



REPLY TO
ATTENTION OF

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

18 Dec 2012

CESPD-PDC

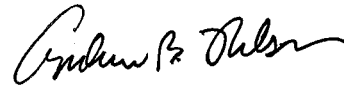
MEMORANDUM FOR Commander San Francisco District, US Army Corps of Engineers, ATTN: CESPN-PM-C (Mr. Neil Hedgecock)

Subject: Review Plan Approval for the Upper Guadalupe River, Santa Clara County, California, 14 December, 2012

1. Reference. CEIWR-RMC Memo Subject: Risk Management Center Endorsement – Upper Guadalupe River, CA – Implementation Products Review Plan dated 13 December, 2012 (Encl 1).
2. The CEIWP-RMC has reviewed the updated review plan, finds it has been prepared in accordance with EC 1165-2-209 and recommends approval (reference above). The updated review plan has also been coordinated with the San Francisco District Support Team (Encl 2).
3. The Review Plan does not include independent external peer review.
4. I hereby approve this Review Plan, which is subject to change as circumstances require, consistent with project 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. For any additional information or assistance, contact Paul Devitt, District Support Team Lead, (415) 503-6558, Paul.A.Devitt@usace.army.mil

Building Strong All The Way From New Mexico To The Pacific!

Encl

for  *COL, EN*
MICHAEL C. WEHR
BG, USA
Commanding *Reply Cdr*



DEPARTMENT OF THE ARMY
RISK MANAGEMENT CENTER, CORPS OF ENGINEERS
13952 DENVER WEST PARKWAY SUITE 200
GOLDEN, CO 80401

REPLY TO
ATTENTION OF
CEIWR-RMC-WD

CEIWR-RMC

13 December 2012

MEMORANDUM FOR: Commander, San Francisco District, ATTN: CESPEN-ET-PF

SUBJECT: Risk Management Center Endorsement – Upper Guadalupe River, CA - Implementation Products Review Plan

1. The Risk Management Center (RMC) has reviewed the Review Plan (RP) for the Upper Guadalupe River Project, revised 12 December 2012, and concurs that this RP provides for an adequate level of peer review and complies with the current peer review policy requirements outlined in EC 1165-2-209 “Civil Works Review Policy”, dated 31 January, 2010.
2. This review plan was prepared by the San Francisco District, reviewed by the South Pacific Division and the RMC, and all review comments have been satisfactorily resolved.
3. The RMC endorses this document to be approved by the MSC Commander. Upon approval of the RP, please provide a copy of the approved RP, a copy of the MSC Commander’s approval memorandum, and a link to where the RP is posted on the District website to Tom Bishop, RMC Senior Review Manager (thomas.w.bishop@usace.army.mil).
4. Thank you for the opportunity to assist in the preparation of this RP. Please coordinate all aspects of the Type II IEPR. For further information, please do not hesitate to contact me at (303) 963-4556.

Sincerely,

THOMAS W. BISHOP, P.E.
Senior Review Manager
Risk Management Center

CF:
CEIWR-RMC-ZA (Mr. Snorteland)
CESPD (Division Quality Manager)

REVIEW PLAN

UPPER GUADALUPE RIVER SANTA CLARA COUNTY, CALIFORNIA IMPLEMENTATION WORK PRODUCTS

San Francisco District



South Pacific Division Approval Date: 18 December 2012

Last Revision Date: 13 December 2012



**US Army Corps
of Engineers®**

REVIEW PLAN

**UPPER GUADALUPE RIVER
SANTA CLARA COUNTY, CALIFORNIA
IMPLEMENTATION WORK PRODUCTS**

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1. PURPOSE AND REQUIREMENTS

a. Purpose.

This Review Plan defines the scope and level of quality management activities for implementation work products needed to complete the construction of the Upper Guadalupe River, Santa Clara County, California, flood risk management project. Specifically, this Review Plan describes the level of review required for the work products specified in section 4.

b. References.

- (1) Engineer Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- (2) Engineer Regulation (ER) 1110-2-1150, Engineering and Design for Civil Works Projects, 31 Aug 1999
- (3) ER 1110-1-12, Engineering and Design Quality Management, 21 Jul 2006
- (4) ER 415-1-11, Biddability, Constructibility, and Operability, 1 September 1994
- (5) Water Resources Development Act (WRDA) 2007 H. R. 1495 Public Law 110-114, 8 Nov 2007
- (6) ER 1110-1-12, Quality Management, 30 Sep 2006
- (7) CESP-D 1110-1-8, Quality Management Plan; 30 December 2002
- (8) Army Regulation 15-1, Committee Management, 27 November 1992 (Federal Advisory Committee Act Requirements)
- (9) National Academy of Sciences, Background Information, and Confidential Conflict Of Interest Disclosure, BI/COI FORM 3, May 2003
- (10) Memorandum CESP-D-PD, 22 March 2012, subject: Regional Distribution of the Director of Civil Work's Policy Memorandum (CWPM 12-001) – Methodology for updating BCRs for Budget Development
- (11) Project Management Plan (PMP) for the Upper Guadalupe River Project, San Jose , CA, dated: To Be Determined

c. Requirements.

This Review Plan was developed in accordance with EC 1165-2-209, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review.

In addition to these four levels of review, the total project cost and project benefits must be periodically updated during construction and will follow the guidance given in Reference (10) and the references cited in that memorandum. The total project cost will be updated annually, with the construction estimate being updated and repriced at least every two years. The economic updates will occur once every five years, using a Level 1 analysis, unless project conditions change during those five years to require a higher level of analysis.

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. The RMO for implementation documents is typically the Risk Management Center (RMC), but this function is

sometimes designated to the Major Subordinate Command (MSC, i.e. the South Pacific Division). The RMO for the review effort described in this Review Plan will be determined by the South Pacific Division District Support Team. The San Francisco District's preference would be having the South Pacific Division act as the RMO if it is practical.

The RMO will coordinate with the Cost Engineering Mandatory Center of Expertise (MCX). They will perform the ATR review of the project cost estimate.

3. PROJECT DESCRIPTION

a. Project Authority.

Construction of the Upper Guadalupe River Project was authorized by Section 101(a)(9) of the Water Resources Development Act of 1999, Public Law 110-114.

b. Location and Description.

The Upper Guadalupe River Project is part of a larger system of projects to provide flood risk reduction and other benefits to the Guadalupe River watershed (see Figure 1). The Guadalupe River watershed system consists of a number of reservoirs in the upper portion of the watershed and four civil works projects along the Guadalupe River: the Upper Guadalupe River Project, the Guadalupe River Project (also known as the Downtown Project), the Lower Guadalupe River Project, and the South San Francisco Bay Shoreline Study. The Upper Guadalupe River Project will be constructed by the San Francisco District, with the Santa Clara Valley Water District being the non-Federal sponsor. The Downtown Project was constructed by the Sacramento District, with Santa Clara Valley Water District as the non-Federal sponsor. The Lower Guadalupe River Project was locally funded and was constructed by the Santa Clara Valley Water District. The South San Francisco Bay Shoreline Study is currently in the Feasibility Phase to determine Federal interest and will provide flood risk reduction from coastal inundation, ecosystem restoration, and recreation benefits to the lower portion of the Guadalupe River watershed.

The Upper Guadalupe River Project covers 5.5-miles of the Guadalupe River. Hydrologically speaking, the project covers the middle portion of the watershed. For flood descriptive purposes, the entire Guadalupe River has been divided into a number of "reaches". Each reach is a segment of the river distinguished by a major street or railroad crossing. The Upper Guadalupe River project area contains Reaches 7 through 12, extending from the Southern Pacific Railroad Bridge just south of Interstate 280, upstream 5.5 miles to the Blossom Hill Road Bridge. The project area also includes areas of Ross Creek extending 5,200 feet upstream from its confluence with the Guadalupe River, and Canoas Creek extending 2,800 feet upstream from its confluence with the Guadalupe River.

c. Project Delivery Team.

The project delivery team (PDT) is comprised of individuals directly involved in the development of the implementation documents. Individual contact information and disciplines are presented in Attachment 1. Any in-kind work potentially provided by the non-Federal sponsor will undergo review by the PDT for a determination of adequacy; products will ultimately undergo at least District Quality Control (DQC). Some products will undergo additional reviews, such as ATR and Type II IEPR/Safety Assurance Review (SAR).

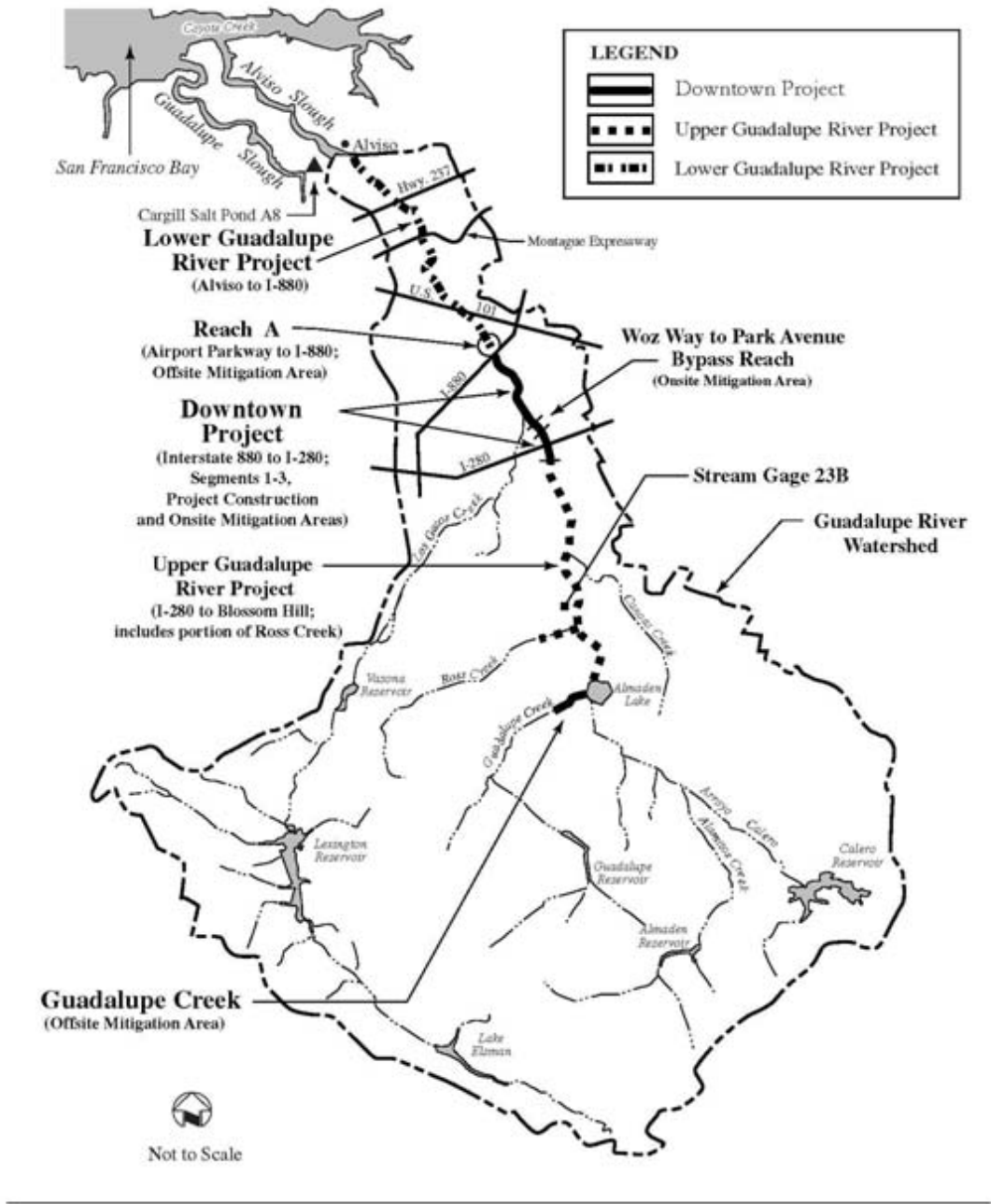


Figure 1. Project Map

d. Vertical Team.

The Vertical Team includes the management of the San Francisco District, the District Support Team (DST) of the South Pacific Division, and the Regional Integration Team (RIT), HQUSACE staff. Specific points of contact for the Vertical Team can be found in Attachment 1.

e. Model Certification.

A standardized certification process for engineering models, similar to the planning model certification, has not yet been established by the Corps Engineering Community of Practice (CoP). For hydrologic and hydraulic software, the PDT will follow the guidance given in CESPDP-RGM-2007-006: “Until such time that a USACE certification process is enacted for HH&C software, first choice for use in our studies shall be Corps developed software – as they are public domain, readily available, have good documentation and technical support, Corps and many local sponsor technical staff are very familiar with these software, etc.” Other engineering software will follow a similar approach and use Corps developed or approved software first and more specialized software only as necessary. Approval for all non-standard, non-Corps models will be coordinated through the USACE RMC as needed.

4. WORK PRODUCTS

The work products for this project include:

- Revised initial Design Documentation Reports (DDR) for all reaches;
- Gravel augmentation study;
- Supplemental Design Documentation Reports (DDRs) or Engineering Documentation Reports (EDRs) for Reaches 7, 8, 9, 10A, 10B lower, 10C, 11A, 11B, 11C, 12, Canoas Creek, and Ross Creek;
- Plans & Specifications (P&S) for Reaches 7, 8, 9, 10A, 10B lower, 10C, 11A, 11B, 11C, 12, Canoas Creek, and Ross Creek;
- Final revised DDR for all reaches;
- Initial Operation, Maintenance, Repair, Replacement, & Rehabilitation (OMRR&R) Manual for the project;
- Interim OMRR&R manuals for Reaches 7, 8, 9, 10A, 10B lower, 10C, 11A, 11B, 11C, 12, Canoas Creek, and Ross Creek;
- Final OMRR&R manual;
- Annual Project Cost Estimate Packages, with the construction estimate updated and repriced every two years;
- Economic reevaluation reports updated once every five years.

An Environmental Impact Statement (EIS) has already been completed and approved for the project. No other environmental documents are needed for the project, as all current environmental concerns will be addressed in the above work products.

5. SCOPE OF REVIEWS

a. District Quality Control (DQC) Activities.

DQC activities will consist of Quality Checks and Reviews, supervisory reviews, PDT reviews, including input from the non-Federal sponsor, and biddability, constructability, operability, environmental, and

sustainability (BCOES) reviews of implementation documents. DQC efforts will include the necessary expertise to address compliance with applicable Corps policy.

b. Agency Technical Review (ATR) Activities.

The ATR team will review all applicable implementation work products. A description of the points of emphasis for certain work products is described below.

When reviewing the DDR or EDR, the ATR team should verify that it is sufficiently detailed for each technical specialty. In this way, the criteria that were used, the critical assumptions which were made, and the analytical methods that were used will be evident for purposed review and historical documentation. Verify that it contains summaries of important calculation results and selected example calculations for all critical elements of the design.

When reviewing the P&S, the ATR team should verify that they are prepared in accordance with ER 1110-2-1200 and the Architect/Engineering/Construction CADD standards along with Tri-Service Spatial Data Standards. The team should verify that the P&S contain all necessary information required to bid and construct the plan documented in the DDR and also review the design for BCOES aspects of the design.

When reviewing the OMRR&R manual, the ATR team should verify all features of work within each phase are included to maintain, repair, monitor, and inspect work in accordance with ER 1110-2-401.

c. Independent External Peer Review (IEPR)/Safety Assurance Review (SAR) Activities.

Independent External Peer Review (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 panels will be formed and made up of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted.

These external panels will conduct reviews of applicable work products for design and construction activities prior to the initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health, safety, and welfare.

6. DISTRICT QUALITY CONTROL AND BCOES MANAGEMENT

a. Management of DQC.

The DQC will be managed by the San Francisco District in accordance with Major Subordinate Command (MSC) and District Quality Management Plans. All work products will undergo DQC. This review process will be properly documented and a certification sheet (see example in Attachment 2) will be issued separately for each work product.

b. Management of BCOES.

BCOES review is defined as a process that ensures that biddability, constructability, operability, environmental, and sustainability issues are properly considered in contract documents. A BCOES review is performed after the ATR for the scheduled work product reviews and is typically reviewed by the Construction Branch personnel from the District that will be responsible for administering the construction contracts associated with the project.

Biddability and constructability are defined as the ease with which a designed project can be built, as well as the ease with which the contract documents can be understood, bid, administered, and executed within the timeframe of the contract duration. Operability refers to the ease with which a project can be operated and maintained. Environmental review addresses the protection of air, water, land, animals, plants, and other natural resources from the effects or impacts of construction and operation of the project. Sustainability refers to the completed project's ability to maintain itself functionally, and thereby minimize future O&M financial obligation to the fullest extent possible, and still be environmentally compliant.

c. Communication of BCOES.

The communication plan for the BCOES is as follows:

1. The BCOES review team will use DrChecks to document the BCOES process.
2. The Project Engineer, or their designee, shall deliver the P&S to the BCOES review team for their review.
3. The Project Engineer, or their designee, shall inform the BCOES review team when all responses to their comments have been entered into DrChecks and request that the team backcheck their comments.
4. The BCOES review team backchecks their comments in DrChecks. The BCOES backcheck ensures that the comments made during the review have been incorporated or were addressed to the reviewers' satisfaction. Typically, the backcheck will be conducted on the final documents by the original reviewer or someone within their division. The comments incorporated by the customer may be closed by the PM. The backcheck process is managed by the Project Engineer, or their designee to ensure that any BCOES comments and resolutions that were contrary to any previous ATR comments and resolutions have been identified and a consensus for the final resolution has been determined and agreed upon by all review participants. A backcheck must be completed prior to final BCOES Certification.
5. Reviewers may "agree to disagree" with any comment response and initiate the resolution process. The Project Engineer, or their designee, will resolve all disputes by working with the PDT, BCOES review team, and the Section Chiefs of the affected disciplines.
6. BCOES certification is conducted upon completion of the BCOES review.

d. Certification of BCOES.

The BCOES certification is a memorandum as required by Reference (4) that attests to the completion of the BCOES review process. The BCOES certification is to be signed by the Chief of Engineering, Chief of Planning, and the Chief of Construction. Certification is predicated on a final, satisfactory backcheck

of the complete contract package. The BCOES POC ensures that all comments made in all phases of the design have been appropriately resolved and documented in DrChecks prior to certification, the report throughout the report approval process. An interim certification will be provided

7. AGENCY TECHNICAL REVIEW MANAGEMENT

The ATR for the Upper Guadalupe River project will be managed by the RMO. Contact information is provided in Attachment 1 of this Review Plan. A list of ATR reviewers describing qualifications and years of relevant experience will be provided in Attachment 1 upon conferring with the RMO and updated as new ATR reviewers are selected.

a. Risk Informed Decisions for ATR.

Following the questions and guidance given in Section 15b of EC 1165-2-209 a risk informed decision has been made that all DDRs, P&Ss, and the final OMRR&R manual will undergo ATR. It is felt that the remaining work products do not need ATR based on the seventeen questions given in Section 15b and the following reasons: the results of the gravel augmentation study will be covered in the appropriate supplemental DDRs; interim OMRR&R manuals will be covered by the ATRs of the final OMRR&R manual; and annual project cost estimate packages and economic reevaluation reports are required for budgetary purposes only and represent a low risk to the project.

b. Agency Technical Review Team (ATRT) and Disciplines.

The ATRT will be comprised of individuals that have not been involved in the development of the implementation documents and will be chosen based on expertise, experience, and skills. The members will roughly mirror the composition of the PDT, and come from outside of the San Francisco District, with the ATR Lead being assigned from outside the South Pacific Division. The ATR Lead should have a minimum of 15 years of experience in one of the disciplines listed below. All ATRs will be scaled to the specific work product being reviewed. The ATRT will vary in number and disciplines depending on the work product being reviewed; it is anticipated that the team will require a minimum of four to a maximum of nine reviewers per work product.

The table below lists the primary disciplines of expertise and experience needed for the ATR.

Discipline	Experience Needed for Review
Civil Design	Civil engineer with a minimum of 15 years of experience in channel modification and design, levee and bank-protection removal or modification, earthen channels, concrete bypasses, ecosystem restoration techniques, and operations and maintenance requirements.
Cost Engineering	Cost estimating review will be conducted by the Civil Works Cost Engineering Directorate of Engineering at the Walla Walla District.

Discipline	Experience Needed for Review
Economics	An economist with a minimum of 10 years of experience and is familiar with USACE policies and procedures for flood risk management (FRM) benefit-cost analysis. Experience in the use of the HEC-FDA program, and an understanding of risk and uncertainty principles in the context of flood risk. An understanding of USACE policies and procedures for conducting recreation analysis.
Environmental Resources	An environmental manager or planner with 10 years of experience and understands integration of environmental evaluation and compliance requirements pursuant to the “Procedures for Implementing NEPA” (ER 200-2-2), national environmental statutes, applicable executive orders, and other Federal planning requirements, into the planning of Civil Works projects. Experience with ESA, fishery resources, riparian habitat, HTRW, and dredged material management.
Geotechnical Engineering	A geotechnical engineer with a minimum of 15 years of experience familiar with sampling and laboratory testing, embankment stability and seepage analyses, soils analysis, foundation design, planning analysis, and a number of other closely associated technical subjects.
Hydrology and Hydraulics	A hydraulic engineer/geomorphologist with a minimum of 15 years of experience who is proficient with river hydraulics, GEO-RAS, HEC-RAS and associated one-dimensional models, hydrologic statistics, sediment transport analysis/gravel augmentation studies, shoaling mechanics and rates, channel stability analysis, risk and uncertainty analysis, and a number of other closely associated technical subjects.
Plan Formulation/Policy	A planner with a minimum of 10 years of experience working on flood risk management projects, familiar with Corps civil works planning policies, processes, and procedures; and able to interpret authorizations into project performance requirements.
Real Estate	A Realty Specialist with a minimum of 10 years of experience who is familiar with the civil works process, including knowledge of project milestones and schedules, and real estate regulation, ER 405-1-12. Realty Specialist shall have experience providing reports for studies and authorizing documents, advising the non-Federal sponsor in their role to provide all Lands, Easements, Rights of Way, and Relocations (LERRs). Realty Specialist shall have experience coordinating with the RE Division for various requirements, such as appraisals, coordinating with Office of Counsel for real estate issues, such as non-standard estate approvals and taking analysis, Attorneys Opinions of Compensable Interest, and ultimately providing take letters to sponsors for acquisition of lands and coordinating with the RE Division on crediting of LERRs.

Discipline	Experience Needed for Review
Operations	An engineer with a minimum of 10 years of experience who is familiar with the Operation, Maintenance, Repair, Replacement and Rehabilitation (OMRR&R) requirements on flood risk management projects, familiar with PL 84-99 requirements, and the Corps ICW program.
Construction Management	An engineer with at least 15 years of construction management experience in channel modification, levee and bank-protection removal or modification, earthen channels, concrete bypasses, ecosystem restoration techniques, , sampling and laboratory testing, ESA, fishery resources, riparian habitat, dredged material management and a number of other closely associated technical subjects for both construction and ecosystem restoration and capable of making professional determinations based on experience.

c. Communication of ATR.

The communication plan for the ATR is as follows:

1. The team will use DrChecks to document the ATR process. The San Francisco District DrChecks representative 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 distributed in PDF, Word, or other format at: <https://safe.amrdec.army.mil/SAFE2/> at least one business day prior to the start of the comment period.
2. The PDT shall send the ATR Team Leader 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. At the discretion of the ATRT, the PDT shall host an ATR kick-off meeting virtually, or on-site, 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 project planner or engineer shall inform the ATR Team Leader 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/usace/> for use during back checking of the comments.
6. PDT members shall contact ATR 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 ATR Team Leader and the project planner will prepare a memo certifying that ATR has been completed and all technical issues have been resolved.

d. Funding of ATR.

1. The Project Manager (PM) shall provide labor funding by cross charge labor codes. Funding for travel, if needed, will be provided through government order. The PM will work with the ATR Team Leader to ensure that adequate funding is available and is commensurate with the level of review needed. The current cost estimate for ATR reviews varies depending on the work product, with an estimated range from \$15,000 to \$60,000. Any funding shortages will be negotiated on a case-by-case basis and in advance of a negative charge occurring.
2. The ATR Team Leader shall provide organization codes for each team member 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 PM to any possible funding shortages.

e. Timing and Schedule.

1. Throughout the development of the implementation documents, the team will conduct seamless review to ensure timeliness and quality of the work product.
2. ATRs will be conducted on the final draft versions of the work products; and if changes are made to the final draft version, those changes will be reviewed in the final version of the document.
3. At the discretion of the PDT, a “page-turn” session may be held by the PDT to review the draft version to ensure consistency across the disciplines and resolve any issues prior to the start of ATR. Writer/editor services will be performed on the draft prior to ATR as well.
4. The ATR process for all work products will follow timelines and milestones given in the project’s P2 schedule. The P2 schedule will be kept current and updated at least annually. Actual dates will be scheduled once the period of review draws closer. All products produced for these milestones will be reviewed, including those produced as in-kind services by the non-Federal sponsor (should that be applicable to this project), and products developed by contractors.

f. ATR Review Responsibilities.

1. ATRT responsibilities are as follows:
 - a. Reviewers shall review the work products 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 fact.
 - c. Grammatical and editorial comments shall not be submitted into DrChecks. Comments should be submitted to the ATR Team Leader via electronic mail using tracked changes feature in the Word document or as a hard copy mark-up. The ATR Team Leader shall provide these comments to the Project Planner.

- d. Review comments shall contain these four principal elements:
 - i. a clear statement of the concern
 - ii. the basis for the concern
 - iii. the significance of the concern
 - iv. 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 Team Leader and/or the Project Planner or Engineer 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. ATR Resolution of Disputes.

- 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 initiate the resolution process. If reviewer and responder cannot resolve a comment, it should be brought to the attention of the ATR Team Leader and, if not resolved by the ATR Team Leader, it should be brought to the attention of the Engineering Chief who will need to sign the certification. ATRT members shall keep the ATR Team Leader informed of problematic comments. The vertical team will be informed of any policy variations or other issues that may cause concern during a HQUSACE review.

h. Certification of ATR.

To fully document the ATR process, a statement of technical review will be prepared. A statement or review completion will be signed by the ATR Team Leader and the District’s Engineering and Technical Services Division Chief once all issues raised by the reviewers have been addressed to the review team’s satisfaction and the final version is ready for submission. Indication of this concurrence will be documented by the signing of a certification statement by the MSC’s Chief of Business Technology Division (Attachment 3). 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 Leader to indicate concurrence with the report to date until the final certification is performed when the work product is considered final.

8. INDEPENDENT EXTERNAL PEER REVIEW MANAGEMENT

EC 1165-2-209 requires that a Type II Independent External Peer Review (IEPR)/Safety Assurance Review (SAR) shall be conducted for any project addressing hurricane and storm risk management or flood risk management, or any other project where the Federal action is justified by life safety, or where failure of the project would pose a significant threat to human life. Reach 8, Reach 10B upper, and Ross

and Canoas Creeks do not contain any floodwalls or levees that pose a significant threat to human safety; just channel widening and bypass channels, and therefore do not pose a significant threat to human life. Also, these reaches do not meet the risk informed decision criteria for an SAR given in Appendix E, Section 2 of EC 1165-2-209; as these reaches do not involve the use of innovative materials, do not require redundancy, resiliency, or robustness, and the project does not have unique construction sequencing. All other reaches of the Upper Guadalupe River Project will undergo a Type II IEPR/SAR.

a. Funding.

All costs associated with Type II IEPR/SAR, will be shared in accordance with the project purpose(s) and the phase of work. In planning for a Type II review, estimates will need to include the cost for the RMO to administer and manage the Type II review and the cost of the independent panel. The cost of a Type II review through completion of construction should be reasonable and scalable, a function of the complexity and duration, and managed as opposed to a carte-blanche approach. In-house costs associated with developing and procuring the IEPR panel contract as well as PDT response to IEPR comments will also be cost shared expenses. The cost for IEPR will be developed with an IEPR coordinator once a coordinator is identified by the RMO. The Type II IEPRs/SARs will be scaled to the specific work product being reviewed. IEPRs may be conducted by a minimum of four IEPR panel members up to the ten disciplines listed in the previous table for ATRT disciplines. The RMO will identify someone independent from the PDT to scope the IEPR and develop an Independent Government Estimate (IGE). The PM will provide funding to the IEPR panel. Typically IEPRs for these types of work products range from \$50,000 to \$200,000.

b. Project Risks and Challenges.

Based on the criteria given in Appendix E, section 2, of EC 1165-2-209, the following work products that will undergo ATR will not be required to conduct a Type II IEPR/SAR: Revised initial DDR for all reaches, DDR and P&S for Reach 8, and Ross and Canoas Creeks, and the final OMRR&R manual. Per section 2, these work products do not pose a significant threat to human life and do not involve the use of innovative materials, do not require redundancy, resiliency, or robustness, and do not have a unique construction sequence; and therefore do not require Type II IEPR/SAR. Additional project risks and challenges are given below.

The Upper Guadalupe River Project is being designed with the latest information on hydrology, hydraulics, and its neighboring downstream projects (Downtown & Lower Guadalupe River and the Shoreline Study). Because the Guadalupe River Watershed System is divided into multiple projects, there may be challenges in completing designs that do not adversely affect the performance of the Downtown and Lower Guadalupe River projects. For example, the flow that is conveyed within the Upper Guadalupe River Project for its authorized performance will also have to be conveyed within the Downtown and Lower Guadalupe River projects and still meet their performance requirements. Also, protective measures in the OMRR&R manual for the completed Upper Guadalupe River Project will have to be developed so that they don't interfere with the protective measures that are in effect for the Downtown and Lower Guadalupe River projects via their own respective OMRR&R manuals.

There are challenges associated with the initial, interim, and final OMRR&R manuals due to the project's long construction time. Construction is only allowed for a portion of the year due to environmental restrictions and it will take many years to construct the entire project. An initial OMRR&R manual will be produced for Reach 10B upper, then interim OMRR&R manuals for each construction contract or reach, and a final OMRR&R manual for the completed project; so that the non-Federal sponsor can assume OMRR&R as the reaches are completed. There is a risk that some or all of these manuals may

have to be redone due to changing regulations (Corps and/or other agencies) during this long construction period.

Another challenge is the requirement for the Guadalupe Watershed Interagency Working Group (GWIWG) concurrence for the design of each reach of the Upper Guadalupe River Project. The GWIWG was established to discuss and resolve the views and constraints of the local, State, and Federal stakeholders of the project. Members include, but are not limited to, the San Francisco District, San Francisco Bay Regional Water Quality Control Board, Santa Clara Valley Water District, U.S. Fish and Wildlife, and California Department of Fish and Game. Provision 12 of the water quality certification (Order R2-2003-0115) provided by the San Francisco Bay Regional Water Quality Control Board requires each reach be reviewed by the GWIWG. 65% designs are supposed to be reviewed by the GWIWG and the group's recommendation submitted to the Executive Officer of the Water Board for approval before the San Francisco District can proceed with construction of the reach.

c. Vertical Team Consensus.

This Review Plan will serve as the coordination document to obtain vertical team consensus. Subsequent to RMO concurrence, the plan will be provided to the vertical team for approval. MSC approval of the plan will indicate vertical team consensus.

d. Communication and Documentation.

The communication plan for Type II IEPR/SAR is as follows:

1. The RMO will provide objective criteria to a contracted review facilitator, for the selection of Type II IEPR/SAR review panelists. USACE personnel will not select panel members, nor will they act as members of the review panel. The review panel will be composed of non-USACE Federal government personnel or contractors. For these reasons the Type II IEPR/SAR may not trigger the Federal Advisory Committee Act (FACA)¹.

The panel will use DrChecks to document the Type II IEPR/SAR process. The DrChecks representative will facilitate the creation of a project portfolio in the system to allow access by all PDT and review panelists. Once approved by the MSC, an electronic version of the project report, submitted by the panel, and final District responses shall be posted on the District's website.

The review facilitator will compile the comments of the Type II IEPR/SAR panelists, enter them into DrChecks, and forward the comments to the District. The District will consult the PDT and outside sources as necessary to develop a proposed response to each panel comment. The District will enter the proposed response to DrChecks, and then return the proposed response to the panel. The panel will reply to the proposed response through the review facilitator, again using

¹ The Federal Advisory Committee Act (FACA) was passed by Congress to ensure that advice by the various advisory committees is "objective and accessible to the public" by formalizing the process for "establishing, operating, overseeing, and terminating" the committees. FACA imposes requirements on groups established by statute, or established or utilized by the President or an agency that provide advice or recommendations to the President or an agency pertaining to Executive policy. A FACA committee must provide public notice in the Federal Register 15 days prior to meeting. Type II IEPRs may or may not be required to follow FACA, depending on the process they follow. To avoid potentially triggering the requirements given in FACA, all Type II – IEPR panels shall be established in accordance with the process given in this Review Plan, which follows the guidance given in EC 1165-2-209.

DrChecks. This final panel reply may or may not concur with the District's proposed response and the panel's final response will indicate concurrence or briefly explain what issue is blocking concurrence. There will be no final closeout iteration. The District will consult the vertical team and outside resources to prepare an agency response to each comment. The initial panel comments, the District's proposed response, the panels reply to the District's proposed response, and the final agency response will all be tracked and archived in DrChecks for the administrative record. However, only the initial panel comments and the final agency responses will be posted. This process will continue to be refined as experience shows need for changes.

2. The PDT shall send each IEPR panel member one hard copy (with color pages as applicable) of the document and appendices such that the copies are received at least one business day prior to the start of the comment period. Electronic copies may be substituted for hard copies at the IEPR panel members' request.
3. The review facilitator shall inform the IEPR panel when all responses have been entered into DrChecks and conduct a briefing to summarize comment responses to highlight any areas of disagreement.
4. A revised electronic version of the report and appendices with comments incorporated shall be posted at <ftp://ftp.usace.army.mil/usace/> for use during back checking of the comments.
5. PDT members shall contact IEPR panel members as appropriate to seek clarification of a comment's intent or provide clarification of information in the report. Discussions shall occur outside of DrChecks but a summary of discussions may be provided in the system.
6. The IEPR panel shall produce a final Review Report to be provided to the PDT. This report shall be scoped as part of the effort to engage the IEPR panel. The PDT will draft a response report to the IEPR final report and process it through the vertical team for discussion. Following direction from the vertical team and upon satisfactorily resolving any relevant follow-on actions, the Corps will finalize its response to the IEPR Review Report and will post both the Review Report and the Corps final responses to the public website.

9. POLICY AND LEGAL COMPLIANCE REVIEW

Policy and legal compliance review are usually only conducted on decision documents, and the subsequent implementation documents are based on these policy and legally compliant documents. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in 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 home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods, compliance with the authorized project, and the presentation of findings in decision documents.

10. PUBLIC AND AGENCY REVIEW

Because all work products are implementation documents and not study/decision documents, there will be no formal agency or public review for any of the work products listed in this Review Plan. However, the appropriate resource agencies will be consulted in the development of the work products.

11. REVIEW SCHEDULES AND COSTS

a. DQC Schedule and Cost.

All work products identified in Section 4 of this Review Plan will undergo DQC. Seamless DQC review will be conducted on each work product as it progresses and is finished. Costs for the DQC for each work product will be presented in scopes of services for each discipline and included in the annually updated PMP.

b. ATR Schedule and Cost.

Task	Estimated Cost	Due Date
Reach 12 DDR, P&S	To Be Determined	To Be Determined
Revised initial DDR for all reaches	To Be Determined	To Be Determined
Reach 7 DDR, P&S	To Be Determined	To Be Determined
Reach 8 DDR, P&S	To Be Determined	To Be Determined
Reach 10C DDR, P&S	To Be Determined	To Be Determined
Reach 9 DDR, P&S	To Be Determined	To Be Determined
Reaches 10A and 10B lower DDR, P&S	To Be Determined	To Be Determined
Reaches 11A, 11B, and Ross DDR, P&S	To Be Determined	To Be Determined
Reaches 11C and Canoas DDR, P&S	To Be Determined	To Be Determined
Final OMRR&R Manual	To Be Determined	To Be Determined

c. Type II/SAR IEPR Schedule and Cost.

Task	Estimated Cost	Due Date
Reach 12 DDR, P&S, & Construction	To Be Determined	To Be Determined
Reach 7 DDR, P&S , & Construction	To Be Determined	To Be Determined
Reach 10C DDR, P&S, & Construction	To Be Determined	To Be Determined
Reach 9 DDR, P&S, & Construction	To Be Determined	To Be Determined
Reaches 10A and 10B lower DDR, P&S, & Construction	To Be Determined	To Be Determined
Reaches 11A, and 11B,DDR, P&S & Construction	To Be Determined	To Be Determined
Reaches 11C DDR, P&S, & Construction	To Be Determined	To Be Determined

12. REVIEW PLAN APPROVAL AND UPDATES

The San Francisco District requests that the South Pacific Division Commander endorse the above recommendations and approve this Review Plan as described in Appendix B, Section 6, of EC 1165-2-209.

The Review Plan is a living document and may change as the project progresses. The San Francisco District is responsible for keeping the Review Plan up to date. Future minor changes to the Review Plan will be documented in Attachment 5. Significant changes to the Review Plan (such as changes to the scope and/or level of review) will be re-approved by the South Pacific Division Commander following the process used for initially approving the plan.

13. POINTS OF CONTACT

The points of contact for this Review Plan are Craig Conner (415-503-6903; Craig.s.Conner@usace.army.mil) or the Project Manager, Neil Hedgecock (415-503-6728; Neil.C.Hedgecock@usace.army.mil).

ATTACHMENT 1: TEAM ROSTERS

PROJECT DELIVERY TEAM

Name	Discipline	Phone	Email
Mark Bierman	Economics	(415) 503-6830	Mark.D.Bierman@usace.army.mil
Andrew Smith	Lead Engineer - Civil Design	(415) 503-6993	Andrew.C.Smith@usace.army.mil
Craig Conner	Plan Formulation	(415) 503-6903	Craig.S.Conner@usace.army.mil
Bill DeJager	Environmental	(415) 503-6866	William.R.DeJager@usace.army.mil
Ben Snyder	Hydrology & Hydraulics	(415) 503-6911	Benjamin.S.Snyder@usace.army.mil
Brian Hubel	Geotechnical Engineering	(415) 503-6922	Brian.A.Hubel@usace.army.mil
Neil Hedgecock	Project Management	(415) 503-6728	Neil.C.Hedgecock@usace.army.mil
Jessica Soto	Cost Engineering	(415) 503-6755	Jessica.E.Soto@usace.army.mil

AGENCY TECHNICAL REVIEW TEAM

Name	Discipline	Phone	Email
To Be Determined	ATR Team Leader		
To Be Determined	Plan Formulation		
To Be Determined	Civil Design		
To Be Determined	Economics		
To Be Determined	Environmental Resources		
To Be Determined	Hydrology & Hydraulics		
To Be Determined	Cost Engineering		
To Be Determined	Geotechnical Engineering		

INDEPENDENT EXTERNAL PEER REVIEW PANEL

Name	Discipline	Phone	Email
Thomas Bishop	RMO Representative	(303) 963-4556	Thomas.W.Bishop@usace.army.mil
To Be Determined	Plan Formulation		
To Be Determined	Civil Design		
To Be Determined	Economics		
To Be Determined	Environmental Resources		
To Be Determined	Hydrology & Hydraulics		
To Be Determined	Cost Engineering		
To Be Determined	Geotechnical Engineering		

VERTICAL TEAM

Name	Discipline	Phone	Email
Paul Devitt	District Support Team	(415) 503-6558	Paul.A.Devitt@usace.army.mil
Pauline Acosta	Regional Integration Team	(202) 761-4085	Pauline.M.Acosta@usace.army.mil
Boniface Bigornia	South Pacific Division Business Technical Division	(415) 503-6567	Boniface.G.Bigornia@usace.army.mil

ATTACHMENT 2: SAMPLE DQC CERTIFICATION SHEET

**DISTRICT QUALITY CONTROL CERTIFICATION
COMPLETION OF QUALITY CONTROL ACTIVITIES**

The District has completed the (*insert work product here*) for the Upper Guadalupe River, flood risk management project.

Certification is hereby given that all quality control activities appropriate to the level of risk and complexity inherent in the product have been completed.

GENERAL FINDINGS

Compliance with clearly established policy principles and procedures, utilizing clearly justified and valid assumptions, has been verified. This includes assumptions; methods, procedures and materials used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and the reasonableness of the results. The undersigned recommends certification of the quality control process for this product.

[Name of DQC member]
[Position Title]
[Office Symbol]

Date

ATTACHMENT 3: SAMPLE ATR CERTIFICATION SHEETS

- 1. Sample ATR Certificate where the SPD is the RMO**
- 2. Sample ATR Certificate where the RMC is the RMO**

**STATEMENT OF TECHNICAL REVIEW
COMPLETION OF AGENCY TECHNICAL REVIEW**

The San Francisco District has completed the review of the *(insert work product here)* for the Upper Guadalupe River, flood risk management project. Notice is hereby given that an agency technical review (ATR) 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 ATR, 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. All comments resulting from the ATR have been resolved.

[Name]
ATR Team Leader
[Office Symbol or AE Firm]

Date

Lyn Gillespie, P.E.
Chief, Engineering & Technical Services Division
CESPN-ET

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.

Clyde Y. Okazaki, P.E.
Chief, Business Technology Division
CESPD-RBT

Date

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the <type of product> for <project name and location>. The ATR was conducted as defined in the project’s Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, 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 results, including whether the product meets the customer’s needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrCheckssm.

SIGNATURE

Name
ATR Team Leader
Office Symbol/Company

Date

SIGNATURE

Name
Project Manager (home district)
Office Symbol

Date

SIGNATURE

Name
Architect Engineer Project Manager¹
Company, location

Date

SIGNATURE

Nathan Snortland
Director, Risk Management Center
CEIWR-RMC

Date

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

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

SIGNATURE

Name
Chief, Engineering Division (home district)
Office Symbol

Date

SIGNATURE

Name
Chief, Planning Division² (home district)
Office Symbol

Date

¹ Only needed if some portion of the ATR was contracted

² Decision Documents Only.

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition</u>
ATR	Agency Technical Review
ATRT	Agency Technical Review Team
BCOES	Biddability, Constructability, Operability, Environmental, and Sustainability
CoP	Community of Practice
DDR	Design Documentation Report
DQC	District Quality Control/Quality Assurance
DST	District Support Team
DX	Directory of Expertise
EC	Engineer Circular
EDR	Engineering Documentation Report
ESA	Endangered Species Act
HTRW	Hazardous, Toxic, and Radioactive Waste
HQUSACE	Headquarters, U.S. Army Corps of Engineers
ICW	Inspection of Completed Works
IEPR	Independent External Peer Review
LERR	Lands, Easements, Rights of Way, and Relocations
MSC	Major Subordinate Command
NEPA	National Environmental Policy Act
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
PDT	Project Delivery Team
PL	Public Law
PM	Project Manager
PMP	Project Management Plan
P&S	Plans and Specifications
RIT	Regional Integration Team
RMC	Risk Management Center
RMO	Review Management Organization
SAR	Safety Assurance Review
USACE	U.S. Army Corps of Engineers
WRDA	Water Resources Development Act

ATTACHMENT 5: SUMMARY OF CHANGES TO THE REVIEW PLAN

This page will document all of the minor changes that were made to the Review Plan after its approval by the South Pacific Division Commander.

Date	Description of Changes