

DEPARTMENT OF THE ARMY

SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS 1455 MARKET STREET SAN FRANCISCO, CALIFORNIA 94103

CESPD-DE

4 FEB 2010

MEMORANDUM FOR Commander, Los Angeles District, ATTN: CESPL-PD-WA, Mr. Ed Demesa

SUBJECT: Santa Ana River Basin, California, Seven Oaks Dam Water Conservation Study, Review Plan Approval

- 1. The enclosed Santa Ana River Basin, California, Seven Oaks Dam Water Conservation Feasibility Study Review Plan is in accordance with Engineering Circular (EC) 1105-2-410, Review of Decision Documents, dated 22 August 2008. The National Planning Center of Expertise for Water Management and Reallocation Studies (WMRS PCX), Southwestern Division, reviewed the Review Plan (RP) and concurs that the RP satisfies peer review policy requirements (Encl 2) outlined in the above referenced EC and noted in the Checklist (Encl 3). The South Pacific Division, Planning and Policy Division and Los Angeles District Support Team reviewed and approves the Santa Ana River Basin, California, Seven Oaks Dam Water Conservation Feasibility Study Review Plan. Independent External Peer Review (IEPR) is required for the study.
- 2. With this MSC approval the Review Plan will be made available for public comment via the internet and the comments received will be incorporated into future revisions of the Review Plans.
- 3. I hereby approve the above Review Plan which is subject to change as study circumstances require. This is consistent with study development under the Project Management Business Process. Subsequent revisions to this Review Plan after public comment or during project execution will require new written approval from this office.
- 4. The point of contact for this Review Plan approval is Mr. Paul Bowers, District Support Team Lead, (415) 503-6556, paul.w.bowers@usace.army.mil.

Building Strong on the Cornerstone of the Southwest!

3 Encls

1. Review Plan

2. PCX concurrence

3. Review Plan Checklist

SCOTT F. "ROCK" DONAHUE, P.E.

COL(P), EN Commanding

PEER REVIEW PLAN

Seven Oaks Dam Water Conservation Study Santa Ana River Basin, California

Los Angeles District

November 2009



REVIEW PLAN

Seven Oaks Dam Water Conservation Study Peer Review Plan

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Seven Oaks Dam Water Conservation Study, Phases I and II.

b. References

- (1) Engineering Circular (EC) 1165-2-209, "Civil Works Review Policy", 31 December 2009
- (2) EC 1105-2-410, Review of Decision Documents, 22 Aug 2008 (superseded by EC 1165-2-209)
- (3) EC 1105-2-407, Planning Models Improvement Program: Model Certification, 31 May 2005
- (4) Engineering Regulation (ER) 1110-2-12, Quality Management, 30 Sep 2006
- (5) PMP for study (Update to be completed FY10)
- (6) FCSA and Amendment
- (7) South Pacific Division Quality Management Plan (CESPD R) 1110-1-8, 30 Dec 2002
- (8) CESPD-PDS-P Memorandum for the Record, 12 March 2008
- c. Requirements. This review plan was developed in accordance with EC 1165-2-209, which establishes the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision documents through independent review. The EC outlines three levels of review: All decision documents and their supporting analyses will undergo District Quality Control (DQC) and Agency Technical Review (ATR) and may also require IEPR, to "ensure the quality and credibility of the government's scientific information". In addition to these three levels of review, decision documents are subject to policy and legal compliance review and, if applicable, safety assurance review and model certification/approval.
 - (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 Project Management Plan (PMP). It is managed in the home district and may be conducted by staff in the home district as long as they 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 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 approval by the District Commander. The Major Subordinate Command (MSC)/District quality management plans address the conduct and documentation of this fundamental level of review; DQC is not addressed further in this review plan.
 - (2) Agency Technical Review (ATR). ATR 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 the 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 and assure that all the parts fit together in a coherent whole. 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.
 - (3) Independent External Peer Review (IEPR). 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 generally for feasibility and reevaluation studies and modification reports with Environmental Impact Statements (EIS). IEPR is managed by an outside eligible organization (OEO) that is described in Internal Revenue Code Section 501(c) (3), is exempt 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.

- (4) Policy and Legal Compliance Review. 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, of the Planning Guidance Notebook. When policy and/or legal concerns arise during DQC or ATR 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. The home district Office of Counsel is responsible for the legal review of each decision document and signing a certification of legal sufficiency.
- (5) Safety Assurance Review. In accordance with Section 2035 of Water Resources Development Act (WRDA) of 2007, EC 1105-2-410 requires that all projects addressing flooding or storm damage reduction undergo a safety assurance review of the design and construction activities prior to initiation of physical construction and periodically thereafter until construction activities are completed on a regular schedule sufficient to inform the Chief of Engineers on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare. EC 1165-2-209 provides a more comprehensive Civil Works Review Policy that addresses the review process for the entire life cycle of a Civil Works project. That document addresses the requirements for a safety assurance review for the Pre-Construction Engineering Phase, the Construction Phase, and the Operations Phase. The decision document phase is the initial design phase; therefore, EC 1165-2-209 requires that safety assurance factors be considered in all reviews for decision document phase studies. Safety assurance review is required, because the failure of Seven Oaks Dam would pose a significant threat to human life.
- (6) Model Certification/Approval. EC 1105-2-407 requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. The EC defines planning models 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. The EC does not cover engineering models used in planning. Engineering software is being address under the Engineering and Construction (E&C) Science and Engineering Technology (SET) initiative. Until an appropriate process that documents the quality of commonly used engineering software is developed through the SET initiative, engineering activities in support of planning studies shall proceed as in the past. The responsible use of well-known and proven USACE developed and commercial

engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed.

2. STUDY INFORMATION

a. Decision Document.

Phase I:

The Seven Oaks Dam Water Conservation Feasibility Study from 1998 is being revised and updated to include potential seasonal water conservation and year-round water conservation at Seven Oaks Dam. The first phase of the study is to update and revise the 1997 (National Economic Development) NED plan to examine the feasibility of seasonal storage for water conservation purposes at Seven Oaks Dam. Upon completion of the NED analysis, an in-progress review (IPR) with the vertical team will be scheduled to discuss the findings of the NED analysis, the mitigation needs for adverse water quality impacts (if any), the completion of the supplemental feasibility report and corresponding NEPA document as well as further processing of the supplemental report for approval. When completed, the final supplemental report and final Environmental Assessment (EA) will be submitted to HQUSACE for approval.

Phase II:

Utilizing the baseline information generated as part of the first phase, the second phase will be a comprehensive study of the feasibility of expanded water conservation beyond seasonal storage. In addition to coordination with the environmental resource agencies, the non-Federal sponsor will coordinate its request to store water behind Seven Oaks Dam with the State of California, Division Safety of Dams. The Final Feasibility Report and Final Environmental Impact Statement (EIS) will be submitted to HQUSACE for approval. Congressional authorization is not required for this study as the study is an update to the previously accepted Water Conservation Feasibility Study in 1998. A ROD will be prepared in conjunction with the study. The disposition of the Record of Decision (ROD) will be determined by HQUSACE, but authority may be delegated to SPD for ROD execution. Also, it is expected that the water conservation projects will be implemented by the non-federal sponsor and that no further Congressional authorization is required. ²

b. Study Description.

Background:

Seven Oaks Dam is part of the Santa Ana River Main-stem project that provides flood control to downstream communities in three counties. All of the storage space (145,600 acre-feet) behind Seven Oaks Dam is allocated to flood control. The basic plan of operation is to store flood runoff until the reservoir elevation at Prado Dam (35 miles downstream) peaks and starts to fall. At this point flood control releases at Seven Oaks Dam are increased in accordance with the water control plan. The maximum scheduled release from Seven Oaks Dam is 7,000 cubic feet per second (cfs). The water control plan calls for building a "debris pool" at the beginning of the flood season (October-November) as a means of fostering the deposition of sediment some distance upstream of the dam embankment and away from the outlet works. The resulting debris pool is drained following the flood season (May-August) at a rate that can be diverted and captured by the water districts. The water control plan also specifies a minimum release of 3 cfs at all times to meet certain water rights requirements downstream.

¹ CESPD-PDS-P Memorandum for the Record, 12 March 2008

² CESPD-PDS-P Memorandum for the Record, 12 March 2008

The water control plan for Seven Oaks Dam provides substantial incidental water conservation benefits. Flood events that previously used to sweep rapidly past water conservation diversion facilities are now captured by the dam. This stored water is eventually released at rates that are often smaller than the flow rates would have been before the dam was constructed. The relatively slower release of flood runoff is also for a much longer duration than the natural flood event. The net result is an enhanced capability for water districts to divert flood runoff than without the dam.

Seven Oaks Dam has been turned over to the local sponsors to operate and maintain. Orange County Resources and Development Management Department directs the water releases from the dam in accordance with a water control plan developed by the Los Angeles District Corps of Engineers. San Bernardino County Flood Control District staff makes the actual gate changes to produce the release rate called for.

History:

In 1996-1997 during the construction of Seven Oaks Dam, and in advance of completion of a feasibility study to approve adding water conservation as a project purpose, the embankment construction was modified to expand a blanket drain to permit operation of Seven Oaks Dam for the purpose of enabling water conservation. The cost of this modification was about \$3.0 million and was paid for by the San Bernardino Valley Municipal Water District through the Santa Ana River Project (SARP) local sponsors.

The original water conservation feasibility study was completed in June 1998. Although water conservation was found to be feasible at the time, a ROD was not signed. The EIS did not address impacts from water conservation to the San Bernardino Kangaroo Rat (SBKR), an endangered species that had just been listed under an emergency declaration after the final feasibility study was circulated for review. Not only did this listing potentially affect the conclusions of the feasibility study report, but it also required a modification to the operation of Seven Oaks Dam to include mitigation for long term impacts. Before the ROD can be signed, the feasibility study must be updated to address the impacts of the recommended plan on the San Bernardino Kangaroo Rat and other endangered species.

The Seven Oaks Dam Water Conservation Feasibility Study was reinitiated and an amendment to the Feasibility Costs Sharing Agreement was signed in July 2007. The reinitiated study will first investigate potential seasonal water conservation and then expanded water conservation at Seven Oaks Dam, in that order. The impacts to endangered species of any recommended water control plans that are developed by this study will also be evaluated. This feasibility study is impacted by, and closely integrated with, two other Corps of Engineers' studies: the Seven Oaks Dam Water Quality Study and the Multi-Species Habitat Management Plan (MSHMP).

Study Purpose:

The first phase of the study is to update and revise the 1997 NED plan to examine the feasibility of seasonal storage for water conservation purposes at Seven Oaks Dam. Utilizing the baseline information generated as part of the first phase, the second phase will be a comprehensive study of the expanded water conservation above and beyond seasonal storage.

Final data from the other two related COE studies, the Seven Oaks Dam Water Quality Study and the Multi-Species Habitat Management Plan (MSHMP), will be referenced as baseline information for the study of seasonal storage and year-round storage.

Estimated Cost:

The estimated range of cost for phase I is \$1-5 million to update and revise the 1997 NED plan to examine the feasibility of seasonal storage for water conservation purposes. The estimated range of cost for phase II is currently unknown. This will be investigated in the revision of the PMP this fiscal year (FY10).

Non-Federal Sponsors: The Non-Federal sponsor is San Bernardino County Flood Control District. San Bernardino Valley Municipal Water District and Western Municipal Water District have separate agreements with the Flood Control District.

c. Factors Affecting the Scope and Level of Review.

Phase I:

The Seven Oaks Dam Water Conservation Study Phase I should not be challenging as it involves revising a previously accepted NED plan from 1997. The study operates within the water control manual. Furthermore, there are no project risks that affect the public, and the project is not likely to contain influential scientific information or be a highly influential scientific assessment. Phase I will require ATR and an EA.

This project is likely to have positive economic effects with regional economic benefits. Also, the project helps to address regional water issues as it stresses water conservation. There should not be any negative environmental or social effects associated with the first phase of the project.

Local water districts and agencies will have an interest in this study as the study deals with water conservation. Furthermore, the US Forrest Service, Department of Fish and game and Department of Fish and Wildlife could have interest in this study.

This study should not pose a significant threat to human life or safety, nor is the project highly controversial as the project is merely updating a previously accepted water conservation plan that falls within the already approved water control manual release allowances, while slightly altering the release schedule.

At this time, the information in the decision document is not anticipated to use novel methods, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices.

Phase II:

The second phase of the study involves investigating use of the dam for expanded water conservation above and beyond seasonal water storage. This part of the study will consider environmental impacts upstream and downstream of the dam from extension of the conservation season. There also may be possible modifications needed to the existing facility, to the water control plan and to the Operation and Management (O&M) Manual. Another safety consideration will be investigating if the dam is seismically safe to hold water for conservation greater than that already permitted in the existing Water Control Plan.

Potential Risks from holding more water behind the dam and/or holding water at a-seasonal times behind the dam include, but are not limited to: seismic risks related to the San Andreas Fault zone and increased potential for ground water saturation. The recommended alternative should not pose a significant threat to human life or safety.

The feasibility study will address the impacts of the recommended plan on the endangered species located in the study area: San Bernardino Kangaroo Rat, Woolly Star and Spine flower. There may be some environmental effects from Phase II of the project, which will have to be mitigated.

Phase II is also likely to have positive economic effects with regional economic benefits; and will help to address regional water issues as it stresses water conservation. It is anticipated that there will be significant coordination and interaction with the local, state and federal resource agencies.

Flood forecasting will be carefully considered for timing the evacuation of the pool behind the dam in conjunction with extended water capture and storage in order to assure safety and minimize risks. It is not anticipated that the study will be highly controversial.

At this time, the information in the decision document is not anticipated to use novel methods, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices.

d. In-Kind Contributions.

It is anticipated that the non-federal sponsor may provide in-kind contributions in the form of organization and coordination of public meetings and staff coordination in either or both phases of the study.

3. AGENCY TECHNICAL REVIEW (ATR)

a. General. ATR for decision documents covered by EC 1165-2-209 are managed by the appropriate Planning Center of Expertise (PCX) with appropriate consultation with the allied Communities of Practice such as engineering and real estate. The ATR shall ensure that the product is consistent with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and the results in a reasonably clear manner for the public and decision makers. Members of the ATR team will be from outside the home district. The ATR lead will be from outside the home MSC. The leader of the ATR team will participate in milestone conferences and the Civil Works Review Board (CWRB) to address review concerns.

b. Products for Review.

Phase I:

The Draft Supplemental Report will undergo IPR and Final Report and corresponding EA will undergo Agency Technical Review (ATR).

Phase II:

The following products will require ATR: Baseline and Without Project Conditions (F3) Report, Alternative Review Conference Packet (F4), Alternative Formulation Briefing (AFB) Packet (F4A), Draft Feasibility Report and EIS (F5), Draft Feasibility Report incorporating and addressing all public comments (F6), Feasibility Review Conference Packet (F7), Final Feasibility Report and EIS (F8).

In accordance with EC 1165-2-209, since the study's scope includes changing the purposes of Seven Oaks Dam from a flood water retention operation to water conservation storage and flood water retention operation; this will be viewed as a dam safety modification. The ATR will require the coordination of the USACE Risk Management Center with the Flood Risk Management Planning Center of Expertise as a joint review management organization (RMO).

c. Required ATR Team Expertise.

Phase I ATR:

It is anticipated that six ATR team members will be needed. The team should include:

- 1) Environmental team member with expertise in Biology and Ecology. Familiarity with mitigation for endangered species and water quality impacts would also be beneficial.
- 2) Geotechnical team member should be familiar with regional seismic consideration, in particular the San Andreas Fault Zone. He/she should also be familiar with semi-arid flood control dams, including transport of sediment across the embankment.
- 3) Soils and materials team member with experience in dam safety, dam stability and seepage evaluation.
- 4) <u>Hydrology and Hydraulics</u> (H&H) team member with knowledge of hydrology and reservoir operations and modeling.
- 5) <u>Reservoir regulation</u> team member knowledgeable about the operation of reservoirs and expertise in the modification and development of water control plans.
- 6) Economics reviewer familiar with water conservation, supply and demand economics. The team member shall also have knowledge and experience conducting and reviewing economic analysis of: 1) projects/alternatives with environmental outputs, including the application of IWR-Plan to conduct cost-effectiveness and incremental cost analysis; 2) regional economic development benefits using Input/Output modeling through the use of IMPLAN or similar models; and 3) other social effects associated with project alternatives.

Phase II ATR:

The Phase II ATR should include the same members listed above, along with the following additional members:

- 7) Cost Engineer team member should possess the background to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team member will review the various work products and assure that all the parts fit together in a coherent whole.
- 8) <u>Civil Design Engineer</u> team member with expertise in structural engineering and dam engineering.
- 9) Regulatory team member with expertise in the Clean Water Act and associated requirements and the 404 permit process.
- **10)** <u>Legal</u> team member familiar with Corps requirements, regulations and policies, as well as familiar with state, local and federal laws.
- 11) <u>Dam Safety</u> team member with experience with current Corps of Engineer dam safety policies and procedures.
- 12) USACE Risk Management Center
- **d. Documentation of ATR.** DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:
 - (1) The review concern identify the product's information deficiency or incorrect application of policy, guidance, or procedures;
 - (2) The basis for the concern cite the appropriate law, policy, guidance, or procedure that has not be properly followed;

- (3) The significance of the concern indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in or to then assess whether further specific concerns may exist. The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical coordination, and lastly the agreed upon resolution. The ATR team will prepare a Review Report which includes a summary of each unresolved issue; each unresolved issue will be raised to the vertical team for resolution. Review Reports will be considered an integral part of the ATR documentation and shall:

- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions; and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to HQUSACE for resolution and the ATR documentation is complete. Certification of ATR should be completed, based on work reviewed to date, for the AFB, draft report, and final report. A sample certification is included in ER 1110-2-12.

4. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

a. General. IEPR is conducted for decision documents if there is a vertical team decision (involving the district, MSC, PCX, and HQUSACE members) that the covered subject matter meets certain criteria (described in EC 1105-2-410 and EC 1165-2-209) where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside the USACE is warranted. IEPR is coordinated by the appropriate PCX and managed by an Outside Eligible Organization (OEO) external to the USACE. IEPR panels shall evaluate whether the interpretations of analysis and conclusions based on analysis are reasonable. To provide effective review, in terms of both usefulness of results and credibility, the review panels should be given the flexibility to bring important issues to the attention of decision makers; however, review panels should be instructed to not make a recommendation on whether a particular alternative should be implemented, as the Chief of Engineers is ultimately responsible for the final decision on a planning or reoperations study. IEPR panels will accomplish a concurrent review that covers the entire decision document and will address all the underlying engineering, economics, and environmental work, not just one aspect of the study. Whenever feasible and appropriate, the office producing the document shall make the draft decision document available to the public for comment at the same time it is submitted for review (or during the review process) and sponsor a public meeting where oral presentations on scientific issues can be made to the reviewers by interested members of the public. An IEPR panel or OEO representative will participate in the CWRB.

b. Decision on IEPR.

Phase I:

An IEPR will not be required for the first phase of this project as it will simply update and revise the 1997 NED plan to examine the feasibility of seasonal water storage for water conservation purposes at Seven Oaks Dam. An IEPR is required 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, or where requested by the Governor of an affected state. None of these factors affect phase I of this project.

Phase II:

An IEPR will be required for Phase II of the study as it will require an EIS and may have dam safety concerns and significant interagency interest. It is not anticipated that the study will be controversial, or have significant economic, environmental or social effects to the nation, or be requested by the Governor of California.

c. Products for Review.

Phase I:

Not applicable because an IEPR is not required.

Phase II:

IEPR will be required on the final feasibility report and EIS.

d. Required IEPR Panel Expertise.

Phase I:

Not applicable because an IEPR is not required.

Phase II:

As the Project Management Plan (PMP) is updated, the required IEPR panel expertise will be determined. It is anticipated that the required panel members will be similar to the ATR team members. At a minimum, we expect the review will require the following team members:

- 1) <u>Hydrology and Hydraulics</u> (H&H) team member with knowledge of hydrology and reservoir operations and modeling.
- 2) <u>Environmental</u> team member with expertise in Biology and Ecology. Familiarity with mitigation for endangered species and water quality impacts would also be beneficial.
- 3) Cost Engineer team member should possess the background to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team member will review the various work products and assure that all the parts fit together in a coherent whole.
- 4) Economics reviewer familiar with water conservation, supply and demand economics. The team member shall also have knowledge and experience conducting and reviewing economic analysis of: 1) projects/alternatives with environmental outputs, including the application of IWR-Plan to conduct cost-effectiveness and incremental cost analysis; 2) regional economic development benefits using Input/Output modeling through the use of IMPLAN or similar models; and 3) other social effects associated with project alternatives.
- 5) <u>Civil Design Engineer</u> team member with expertise in structural engineering and dam engineering.

- 6) Geotechnical team member should be familiar with regional seismic consideration, in particular the San Andreas Fault Zone. He/she should also be familiar with semi-arid flood control dams, including transport of sediment across the embankment.
- 7) <u>Soils and materials</u> team member with experience in dam safety, dam stability and seepage evaluation.
- 8) <u>Reservoir Regulation</u> team member knowledgeable about the operation of reservoirs and expertise in the modification and development of water control plans.
- 9) Soils and Materials team member
- 10) <u>Legal</u> team member familiar with Corps requirements, regulations and policies, as well as familiar with state, local and federal laws.
- 11) <u>Dam Safety</u> team member with experience with current Corps of Engineer dam safety policies and procedures.

e. Documentation of IEPR.

Phase I:

Not applicable because an IEPR should not be required.

Phase II:

DrChecks review software will be used to document IEPR comments and aid in the preparation of the Review Report. Comments should address the adequacy and acceptability of the economic, engineering and environmental methods, models, and analyses used. IEPR comments should generally include the same four key parts as described for ATR comments in Section 3. The OEO will be responsible for compiling and entering comments into DrChecks. The IEPR team will prepare a Review Report that will accompany the publication of the final report for the project and shall:

- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions; and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

The final Review Report will be submitted by the IEPR panel no later than 60 days following the close of the public comment period for the draft decision document. The report will be considered and documentation prepared on how issues were resolved or will be resolved by the District Commander before the district report is signed. The recommendations and responses will be presented to the CWRB by the District Commander with an IEPR panel or OEO representative participating, preferable in person.

5. MODEL CERTIFICATION AND APPROVAL

a. General. The use of certified or approved models for all planning activities is required by EC 1105-2-407. This policy is applicable to all planning models currently in use, models under development and new models. The appropriate PCX will be responsible for model certification/approval. The goal of certification/approval is to establish that planning products are theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. The use of a certified or approved model does not constitute technical review of the planning product. Independent review of the selection and application of the model and the input data and results is still required

through conduct of DQC, ATR, and, if appropriate, IEPR. Independent review is applicable to all models, not just planning models. Both the planning models (including the certification/approval status of each model) and engineering models used in the development of the decision document are described below:

b. Planning Models. The following planning models are anticipated to be used:

<u>Economic Model</u> (Not certified): The risk-based model developed for this study will be a life-cycle simulation model that incorporates water supply data, water demand data, water yield data and water cost data for determining the benefits and costs for the proposed alternative. The methodology employed for this model will be based on the latest guidance in ER 1105-2-100. Therefore, the risk-based model will be based on similar methodology employed for other USACE water supply studies.

<u>Environmental Model</u>: For Phase II, depending on the ultimate recommended alternative, a CHAP model may or may not be used.

c. Engineering Models. The following engineering models are anticipated to be used:

<u>HEC-ResSim 3.0.</u> (Certified): The Hydrologic Engineering Center's Reservoir Simulation is used to model reservoir operations at one or more reservoirs whose operations are defined by a variety of operational goals and constraints. The program will be used to calculate yields for future without and with-project conditions from Seven Oaks Dam and the Santa Ana River.

6. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost.

Phase I:

Timing of Steps Toward Completion and Expected Completion Date:

| • | Draft Supplemental Report | May 2010 |
|---|--------------------------------------|---------------|
| • | Complete Agency Technical Review | July 2010 |
| • | Feasibility Scoping Meeting | August 2010 |
| • | Submit Final Report to HQ for Review | October 2010 |
| • | Finalize Phase I | November 2010 |

Phase II:

Timing of Steps Toward Completion and Expected Completion Date:

| • | Initiate Phase II | November 2010 |
|---|--|----------------|
| • | Baseline and Without Project Conditions Report | August 2011 |
| • | Review Conference | October 2011 |
| • | Alternative Review Conference Draft (F4) | July 2012 |
| • | Agency Technical Review | September 2012 |
| • | Economics Model Certification | October 2012 |
| • | Environmental Model Certification | October 2012 |
| • | Alternative Formulation Briefing | November 2012 |
| • | Feasibility Review Conference | April 2013 |
| • | Final Feasibility Report and EIS | August 2013 |
| | | |

The estimated cost for Phase I and II ATR is \$250,000.

b. IEPR Schedule and Cost.

Phase I:

Not applicable because an IEPR is not required.

Phase II:

IEPR will be conducted for the final feasibility report and EIS starting in November 2013. The estimated cost for the IEPR is \$250,000.

c. Model Certification/Approval Schedule and Cost.

Economics Model Certification April 2013 Cost TBD
 Environmental Model Certification April 2013 Cost TBD

7. PUBLIC PARTICIPATION

Phase I:

A webpage for the study has been created within the Los Angeles USACE website where information about the study, including the Peer Review Plan and its approval will be published, with the public invited to comment; and the public will have the opportunity to comment on the report.

Phase II:

A public scoping meeting and public workshop will be held in December 2010/January 2011. A final public meeting for the draft EIS will be held in April 2013. USACE will coordinate with non-Federal agencies, non-governmental organizations and potentially private citizens during the study; and the public will have the opportunity to comment on the report.

8. PCX COORDINATION

Review plans for decision documents and supporting analyses outlined in EC 1165-2-209 are coordinated with the appropriate Planning Center(s) of Expertise (PCXs) based on the primary purpose of the basic decision document to be reviewed. The lead PCX for this study is the Water Management and Reallocation Studies Planning Center of Expertise in the Southwestern Division. For the final decision document the Water Management and Reallocation Studies Planning Center of Expertise in the Southwestern Division will coordinate with the Cost Engineering Directory of Expertise (DX) to conduct ATR of cost estimates, construction schedules and contingencies if the final decision document requires Congressional Authorization.

9. MSC APPROVAL

The MSC that oversees the home district is responsible for approving the review plan. Approval is provided the MSC Commander. The commander's approval should reflect vertical team input (involving district, MSC, PCX, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the review plan is a living document and may change as the study progresses. Changes to the review plan should be approved by following the process used for initially approving the plan. In all cases the MSCs will review the decision on the level of review and any changes made in updates to the project.

10. REVIEW PLAN POINTS OF CONTACT

Questions and/or comments on this review plan can be directed to the following points of contact:

Rhiannon Kucharski, Lead Planner 915 Wilshire Blvd. Los Angeles, CA 90017

Phone: 213-452-4296

Email: Rhiannon.L.Kucharski@usace.army.mil

Raina Fulton, Project Manager 915 Wilshire Blvd. Los Angeles, CA 90017 Phone: 213-452-3998

Email: Raina.Fulton@usace.army.mil

Paul Bowers, District Support Team Lead, Southern Region 1455 Market Street, 2053A San Francisco, CA 94103 Phone: 415-503-6556

Email: Paul.W.Bowers@usace.army.mil

Peter Shaw, Regional Economist 1100 Commerce St. Room 821 Dallas, TX 75242-1317

Phone: 469-487-7038

Email: Peter.Shaw@usace.army.mil

ATTACHMENT 1: TEAM ROSTER

Project Delivery Team Members

| First | Last | Discipline | Phone | Email |
|------------|------------------------|------------------------|----------|-------------------------------------|
| | | | 213-452- | |
| Greg | Dombrosky ¹ | Geotechnical | 3592 | Gregory.A.Dombrosky@usace.army.mil |
| - | | | 213-452- | (e),ucus situiti (i.i.i.i. |
| Robert | Mrse | Hydrology & Hydraulics | 3570 | Robert.D.Mrse@usace.army.mil |
| | | | 213-452- | |
| Raina | Fulton | Project Manager | 3998 | Raina.Fulton@usace.army.mil |
| | | | 213-452- | |
| Rhiannon | Kucharski | Plan Formulation | 4296 | Rhiannon.L.Kucharski@usace.army.mil |
| | | | 213-452- | |
| Juan | Dominguez | Cost Estimating | 3737 | Juan.A.Dominguez@usace.army.mil |
| | | Environmental | 213-452- | |
| Randy | Tabije | Coordinator | 3871 | Roland.F.Tabije@usace.army.mil |
| | | | 213-452- | |
| Mark | Chatman | Geotechnical | 3585 | Mark.Chatman@usace.army.mil |
| | | | 213-452- | |
| Joe | Lamb | Economics | 3819 | Joseph.J.Lamb@usace.army.mil |
| | İ _ | | 213-452- | |
| Chris | Jones | Biology | 3847 | Christopher.T.Jones@usace.army.mil |
| _ | | | 213-452- | |
| Greg | Peacock | Reservoir Regulations | 3536 | Gregory.Peacock@usace.army.mil |
| * • | | | 213-452- | |
| Lisa | Sandoval | Asset Management | 3147 | Lisa.M.Sandoval@usace.army.mil |
| | | l | 213-452- | |
| Paul | Underwood | Design | 3659 | Paul.W.Underwood@usace.army.mil |
| | | | 213-452- | |
| Chris | Sands | Soils and Materials | 3605 | Christopher.Sands@usace.army.mil |

^{1.} Permanent Position to be filled later

ATTACHMENT 2a: ATR CERTIFICATION TEMPLATE

COMPLETION OF AGENCY TECHNICAL REVIEW

The District has completed the update and revision of the NED plan from the 1997 Seven Oaks Dam Water Conservation Feasibility Report to examine the feasibility of seasonal storage for water conservation purposes at Seven Oaks Dam, San Bernardino County, California. 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 Quality Control Plan. During the independent 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 independent technical review was accomplished by (an independent team). All comments resulting from ATR have been resolved.

| (Signature) | <u>(Date)</u> |
|--------------------------------|---------------|
| Technical Review Team Leader | |
| | |
| | |
| | |
| (Signature) Project Manager | (Date) |
| Froject Manager | |

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows:

As noted above, all concerns resulting from agency technical review of the project have been fully resolved.

| (Signature) | (Date) |
|-----------------------------|--------|
| Chief, Engineering Division | |

ATTACHMENT 2b: ATR CERTIFICATION TEMPLATE

COMPLETION OF AGENCY TECHNICAL REVIEW

The District has completed the Seven Oaks Dam Water Conservation Study (Phase II), San Bernardino County, California. 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 Quality Control Plan. During the independent 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 independent technical review was accomplished by (an independent team). All comments resulting from ATR have been resolved.

| (Signature) Technical Review Team Leader | (Date) |
|--|--------|
| | |
| (Signature) Project Manager | (Date) |

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows:

As noted above, all concerns resulting from agency technical review of the project have been fully resolved.

| (Signature) | (Date) |
|-----------------------------|--------|
| Chief, Engineering Division | |

ATTACHMENT 3: ACRONYMS AND ABBREVIATIONS

| <u>Term</u> | <u>Definition</u> | Term | Definition |
|-------------|---|--------|-----------------------------------|
| AFB | Alternative Formulation Briefing | NED | National Economic Development |
| ASA(CW) | Assistant Secretary of the Army for Civil | NER | National Ecosystem Restoration |
| | Works | | , |
| ATR | Agency Technical Review | NEPA | National Environmental Policy Act |
| CSDR | Coastal Storm Damage Reduction | O&M | Operation and maintenance |
| CWRB | Civil Works Review Board | OMB | Office and Management and Budget |
| DPR | Detailed Project Report | OMRR&R | Operation, Maintenance, Repair, |
| | | | Replacement and Rehabilitation |
| DQC | District Quality Control | OEO | Outside Eligible Organization |
| DX | Directory of Expertise | OSE | Other Social Effects |
| EA | Environmental Assessment | PCX | Planning Center of Expertise |
| EC | Engineer Circular | PDT | Project Delivery Team |
| EIS | Environmental Impact Statement | PAC | Post Authorization Change |
| EO | Executive Order | PMP | Project Management Plan |
| ER | Ecosystem Restoration | PL | Public Law |
| FDR | Flood Damage Reduction | QMP | Quality Management Plan |
| FEMA | Federal Emergency Management Agency | QA | Quality Assurance |
| FRM | Flood Risk Management | QC | Quality Control |
| FSM | Feasibility Scoping Meeting | RED | Regional Economic Development |
| GRR | General Reevaluation Report | RTS | Regional Technical Specialist |
| HQUSACE | Headquarters, U.S. Army Corps of | USACE | U.S. Army Corps of Engineers |
| | Engineers | | |
| IEPR | Independent External Peer Review | WRDA | Water Resources Development Act |
| IPR | In-progress Review | | |
| ITR | Independent Technical Review | | |
| LRR | Limited Reevaluation Report | | |
| MSC | Major Subordinate Command | | |



DEPARTMENT OF THE ARMY

US ARMY ENGINEER DIVISION, SOUTHWESTERN 1100 COMMERCE STREET, SUITE 831 DALLAS TX 75242-1317

CESWD-PDS-P

13 January 2010

MEMORANDUM FOR Commander, South Pacific Division

SUBJECT: Review Plan for Seven Oaks Water Conservation Study, CA

- 1. The Water Management and Reallocation Studies Planning Center of Expertise (WMRS PCX) has reviewed the Review Plan (RP) for the subject study, and concurs that the RP satisfies peer review policy requirements outlined in EC 1105-2-410, Review of Decision Documents, dated 22 August 2008. The RP complies with applicable policy, and makes appropriate provision for Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Model Certification efforts. The RP checklist documenting the review is attached. The WMRS PCX clears the RP for approval by the MSC Commander.
- 2. The District should post the approved RP, and the MSC Commander's approval memorandum, to its web site, and provide links to the WMRS PCX and Headquarters for posting on their web pages. In addition, electronic copies of both documents should be provided to the WMRS PCX for our files.
- 3. If substantive revisions are made to the RP, due to changes in project scope or Corps policy, the revised RP should be provided again to the WMRS PCX for review. Non-substantive changes do not require further PCX review. As work on this project progresses, the District should assure that ATR, IEPR, and Model Certification, as indicated in the RP, are coordinated with the WMRS PCX.
- 4. Thank you for the opportunity to assist in the preparation of the RP.

ENCL

PETER H. SHAW
Technical Director, WMRS PCX

Review Plan Checklist For Decision Documents

Date: 1/13/2010

Originating District: SPL

Project/Study Title: Seven Oaks Dam Water Conservation Study

PWI #: 012831

District POC: Rhiannon Kucharski PCX Reviewer: Peter Shaw

Please fill out this checklist and submit with the draft Review Plan when coordinating with the appropriate PCX. 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 |
|---|---|--|--------------------------------|
| Is the Review Plan (RP) a stand alone document? | | EC 1105-2-410, Para 8a | Yes 🛛 No 🗌 |
| a. | Does it include a cover page identifying it as a RP and listing the project/study title, originating district or office, and date of the plan? | | a. Yes 🛛 No 🗌 b. Yes 🖾 No 🗌 |
| b. | Does it include a table of contents? | | c. Yes ⊠ No □ d. Yes ⊠ No □ |
| C. | Is the purpose of the RP clearly stated and EC 1105-2-410 referenced? | | e. Yes⊠ No □ |
| d. | Does it reference the Project Management Plan (PMP) of which the RP is a component? | | f. Yes⊠ No ☐ g. Yes⊠ No ☐ |
| €. | Does it succinctly describe the three levels of peer review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent Technical Peer Review (IEPR)? | | Comments: |
| f. | Does it include a paragraph stating the title, subject, and purpose of the decision document to be reviewed? | | |
| g. | Does it list the names and disciplines of the Project Delivery Team (PDT)?* | EC 1105-2-410, Appendix B, Para 4a | |
| membe append | It is highly recommended to put all team er names and contact information in an dix for easy updating as team members or the RP is updated. | To come to com | |

| 2. Is the RP detailed enough to assess the necessary level and focus of peer review? | | EC 1105-2-410, Appendix B, Para 3a | Yes⊠ No 🗌 |
|--|---|--|--|
| | es it indicate which parts of the study likely be challenging? | EC 1105-2-410, Appendix B, Para 3a | a. Yes ⊠ No □ b. Yes ⊠ No □ |
| of w | es it provide a preliminary assessment where the project risks are likely to ur and what the magnitude of those is might be? | EC 1105-2-410, Appendix B, Para 3a | c. Yes No C |
| inclu (EIS Is an EI | is it indicate if the project/study will ude an environmental impact statement b)? IS included? Yes No EPR is required. | EC 1105-2-410 Para 7c & 8f | e. Yes No Comments: An EIS will be required in Phase II of the study. |
| to co | s it address if the project report is likely ontain influential scientific information e a highly influential scientific essment? | EC 1105-2-410, Appendix B, Para 4b | |
| | ly? Yes □ No ⊠ ≣PR is required. | | |
| have and | s it address if the project is likely to e significant economic, environmental, social affects to the nation, such as not limited to): | EC 1105-2-410, Para 6c | |
| 0 | nore than negligible adverse impacts n scarce or unique cultural, historic, or ibal resources? | EC 1105-2-410 Para 8f | Very control of the c |
| W | ubstantial adverse impacts on fish and vildlife species or their habitat, prior to nplementation of mitigation? | EC 1105-2-410 Para 8f | |
| s t h E | nore than negligible adverse impact on pecies listed as endangered or nreatened, or to the designated critical abitat of such species, under the indangered Species Act, prior to applementation of mitigation? | EC 1105-2-410 Para 8f | |
| | ly? Yes □ No ⊠ EPR is required. | | |

| | *************************************** | ~~~~ | upinaman and a second a second and a second |
|---|---|---|---|
| f. Does it address if the to have significant in | e project/study is likely teragency interest? | EC 1105-2-410, Para 6c | |
| Is it likely? Yes ⊠ No | | 77 CONTROL OF THE | f. Yes⊠ No□ |
| If yes, IEPR is required. | interiore di | ###################################### | g. Yes 🛛 No 🗌 |
| g. Does it address if the involves significant t | | EC 1105-2-410, | h. Yes⊠ No 🗌 |
| (safety assurance)? | meat to numan me | Appendix D, Para 1b | i. Yes⊠ No 🗌 |
| ls it likely? Yes ⊠ No [If yes, IEPR is required. | | | j. Yes⊠ No 🏻 |
| h. Does it provide an es | stimated total project | EC 1105-2-410, Appendix D, Para 1b | Comments: Phase II studies may involve seismic and other dam safety considerations. |
| What is the estimated co | ost: <u>Phase I, \$1-5</u> | | |
| million; Phase II TBD; pi | roject implementation | | , |
| cost TBD (best current range) | estimate; may be a | | |
| Is it > \$45 million? Yes If yes, IEPR is required. | □ No ⊠ | EC 1105-2-410, Appendix D, Para 1b | |
| to the size, nature, o | oversial, such as if cant public dispute as r effects of the project r environmental costs | | |
| Is it likely? Yes ☐ No [If yes, IEPR is required. | \boxtimes | EC 1105-2-410, Appendix D, Para 1b | |
| j. Does it address if the decision document we novel methods, press challenges for interpresedent-setting me present conclusions of change prevailing present | rill likely be based on ent complex retation, contain ethods or models, or that are likely to | i dia ib | |
| Is it likely? Yes ☐ No [If yes, IEPR is required. | | | |
| 3. Does the RP define the peer review for the project | | EC 1105-2-410, Para 8a | Yes⊠ No □ |
| Does it state that DQ the home district in a Major Subordinate C | ccordance with the | EC 1105-2-410, Para 7a | a. Yes ⊠ No □ |

| | district Quality Management Plans? | | |
|---------------|--|---|---|
| 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 🗵 No 🗌 |
| | | | c. Yes 🗵 No 🗌 |
| C. | Does it state whether IEPR will be performed? | EC 1105-2-410, Appendix B, | d. Yes ⊠ No □ |
| l w | Ill IEPR be performed? Yes ⊠ No □ | Para 4b | e. Yes ⊠ No □ n/a □ |
| | Does it provide a defensible rationale for the decision on IEPR? | | Comments: IEPR is anticipated to be required in Phase II. |
| 6. | 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 | |
| | es the RP explain how ATR will be nplished? | EC 1105-2-410, Appendix B, Para 4l | Yes No 🗌 |
| a. | Does it identify the anticipated number of reviewers? | EC 1105-2-410, Appendix B, | a. Yes 🛭 No 🗌 |
| | I GAIGMGES: | Para 4f | b, Yes⊠ No 🗌 |
| b. | Does it provide a succinct description of the primary disciplines or expertise needed | EC 1105-2-410, Appendix B, | c. Yes⊠ No 🗌 |
| | for the review (not simply a list of disciplines)? | Para 4g | d. Yes 🛛 No 🗌 |
| C. | Does it indicate that ATR team members | EC 1105-2-410, | e. Yes 🛛 No 🗌 |
| | will be from outside the home district? | Para 7b | f. Yes 🗌 No 🗌 n/a 🛛 |
| d. | Does it indicate that the ATR team leader will be from outside the home MSC? | EC 1105-2-410, Para 7b | Comments: |
| Θ. | 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/MSC? | EC 1105-2-410, Appendix B, Para 4k(1) | |
| f. | If the reviewers are listed by name, does the RP describe the qualifications and years of relevant experience of the ATR team members?* | EC 1105-2-410, Appendix B, Para 4k(1) | |
| memb appen | It is highly recommended to put all team er names and contact information in an dix for easy updating as team members e or the RP is updated. | | |

| 1 | | | · | *************************************** |
|--|----|--|---|--|
| | | | | |
| 5. Does the RP explain how IEPR will be accomplished? | | | EC 1105-2-410, Appendix B, Para 4k & Appendix D | Yes ⊠ No ☐ n/a ☐ |
| | a. | Does it identify the anticipated number of reviewers? | EC 1105-2-410, | a. Yes ⊠ No □ |
| | | - | Appendix B, Para 4f | b. Yes 🛛 No 🗌 |
| *************************************** | b. | Does it provide a succinct description of the primary disciplines or expertise needed | EC 1105-2-410, Appendix B, Para 4g | c. Yes 🖾 No 🗌 |
| *************************************** | | for the review (not simply a list of disciplines)? | | d. Yes 🛛 No 🗌 |
| | Č. | Does it indicate that the IEPR reviewers | EC 4405 2 440 | Comments: |
| | Ú, | will be selected by an Outside Eligible Organization and if candidates will be nominated by the Corps of Engineers? | EC 1105-2-410, Appendix B, Para 4k(1) & Appendix D, Para 2a | |
| | 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? | EC 1105-2-410, Para 7c | · |
| | | es the RP address peer review of or in-kind contributions? | | Yes 🛛 No 🗌 |
| | a. | Does the RP list the expected in-kind contributions to be provided by the sponsor? | EC 1105-2-410, Appendix B, Para 4j | a. Yes ⊠ No □ b. Yes □ No □ n/a ⊠ |
| | b. | Does it explain how peer review will be accomplished for those in-kind contributions? | | Comments: In-kind contributions will comprise meeting arrangements and similar coordination. |
| 7. Does the RP address how the peer review will be documented? | | | | Yes 🛛 No 🗌 |
| | a. | Does the RP address the requirement to document ATR and IEPR comments using DrChecks? | EC 1105-2-410, Para 8g(1) | a. Yes⊠ No 🗌 |
| | b. | Does the RP explain how the IEPR will be documented in a Review Report? | EC1105-2-410, Appendix B, Para 4k(13)(b) | b. Yes ⊠ No ☐ n/a ☐ c. Yes ⊠ No ☐ n/a ☐ |
| | C. | Does the RP document how written | EC 1105-2-410, | Noncond / · · · busseld |

| | responses to the IEPR Review Report will be prepared? | Appendix B, Para 4I | |
|---|--|--|--|
| p | 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? | EC 1105-2-410, Para 8g(2) & Appendix B, Para 4l | d. Yes ⊠ No □ n/a □ Comments: |
| 8. Does the RP address Policy Compliance and Legal Review? | | EC 1105-2-410, Para 7d | Yes No Comments: |
| | pes the RP present the tasks, timing and ence (including deferrals), and costs of ws? | EC 1105-2-410, Appendix B, Para 4c & Appendix C, Para 3d | Yes⊠ No 🗌 |
| a. | Does it provide a schedule for ATR including review of the Feasibility Scoping Meeting (FSM) materials, Alternative Formulation Briefing (AFB) materials, draft report, and final report? | EC 1105-2-410, Appendix C, Para 3g | a. Yes ⊠ No □ b. Yes □ No ⊠ c. Yes ⊠ No □ n/a □ |
| b. | Does it include interim ATR reviews for key technical products? | EC 1105-2-410, Appendix C, | d. Yes⊠ No 🗌 |
| G. | Does it present the timing and sequencing for IEPR? | Para 3g | Comments: Additional interim ATR reviews are not anticipated to be needed. |
| d. | Does it include cost estimates for the peer reviews? | | |
| 10. Does the RP indicate the study will address Safety Assurance factors? | | EC 1105-2-410, Para 2 & | Yes ⊠ No ☐ n/a ☐ |
| Factors to be considered include: | | Appendix D, Para 1c | Comments: |
| # · · · · · · · · · · · · · · · · · · · | 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 | | |
|-----------|--|--|---------------------|
| | oes the RP address model certification rements? | EC 1105-2-407 | Yes⊠ No □ |
| a. | Does it list the models and data anticipated to be used in developing recommendations (including mitigation models)? | EC 1105-2-410, Appendix B, Para 4i | a. Yes ⊠ No □ |
| b. | Does it indicate the certification/approval status of those models and if certification | | b. Yes 🖾 No 🗌 |
| | or approval of any model(s) will be needed? | | c. Yes 🖾 No 🗌 n/a 📗 |
| C. | If needed, does the RP propose the appropriate level of certification/approval for the model(s) and how it will be accomplished? | - | Comments: |
| | oes the RP address opportunities for participation? | | Yes 🛛 No 🗌 |
| a. | Does it indicate how and when there will be opportunities for public comment on the | EC 1105-2-410, Appendix B, | a. Yes 🛛 No 🗌 |
| | decision document? | Para 4d | b. Yes 🛛 No 🗌 |
| b. | Does it indicate when significant and relevant public comments will be provided | EC 1105-2-410, Appendix B, | c. Yes 🛛 No 🗌 |
| | to reviewers before they conduct their review? | Para 4e | d. Yes ⊠ No □ |
| G, | 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 | Comments: |
| 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 | |
| | oes the RP address coordination with the priate Planning Centers of Expertise? | EC 1105-2-410, Para 8a | Yes 🛛 No 🗌 |
| a. | Does it state if the project is single or multipurpose? Single ☒ Multi ☐ | | a. Yes ⊠ No □ |
| | List purposes: Improved water | | b. Yes ⊠ No □ |
| | conservation at the existing Seven Oaks Dam, CA | | c, Yes No n/a 🗵 |
| b. | Does it identify the lead PCX for peer | | Comments: |

| review? Lead PCX: WMRS 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 | | |
|---|--|---|--|
| 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 ⊠ No □ | |
| Does it state if the decision document will require Congressional authorization? | | a, Yes⊠ No □ | |
| b. If Congressional authorization is required, does the state that coordination will occur with the Cost Engineering DX? | | b. Yes No n/a Comments: Congressional authorization is not expected to be needed. | |
| 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: | | Comments: | |
| a. Is a request from a State Governor or the head of a Federal or state agency to conduct IEPR likely? | EC 1105-2-410, Appendix D, Para 1b | | |
| b. Is the home district expecting to submit a waiver to exclude the project study from IEPR? | EC 1105-2-410, Appendix D, Para 1d | | |
| 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? | | | |
| Detailed Comments and Backcheck: | | | |