



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

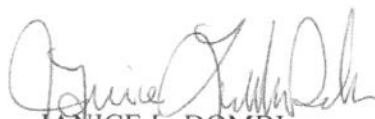
MEMORANDUM FOR Commander, San Francisco District, ATTN: CESPN-PF,

Subject: Review Plan approval for the Estudillo Canal, San Leandro, California Flood Risk Management Feasibility Study.

1. The attached Review Plan for the Estudillo Canal, San Leandro, 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, t 415-503-6852.
3. The Review Plan does not include 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


25 FEB 2009

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

SUBJECT: Request for Approval of Review Plan for the Estudillo Canal, San Leandro, 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,


Thomas R. Kendall
Chief, Planning Branch
San Francisco District

Encls

17 February 2009

MEMORANDUM FOR _____ and Tim Kelleher, San Francisco District

SUBJECT: Estudillo Canal, San Leandro, California, Flood Risk Management Feasibility 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 _____ Program Manager for the FRM-PCX at 415-503-6852.

Encl

Program Manager, FRM-PCX

REVIEW PLAN

**ESTUDILLO CANAL, SAN LEANDRO, CALIFORNIA
FLOOD RISK MANAGEMENT
FEASIBILITY STUDY**

SAN FRANCISCO DISTRICT

MARCH 2009

Revision 1 – N/A
FRM-PCX Review

REVIEW PLAN

**ESTUDILLO CANAL FEASIBILITY STUDY REPORT, SAN LEANDRO, CALIFORNIA
FLOOD RISK MANAGEMENT**

SAN FRANCISCO DISTRICT

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REVIEW PLAN

ESTUDILLO CANAL, SAN LEANDRO, CALIFORNIA FLOOD RISK MANAGEMENT FEASIBILITY STUDY

SAN FRANCISCO DISTRICT

1. PURPOSE AND REQUIREMENTS

A. Purpose. This document outlines the Review Plan for the Estudillo Canal, San Leandro, California, Flood Risk Management Feasibility Study. This feasibility process is anticipated to cumulate in a decision document to Congress for potential authorization of a new project. 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. The Estudillo Canal Feasibility Report is anticipated to result in recommendations to Congress for authorization of a project and is therefore covered by this EC.

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 Estudillo Canal, San Leandro, California, Feasibility Study 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 feasibility study. 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 Estudillo Canal, San Leandro, California, Feasibility Study 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 Estudillo Canal, San Leandro, California Feasibility Study, 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 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 (ATR). 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 Estudillo Canal, San Leandro, California, Feasibility Study. ATR is required for this study.

(3) Independent External Peer Review (IEPR). 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 Estudillo Canal, San Leandro, California, Feasibility Study. IEPR is not required for this study.

(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 for the Estudillo Canal, San Leandro, California, Feasibility Study.

(6) Review Plan Approval and Posting. In order to ensure the Review Plan is in compliance 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 study 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. Of the several structures in the project area, approximately 1,129 are qualified as single family residences and multiple family residences. The flood depths will likely not threaten lives of residents as the flooding is generally characterized as backwater-type flooding and therefore the velocity would not be too great. The rate of rise of the flooding could be rapid with little advance warning. The flood depths in the immediate project area vary in range from 0.4 to five feet for a 0.01 percent flood. The channel is primarily abutted by residences on both banks. The population in the immediate area has lived there for an extensive amount of time and there is not a vulnerable population at risk and no critical structures are threatened.

2. PROJECT DESCRIPTION

A. Decision Document. The purpose of the study is to identify and flood-related issues in the Estudillo Canal, San Leandro 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 Investigations study undertaken to evaluate structural and non-structural FRM measures primarily related to structural solutions (levees and floodwalls) and possibly non-structural solutions (flood warning system and structural modifications – raising homes above the flood elevation). Alameda County Flood Control and Water Conservation (ACPWA) District and San Francisco District executed a FCSA in September 2007 that allows the sponsor to provide their half of project costs via in-kind services to the Corps or through cash. The sponsor has chosen to provide the majority of their contributions through in-kind services and is expected to continue this pattern for the remainder of the Feasibility Phase. Contractors will potentially be utilized for the environmental element of the study.

B. General Site Description. The Estudillo Canal watershed has a total drainage area of approximately 9.4 square-miles. The area is bounded by San Francisco Bay to the west, Fairmont Drive to the east, Lewelling Boulevard to the south, and Williams Street to the north. The easterly portion of the watershed is located in the Castro Valley and San Lorenzo unincorporated areas, and the westerly portion is the City of San Leandro.

The general topography of the Estudillo Canal watershed, which is located in the City of San Leandro constitutes a gentle slope towards the bay while the rest of the watershed, located in the unincorporated areas, lies on the coastal hill of the eastern Alameda County. The run-off drainage pattern of the watershed is from the coastal hill to the San Francisco Bay.

This study is investigating potential modifications of the following project: Zone 2, Line A (Estudillo Canal) Flood Control Project. Estudillo Canal is a flood control facility consisting of a combination of earth channels, concrete channels, and street culvert crossings. The total length of the open channel is approximately 24,500 linear feet. The area consists mostly of developed residential and commercial properties except for the fairly small undeveloped area in the upper watershed.

The Zone 2, Line A flood control facility was designed in 1956 by the Alameda County Flood Control and Water Conservation District prior to the establishment of the FEMA National Flood Insurance Program (NFIP), and was designed to contain a 15-year storm. Under current NFIP requirements, the existing flood control facility is inadequate and unable to contain the FEMA 100-year design flow.

C. Project Scope. The study will focus on FRM along the Estudillo Canal from Interstate 880 to the San Francisco Bay.

The purpose of this Study is to perform a feasibility-level investigation by identifying and evaluating potential alternative plans to reduce the flood potential on Estudillo Canal, in San Leandro, 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.

The preliminary alternative screening (as documented in the Section 905(b) Reconnaissance Report, approved 12 October 2004), indicated that alternatives that provide maximum flood risk management, i.e., raising the sides of the trapezoidal canal, or construction of a bypass canal have the greatest potential for implementation. A project could potentially protect approximately 1,800 residential properties in the study area. There are approximately 1,530 structures in the .02

probability event flood plain and approximately 900 structures in the .04 probability event flood plain. Based on this information, there appears to be potential project alternatives that would be consistent with Army policies, costs, benefits, and environmental impacts. Since flood risk management is an output with a high budget priority and that reduction in flood risk is the primary output of the alternatives to be evaluated in the feasibility phase, there is a Federal interest in conducting the feasibility study. The Regional Economic Development (RED) account and the Other Social Effects (OSE) account will also be addressed in the analysis.

D. Problems and Opportunities. The primary flood-related problems in the study area are (1) San Leandro and other cities incur damages from flooding and (2) Debris get caught in the channel constricting flow. Opportunities include (1) Reduce risk to public safety due to flooding and (2) Reduce public risk of mosquitoes and other avoidable insect nuisance problems and (3) Ecosystem restoration or recreation at downstream mouth of creek

E. Potential Methods. Potential FRM measures range from adding floodwalls, altering crossings, and/or modifying the channel within the floodplains to increase conveyance through channels and floodway areas, enlarging culverts, demolishing the weir at I-880 and a bypass channel beneath Manor Boulevard. 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.

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. The without-project hydrology certification was complete 14 March 2007.

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 Estudillo Canal, San Leandro, California, Feasibility Study 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 Estudillo Canal, possible certification requirements will be coordinated with the PCX for FRM.
3. Additional Planning Models: For any models for ecosystem mitigation, if determined to be necessary, the PCX for Ecosystem Restoration will be consulted to resolve certification status and possible requirements.

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-1 : By applying this model the PDT is able to:
 - Define the watersheds' physical features
 - Describe the metrological conditions
 - Estimate parameters

- Produce rainfall and runoff simulations
 - Develop approximate hydrographs within the project.
3. 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:
- User interface
 - Hydraulic Analysis
 - Data storage and Management
 - Graphics and reporting

I. Value Engineering (VE). Value Engineering Study requirement will 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 study, 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 low impact settings, economics with risk analysis experience, hydrology operations and risk analysis, hydraulic design with experience in flood control projects with existing concrete structures in place, civil design/structural engineering with experience in concrete channel design, geotechnical engineering, 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 \$20,000 for ATR of the Feasibility Scoping Meeting documents. 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 (other EPR costs, such as developing SOW, negotiations and award of the contract, etc, will be cost shared as are other feasibility studies.

(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 and will participate in the Technical Review Strategy Session (TRSS) with the PDT and DST. The TRSS is to verify the basic plan of study and the rationale for key planning assumptions.

(3) The ATR will be conducted on the Feasibility Scoping Meeting (FSM) documentation and assumptions; 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

Task	Date
Participation in TRSS	Prior to FSM
ATR Feasibility Scoping Meeting material	February 2009
ATR Alternatives Review Conference material ¹	January 2010
ATR of Draft Report Comment Period	March 2010
Kickoff meeting	During 1 st week
ATR Comments	End 2 nd week
PDT Responses	End 3 rd week
Responses Back check	End 4 th week
Alternative Formulation Briefing (AFB)	June 2010
AFB Policy Memo Issued	July 2010
ATR Certification Draft Report	February 2011
Public Review of Draft Report	March 2011
ATR Certification Final Report	May 2011
ATR After Action	June 2011
Final District Report Review	August 2011

¹Required by the Major Subordinate Command.

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
- 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 back check 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)

The FSM 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.

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 study undertaken to evaluate structural and non-structural FRM 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 study is not expected to contain influential scientific information nor be a highly influential scientific assessment.

This study area is highly urbanized and there are public safety concerns. The study will be sufficiently complex because of the right of way constraints and the high degree of urbanization. This project has the potential to be controversial and will likely have agency and public interest. Public interest will involve urban residents and local agencies. The potential controversy is not significant to warrant IEPR because of the small scale of the project and simply the need for open communication to inform the public of the Corps process and study status. The flood control interests of the urban residents are motivated in order to remove them from the FEMA floodplain and the need to pay for flood insurance. Further complicating the implementation of the flood project is the fact that there is a lack of flood history in the area. It appears as though the majority of residents that would receive flood protection live in San Leandro, which is in Alameda County.

The USACE is pursuing an Environmental Assessment with Finding of No Significant Impact (FONSI) for this project. The footprints of the proposed array of project alternatives are located within the existing channel of Estudillo Canal, which is primarily a concrete lined channel in a developed urban setting. Environmental impacts from the proposed project are expected to be minor and temporary. The minimal impacts to the surrounding environment do not necessitate an Environmental Impact Statement at this time. In the specific project area, there are approximately 1,145 structures that are at risk.

It can be assumed that the ultimate cost associated with a recommended plan is likely to be in the

low tens of millions of dollars range (\$15M to \$20M range). For these reasons, IEPR will likely not be conducted.

5. PUBLIC AND AGENCY REVIEW

The public and agencies will have multiple opportunities to participate in this study. The earliest opportunity will be as part of the public scoping process during the first year of the 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. The period will last a minimum of 45 days as required for an Environmental Assessment. 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 plan for public participation will be developed early in the feasibility study which might identify informal as well as additional formal forums for 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.

7. APPROVALS

The PDT will carry out the Review Plan as described. The Study Manager will submit the plan to the SPD 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, at (415) 503-6847, or to the Program Manager for the Planning Center of Expertise for Flood Risk Management, at (415) 503-6852. Emails can be sent to: CESPN-PA2@usace.army.mil.

REVIEW PLAN

**ESTUDILLO CANAL, SAN LEANDRO, CALIFORNIA
FLOOD RISK MANAGEMENT
FEASIBILITY STUDY**

SAN FRANCISCO DISTRICT

**APPENDIX A
STATEMENT OF TECHNICAL REVIEW**

**COMPLETION OF INDEPENDENT TECHNICAL REVIEW
ESTUDILLO CANAL, SAN LEANDRO, CALIFORNIA
FLOOD RISK MANAGEMENT**

FEASIBILITY, ENVIRONMENTAL ASSESSMENT REPORT AND APPENDICES

The San Francisco District has completed the project implementation report (feasibility report), environmental assessment/negative declaration report and appendices of the Estudillo Canal, San Leandro, Feasibility Study. 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, Estudillo Canal, San Leandro
Feasibility Study
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.

Thomas R. Kendall
Chief, Planning Division

Date

REVIEW PLAN

ESTUDILLO CANAL, SAN LEANDRO, CALIFORNIA FEASIBILITY STUDY REPORT FLOOD RISK MANAGEMENT SAN FRANCISCO DISTRICT

APPENDIX B

PRODUCT DELIVERY TEAM

Discipline	Phone
Project Manager	415-503-6722
Study Manager/Planning ¹	415-503-6847
Civil Design	415-503-6885
Environmental Analysis	415-503-6865
Hydrology/Hydraulic Review	415-503-6901
Hydrology/Hydraulic Design	415-503-6904
Economics	415-503-6830
Cost Engineering	415-503-6878
Real Estate/Acquisition	415-503-6745
Cultural Resources	415-503-6845
Geotechnical Engineering	415-503-6924
Geography	415-503-6915

¹ Primary contact for this Review Plan.

AGENCY TECHNICAL REVIEW TEAM

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

¹The 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	Economics		

VERTICAL TEAM

Discipline	Phone
District Support Team Lead	415-503-6557
Regional Integration Team	202-761-4085

**PLANNING CENTER OF EXPERTISE
FLOOD RISK MANAGEMENT**

Discipline	Phone
Program Manager, PCX Flood Risk Management	415-503-6852

Review Plan Checklist

Date: 10 February 2009

Originating District: San Francisco

Project/Study Title: Estudillo Canal Flood Risk Management

District POC: / Tim Kelleher

FRM-PCX Reviewer: CEMVN)

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.

REQUIREMENT	REFERENCE	EVALUATION
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>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>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>Comments: Reviewer: Evaluation Requirements 1a through 1h were sufficiently addressed and comply with ER 1105-2-410. In the Purpose and Requirements, (7) Safety Assurance Review, on page 3, add a "-" between the number 5 and 2 so that it shows EC 1105-2-410.</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>2. Is the RP detailed enough to assess the necessary level and focus of peer review?</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 type="checkbox"/> No <input checked="" 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 type="checkbox"/> No <input checked="" 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 (but not limited to):</p> <ul style="list-style-type: none"> • more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources? • substantial adverse impacts on fish and wildlife species or their habitat, prior to implementation of mitigation? • 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? <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 B, Para 3a</p> <p>EC 1105-2-410, Appendix B, Para 3a</p> <p>EC 1105-2-410 Para 7c & 8f</p> <p>EC 1105-2-410, Appendix B, Para 4b</p> <p>EC 1105-2-410, Para 6c</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>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. Does it address if the project/study is likely to have significant interagency interest?</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>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 type="checkbox"/> No <input checked="" 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>\$15M-\$20M</u></i> <i>(best current estimate; may be a range)</i></p> <p><i>Is it > \$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 type="checkbox"/> No <input checked="" type="checkbox"/></i> <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, 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>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>Comments: At this stage, the assumptions made by the Economics section anticipate a justified project up to \$20M.</p> <p>Reviewer Comments: Estimated costs are approximately \$25M less than the \$45M limit required for an IEPR, also the project currently does not contain highly controversial economic or environmental issues, and will not incorporate any precedent-setting methods or models. The RP indicates, but does not specifically state that the evaluation will not include an EIS. Also, the threat to human life or safety assurance issue is addressed with the mention of the project being located in an urban setting and Corps guidance is still under development in addressing safety assurance and loss of life. The RP could provide the number of residents at risk in the evaluation area. These factors form the basis for not including an IEPR. Finally, replace</p>
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		"flood damage reduction" with "reduction in flood risk" text in last sentence of last paragraph of Project Scope on page 4 of RP, to be consistent with current Corps terminology.
3. Does the RP define the appropriate level of peer review for the project/study?	EC 1105-2-410, Para 8a	Yes <input type="checkbox"/> No <input type="checkbox"/>
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?	EC 1105-2-410, Para 7a	a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
b. Does it state that ATR will be conducted or managed by the lead PCX?	EC 1105-2-410, Appendix D, Para 3a	b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
c. Does it state whether IEPR will be performed? <i>Will IEPR be performed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></i>	EC 1105-2-410, Appendix B, Para 4b	d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> e. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/>
d. Does it provide a defensible rationale for the decision on IEPR?		Comments: Reviewer: Evaluation Requirements 3a through 3e were sufficiently addressed. Despite rights-of-way constraint issues and a highly urbanized evaluation area, the estimated cost of the project is approximately \$20M under the \$45M limit for conducting an IEPR as required by EC 1105-2-410.
e. Does it state that IEPR will be managed by an Outside Eligible Organization, external to the Corps of Engineers?	EC 1105-2-410, Para 7c	
4. Does the RP explain how ATR will be accomplished?	EC 1105-2-410, Appendix B, Para 4l	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
a. Does it identify the anticipated number of reviewers?	EC 1105-2-410, Appendix B, Para 4f	a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
b. Does it provide a succinct description of the primary disciplines or expertise needed	EC 1105-2-410, Appendix B,	c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

<p>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>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>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>Comments: 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.</p>
<p>5. Does the RP explain how IEPR will be accomplished?</p>	<p>EC 1105-2-410, Appendix B, Para 4k & Appendix D</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" 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 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>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) & Appendix D, Para 2a</p> <p>EC 1105-2-410, Para 7c</p>	<p>a. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>b. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>c. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>d. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Comments: Reviewer: An IEPR is not anticipated for this evaluation, so Evaluation Requirements 5a through 5d were not addressed in the RP.</p>
<p>6. Does the RP address peer review of sponsor in-kind contributions?</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>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. Does it explain how peer review will be accomplished for those in-kind contributions?</p>		<p>Comments: Reviewer: The in-kind sponsor contributions are addressed on page 3 of the RP, however a statement that the peer review of these contributions will be conducted with the other aspects of the analysis should be directly stated in the RP.</p>
<p>7. Does the RP address how the peer review will be documented?</p>		<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<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) & Appendix B, Para 4l</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p> <p>c. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p> <p>d. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p> <p>Comments: Reviewer: Sufficient detail, use of Dr Checks, etc., was provided for Evaluation Requirements 7a through 7d in the RP.</p>
<p>8. Does the RP address Policy Compliance and Legal Review?</p>		<p>EC 1105-2-410, Para 7d</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Comments: Reviewer: The last paragraph of page 2 and top of page 3 sufficiently address Evaluation Requirement 8a.</p>
<p>9. Does the RP present the tasks, timing and sequence (including deferrals), and costs of reviews?</p>		<p>EC 1105-2-410, Appendix B, Para 4c & Appendix C, Para 3d</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does it provide a schedule for ATR</p>	<p>EC 1105-2-410,</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>

<p>including review of the Feasibility Scoping Meeting (FSM) materials, Alternative 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>Appendix C, Para 3g</p> <p>EC 1105-2-410, Appendix C, Para 3g</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>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Comments: Reviewer: Sections C and D on Pages 7 and 8 of the RP sufficiently address Evaluation Requirements 9a through 9d.</p>
<p>10. Does the RP indicate the study will address Safety Assurance factors (required for Flood Risk Management and Coastal Storm Damage Reduction projects)?</p> <p>Factors to be considered include:</p> <ul style="list-style-type: none"> • Where failure leads to significant threat to human life • Novel methods\complexity\ precedent-setting models\policy changing conclusions • Innovative materials or techniques • Design lacks redundancy, resiliency of robustness • Unique construction sequence or acquisition plans • Reduced\overlapping design construction schedule 	<p>EC 1105-2-410, Para 2 & Appendix D, Para 1c</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/></p> <p>Comments: Reviewer: Page 3, Section (7) Safety Assurance Review briefly addresses Safety Assurance Factors. Specific detail as to number of residents threaten if failure occurs were not addressed. The bottom of Page 4 and top of Page 5 provides some detail on the construction alternatives to reducing flooding.</p>
<p>11. Does the RP address model certification requirements?</p>	<p>EC 1105-2-407</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<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>	<p>EC 1105-2-410, Appendix B, Para 4i</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"/> n/a <input type="checkbox"/></p> <p>Comments: Reviewer: Section H. Model Certification on Page 5 and 6 of the RP sufficiently address the Evaluation Requirements 11a</p>

		through 11c.
12. Does the RP address opportunities for public participation?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
a. Does it indicate how and when there will be opportunities for public comment on the decision document?	EC 1105-2-410, Appendix B, Para 4d	a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
b. Does it indicate when significant and relevant public comments will be provided to reviewers before they conduct their review?	EC 1105-2-410, Appendix B, Para 4e	b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
c. Does it address whether the public, including scientific or professional societies, will be asked to nominate potential external peer reviewers?	EC 1105-2-410, Appendix B, Para 4h	c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
d. Does the RP list points of contact at the home district and the lead PCX for inquiries about the RP?	EC 1105-2-410, Appendix B, Para 4a	d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
		Comments: Reviewer: Section 5 Public and Agency Review on Page 11 of the RP sufficiently address the Evaluation Requirements 12 a through 12 d.
13. Does the RP address coordination with the appropriate Planning Centers of Expertise?	EC 1105-2-410, Para 8a	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
a. Does it state if the project is single or multi-purpose? Single <input checked="" type="checkbox"/> Multi <input type="checkbox"/>		a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
b. Does it identify the lead PCX for peer review? Lead PCX: FRM		b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
c. If multi-purpose, has the lead PCX coordinated the review of the RP with the other PCXs as appropriate?	EC 1105-2-410, Appendix D, Para 3c	c. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/>
		Comments: Reviewer: Section 6 Planning Centers of Expertise Coordination on page 11 of the RP sufficiently addresses Evaluation Requirements 13 a through 13 c.
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?	EC 1105-2-410, Appendix D, Para 3	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
a. Does it state if the decision document will require Congressional authorization?		a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
b. If Congressional authorization is required, does it state that coordination will occur with the Cost Engineering DX?		b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/>
		Comments: 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.
<p>15. Other Considerations: 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> <ul style="list-style-type: none"> a. Is a request from a State Governor or the head of a Federal or state agency to conduct IEPR likely? b. Is the home district expecting to submit a waiver to exclude the project study from IEPR? 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)? d. Are there additional Peer Review needs unique to the project study? 	<p>EC 1105-2-410, Appendix D, Para 1b</p> <p>EC 1105-2-410, Appendix D, Para 1d</p>	<p>Comments: IEPR is not likely to occur for this study. There are no additional Peer Review needs unique to the project study.</p> <p>Reviewer Comments: IEPR is not anticipated for this evaluation, thus Evaluation Requirements 15 a through 15 d are not addresses in the RP.</p>
<p>Additional Comments: Excellent RP was constructed acknowledging the requirements of ER 1105-2-410. Two points to add, if not already stated in RP: State that EIS is not included in the RP and acknowledge that the contributions of in-kind services by the local sponsor will also be peer reviewed similar to rest of analysis. Finally, two questions in regards to the analysis. First, in terms of safety assurance, are flood depths anticipated to threaten the lives of residents in case of project failure or is there redundancy in protection in case of failure? Second, will the HEC-FDA program be used to assess non-structural measures? New Orleans District is developing a spreadsheet model that incorporates risk-based analysis to assess nonstructural measures, but we still must obtain model certification from the FRM-PCX.</p> <p>Reviewer back check of comments: The reviewer comments were adequately addressed by the District POCs. All four accounts, NED, RED, OSE, and EQ were addressed in the RP and the RP provides sufficient detail to be in accordance with EC 1105-2-410.</p>		

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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:

- Reviews significantly improve product quality
- Peer review is concurrent with product development
- Agency technical reviews by another district will be performed on all products
- ATR teams should be chaired by another Division
- 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.)

SPD Response: The requirement for TRSS has been in place since 2002 (CESPD R 1110-1-8, SPD Quality Management Plan, December 2002) and the Review Plan indicates that the reconnaissance study was completed in 2004. Note also that the discussion of ATR in the Review Plan indicates that the ATR team will participate in a TRSS (see text and table). The Review Plan should either indicate the approach to the TRSS requirement, or provide a rationale as to why it is appropriate not to undertake one.

Response: TRSS is addressed in the RP under section E, Timing and Schedule.

Backcheck: Complete.

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: ATR costs are identified in the RP, DQC costs are not. IEPR is not necessary for this study.

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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 for the ATR.

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

Response: 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 identify an appropriate dispute resolution process? (8.6)

Response: Yes for the ATR.

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 without-project hydrology is certified at the Feasibility Scoping Meeting? (8.5.8)

Response: Yes. The RP includes the date the without-project hydrology was certified.

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

Response: Yes.

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SPD Response: The Review Plan does not seem to address work by contractors. If contractors are not currently planned to be utilized, that is sufficient. Otherwise, the Review Plan should be revised to address this.

Response: Discussion on contractors has been incorporated into the RP.

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

Response: The VE study requirement is discussed in the PMP.

SPD Response: The VE study requirement is not addressed in the Review Plan. Since the Review Plan addresses ATR and since the VE requirement during feasibility phase is done closely with the ATR team, the requirement should be acknowledged in the Review Plan.

Response: Value Engineering has been included in the RP under section 2, heading I.

Backcheck: Complete.

13. Does the RP include a Feasibility Alternative Review Milestone, where CESPD 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: The final public meeting milestone is discussed in the PMP.

SPD Response: It is also discussed in part 5, Public and Agency Review, just not named as a requirement. No change required.

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

Response: The report approval process is discussed in the PMP.

SPD Response: Delegated approval authority does not appear to be applicable; the Review Plan clearly states that the feasibility study is anticipated to be transmitted to Congress. No change required.

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Additional Comments:

16. Page 3, part 1, B, (5) erroneously indicates that IEPR is being conducted for this study. This should be corrected.

Response: The document has been edited and "IEPR" has been removed from the section.

Backcheck: Complete.

17. Regarding model certification, HEC-FDA is listed both as a planning model (which is appropriate) and also as an engineering model (which is not necessary). The latter should be removed.

Response: HEC-FDA has been removed from the engineering model certification section

Backcheck: Complete.

18. Page 12, Part 6, Planning Centers of Expertise, indicates that _____ is the PCX Director. _____ is the Program Manager; _____ is the Acting Director. This should be revised as appropriate.

Response: _____ title has been corrected to reflect "Program Manager". Should information need to be included in the RP?

Backcheck: Complete. As long as one PCX p.o.c. is identified for contact, that is sufficient.

19. Page 12, Part 7, Approvals, indicates that the District Planning Chief will approve the Review Plan; this should be revised to indicate that the Review Plan approval is done by the SPD Commander.

Response: "SPD Commander" replaced the District Planning Chief as the one to approve the RP.

Backcheck: Complete. This comment was intended to indicate the appropriate level of approval for the Review Plan. How that is actually accomplished may evolve and vary; currently, the district Planning Chief has been transmitting Review Plans to SPD and requesting approval of the Division Commander.

20. Regarding model certification, note that if the IMPLAN model is modified for this specific study, possible certification requirements should be coordinated with the PCX for FRM.

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Response: Additional language was added to the IMPLAN bullets with discussion regarding possible certification requirements will be coordinated with the PCX for FRM.

Backcheck: Complete.

21. The Review Plan does not indicate that any models for ecosystem mitigation are necessary. Be advised that if some are ultimately determined to be necessary, the PCX for Ecosystem should be consulted to determine certification status and possible requirements.

Response: Additional planning models are addressed in the RP. If ecosystem mitigation is determined to be necessary, the PCX for Ecosystem Restoration will be consulted.

Backcheck: Complete.