENCY TECHNICAL REVIEW PLAN.....	10
A. General.....	10
B. Agency Technical Review .....	11
C. Communication.....	11
D. Funding.....	12
E. Timing and Schedule.....	10
F. Review.....	13
G. Resolution .....	14
H. Certification .....	14
I. Feasibility Scoping Meeting.....	14
J. Alternative Formulation Briefing.....	15
4. INDEPENDENT EXTERNAL PEER REVIEW PLAN.....	15
A. Project Magnitude.....	16
B. Project Risk.....	16
C. Vertical Team Consensus.....	16
D. Products for Review .....	16
E. Communication and Documentation.....	16
F. Funding.....	17
5. PUBLIC AND AGENCY REVIEW .....	17
6. PLANNING CENTERS OF EXPERTISE COORDINATION .....	18
7. APPROVALS.....	18
8. POINTS OF CONTACT .....	18

**APPENDICES**

---

Appendix A	Statement of Technical Review
Appendix B	Review Plan Team
Appendix C	Acronyms and Abbreviations Table

---

---

## REVIEW PLAN

### CORTE MADERA CREEK, MARIN COUNTY, CALIFORNIA FLOOD RISK MANAGEMENT GENERAL REEVALUATION REPORT

#### SAN FRANCISCO DISTRICT

---

---

## 1. PURPOSE AND REQUIREMENTS

**A. Purpose.** This document outlines the Review Plan for the Corte Madera Creek, Marin County, California, Flood Risk Management General Reevaluation Report (GRR). This GRR process is anticipated to culminate in a decision document with a favorable recommendation to implement a FRM project plan that is consistent and within the bounds of the existing project authorization as provided by Section 203 of the Flood Control Act (FCA) of 1966. At this time recommendations and any project changes presented in the GRR are anticipated to be within the Chief of Engineers' discretionary approval authority without the need for Congressional reauthorization.

Engineering Circular (EC) *Peer Review of Decision Documents* 1105-2-408, dated 31 May 2005, (1) established procedures to ensure the quality and credibility of Corps decision documents by adjusting and supplementing the review process, and (2) required that documents have a peer review plan. That EC applies to all feasibility studies and reports and any other reports that lead to decision documents that require authorization by Congress.

A subsequent circular, *Review of Decision Documents*, EC 1105-2-410, dated 22 August 2008, revises the technical and overall quality control review processes for decision documents. It formally distinguishes between technical review performed in-district (District Quality Control, "DQC") and out-of-district resources (formerly Independent Technical Review, "ITR," now Agency Technical Review, "ATR"). It also reaffirms the requirement for Independent External Peer Review (IEPR); this is the most independent level of review and is applied in cases that meet certain criteria where the risk and magnitude of a proposed project are such that a critical examination by a qualified team outside of the U.S. Army Corps of Engineers (USACE) is warranted.

**B. Requirements.** EC 1105-2-410 outlines the requirement of the three review approaches (DQC, ATR, and IEPR). EC 1105-2-408 provides guidance on Corps Planning Centers of Expertise (PCX) involvement in the approaches. This document addresses review of the decision document as it pertains to both approaches and planning coordination with the appropriate PCX. The Corte Madera Creek, Marin County, California, General Reevaluation Report will investigate flood risk management (FRM) issues in the study area. The non-Federal partners have expressed a strong desire that FRM be considered the primary focus of the General Reevaluation Report. Therefore, the PCX for FRM is considered to be the primary PCX for coordination.

(1) District Quality Control (DQC). DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Corte Madera Creek, Marin County, California, General Reevaluation Report Project Management Plan (PMP)

for the study (to which this Review Plan will ultimately be appended). It is managed in the San Francisco District and may be conducted by in-house staff as long as the reviewers are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan (QMP) providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before the approval by the District Commander. For the Corte Madera Creek, Marin County, California General Reevaluation Report, non-PDT members and/or supervisory staff will conduct this review for major draft and final products, including products provided by the non-Federal sponsors as in-kind services following review of those products by the PDT. Sponsor will be required to submit Quality Control (QC) certification to the same level that is required of Corps A/E contractors. Crediting sponsor for in-kind services will require a QC certification prior to officially providing sponsor with in-kind credit. It is expected that the Major Subordinate Command (MSC)/District QMP address the conduct and documentation of this fundamental level of review. A Quality Control Plan (QCP) is included in the PMP for the subject study and addresses DQC; DQC is not addressed further in this Review Plan. DCQ is required for this study.

(2) Agency Technical Review. EC 1105-2-410 recharacterized ATR (which replaces the level of review formerly known as Independent Technical Review) is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of a project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products of the PDT and products provided as in-kind by the non-federal sponsor and assures that all the parts fit together in a coherent whole. Any deliverables performed by the sponsor, the Corps project delivery team, or contractors shall be reviewed under the same standards used by the ATR team. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc.) and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home MSC. EC 1105-2-408 requires that DrChecks (<https://www.projnet.org/projnet/>) be used to document all ATR comments, responses, and associated resolution accomplished. This Review Plan outlines the proposed approach to meeting this requirement for the Corte Madera Creek, Marin County, California, General Reevaluation Report. ATR is required for this GRR.

(3) Independent External Peer Review. EC 1105-2-410 recharacterized the external peer review process that was originally added to the existing Corps review process via EC 1105-2-408. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. IEPR is managed by an outside eligible organization (OEO) that is described in the Internal Review Code Section 501(c) (3), is exempted from Federal tax under Section 501(a), of the Internal Revenue Code of 1986; is independent; is free from conflicts of interest; does not carry out or advocate for or against Federal water resources projects; and has experience in establishing and administering IEPR panels. The scope of review will address all the underlying planning, engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project. This Review Plan outlines the planned approach to meeting this requirement for the Corte Madera Creek, Marin County, California, GRR. IEPR is required for this GRR.

(4) Policy and Legal Compliance Review. In addition to the technical reviews, decision documents will be reviewed throughout the study process for their compliance with law and

policy. These reviews culminate in Washington-level determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the Chief of Engineers. Guidance for policy and legal compliance reviews is addressed further in Appendix H, ER 1105-2-100. Technical review described in EC 105-2-410 are to augment and complement the policy review processes by addressing compliance with published Army polices pertinent to planning products, particularly polices on analytical methods and the presentation of findings in decision documents. DQC and ATR efforts are to include the necessary expertise to address compliance with published planning policy. Counsel will generally not participate on ATR teams, but may at the discretion of the district or as directed by higher authority. When policy and/or legal concerns arise during DQC or ATR efforts that are not readily and mutually resolved by the PDT and the reviewers, the district will seek issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H ER 1105-2-100. IEPR teams are not expected to be knowledgeable of Army and administration polices, nor are they expected to address such concerns. An IEPR team should be given the flexibility to bring important issues to the attention of decision makers. Legal reviews will be conducted concurrent with ATR of the preliminary, draft and final feasibility report and environmental impact statement.

(5) Planning Center of Expertise (PCX) Coordination. EC 1105-2-408 and EC 1105-2-410 outline PCX coordination in conjunction with preparation of the Review Plan. This Review Plan is being coordinated with the PCX for Flood Risk Management (FRM). The PCX for FRM is responsible for the accomplishment and quality of ATR and IEPR for the Corte Madera Creek, Marin County, California, General Reevaluation Report.

(6) Review Plan Approval and Posting. In order to ensure the Review Plan complies with the principles of EC 1105-2-410 and the MSC's QMP, the Review Plan must be approved by the applicable MSC, in this case the Commander, South Pacific Division (SPD). Once the Review Plan is approved, the San Francisco District will post it to its district public website and notify SPD and the PCX for FRM.

(7) Safety Assurance Review. In accordance with Section 2035 of WRDA 2007, EC 1105-2-410 requires that all projects addressing flooding or storm risk management undergo a safety assurance review during design and construction. Safety assurance factors must be considered in all reviews for those studies. Implementation guidance for Section 2035 is under development. When guidance is issued, the GRR will address its requirements for addressing safety assurance factors, which at a minimum will be included in the draft report and appendices for public and agency review. Prior to preconstruction engineering and design (PED) of the identified for construction, a PMP will be developed that will include safety assurance review. Safety assurance review will also be accomplished during construction. Just north of Lagunitas Road Bridge and adjacent to the east bank is the Ross Fire Station and City Hall. South of the bridge on the east bank are single family residences and of the left bank is the parking lot of the post office and other businesses. A grammar school, high schools, and the College of Marin are adjacent to the existing channels. The population in the immediate area has been vulnerable to flood on different occasions. The average flood depth is 2 ft. The without project conditions population at risk is 1,000 in the floodplain. The population affected is 2,000.

## **2. PROJECT DESCRIPTION**

**A. Decision Document.** The purpose of the GRR is to identify and flood-related issues in the Corte Madera Creek, Marin County study area and determine the National Economic Development (NED plan).



The decision document will present planning, engineering, and implementation details of the recommended plan to allow final design and construction to proceed subsequent to approval of the recommended plan. The project is a General Reevaluation study undertaken to evaluate structural and non-structural FRM measures primarily related to structural solutions (channel widening and floodwalls) and possibly non-structural solutions (flood warning system, structural modifications – raising homes above the flood elevation, and a floodplain management plan). The sponsor for the project is the Marin County Flood Control and Water Conservation District (MCFCWCD). The sponsor provided a letter of intent stating their willingness to participate in the GRR and their understanding of the cost-sharing requirements for the construction of the project. In-kind services expected from the sponsor include assistance and any work pertaining to the requirements under the National Environmental Policy Act (NEPA). In addition, the sponsor will be responsible for any environmental regulatory requirements under the California Environmental Quality Act (CEQA).

**B. General Site Description.** Corte Madera Creek drains an area of approximately 28 square miles in Marin County, California, discharging into the San Francisco Bay about 9 miles north of the Golden Gate Bridge. Units 1, 2, and 3 of the authorized four-unit flood control project are on Corte Madera Creek extending from San Francisco Bay through the Towns of Corte Madera, Larkspur, Kentfield, and Ross. The study area includes Corte Madera Creek upstream from the present downstream terminus of the concrete channel in Unit 2, located about 600 feet downstream of the Lagunitas Road Bridge to the Sir Francis Drake Boulevard Bridge and the lands adjacent to this reach of the Creek.

Narrow valleys flanked with steep-sided parallel ridges, a terrain very typical of the California Coastal Ranges geomorphic province, characterize the region in which the study area is located. The most prominent feature in the terrain within the region is Mt. Tamalpais with an elevation of 2,604 feet. A large portion of the region consists of hilly and mountainous terrain covered principally with trees and heavy underbrush, although some areas are covered with grass and scattered trees. The small communities of the region are located on narrow valley floors. In many of these valleys, planted trees and shrubs typical to many Northern California suburbs have replaced the native vegetation. In the downstream area, the terrain is a flat wide plain that merges with the tidal marshes and mudflats surrounding San Pablo Bay. Since the study area lies upstream of USACE Station #318 +50, it is outside the jurisdiction of the Bay Conservation and Development Commission (BCDC) and is not subject to their review.

**C. Project Scope.** The GRR will focus on FRM along Corte Madera Creek from the end of the concrete channel to just north of the Lagunitas Road Bridge.

The purpose of this GRR is to perform a feasibility-level investigation by identifying and evaluating flood risk alternative plans to reduce the flood potential on Corte Madera Creek, in Marin County, Alameda County, California. The Federal objective for a flood control project is to increase contributions to national economic development consistent with protecting the nation's environment, pursuant to national environmental statutes, applicable executive orders, and other Federal planning requirements.

Under Section 11 of the Flood Control Act of 1944, the Corps of Engineers was called in to study possible solutions to the flooding problem in the Corte Madera Creek basin. A preliminary examination report of the area was completed in 1946. A subsequent report was completed in 1961, which included hydrology, engineering, and costs and benefits. The project as originally

authorized extended from the San Francisco Bay, up Corte Madera and San Anselmo Creeks, and through the cities of San Anselmo and Fairfax, for an approximate distance of 6.5 miles. That project length was split into six distinct units. Completed in late 1960's, Units 1 and 2 consist of an earth trapezoidal channel, extending three miles from the San Francisco Bay to Kentfield. The upper 1,500 feet of Unit 2 consists of a rectangular concrete channel. Unit 3, completed in 1971, extended the concrete channel 3,500 feet upstream, terminating 600 feet downstream of Lagunitas Road Bridge in the Town of Ross. The selected plan for Unit 4, which would have provided for a "100-year" level of protection<sup>1</sup> (6,900 cfs), included a concrete transition structure at the entrance to Unit 3, trapezoidal earthen channel and sediment trap, replacement of the Lagunitas Road bridge, floodwalls, bank stabilization, erosion control, and other environmental mitigation as outlined in Design Memorandum No. 2, Supplement No. 1, dated March 1987.

Unit 4 was scheduled to go into construction in 1972. It was first delayed by litigation regarding the requirement for a referendum vote. The case was finally settled when the State Court of Appeals ruled in favor of the Town of Ross on 15, August 1974. Construction was further delayed by environmental concerns of property owners who border on the creek. At the request of Congressman John Burton, USACE, in conjunction with a Citizens Advisory Committee, selected an Architect-Engineer firm to restudy Unit 4 to develop an alternate to the concrete channel that would be less damaging to the natural environment and include an extensive public participation process. This work was completed in the fall of 1977. An analysis of the reformulated project was outlined in the Design Memorandum (DM) #2 - Corte Madera Creek Flood Control Project Unit 4, which was completed in 1980. The DM was never approved. The project was transferred from the San Francisco District (CESPN) to the Sacramento District (CESPK) on 1 April 1982.

Unit 5, which ran upstream of the intersection of Sir Francis Drake Boulevard and Corte Madera Creek in Ross near the City of San Anselmo, was reclassified as inactive in 1984 due to the lack of local support for that portion of the project. The balance of the authorized project was held in abeyance pending an expression of support from local interests, and was finally reclassified as "inactive" in June 1984. The Water Resources Development Act of 1986 then directed the Corps to construct Unit 4, according to the 1977 authorized plan, and eliminated channel modifications upstream of Sir Francis Drake Boulevard (Units 5 & 6). In Fiscal Year 1997, Congress provided funding to initiate the re-evaluation study. MCFCWCD agreed to serve as a local sponsor.

In 1985, the Sacramento District developed a draft EIS and Draft Design Memorandum #2 that addressed community concerns about floodwall heights and alignments. Receipt of additional public comments resulted in further modifications to project, which were documented in the final supplemental environmental information statement (FSIES) published in November 1987. The public review period ended on January 2, 1988. At the local sponsor's request, a supplemental information paper was developed in response to the public's comments on the FSEIS. This paper was released to the public in August 1988. Concerns about the completion of Unit 4 were raised, as were concerns about capacity and the effects of sedimentation on Units 2 and 3. Therefore, WES conducted an extensive sedimentation study and determined the flow capacity in the existing concrete channel to be significantly less than the 0.01 percent storm.

---

<sup>1</sup> *Note that the previous studies defined the projects in terms of yearly levels of protection. These definitions of terms predate the recent requirements to define projects in terms of "exceedance levels." The Corps recognizes this and intends to use the newer terms in Phase Two of the study.*

On 20 January 1989, USACE and MCFCWCD agreed to work together to develop a separate document that looked at alternatives for Units 2 and 3, in combination with Unit 4. As a result, Supplemental Information Paper No 2 was developed, and the 40-year level of protection alternative (5,400cfs) was selected as the local sponsor's preferred plan. The project was reclassified from active to deferred status in 1992, pending endorsement of a consensus plan by the local sponsor. The Marin County Board of Supervisors approved the completion of Unit 4 by resolution in 1996. The renewed local interest led Congress to direct the Corps to re-evaluate the authorized project in 1999. Progress on the General Re-evaluation Report (GRR) continues.

A completed project will provide protection to residential, commercial, and public property along the creek. Besides reducing flooding, the project will fully recognize the environmental concerns expressed by the community. The Project Delivery Team (PDT) is performing studies and further analysis in the quest to complete the alternatives analysis and determine a NED plan. The environmental team member is working to update the baseline conditions and continue the NEPA process. The Regional Economic Development (RED) account and the Other Social Effects (OSE) account will also be addressed in the analysis. The future without-project hydrology is to be certified at the Feasibility Scoping Meeting milestone. Upon receipt of funding, certification of without project hydrology is scheduled in the upcoming tasks for the water resources section.

**D. Problems and Opportunities.** The primary flood-related problems in the study area are (1) damages incurred from flooding that affect Marin County, the Town of Ross, the unincorporated area of Kentfield, and other towns and cities, (2) fish passage for spawning limited by the project as constructed in the 1960s and 1970s, and (3) sedimentation. Opportunities include (1) Reduce risk to public safety due to flooding and (2) Incorporate environmentally friendly flood risk management solutions.

**E. Potential Methods.** Potential FRM measures range from fish ladder removal, natural grade roughened rock channel, biotechnical bank stabilization, bypass, and floodwalls. Non-structural floodplain management measures would also be considered. Some of the non-structural measures considered include a floodplain management plan, raising structures, and buy-out program, some of which have been instituted during the long period while this project was on hold or under study.

**F. Product Delivery Team.** The PDT is comprised of those individuals directly involved in the development of the decision document, whether representing the Corps or Sponsor. Individual contact information and disciplines are presented in appendix B.

**G. Vertical Team.** The Vertical Team includes District management, District Support Team (DST) and Regional Integration Team (RIT) staff as well as members of the Planning of Community of Practice (PCoP). Specific points of contact for the Vertical Team can be found in Appendix B.

**H. Model Certification.** The USACE Planning Models Improvement Program (PMIP) was established in 2003 to assess the state of planning models in the USACE and to make recommendations to assure that high quality methods and tools are available to enable informed decisions on investments in the Nation's water resources infrastructure and natural environment. The main objective of the PMIP is to carry out "a process to review, improve and validate analytical tools and models for USACE Civil Works business programs." In carrying out this initiative, a PMIP Task Force was established to examine planning model issues, assess the state of planning models in the Corps, and develop

recommendations on improvements to planning models and related analytical tools. The PMIP Task Force collected the views of Corps leaders and recognized technical experts, and conducted investigations and numerous discussions and debates on issues related to planning models. It identified an array of model-related problems, conducted a survey of planning models, prepared papers on model-related issues, analyzed numerous options for addressing these issues, formulated recommendations, and wrote a final report that is the basis for the development of this Circular. The Task Force considered ongoing Corps initiatives to address planning capability, and built upon these where possible. Examples include several efforts under the Planning Excellence Program (training, specialized planning centers of expertise, modeling); the Science & Engineering Technology (SET) initiative (an EC on the SET initiative models is expected to be published in August 2005) and associated Technical Excellence Network (TEN), which endeavors to provide uniform Science and Engineering tools and practices to the Corps and share them throughout; and, recognition of existing Quality Assurance/Quality Control programs and internal technical review within the Districts.

For the purposes of this Circular, planning models are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision-making. It includes all models used for planning, regardless of their scope or source, as specified in the following sub-paragraphs. This Circular does not cover engineering models used in planning which will be certified under a separate process to be established under SET.

The computational models to be employed in the Corte Madera Creek, Marin County, California, General Reevaluation Report have either been developed by or for the USACE. Model certification and approval for all identified planning models will be coordinated through the PCX as needed. Project schedules and resources will be adjusted to address this process for certification and PCX coordination. They are:

1. HEC-FDA (Current working version undergoing review for certification; expected to be certified within the first 1 year of the study): This model, developed by the Corps' Hydrological Engineering Center, will assist the PDT in applying risk analysis methods for flood risk management studies as required by, EM 1110-2-1419. This program:
  - Provides a repository for both the economic and hydrologic data required for the analysis
  - Provides the tools needed to understand the results
  - Calculates the Expected Annual Damages and the Equivalent Annual Damages
  - Computes the Annual Exceedence Probability and the Conditional Non-Exceedence Probability
  - Implements the risk-based analysis procedures contained in EM 1110-2-1619
2. IMPLAN: This model is a technique to measure the quantitative impacts on Regional Economic Development (RED) due to project alternatives.
  - This model is in the process of being approved by the PCX but does not require certification.
  - If the IMPLAN model is modified for Corte Madera Creek, possible certification requirements will be coordinated with the PCX for FRM.
3. Environmental models HEP (Habitat Evaluation Procedures), HSI (Habitat Suitability Index), and HGM (Hydrogeomorphic Model) may be used in the study. The certification and approval of these models, once final details are determined, will need to be

coordinated with the ECO-PCX.

The following are considered to be engineering models as opposed to planning models and undergo a different review and approval process for usage. Engineering tools anticipated to be used in this study are:

1. MCACES or MII: These are cost estimating models.
2. HEC-RAS: The function of this model is to complete one-dimensional hydraulic calculations for a full network of natural and man made channels. HEC-RAS major capabilities are:
  - o User interface
  - o Hydraulic Analysis
  - o Data storage and Management
  - o Graphics and reporting
3. HEC-FDA: HEC-FDA is designed to assist US Army Corps of Engineers (USACE) study members in using risk analysis procedures for formulating and evaluating flood risk management measures (EM 1110-2-1619, ER 1105-2-101). Also, will assist USACE staff in analyzing the economics of flood risk management projects. The program will address structural and non-structural measures. The software, 1) stores hydrologic and economic data necessary for an analysis, 2) provides tools to visualize data and results, 3) computes expected annual damage (EAD) and equivalent annual damages, 4) computes annual exceedance probability (AEP) and conditional non-exceedance probability as required for levee certification, and, 5) implements the risk analysis procedures described in EM 1110-2-1619.
4. HEC-FFA Flood frequency analysis. Used to analyze stream gage data to develop discharge frequency curves.
5. GEO HEC-RAS used to geo-reference and map floodplains.
6. GEO-HMS and HMS to develop discharge frequency curve for tributaries upstream from Ross (Ross Creek).

**I. Value Engineering (VE).** Value Engineering Study requirement will be incorporated into the review process during the feasibility phase. The value engineering requirement is performed closely with the ATR team.

### **3. AGENCY TECHNICAL REVIEW PLAN**

For feasibility studies, ATR is managed by the PCX. For this GRR, due to the heavy emphasis on flood risk management, the PCX for FRM will identify individuals to perform ATR. San Francisco District can provide suggestions on possible reviewers.

**A. General.** An ATR Manager shall be designated for the ATR process. The proposed ATR Manager for this project is to be determined, but will have expertise in project planning. The ATR Manager is responsible for providing information necessary for setting up the review, communicating with the Study Manager, providing a summary of critical review comments, collecting grammatical and editorial comments from the ATR team (ATRT), ensuring that the ATRT has adequate funding to perform the review, facilitating the resolution of the comments, and certifying that the ATR has been conducted and resolved in accordance with policy. ATR will be conducted for project planning, environmental compliance with experience in dense urban and with specialty in tidal and riverine habitats and endangered species, economics with risk analysis experience, hydrology operations and risk analysis, hydraulic design with experience in flood risk management projects with existing concrete structures in place, civil design/structural

engineering with experience in concrete channel design, geotechnical engineering with experience with natural grade river bottoms, cost engineering, real estate, cultural resources; reviews of more specific disciplines maybe identified if necessary.

**B. Agency Technical Review Team (ATRT).** The ATRT will be comprised of individuals that have not been involved in the development of the decision document and will be chosen based on expertise, experience, and/or skills. The members will roughly mirror the composition of the PDT and wherever possible, reside outside of the South Pacific Division region. It is anticipated that the team will consist of about 10 reviewers. The ATRT members will be identified at the time the review is conducted and will be presented in Appendix B.

**C. Communication.** The communication plan for the ATR is as follows:

(1) The team will use DrChecks to document the ATR process. The Study Manager will facilitate the creation of a project portfolio in the system to allow access by all PDT and ATRT members. An electronic version of the document, appendices, and any significant and relevant public comments shall be posted in Word format at: <ftp://ftp.usace.army.mil/pub/> at least one business day prior to the start of the comment period.

(2) The PDT shall send the ATR manager one hard copy (with color pages as applicable) of the document and appendices for each ATRT member such that the copies are received at least one business day prior to the start of the comment period.

(3) The PDT shall host an ATR kick-off meeting virtually to orient the ATRT during the first week of the comment period. If funds are not available for an on-site meeting, the PDT shall provide a presentation about the project, including photos of the site, for the team.

(4) The Study Manager shall inform the ATR manager when all responses have been entered into DrChecks and conduct a briefing to summarize comment responses to highlight any areas of disagreement.

(5) A revised electronic version of the report and appendices with comments incorporated shall be posted at <ftp://ftp.usace.army.mil/pub/> for use during back checking of the comments.

(6) Team members shall contact ATRT members or leader as appropriate to seek clarification of a comment's intent or provide clarification of information in the report. Discussions shall occur outside of DrChecks but a summary of discussions may be provided in the system.

(7) Reviewers will be encouraged to contact PDT members directly via email or phone to clarify any confusion. DrChecks shall not be used to post questions needed for clarification.

(8) The ATRT, the PDT, and the vertical team shall conduct an after action review (AAR) no later than 2 weeks after the policy guidance memo is received from HQUSACE for the for the FSM and draft reports.

#### **D. Funding**

(1) The PDT district shall provide labor funding by cross charge labor codes. Funding for travel, if needed, will be provided through government order. The Study Manager will work with the ATR manager to ensure that adequate funding is available and is commensurate with the

level of review needed. The current cost estimate for this review is \$100,000 for ATR and IEPR for all milestones, draft, and final documents. The IEPR estimate is to be \$70,000 and \$30,000 for ATR. The status of funds may delay ATR and IEPR in periods when the project awaits Congressional attention. Any funding shortages will be negotiated on a case by case basis and in advance of a negative charge occurring. The ATR costs for the Alternative Formulation Briefing Conference, External Peer Review (if required – refer to Chapter 4)), and ATR prior to public release of the EA will be determined at a point in time where the recommended plan is known. The cost for the EPR consultant contract will be 100% federal costs.

(2) The team leader shall provide organization codes for each team members and a responsible financial point of contact (CEFMS responsible employee) for creation of labor codes.

(3) Reviewers shall monitor individual labor code balances and alert the ATRT Study Manager to any possible funding shortages.

## **E. Timing and Schedule**

(1) Throughout the development of this document, the team will conduct seamless review to ensure planning quality.

(2) The ATR will be convened early in the study as possible, given that the General Reevaluation study has been in progress since 1999. The ATR will participate in a Technical Review Strategy Session (TRSS) with the PDT and DST. The TRSS is to review the basic plan of the study and the rationale for key planning assumptions, and verify its remaining elements.

(3) The ATR will be conducted on the Alternative Formulation Briefing documentation; the draft Feasibility Report; and if changes are made to the draft report, those changes will be reviewed in the Final Feasibility Report.

(4) The PDT will hold a “page-turn” session to review the draft report to ensure consistency across the disciplines and resolve any issues prior to the start of ITR. Writer/editor services will be performed on the draft prior to ITR as well.

(5) The ATR process for this document will follow the following timeline. Actual dates will be scheduled once the period draws closer. All products produced for these milestones will be reviewed, including those produced as in-kind services by the non-Federal sponsors.

## ATR Timeline <sup>2</sup>

ATR Timeline Task	Date
Participation in TRSS	Prior to AFB
Kickoff meeting	September 2009
ATR Alternatives Review Conference (ARC) Material <sup>3</sup>	October 2009
ATR ARC Comments	November 2009
PDT ARC Responses	November 2009
Back Check	November 2009
Alternative Formulation Briefing (AFB) Document	February 2010
ATR AFB Comments	February 2010
PDT AFB Responses	February 2010
Back check	February 2010
AFB Policy Memo Issued	March 2010
ATR Draft Report	March 2010
ATR Draft Report Comments	March 2010
PDT Draft Report Responses	March 2010
Back Check	April 2010
ATR Certification Draft Report	April 2010
Public Review of Draft Report	May 2010
ATR Final Report	July 2010
ATR Final Report Comments	August 2010
PDT Final Report Responses	October 2010
Back Check	October 2010
ATR Certification Final Report	November 2010
ATR After Action Review	December 2010
Final District Report Review	January 2011

### F. Review

(1) ATRT responsibilities are as follows:

(a) Reviewers shall review conference material and the draft report to confirm that work was done in accordance with established professional principles, practices, codes, and criteria and for compliance with laws and policy. Comments on the report shall be submitted into DrChecks.

(b) Reviewers shall pay particular attention to one's discipline but may also comment on other aspects as appropriate. Reviewers that do not have any significant comments pertaining to their assigned discipline shall provide a comment stating this.

(c) Grammatical and editorial comments shall not be submitted into DrChecks. Comments should be submitted to the ATR manager via electronic mail using tracked changes feature in the Word document or as a hard copy mark-up. The ATR manager shall provide these comments to the Study Manager.

(d) Review comments shall contain these principal elements:

- 1 a clear statement of the concern

---

<sup>2</sup> Dependant on the receipt of project funding

<sup>3</sup> Required by the Major Subordinate Command



- 2 the basis for the concern, such as law, policy, or guidance
- 3 significance for the concern
- 4 specific actions needed to resolve the comment

(e) The “Critical” comment flag in DrChecks shall not be used unless the comment is discussed with the ATR manager and/or the Study Manager first.

(2) PDT Team responsibilities are as follows:

(a) The team shall review comments provided by the ATRT in DrChecks and provide responses to each comment using “*Concur*”, “*Non-Concur*”, or “*For Information Only*”. *Concur* responses shall state what action was taken and provide revised text from the report if applicable. *Non-Concur* responses shall state the basis for the disagreement or clarification of the concern and suggest actions to negotiate the closure of the comment.

(b) Team members shall contact the PDT and ATRT managers to discuss any “Non-Concur” responses prior to submission.

## **G. Resolution**

(1) Reviewers shall backcheck PDT responses to the review comments and either close the comment or attempt to resolve any disagreements. Conference calls shall be used to resolve any conflicting comments and responses.

(2) Reviewers may “agree to disagree” with any comment response and close the comment with a detailed explanation. If reviewer and responder cannot resolve a comment, it should be brought to the attention of the ATR manager and, if not resolved by the ATR Manager, it should be brought to the attention of the planning chief who will need to sign the certification. ATRT members shall keep the ATR manager informed of problematic comments. The vertical team will be informed of any policy variations or other issues that may cause concern during HQ review.

## **H. Certification**

To fully document the ATR process, a statement of technical review will be prepared. Certification by the ATR Manager and the Study Manager will occur once issues raised by the reviewers have been addressed to the review team’s satisfaction and the final report is ready for submission for HQ review. Indication of this concurrence will be documented by the signing of a certification statement (Appendix A). A summary report of all comments and responses will follow the statement and accompany the report throughout the report approval process. An interim certification will be provided by the ATR team lead to indicate concurrence with the report to date until the final certification is performed when the report is considered final.

## **I. Feasibility Scoping Meeting (FSM)**

A FSM equivalent has been held in the past, but due to the many changes to the project, a without project update will be presented at the next feasibility milestone.

## **J. Alternative Formulation Briefing (AFB)**

After the alternative plans have been established and studied and the National Economic Development (NED) plan has been selected, an Alternative Formulation Briefing will be held. The AFB for this project will occur after the majority of the ATR comments have been resolved. It is possible that the briefing will result in additional technical or policy comments from high level reviewers for resolution. The resolution of significant policy comments may result in major changes to the document. Therefore, the ATR Manager will perform a brief review of the report to ensure that technical issues are resolved.

## **4. INDEPENDENT EXTERNAL PEER REVIEW PLAN**

This decision document will present the details of a GRR undertaken to evaluate structural and non-structural FRM and ER measures to address problems in the study area. EC 1105-2-408 set forth and EC 1105-2-410 reaffirmed thresholds that trigger IEPR: “In cases where there are public safety concerns, a high level of complexity, novel or precedent-setting approaches; where the project is controversial, has significant interagency interest, has a total project cost greater than \$45 million, or has significant economic, environmental and social effects to the nation, IEPR will be conducted.” This GRR is not expected to contain influential scientific information nor be a highly influential scientific assessment.

This study area is highly urbanized and consequently there are public safety concerns. The study is considered moderately complex because of the endangered species known to the area; the existing channel system; and the high degree of urbanization. This project has engendered significant controversy in the past, and this General Reevaluation Report will have significant agency and public interest. Public interest will involve urban residents, business owners, and public and private agencies. Flood control interests of the urban residents may not be completely harmonious with environmental interests. Further complicating the implementation of the flood project is the fact that the project is subject to limited funding. The majority of residents that would receive flood risk reduction from the Corps constructing a project in Unit 4 live in Ross. The Corps is aware to plan for any flows which may affect the lower reaches in the towns of Corte Madera and Kentfield, which are all in Marin County. The most controversial and challenging aspects of the project include lack of funding, the previous nature of the relationship of the citizens and agencies, historical conflict with citizens in the desire for green solutions, and that the project is not designed to contain the 1% flood.

The construction cost of a recommended plan may be in the low tens of millions of dollars (\$10M to \$30M range), so cost alone is not an impetus for an IEPR. The IEPR will be conducted because the project has been controversial in the past and because a new Environmental Impact Statement will be prepared to ensure public consideration and review of environmental issues. IEPR is currently estimated to be \$100,000. IEPR is a project cost. The IEPR panel review will be Federally funded. In-house costs associated with obtaining the IEPR panel contract as well as responding to IEPR comments will be shared with the sponsor on the same basis as the remainder of the study. It is not anticipated that the public, including scientific or professional societies, will be asked to nominate potential external peer reviewers.

The EIS will not be subject to an IEPR as this product is based entirely upon the data, evaluations and recommendations made in the GRR, which will undergo IEPR.

Disciplines that are anticipated to undergo IEPR are hydrology, hydraulic, civil, and geotechnical

engineering, environmental, and economics. Work undertaken as part of these technical disciplines is considered not highly complex. Specific factors to conduct the IEPR are (1) mitigating and restoring fish passage; (2) alternative bank armoring; and (3) the controversy that historically surrounds this project. Of these products that will undergo IEPR, all will be reviewed by the PDT and undergo DCQ prior to submittal for IEPR. This includes products that are produced by the non-Federal sponsors as in-kind services.

IEPR will be conducted for project planning, environmental compliance with experience in dense urban and with specialty in tidal and riverine habitats and endangered species, economics with risk analysis experience, hydrology operations and risk analysis, hydraulic design with experience in flood risk management projects with existing concrete structures in place, civil design/structural engineering with experience in concrete channel design, geotechnical engineering with experience with natural grade river bottoms, cost engineering, real estate, cultural resources; reviews of more specific disciplines maybe identified if necessary.

**A. Project Magnitude.** For reasons described in the preceding paragraphs, the magnitude of this project is determined as moderate.

**B. Project Risk.** This project is considered to have moderate overall risk. Assumptions made in this continuing project require an application of modeling and judgment and multiple levels of review. Public and agency input has and will be sought in order to minimize the potential for controversy. Uncertainty of success of the project ultimately will be low to moderate – if the proposed review processes are implemented - the methods used for evaluating the project are standard and the concept of implementing proposed project features is not innovative, though some elements may not have been implemented before in the combinations proposed here. The public and several engineering agencies are aware and have actively participated in assisting in reducing project risk in regards to design risk and consequence risk of project failure in terms of risk to life and property.

**C. Vertical Team Consensus.** This Review Plan will serve as the coordination document to obtain vertical team consensus. Subsequent to PCX approval, the plan will be provide to the vertical team for approval. MSC approval of the plan will indicate vertical team consensus.

**D. Products for Review.** Interim products for hydrology, hydraulic and geotechnical design and economics will be provided before the draft report is released for public review. The full IEPR panel will receive the entire draft feasibility report, environmental impact statement and all technical appendixes concurrent with public and agency review. The final report to be submitted by the IEPR panel must be submitted to the PDT within 60 days of the conclusion of public review. A representative of the IEPR panel must attend any public meeting(s) held during public and agency review of the draft report. The San Francisco District will draft a response to the IEPR final report and process it through the vertical team for discussion at the Civil Works Review Board (CWRB). An IEPR panel member must attend the CWRB. Following the CWRB, the Corps will issue final response to the IEPR panel and notify the public.

**E. Communication and Documentation.** The communication plan for the IEPR is as follows:

(1) The panel will use DrChecks to document the IEPR process. The Study Manager will facilitate the creation of a project portfolio in the system to allow access by all PDT and the OEO. An electronic version of the document, appendices, and any significant and relevant public comments shall be posted in Word format at: <ftp://ftp.usace.army.mil/pub/> at least one business day prior to the start of the comment period.

The OEO will compile the comments of the IEPR panelists, enter them into DrChecks, and forwards the comments to the District. The District will consult the PDT and outside sources as necessary to develop a proposed response to each panel comment. The District will enter the proposed response to DrChecks, and then return the proposed response to the panel. The panel will reply to the proposed response through the OEO, again using DrChecks. This final panel reply may or may not concur with the District's proposed response and the panels final response will indicate concurrence or briefly explain what issue is blocking concurrence. There will be no final closeout iteration. The District will consult the vertical team and outside resources to prepare an agency response to each comment. The initial panel comments, the District's proposed response, the panels reply to the District's proposed response, and the final agency response will all be tracked and archived in DrChecks for the administrative record. However, only the initial panel comments and the final agency responses will be posted. This process will continue to be refined as experience shows need for changes. This is specifically in accordance with the EC 1105-2-410 Frequently Asked Questions, dated 3 November 2008.

(2) The PDT shall send each IEPR panel member one hard copy (with color pages as applicable) of the document and appendices such that the copies are received at least one business day prior to the start of the comment period.

(3) The Study Manager shall inform the IEPR panel when all responses have been entered into DrChecks and conduct a briefing to summarize comment responses to highlight any areas of disagreement.

(4) A revised electronic version of the report and appendices with comments incorporated shall be posted at <ftp://ftp.usace.army.mil/pub/> for use during back checking of the comments.

(5) PDT members shall contact IEPR panel members as appropriate to seek clarification of a comment's intent or provide clarification of information in the report. Discussions shall occur outside of DrChecks but a summary of discussions may be provided in the system.

(6) The IEPR panel shall produce a final Review Report to be provided to the PDT not later than 60 days after the close of the public and agency review of the draft report. This report shall be scoped as part of the effort to engage the IEPR panel. The San Francisco District will draft a response report to the IEPR final report and process it through the vertical team for discussion at the CWRB. Following direction at the CWRB and upon satisfactorily resolving any relevant follow-on actions, the Corps will finalize its response to the IEPR Review Report and will post both the Review Report and the Corps final responses to the public website.

## **F. Funding**

The PCX for FRM will identify someone independent from the PDT to scope the IEPR and develop an Independent Government Estimate. The San Francisco District will provide funding to the IEPR panel.

## **5. PUBLIC AND AGENCY REVIEW**

The public and agencies have had and will have multiple opportunities to participate in this study. The earliest opportunity will be as part of the public scoping process during early years of the re-evaluation study. Public review of the draft feasibility report will occur after issuance of the AFB

policy guidance memo and concurrence by HQUSACE that the document is ready for public release. As such, public comments other than those provided at any public meetings held during the planning process will not be available to the review teams. Public review of the draft report will begin approximately 1 month after the completion of the ATR process and policy guidance memo, subject to adequate funding. The period will last a minimum of 45 days as required for an Environmental Impact Statement. One or more public workshops will be held during the public and agency review period. Comments received during the public comment period for the draft report could be provided to the ATR team prior to completion of the final Review Report and to the ATRT before review of the final Decision Document. The public review of necessary state or Federal permits will also take place during this period. A formal State and Agency review will occur concurrently with the public review. However, it is anticipated that intensive coordination with these agencies will have occurred concurrent with the planning process. Upon completion of the review period, comments will be consolidated in a matrix and addressed, if needed. A comment resolution meeting will take place if needed to decide upon the best resolution of comments. A summary of the comments and resolutions will be included in the document. A record of public participation will be written to describe opportunities for public, jurisdiction and agency participation in the study.

## **6. PLANNING CENTERS OF EXPERTISE COORDINATION**

The appropriate PCX for this document is the National Flood Risk Management Center of Expertise located at SPD. This Review Plan will be submitted to the PCX for FRM Program Manager, Eric Thaut, for review and comment. Since it was determined that this project is low to moderate risk, an IEPR will not be required. For ATR, the PCX is requested to nominate the ATR team as discussed in paragraph 3.b. above. The approved Review Plan will be posted to the San Francisco District's public website. Any public comments on the Review Plan will be collected by the Office of Water Project Review (OWPR) and provided to the San Francisco District for resolution and incorporation if needed.

Since congressional authorization is required, coordination with the Walla Walla District (NWW) Cost Estimating Center of Expertise will occur as required. That PCX will determine if the cost estimate will need to be reviewed by PCX staff.

## **7. APPROVALS**

The PDT will carry out the Review Plan as described. The Study Manager will submit the plan to the MSC Commander for approval. Formal coordination with PCX for FRM will occur through the PDT District Planning Chief.

## **8. POINTS OF CONTACT**

Questions about this Review Plan may be directed to the San Francisco District Project Delivery Team Planning contact or to the Program Manager for the Planning Center of Expertise for Flood Risk Management. Emails can be sent to: [CESPN-PA2@usace.army.mil](mailto:CESPN-PA2@usace.army.mil).

---

---

**REVIEW PLAN**

**CORTE MADERA CREEK, MARIN COUNTY, CALIFORNIA  
FLOOD RISK MANAGEMENT  
GENERAL REEVALUATION REPORT**

**SAN FRANCISCO DISTRICT**

---

---

**APPENDIX A  
STATEMENT OF TECHNICAL REVIEW**

**COMPLETION OF INDEPENDENT TECHNICAL REVIEW  
CORTE MADERA CREEK, MARIN COUNTY, CALIFORNIA  
FLOOD RISK MANAGEMENT**

**GENERAL REEVALUATION, ENVIRONMENTAL IMPACT STATEMENT REPORT  
AND APPENDICES**

The San Francisco District has completed the project implementation report (GRR report), Environmental Impact Statement report and appendices of the Corte Madera Creek, Marin County, General Reevaluation Report. Notice is hereby given that an agency technical review, that is appropriate to the level of risk and complexity inherent in the project, has been conducted as defined in the Review Plan. During the agency technical review, 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 obtained; and reasonableness of the result, including whether the product meets the customer's needs consistent with law and existing Corps policy. The ATR was accomplished by an agency team composed of staff from multiple districts. All comments resulting from the ATR have been resolved.

TBD \_\_\_\_\_

NAME  
Team Leader, Corte Madera Creek, Marin County  
General Reevaluation Report  
Agency Technical Review Team

\_\_\_\_\_ Date

## **CERTIFICATION OF AGENCY TECHNICAL REVIEW**

A summary of all comments and responses is attached. 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 the independent technical review of the project have been fully resolved.

---

Chief, Planning Division

---

Date

---

---

**REVIEW PLAN**

**CORTE MADERA CREEK, MARIN COUNTY, CALIFORNIA  
GENERAL REEVALUATION REPORT  
FLOOD RISK MANAGEMENT**

**SAN FRANCISCO DISTRICT**

---

---

**APPENDIX B**

**PRODUCT DELIVERY TEAM**

<b>Discipline</b>	<b>Phone</b>
Project Manager	415-503-6732
Study Manager/Planning <sup>1</sup>	
Civil Design	
Environmental Analysis	
Hydrology/Hydraulic Design	
Economics	
Cost Engineering	
Real Estate/Acquisition	
Cultural Resources	
Geotechnical Engineering	
Geography	

<sup>1</sup> Primary contact for this Review Plan.

**AGENCY TECHNICAL REVIEW TEAM**

<b>Name</b>	<b>Discipline</b>	<b>Phone</b>	<b>Email</b>
TBD	ATR Manager/Plan		
TBD	Civil Design		
TBD	Environmental Resources		
TBD	Hydrology/Reservoir		
TBD	Hydraulics		
TBD	Economics		
TBD	Cost Engineering <sup>1</sup>		
TBD	Real Estate/Lands		
TBD	Cultural Resources		
TBD	Geotechnical Engineering		

<sup>1</sup>The cost engineering team member nomination will be coordinated with the NWW Cost Estimating Center of Expertise as required. That PCX will determine if the cost estimate will need to be reviewed by PCX staff.



### INDEPENDENT EXTERNAL PEER REVIEW PANEL

Name	Discipline	Phone	Email
TBD	Hydrology		
TBD	Hydraulic Design		
TBD	Geotechnical Engineering		
TBD	Planning		
TBD	Environmental		
TBD	Economics		

### VERTICAL TEAM

Discipline	Phone
District Support Team Lead	
Regional Integration Team	

### PLANNING CENTER OF EXPERTISE FLOOD RISK MANAGEMENT

Discipline	Phone
Program Manager, PCX Flood Risk Management	

---

---

**REVIEW PLAN**

**CORTE MADERA CREEK, MARIN COUNTY, CALIFORNIA  
GENERAL REEVALUATION REPORT  
FLOOD RISK MANAGEMENT**

**SAN FRANCISCO DISTRICT**

---

---

**APPENDIX C**

**ACRONYMS AND ABBREVIATIONS**

<u>Term</u>	<u>Definition</u>	<u>Term</u>	<u>Definition</u>
AFB	Alternative Formulation Briefing	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
ASA(CW)	Assistant Secretary of the Army for Civil Works	OSE	Other Social Effects
ATR	Agency Technical Review	PCX	Planning Center of Expertise
CEQA	California Environmental Quality Act	PDT	Project Development Team
CESPD	Corps of Engineers, South Pacific Division	PPA	Project Partnership Agreement
DQC	District Quality Control	PL	Public Law
DX	Directory of Expertise	QMP	Quality Management Plan
EA	Environmental Assessment	RD	Reclamation District
EC	Engineering Circular	RED	Regional Economic Development
EDR	Engineering Document Report	WRCB	Water Resources Control Board
EIR	Environmental Impact Report	WRDA	Water Resources Development Act
EIS	Environmental Impact Statement		
EO	Executive Order		
FDR	Flood Damage Reduction		
FEMA	Federal Emergency Management Agency		
FRM	Flood Risk Management		
GRR	General Reevaluation Report		
IEPR	Independent External Peer Review		
ITR	Independent Technical Review		
MCFCWCD	Marin County Flood Control and Water Conservation District		
MSC	Major Subordinate Command		
NED	National Economic Development		
NEPA	National Environmental Policy Act		
O&M	Operation and maintenance		
OMB	Office and Management and Budget		

## Review Plan Checklist

**Date:** 26 February 2009

**Originating District:** San Francisco

**Project/Study Title:** Corte Madera Creek Flood Risk Management GRR

**District POC:**

**FRM-PCX Reviewer:**

Any evaluation boxes checked 'No' indicate the RP may not comply with ER 1105-2-410 (22 Aug 2008) and should be explained. Additional coordination and issue resolution may be required prior to MSC approval of the Review Plan.

1. Is the Review Plan (RP) a stand alone document?		
	EC 1105-2-410, Para 8a	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does it include a cover page identifying it as a RP and listing the project title, originating district or office, and date of the plan?</p> <p>b. Does it include a table of contents?</p> <p>c. Is the purpose of the RP clearly stated and EC 1105-2-410 referenced?</p> <p>d. Does it reference the Project Management Plan (PMP) of which the RP is a component?</p> <p>e. Does it succinctly describe the three levels of peer review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent Technical Peer Review (IEPR)?</p> <p>f. Does it clearly state that DQC and ATR are required for all decision documents and that IEPR may be required?</p> <p>g. Does it include a paragraph stating the title, subject, and purpose of the decision document to be reviewed?</p> <p>h. Does it list the names and disciplines of the Project Delivery Team (PDT)?*</p> <p><i>*Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.</i></p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>e. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>f. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>g. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>h. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Evaluation Requirements 1a through 1h were sufficiently addressed and comply with EC 1105-2-410. Include the Sub-Sections under the IEPR Section 4 of the RP in the Table of Contents. In the Project Description Section, 2C Project Scope, on page 4, use the term flood "risk" instead of "potential", and on pages 8 and 12, Section 3A and Section 4 replace the term "flood</p>	<p>EC 1105-2-410, Appendix B, Para 4a</p>

		<p>control" with "flood risk management" or "flood risk reduction" to be consistent with current Corps terminology. Also, Problems and Opportunities, Section 2(D), remove double commas at end of (1) sentence on page 6. Change abbreviation on page 9 in Funding Section from IEPF to IEPR.</p> <p>Changes have been made on p. 9, any terms with "flood control" have been changed to reflect "risk management"</p>
<p><b>2. Is the RP detailed enough to assess the necessary level and focus of peer review?</b></p>	<p>EC 1105-2-410, Appendix B, Para 3a</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does it indicate which parts of the study will likely be challenging?</p> <p>b. Does it provide a preliminary assessment of where the project risks are likely to occur and what the magnitude of those risks might be?</p> <p>c. Does it indicate if the project/study will include an environmental impact statement (EIS)?</p> <p><i>Is an EIS included? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></i> <i>If yes, IEPR is required.</i></p> <p>d. Does it address if the project report is likely to contain influential scientific information or be a highly influential scientific assessment?</p> <p><i>Is it likely? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></i> <i>If yes, IEPR is required.</i></p> <p>e. Does it address if the project is likely to have significant economic, environmental, and social affects to the nation, such as</p>	<p>EC 1105-2-410, Appendix B, Para 3a</p> <p>EC 1105-2-410, Appendix B, Para 3a</p> <p>EC 1105-2-410 Para 7c &amp; 8f</p> <p>EC 1105-2-410, Appendix B, Para 4b</p> <p>EC 1105-2-410, Para 6c</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>e. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>

<p>(but not limited to):</p> <ul style="list-style-type: none"> <li>• more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources?</li> <li>• substantial adverse impacts on fish and wildlife species or their habitat, prior to implementation of mitigation?</li> <li>• more than negligible adverse impact on species listed as endangered or threatened, or to the designated critical habitat of such species, under the Endangered Species Act, prior to implementation of mitigation?</li> </ul> <p><i>Is it likely? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></i> <i>If yes, IEPR is required.</i></p> <p>f. Does it address if the project/study is likely to have significant interagency interest?</p> <p><i>Is it likely? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></i> <i>If yes, IEPR is required.</i></p> <p>g. Does it address if the project/study likely involves significant threat to human life (safety assurance)?</p> <p><i>Is it likely? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></i> <i>If yes, IEPR is required.</i></p> <p>h. Does it provide an estimated total project cost?</p> <p><i>What is the estimated cost: <u>\$10M-\$30M</u></i> <i>(best current estimate; may be a range)</i></p> <p><i>Is it &gt; \$45 million? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></i> <i>If yes, IEPR is required.</i></p> <p>i. Does it address if the project/study will likely be highly controversial, such as if there will be a significant public dispute as to the size, nature, or effects of the project or to the economic or environmental costs or benefits of the project?</p> <p><i>Is it likely? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></i></p>	<p>EC 1105-2-410 Para 8f</p> <p>EC 1105-2-410 Para 8f</p> <p>EC 1105-2-410 Para 8f</p> <p>EC 1105-2-410, Para 6c</p> <p>EC 1105-2-410, Appendix D, Para 1b</p> <p>EC 1105-2-410, Appendix D, Para 1b</p> <p>EC 1105-2-410, Appendix D, Para 1b</p>	<p>f. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>g. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>h. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>i. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>j. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Include verbage indicating which parts of the study are challenging in RP, as per checklist item 2a. This verbage should support the detail that is mainly provided in the IEPR section 4 on page 12 of the RP and support the qualifications required for each of the study disciplines. Other checklist items are sufficiently addressed. The estimated total project cost is expected to be below \$45M however due to the</p>
--	--	---

<p><i>If yes, IEPR is required.</i></p> <p>j. Does it address if the information in the decision document will likely be based on novel methods, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices?</p> <p><i>Is it likely? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></i>  <i>If yes, IEPR is required.</i></p>	<p>EC 1105-2-410, Appendix D, Para 1b</p>	<p>controversary surrounding the competing flood risk mangement goals and environmental goals, an EIS will be included and IEPR is required.</p>
<p><b>3. Does the RP define the appropriate level of peer review for the project/study?</b></p>	<p>EC 1105-2-410, Para 8a</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does it state that DQC will be managed by the home district in accordance with the Major Subordinate Command (MSC) and district Quality Management Plans?</p> <p>b. Does it state that ATR will be conducted or managed by the lead PCX?</p> <p>c. Does it state whether IEPR will be performed?</p> <p><i>Will IEPR be performed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></i></p> <p>d. Does it provide a defensible rationale for the decision on IEPR?</p> <p>e. Does it state that IEPR will be managed by an Outside Eligible Organization, external to the Corps of Engineers?</p>	<p>EC 1105-2-410, Para 7a</p> <p>EC 1105-2-410, Appendix D, Para 3a</p> <p>EC 1105-2-410, Appendix B, Para 4b</p> <p>EC 1105-2-410, Para 7c</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>e. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Evaluation Requirements 3a through 3e were sufficiently addressed. A defensible rationale for recommending IEPR is provided in Section 4 of the RP. Recommend adding one more sentence on what aspect of the project makes it controversial to page 12.</p> <p>An additional sentence was included under the IEPR section describing controversial and challenges in regard to the project. (At the end of p.11/beg p.12)</p>

<p><b>4. Does the RP explain how ATR will be accomplished?</b></p>	<p>EC 1105-2-410, Appendix B, Para 4l</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does it identify the anticipated number of reviewers?</p> <p>b. Does it provide a succinct description of the primary disciplines or expertise needed for the review?</p> <p>c. Does it indicate that ATR team members will be from outside the home district?</p> <p>d. Does it indicate that the ATR team leader will be from outside the home MSC?</p> <p>e. Does the RP state that the lead PCX is responsible for identifying the ATR team members and indicate if candidates will be nominated by the home district/MSD?</p> <p>f. If the reviewers are listed by name, does the RP describe the qualifications and years of relevant experience of the ATR team members?*</p> <p><i>*Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.</i></p>	<p>EC 1105-2-410, Appendix B, Para 4f</p> <p>EC 1105-2-410, Appendix B, Para 4g</p> <p>EC 1105-2-410, Para 7b</p> <p>EC 1105-2-410, Para 7b</p> <p>EC 1105-2-410, Appendix B, Para 4k(1)</p> <p>EC 1105-2-410, Appendix B, Para 4k(1)</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>e. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>f. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> n/a <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Evaluation Requirements 4a through 4f were sufficiently addressed and comply with ER 1105-2-410. The number of reviewers, 10, is supplied and Appendix B provides the names and disciplines of the Product Delivery Team. The Agency Technical Review Team will be determined by the PCX for FRM. The disciplines and the expertise required is provided in Section 3A.</p>
<p><b>5. Does the RP explain how IEPR will be accomplished?</b></p>	<p>EC 1105-2-410, Appendix B, Para 4k &amp; Appendix D</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p>
<p>a. Does it identify the anticipated number of reviewers?</p> <p>b. Does it provide a succinct description of the primary disciplines or expertise needed for the review?</p> <p>c. Does it indicate that the IEPR reviewers will be selected by an Outside Eligible Organization and if candidates will be</p>	<p>EC 1105-2-410, Appendix B, Para 4f</p> <p>EC 1105-2-410, Appendix B, Para 4g</p> <p>EC 1105-2-410, Appendix B, Para 4k(1) &amp;</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Section 4, IEPR Plan, of the RP addresses</p>

<p>nominated by the Corps of Engineers?</p> <p>d. Does it indicate the IEPR will address all the underlying planning, safety assurance, engineering, economic, and environmental analyses, not just one aspect of the project?</p>	<p>Appendix D, Para 2a</p> <p>EC 1105-2-410, Para 7c</p>	<p>checklist requirements 5a through 5d. However, more detail should be provided regarding the disciplines needed for the IEPR review rather than just a listing (page 13). Recommend adding a statement that ties the specific factors that make the project complex to the disciplines needed for IEPR. Also, add geotechnical engineering discipline to text on page 13 to match IEPR table in Appendix B. Anticipated number of reviewers can be added to RP to match the number of disciplines shown in the IEPR table in Appendix B.</p> <p>: Geotechnical engineering discipline added to IEPR(4) on pgs. 11/12. An additional paragraph was added to describe the specific factors and disciplines needed for IEPR.</p>
<p><b>6. Does the RP address peer review of sponsor in-kind contributions?</b></p>		<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does the RP list the expected in-kind contributions to be provided by the sponsor?</p> <p>b. Does it explain how peer review will be accomplished for those in-kind contributions?</p>	<p>EC 1105-2-410, Appendix B, Para 4j</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: In-kind contributions by the sponsor are mentioned on top of page 2 in Section 1B (1) of the RP. Expected in-kind contributions to be provided by the sponsor should be listed in the</p>



		<p>RP to meet requirements of checklist requirement 6a. Listing could added to the top of page 4 in Section 2A which identifies the name of the local sponsor.</p> <p>n-kind verbage added to section 2A.</p>
<b>7. Does the RP address how the peer review will be documented?</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does the RP address the requirement to document ATR and IEPR comments using DrChecks?</p> <p>b. Does the RP explain how the IEPR will be documented in a Review Report?</p> <p>c. Does the RP document how written responses to the IEPR Review Report will be prepared?</p> <p>d. Does the RP detail how the district/PCX will disseminate the final IEPR Review Report, USACE response, and all other materials related to the IEPR on the internet and include them in the applicable decision document?</p>	<p>EC 1105-2-410, Para 8g(1)</p> <p>EC1105-2-410, Appendix B, Para 4k(13)(b)</p> <p>EC 1105-2-410, Appendix B, Para 4l</p> <p>EC 1105-2-410, Para 8g(2) &amp; Appendix B, Para 4l</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p> <p>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Checklist requirements 7a through 7d are addressed in the Communication and Documentation Sub-Sections of the ATR and IEPR Sections of the RP:</p>
<b>8. Does the RP address Policy Compliance and Legal Review?</b>	EC 1105-2-410, Para 7d	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Section 1(B) of the RP sufficiently addresses Policy Compliance and Legal Review Checklist Requirement 8.</p>
<b>9. Does the RP present the tasks, timing and sequence (including deferrals), and costs of reviews?</b>	EC 1105-2-410, Appendix B, Para 4c & Appendix C, Para 3d	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does it provide a schedule for ATR including review of the Feasibility Scoping Meeting (FSM) materials, Alternative</p>	EC 1105-2-410, Appendix C, Para 3g	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>

<p>Formulation Briefing (AFB) materials, draft report, and final report?</p> <p>b. Does it include interim ATR reviews for key technical products?</p> <p>c. Does it present the timing and sequencing for IEPR?</p> <p>d. Does it include cost estimates for the peer reviews?</p>	<p>EC 1105-2-410, Appendix C, Para 3g</p>	<p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p> <p>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Sub-Sections C and D of Section 3 of the RP sufficiently addressed Evaluation Requirements 9a through 9d. Please verify if estimated total cost of ATR and IEPR is \$100,000 as shown on page 9, Funding Section 3D, and Section 4 states estimated cost of \$60,000 for just IEPR on page 13.</p> <p>We've estimated \$20K for each ATR (AFB and Draft Report) and \$60K for IEPR</p>
<p><b>10. Does the RP indicate the study will address Safety Assurance factors (required for Flood Risk Management and Coastal Storm Damage Reduction projects)?</b></p> <p>Factors to be considered include:</p> <ul style="list-style-type: none"> <li>• Where failure leads to significant threat to human life</li> <li>• Novel methods\complexity\ precedent-setting models\policy changing conclusions</li> <li>• Innovative materials or techniques</li> <li>• Design lacks redundancy, resiliency of robustness</li> <li>• Unique construction sequence or acquisition plans</li> <li>• Reduced\overlapping design construction schedule</li> </ul>	<p>EC 1105-2-410, Para 2 &amp; Appendix D, Para 1c</p>	<p><b>Yes</b> <input checked="" type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>n/a</b> <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Section 1B(7) and Section 4B of the RP addresses checklist requirement 10. More detail should be added to the Project Risk Section of the RP regarding design risk (redundancy, resiliency) and consequence risk of project failure in terms of risk to life and property (Safety Assurance factors). For example, what were depths of flooding in previous floods and were lives lost or endangered?</p> <p>Information was added to Project Risk and Safety Assurance</p>

		Sections in 4B and 1B(7).
<b>11. Does the RP address model certification requirements?</b>	EC 1105-2-407	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does it list the models and data anticipated to be used in developing recommendations (including mitigation models)?</p> <p>b. Does it indicate the certification/approval status of those models and if certification or approval of any model(s) will be needed?</p> <p>c. If needed, does the RP propose the appropriate level of certification/approval for the model(s) and how it will be accomplished?</p>	EC 1105-2-410, Appendix B, Para 4i	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Section 2H on pages 6-8 of the RP sufficiently addresses checklist requirements 11a through 11c.</p>
<b>12. Does the RP address opportunities for public participation?</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does it indicate how and when there will be opportunities for public comment on the decision document?</p> <p>b. Does it indicate when significant and relevant public comments will be provided to reviewers before they conduct their review?</p> <p>c. Does it address whether the public, including scientific or professional societies, will be asked to nominate potential external peer reviewers?</p> <p>d. Does the RP list points of contact at the home district and the lead PCX for inquiries about the RP?</p>	<p>EC 1105-2-410, Appendix B, Para 4d</p> <p>EC 1105-2-410, Appendix B, Para 4e</p> <p>EC 1105-2-410, Appendix B, Para 4h</p> <p>EC 1105-2-410, Appendix B, Para 4a</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Section 5 Public and Agency Review on Pages 14 and 15 of the RP sufficiently address the Evaluation Requirements 12 a through 12 d.</p>
<b>13. Does the RP address coordination with the appropriate Planning Centers of Expertise?</b>	EC 1105-2-410, Para 8a	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does it state if the project is single or multi-purpose? Single <input checked="" type="checkbox"/> Multi <input type="checkbox"/></p> <p>b. Does it identify the lead PCX for peer review? Lead PCX: <b>FRM</b></p> <p>c. If multi-purpose, has the lead PCX coordinated the review of the RP with the</p>	EC 1105-2-410, Appendix D,	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>c. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p> <p><b>Comments:</b> Reviewer: Section 6 Planning</p>

<p>other PCXs as appropriate?</p>	<p>Para 3c</p>	<p>Centers of Expertise Coordination on page 11 of the RP sufficiently addresses Evaluation Requirements 13 a through 13 c.</p>
<p><b>14. Does the RP address coordination with the Cost Engineering Directory of Expertise (DX) in Walla Walla District for ATR of cost estimates, construction schedules and contingencies for all documents requiring Congressional authorization?</b></p>	<p>EC 1105-2-410, Appendix D, Para 3</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does it state if the decision document will require Congressional authorization?</p> <p>b. If Congressional authorization is required, does the state that coordination will occur with the Cost Engineering DX?</p>		<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p> <p><b>Comments:</b> Reviewer: The footnote with Appendix B acknowledges coordination with NNW Cost Estimating Center of Expertise as required to address Evaluation Requirements 14 a and 14 b. Add to the text of the RP the connection between Congressional authorization and the Cost Engineering DX requirement. Cost Engineering DX requirement added to the body of the document on p. 14, #6</p>
<p><b>15. Other Considerations:</b> This checklist highlights the minimum requirements for an RP based on EC 1105-2-410. Additional factors to consider in preparation of the RP include, but may not be limited to:</p> <p>a. Is a request from a State Governor or the head of a Federal or state agency to conduct IEPR likely?</p> <p>b. Is the home district expecting to submit a waiver to exclude the project study from IEPR?</p>	<p>EC 1105-2-410, Appendix D, Para 1b</p> <p>EC 1105-2-410, Appendix D, Para 1d</p>	<p><b>Comments:</b> Reviewer: 15a through 15d are not mentioned in RP and are not assumed to be issues.</p>

<p>c. Are there additional Peer Review requirements specific to the home MSC or district (as described in the Quality Management Plan for the MSC or district)?</p> <p>d. Are there additional Peer Review needs unique to the project study?</p>		
<p><b>Additional Comments:</b> Reviewer: Excellent RP prepared for the GRR. Additional detail is required to be in full compliance with EC 1105-2-410. See review comments for each checklist requirement section. Coordination with the FRM PCX and secondary PCX should be completed and ATR and IEPR member names should be incorporated when available. Finally, recommend adding a table toward the end of the RP that defines the acronyms used in the text.</p> <p>An acronyms and abbreviations table has been added as Appendix C.</p> <p>Reviewer: Additional detail was added and the RP is in full compliance with EC 1105-2-410. Coordination with the FRM PCX and secondary PCX is still needed to add ATR and IEPR member names to the RP when available.</p>		

## CESPD SUPPLEMENTAL REVIEW PLAN CHECKLIST

25 March 2009

Review Plan: Corte Madera, Marin County, California, Flood Risk Management Feasibility Study.

Approval of RP(s) rests with Division Commanders, but management and coordination with the appropriate Planning Center of Expertise. The Flood Risk Management PCX has developed a review checklist for its RP coordination and management responsibilities. Below is a regional supplemental checklist identifying the regional quality management requirements from CESPD's QMP, Appendix C, Planning.

Following are review process principles from EC 1105-2-410, Review of Decision Documents:

- 1 Reviews significantly improve product quality
- 2 Peer review is concurrent with product development
- 3 Agency technical reviews by another district will be performed on all products
- 4 ATR teams should be chaired by another Division
- 5 Civil Works policy reviews must be consistent

### CHECKLIST

1. Is there a Technical Review Strategy Session identified early in the study process? (See Appendix C paragraph 8.2.)

Response: No. The TRSS is scheduled to occur "prior to AFB." It is a SPD requirement to conduct the initial TRSS early in the study process. This is to ensure that the scope of the study is appropriate and agreed to by the PDT, ATR and DST. Holding it prior to the AFB is too vague in terms of schedule. The Review Plan should indicated the TRSS is earlier in the study schedule.

2. Are there any potential Continuing Authority Program (CAP) "spinoffs" identified, and the appropriate QCP identified for them?

Response: No potential CAP projects have been identified to date.

3. Are the review costs identified? for District Quality Control (DCQ), ATR, and Independent External Technical Review (IETR)?

Response: A combined ATR and IEPR cost of \$100,000 is identified in the discussion on ATR. Costs should be broken out between the separate reviews. DQC is not addressed in this Review Plan; the Review Plan indicates that DQC is discussed in the PMP.

Response: Costs have been separated, DQC is addressed on p. 1

4. Does the RP identify seamless technical review (8.4) including supervisory oversight of the technical products? (8.5)

Response: Yes

5. Does the RP identify the recommended review comment content and structure? (8.5.4)

Response: Yes.

6. The RP should encourage face-to-face resolution of issues between PDT and reviewers. (8.5.5)

Response: The Review Plan indicates communication will occur most likely by teleconference. This will be done where possible. If the reviewers are at many locations, different methods including email, VTC, and conference calls will be used by team members to resolve issues between the PDT and reviewers.

7. And if issues remain, does the RP must identify an appropriate dispute resolution process? (8.6)

Response: Yes.

8. The RP must require documentation of all the significant decision and leave a clear audit trail. (8.5.6)

Response: Included in the RP are the methods for documentation on significant decisions for review related issues. Issues not related to review are not discussed in the Review Plan.

9. Does the RP identify all the requirements for technical certifications? (8.5.7)

Response: Yes.

10. Does the RP identify the requirement that future without-project hydrology is certified at the Feasibility Scoping Meeting? (8.5.8)

Response: No. The Review Plan should indicate the anticipated schedule for certification of the future without-project hydrology and acknowledge its requirement.

Response: The review plan has been amended on page 6 to include discussion on without-project hydrology.

11. Does the RP fully address products developed by contractors? (8.10)

Response: The Review Plan does not indicate that contracts are currently planned. If in the future contracts are planned, this should be addressed in updates to the Review Plan.

Response: Products delivered by contractors is addressed on p.2, section 2 ATR

12. Is the need for a VE study identified and incorporated into the review process subsequent to the feasibility scoping meeting? (8.11)

Response: No. The VE study should be acknowledged in the Review Plan as a requirement and a schedule for accomplishment indicated.

Response: VE has been added to the RP on p. 8

13. Does the RP include a Feasibility Alternative Review Milestone, where CESPDP buy-in to the recommended plan is obtained. (12.1)

Response: Yes.

14. The RP should identify the final public meeting milestone. (See Appendix C, Enclosure 1, SPD Milestones)

Response: Yes. It is discussed in part 5, Public and Agency Review.

15. Does the RP identify the report approval process and if there is a delegated approval authority?

Response: Yes. Delegation is not considered applicable at this time. The Review Plan indicates the final GRR is anticipated to go to Congress for potential authorization.

Other Comments:

16. Model Certification. The Review Plan indicates that IMPLAN is to be used to model RED benefits and indicate that the model is in the process of being approved by the PCX, but does not require certification. If the study requires specific algorithms that calculate business losses due to inundation durations or interruptions, the PDT should consult with the PCX to determine if certification for the specific study is required.

Response: The IMPLAN section has been modified to suggest that certification requirements will be coordinated with the PCX if needed.

17. The Review Plan should include a discussion of the Feasibility Scoping Meeting USACE milestone requirement (SPD F3 milestone). If this has already occurred, it should be mentioned and also specify if the milestone requirements were satisfactorily met.

Response: A section regarding the FSM has been added to the RP.

18. The Review Plan, part 6, PCX Coordination, incorrectly identifies \_\_\_\_\_ as the



PCX Director; [redacted] is the Program Manager; [redacted] is the acting PCX Director.

Response: [redacted] title has been corrected to reflect "Program Manager"

19. The Review Plan, part 7, Approvals, indicates that the District Planning Chief will approve the Review Plan; Review Plans are approved by the MSC Commander.

Response: The approvals section has been changed to reflect approval lies with the MSC Commander