REVIEW PLAN HAMILTON WETLAND RESTORATION PROJECT

MARIN COUNTY, CA

SAN FRANCISCO DISTRICT

MSC Approval Date: Pending

Last Revision Date: 21 August 2012



REVIEW PLAN HAMILTON WETLAND RESTORATION PROJECT SAN FRANCISCO DISTRICT

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REVIEW PLAN HAMILTON WETLAND RESTORATION PROJECT SAN FRANCISCO DISTRICT

1. PURPOSE AND REQUIREMENTS

- **A. Purpose**. This Review Plan defines the scope and level of peer review required for the Hamilton Wetland Restoration Project (HWRP), located in Marin County, California and is an update to the Review Plan dated February 2012. This review plan describes the level of peer review required for the two remaining implementation work products, the Bay Trail and Outboard Levee breach at the Hamilton Army Airfield parcel. The peer review will include respective supplemental Design Documentation Reports (DDR), and Plans and Specifications (Plans & Specs) for construction.
- **B. Background.** The Hamilton Wetland Restoration Project (HWRP), a tidal and seasonal wetland restoration project at the site of the decommissioned Hamilton Army Airfield (HAAF) in Novato, California is being undertaken by the U.S. Army Corps of Engineers (USACE) in partnership with the California State Coastal Conservancy (SCC) and with the assistance of the San Francisco Bay Conservation and Development Commission (BCDC). This project is being designed "to create a diverse array of wetland and wildlife habitat types" in accordance with the goals and objectives adopted by the Hamilton Restoration Group (HRG) who oversaw the conceptual plan developed by the SCC in April 1998 (Woodward Clyde et al., 1998). Subsequently USACE incorporated these goals in its project Feasibility Study (USACE, 1998) and the project Environmental Impact Report/ Statement (EIR/S) (Jones and Stokes, 1998) of December 1998.

Since completion of the EIR/S in 1998, on-going design efforts have continued to refine the project design under the direction of the USACE and supported by a variety of consultants; in particular, Philip Williams and Associates (PWA), FarWest Restoration Engineering (FRE), Polson Engineering and others. In addition, the current project design includes changes that resulted from site changes (i.e. site topography) as well as changes due to application of additional knowledge learned from other restoration projects around SF Bay since the 1998 EIR/S.

Placement of beneficial reused dredged material at the site was completed in 2011. The site is anticipated to be breached to the tides in first or second quarter FY13. The site has provided habitat benefits to a variety of species throughout the dredge sediment placement period.

The HWRP was authorized in Section 101(b) (3) of WRDA 1999, under the project name "Hamilton Airfield, California":

The project for environmental restoration, Hamilton Airfield, California, at a total cost of \$55,200,000, with an estimated Federal cost of \$41,400,000 and an estimated non-Federal cost of \$13,800,000.

The HWRP, authorized in Section 101 (b) (3) of WRDA 1999, provides for ecosystem (wetland) restoration through beneficial reuse of dredged material, and provides Federal and non-Federal navigation projects in the San Francisco Bay an opportunity for beneficial reuse of suitable dredge material to facilitate ecosystem restoration. The HWRP consists of constructing perimeter levees bordering the site, along with internal berms and phase containment levees, excavating one

breach into San Pablo Bay, and utilizes approximately 10,600,000 cubic yards of dredged material to restore approximately 990 acres of habitat. The 990 acres of habitat includes 570 acres of coastal salt marsh and seasonal wetlands, 220 acres of Tidal wetlands with 120 acres of tidal channels and intertidal habitats, and will produce approximately 350 average annual habitat units. Dredged material was transported to the site using a pipeline connected to a hydraulic offloader anchored in San Pablo Bay.

Section 3018 of WRDA 2007 modified and reauthorized the HWRP under the project name "Hamilton Airfield, California":

The project for environmental restoration, Hamilton Airfield, California, authorized by section 101(b)(3) of the Water Resources Development Act of 1999 (113 Stat. 279), is modified to direct the Secretary to construct the project substantially in accordance with the report of the Chief of Engineers dated July 19, 2004, at a total cost of \$228,100,000, with an estimated Federal cost of \$171,100,000 and an estimated non-Federal cost of \$57,000,000.

The reauthorization was based on a General Reevaluation Report (GRR) that produced a favorable evaluation and culminated in a Chief's Report, dated 19 July 2004. The GRR found Federal interest in modifying the authorized project to expand habitat restoration benefits by including the adjacent Bel Marin Keys Unit V (BMK V) parcel, recommended adding recreation as a project purpose, and recommended increasing the total project cost for the expanded project. Modifications to the HWRP, authorized in WRDA 07 would add an additional 1,600 acres to the project with a total acreage of approximately 2,600 acres for the modified project.

C. Requirements. Engineering Circular (EC) *Peer Review of Decision Documents* 1105-2-408, dated 31 May 2005, (1) established procedures to ensure the quality and credibility of the Corps' work products by adjusting and supplementing the review process, and (2) required that documents have a review plan.

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

The most current circular, *Civil Works Review Policy*, EC 1165-2-209, dated 31 January 2010 (expiration extended to 31 January 2013), reaffirms the requirements for DQC and ATR and further distinguishes two types of IEPR. Type I IEPR is required for decision documents meeting certain criteria of risk and magnitude. Type II IEPR includes safety assurance review (SAR). It is required for implementation documents for hurricane and storm risk management projects, flood risk management projects, and other projects where potential hazards pose a significant threat to human life. EC 1165-2-209 outlines the requirements of the three review approaches (DQC, ATR, and IEPR) for all work products (decision, implementation, and other work products) and provides guidance for the Corps Planning Centers of Expertise (PCX) involvement in the approaches.

- (1) District Quality Control. DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements. It is managed in the San Francisco District and will be conducted by in-house staff as long as the reviewers are not doing the work involved in the study, including contracted work under review. Basic quality control tools include a Quality Management Plan (QMP) providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for ensuring the overall integrity of the report, technical appendices and the recommendations before the approval by the District Commander. Non-PDT members and/or supervisory staff will conduct this review for major draft and final products, including products provided by the non-Federal sponsors as in-kind services, and products provided by contractors following review of those products by the PDT. The District QMP will conduct and document this fundamental level of review. Review of the work products for Biddability, Constructability, Operability, Environmental and Sustainability (BCOES) will accompany the DQC process at the 95% level design.
- (2) Agency Technical Review. EC 1105-2-410 and EC 1165-2-209 re-characterized ATR (which replaces the level of review formerly known as Independent Technical Review). ATR is an in-depth review, managed within USACE, conducted by a qualified team outside of the home district that is not involved in the day-to-day production of a project and its associated work products. The purpose of ATR 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 assures that all the parts fit together in a coherent whole. To ensure independence, the leader of the ATR team shall be from outside the home MSC. DrChecks will be used as practicable to document all ATR comments, responses, and associated resolution accomplished.

ATR is required for the Design Document Review (DDR) and for the Plans and Specifications (P&S). In accordance with EC 1165-2-209, the South Pacific Division (SPD) as the MSC will serve as the Review Management Organization (RMO) for ATR for implementation work products associated with the Outboard Levee breach. This ATR will be commensurate with the scope of the DDR.

(3) Independent External Peer Review (IEPR). EC 1165-2-209 describes two types of IEPR. Type I IEPR 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. Type II IEPR includes safety assurance review (SAR) and is applied to design and construction activities for hurricane, storm and flood risk management projects, as well as projects with existing and potential hazards that pose a significant threat to human life.

Type I IEPR is required for decision documents in cases where any of the following are true: there are public safety concerns; a high level of complexity; novel or precedent-setting approaches; where the project is controversial; where the project has significant interagency interest; where the project has a total project cost greater than \$45 million; is preparing an EIS; or has significant economic, environmental, and social effects to the nation.

Type I IEPR is not required for the HWRP work products (i.e. implementation documents). The remaining work products do not represent a decision point in the planning process. Instead, work products document engineering decisions to meet project goals and finish construction at the HAA parcel, as authorized in WRDA 2007. While project expenditures to date exceed \$45 million, construction of the Bay Trail and Outboard Levee breach project is estimated at \$5 million. This work is covered under the 2004 EIS/R and does not present significant economic,

environmental, or social effects to the nation. The work does not have significant agency interest, it is not controversial or highly complex, nor does it present a significant threat to life safety, or use novel or precedent setting approaches.

Type II IEPR (SAR) is not required for the HWRP work products as there are no potential hazards that pose a significant threat to life safety. The Chief of Engineering has reviewed and determined that HWRP is a project whose primary function is ecosystem restoration, and not for addressing hurricane and storm risk management or flood risk management. Also, non-performance of project features does not involve potential hazards that would pose a significant threat to human life. Levees designed and constructed by USACE maintain pre-project flood protection (i.e. risk reduction) to adjacent agricultural parcels containing no structures. The following paragraphs address potential impacts to residential communities adjacent (Southgate and Bayside) and nearby (Bel Marin Keys) from non-performance at the HWRP (Figure 1).

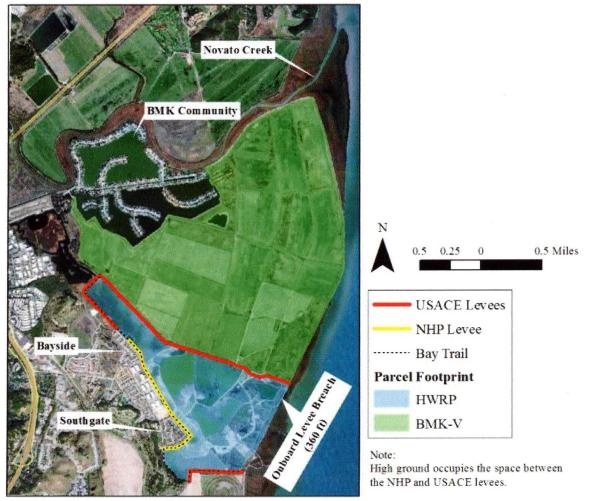


Figure 1. Project Location Map

The New Hamilton Partnership (NHP) Levee protects the Bayside and Southgate subdivisions along a portion of the western boundary of HWRP. At both ends of its alignment, the levee abuts high ground near the northeast and southwest corners of the Bayside and Southgate subdivisions, respectively. This levee (Figure 2), constructed by the NHP, and now owned and maintained by the City of Novato, was built (1996) and raised (2007) to provide 1% annual chance exceedance

(ACE) flood protection with or without the HWRP as a FEMA certified levee. The only physical contact between HWRP and the NHP levee are seasonal wetland fills on the outboard slope of the NHP levee. A field scale testing program (2005) was executed by USACE and confirmed the City of Novato's design assumptions regarding the impact of wetland fills placed against the NHP levee; i.e. with HWRP materials.

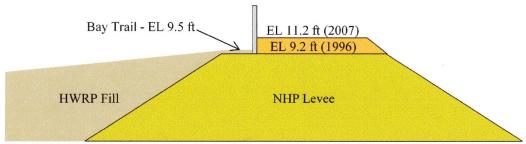


Figure 2: Typical conditions along the NHP Levee.

The Bel Marin Keys community is located roughly one quarter mile north of the HWRP along the northwestern border of the BMK-V parcel (Figure 1) and maintains its own levee (EL 4.5 to 7.5 ft NAVD88) separating the community's south lagoon from the BMK-V parcel. The community's north lagoon is protected from Novato Creek (fully tidal) by a separate levee (EL 7.5 to 10.5 ft). This suggests that overtopping at HWRP levees (EL > 10 ft) would occur as much as 3.5 ft above an overtopping event at the community's levee. A breach scenario (a very low probability event) at HWRP would flood the BMK-V parcel. If this scenario were to occur, the time required to fill the parcel and subsequently overtop the south lagoon's levee (days) would allow ample time for evacuation of the BMK community (hours).

- (4) Policy and Legal Compliance Review. In addition to the technical reviews, decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed further in Appendix H, ER 1105-2-100. Technical review described in EC 1165-2-209 are to augment and complement the policy review processes by addressing compliance with published Army polices pertinent to planning products, particularly policies on analytical methods and the presentation of findings in decision documents. DQC and ATR efforts are to include the necessary expertise to address compliance with published planning policy. Counsel will generally not participate on ATR teams, but may at the discretion of the district or as directed by higher authority. When policy and/or legal concerns arise during DQC or ATR efforts that are not readily and mutually resolved by the PDT and the reviewers, the district will seek issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H ER 1105-2-100.
- (5) Value Engineering Studies engineering analyses were conducted in 2001, 2007 and again in 2012 to provide an assessment of cost information regarding the construction and operation of dredged material delivery systems to the project. The delivery system is the most costly component of the project and the goal is to find the most cost effective, technically and environmentally acceptable method for dredged material delivery.
- (6) Review Plan Approval and Posting. In order to ensure the Review Plan is in compliance with the principles of EC 1105-2-410, EC 1165-2-209, and the MSC's QMP, the Review Plan must be approved by the applicable MSC, in this case the Commander, South Pacific Division (SPD). Once the Review Plan is approved, the San Francisco District will post it to its District public website and notify South Pacific Division.

2. PROJECT DESCRIPTION

- **A. General Site Description.** The Hamilton Wetland Restoration Project (HWRP) is located 25 miles north of San Francisco on the southeast edge of the City of Novato, Marin County, California. San Pablo Bay is adjacent to the area on the southeast side (Figure 1). The non-Federal Sponsor for the project is the California State Coastal Conservancy. The project site is located in Congressional District 6, represented by Congresswoman Lynn Woolsey, Senator Dianne Feinstein, and Senator Barbara Boxer.
- **B. Project Scope**. The project addresses ecosystem restoration and recreation and is being constructed on the Hamilton Army Airfield parcel (HAA parcel) and the adjacent Bel Marin Keys Unit V parcel (BMK-V parcel) (Figure. 1). Once complete, the entire project will provide nearly 2,600 acres of habitat, and recreation opportunities to an estimated 73,000 visitors annually. The Hamilton Army Airfield parcel (HAA parcel) is near completion. Construction of a segment of the San Francisco Bay Trail and Outboard Levee breach are the remaining project features for the HAA parcel and will be scheduled for construction. Monitoring and adaptive management will occur for 13 years following construction completion at the HAA project site. Construction on the BMK-V parcel has been deferred for a later phase. Therefore, this Review Plan does not cover work products associated with the BMK-V parcel.

<u>Design Documentation Report.</u> The DDR is the current implementation work product subject to review. The DDR is a concise document that provides the engineering basis for the final Plans and Specifications. This document will undergo DQC and ATR, as described in paragraphs 1.C.

<u>Plans and Specifications.</u> The 95% Plans and Specifications for the levee breach are being prepared by Noble Consultants. Once the 95% submittal is complete it will be sent to permitting agencies for review and will also undergo BCOES. The Plans and Specifications for the Bay Trail are being developed and will also go through review, including BCOES, and are subject to agency review. Plans and Specifications also require DQC and ATR. Once the Plans and Specifications are revised relative to comments received during the review process, this Review Plan will be updated to reflect the cost and schedule of review.

<u>Cost Estimate (MCACES).</u> A current MCACES estimate for the remaining construction cost has been prepared for the HWRP with a breakout for Bay Trail recreational features. The MCACES cost estimate will undergo DQC.

- **C. Problems and Opportunities.** The historical decline of wetlands in San Francisco Bay is a significant environmental problem affecting many species including the endangered Salt Marsh Harvest Mouse and California Clapper Rail. In the 19th and early 20th centuries, wetlands were diked and/or filled to accommodate agriculture, housing, and salt production. This practice destroyed nearly 90% of the original tidal wetlands of the San Francisco Bay. The HWRP will restore important tidal salt marsh habitat while also providing an opportunity to beneficially reuse dredged material removed from local navigation deepening projects. In addition, the HWRP provides an opportunity to construct a specific recreation feature, a segment of the San Francisco Bay Trail, ensuring visitors will also have an opportunity to benefit from the ecosystem restoration project.
- **D. Potential Methods.** The project reuses dredged material from nearby deep-draft navigation projects to construct wetland habitat. As a subset of work to be performed for the Outboard Levee breach project, site features constructed prior/during dredged material placement will be

de-graded and shaped. These tasks will promote tidal channel formation and hasten the onset of environmental benefits associated with the HWRP. The physical breach of the outboard levee will open the site to tidal action. A segment of the SF Bay Trail will be paved on top of dredged material placed and shaped along the bay-side of a levee that is within and borders the project site. Benches, fencing, look-outs, and signage will also be constructed. The Bay Trail and associated features will be constructed in compliance with ADA regulations.

- **E. Project Delivery Team.** Individual PDT contact information and disciplines are presented in Appendix B.
- **F. Vertical Team.** The vertical team includes district management, the District Support Team (DST) and Regional Integration Team (RIT) staff as well as members of the Planning Community of Practice (PCoP). Specific points of contact for the Vertical Team can be found in Appendix B.
- **G. Model Certification.** In accordance with Director of Civil Works' Policy Memorandum # 1, dated 19 January 2011, "ATR will be used to ensure that (planning) models and analyses are compliant with Corps policy, theoretically sound, computationally accurate, transparent, described to address any limitations of the model or its use, and documented in study reports." Software used for design calculations applied approved Corps methods for design. Respective engineering manuals are cited below.

The following engineering and cost principles were used:

- Coastal design calculations were executed in the commercially available software Matlab. Direct analysis methods were used to compute extreme water surface and wave height elevations. Overtopping volume computations were made following approaches established and presented in Coastal Engineering Manual (EM 1110-2-1100).
- 2. Geotechnical design calculations were executed using spreadsheet-based and the commercially available design software (e.g. SLOPE/W). These calculations applied engineering principles within the context of consolidation theory (EM 1110-2-1913) and slope stability (EM 1110-2-1902), among others.
- 3. MCACES was used to estimate the total remaining construction costs at HWRP. Interest During Construction (IDC) and annual cost for the Bay Trail were calculated using the approved Excel spreadsheet model developed and approved by the USACE Planning CoP.

3. AGENCY TECHNICAL REVIEW PLAN

ATR is required for the DDR and Plans and Specifications (Levee Breach). In accordance with EC 1165-2-209, the South Pacific Division (SPD) as the MSC will serve as the Review Management Organization (RMO) for ATR of implementation work products associated with Plans and Specifications. This ATR will be commensurate with the scope of the DDR and Plans and Specifications.

A. General. An ATR Team Leader for the DDR and Plans and Specifications shall be designated for the ATR process and shall be from outside the home MSC to ensure independence. The ATR Team Leader is responsible for providing information necessary for setting up the review, communicating with the Technical Lead, providing a summary of critical review comments, collecting grammatical and editorial comments from the ATR team (ATRT), ensuring that the ATRT has adequate funding to perform the review, facilitating the resolution of the comments, and certifying that the ATR has been conducted and resolved in accordance with policy.

B. Agency Technical Review Team (ATRT). The ATRT will be comprised of individuals that have not been involved in the development of work products and will be chosen based on expertise, experience, and/or skills. The members will roughly mirror the composition of the PDT. It is anticipated that the team reviewing the DDR will consist of 5 reviewers including a Civil, Coastal, and Geotechnical Engineer, an Environmental Planner, and an ATR Lead. The disciplines required for ATR of the Bay Trail and Levee Breach Plans and Specifications may be updated in this Review Plan at a later date. Tentative ATRT members are presented in Appendix B.

Discipline	Experience Needed for Review of DDR, Plans and Specifications
Civil Engineering	Civil engineer with experience in both design and construction of coastal/marine based structures and applications of ecosystem restoration techniques. The engineer shall be able to evaluate the interdisciplinary nature of the design and identify relevant benefits/consequences related to construtibility.
Coastal Engineering	Coastal engineer with experience determining overtopping volume, an advanced understanding of coastal flood control structures, and the application of respective design methodologies. The engineer shall be familiar with the methods and literature for estimating channel dimensions and respective impacts to tidal prism.
Geotechnical Engineering	Geotechnical engineer with experience in coastal/marine based flood control structures and design competency in the techniques and principles of construction on soft ground, and geotechnical aspects of subgrade, grading and pavement design. In addition, he/she shall have an advanced understanding of the concepts of consolidation, slope stability and groundwater flow, including methodologies and software for solving design problems related to each.
Environmental Resources	Environmental planner familiar with the principles of marine ecology, environmental evaluation and compliance requirements pursuant to the consistency determination, biological opinion, waste discharge requirements, etc.

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

(1) The team will use DrChecks, as practicable, to document the ATR process. A project portfolio will be created in the system to allow access by all PDT and ATRT members.

- (2) The Technical Lead shall inform the ATR Team Leader when all responses have been entered into DrChecks and conduct a briefing to summarize comment responses and to highlight any areas of disagreement.
- (3) Team 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 may occur outside of DrChecks but a summary of discussions shall be provided in the system.

D. Funding.

- (1) The PDT District shall provide labor funding by cross labor charge codes. The Project Manager 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 the DDR ATR is \$20,000. The Technical Lead will coordinate with the Plans and Specifications ATR Team Leader accordingly. Any funding shortages will be negotiated on a case-by-case basis and in advance of a negative charge occurring.
- (2) The 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 ATRT and Project Manager to any possible funding shortages.

E. Timing and Schedule.

- (1) Throughout the development of this document, the team will conduct seamless reviews to ensure planning quality.
- (2) At this time, ATR is planned to be conducted on the DDR, Plans, and Specifications of the Outboard Levee breach. The Review Plan will be updated once ATR is scheduled for the Plans and Specifications of the Bay Trail and levee breach.
 - (3) The ATR process for this document will follow the below timeline.

ATR Timeline Task	Date (2012)
ATR of DDR, Plans, and Specifications for the Levee Breach	6/18 to 11/2
Comments	6/18 to 10/12
Responses	10/12 to 10/26
Back check	10/26 to 11/1
ATR Certification	11/2

F. Review.

- (1) ATRT responsibilities are as follows:
 - (a) Reviewers shall confirm that work was done in accordance with established professional principles, practices, codes, and criteria and for compliance with laws and policy.

- (b) Reviewers shall review their own discipline but may also comment on other diciplines as appropriate. Reviewers that do not have any significant comments pertaining to their assigned discipline shall provide a comment stating this.
- (c) Grammatical and editorial comments shall not be submitted into DrChecks. Comments should be submitted to the ATR 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 Technical Lead.
- (d) Review comments shall contain these principal elements:
 - a clear statement of the concern
 - the basis for the concern, such as law, policy, or guidance
 - significance of the concern
 - specific actions needed to resolve the comment
- (e) The "Critical" comment flag in DrChecks shall not be used unless the comment is first discussed with the ATR Team Leader and/or the Technical Lead.
- (f) When reviewing the DDR, 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 calculations.
- (g) When reviewing the Plans and Specificaitons, 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 contains all necessary information required to bid and construct the project.
- (2) PDT Team responsibilities are as follows:
 - (a) The team shall review comments provided by the ATRT in DrChecks and provide responses to each comment using "Concur", "Non-Concur", or "For Information Only". Concur responses shall state what action was taken and provide revised text from the report if applicable. Non-Concur responses shall state the basis for the disagreement or clarification of the concern and suggest actions to negotiate the closure of the comment.
 - (b) Team members shall contact the PDT and ATRT managers to discuss any "Non-Concur" responses prior to submission.

G. Resolution.

- (1) Reviewers shall back check PDT responses to the review comments and either close the comment or attempt to resolve any disagreements. Conference calls shall be used to resolve any conflicting comments and responses.
- (2) Reviewers may "agree to disagree" with any comment response and close the comment with a detailed explanation. If reviewer and responder cannot resolve a comment, it

should be brought to the attention of the ATR Team Leader and, if not resolved by the ATR Team Leader, it should be brought to the attention of the SPN Engineering Branch 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 HQ review.

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

4. PREVIOUS PUBLIC & AGENCY REVIEW

Some of the contents of the DDR have been previously reviewed during preparation of the 2004 GRR and authorized in WRDA 2007. A Supplemental Environmental Impact Statement/Report (SEIS/R) was prepared to accompany the 2004 General Reevaluation Report. A Record of Decision, dated 16 December 2005, found, "the benefits gained by implementation of the recommended plan far outweigh any adverse effects" (ROD 2005). The ROD completed the National Environmental Policy Act process for the modified HWRP.

5. APPROVALS

The PDT will carry out the Review Plan as described. The Technical Lead will submit the plan to the PDT District ETS Division Chief for endorsement of MSC approval. Formal coordination with SPD will occur through the PDT District Engineering Branch Chief.

6. POINTS OF CONTACT

Questions about this Review Plan may be directed to Project Manager Robin Liffmann [(415) 503-6920; Robin.J.Liffmann@usace.army.mil] or Technical Lead Blair Jackson [(415) 503-6896; Blair.T.Jackson@usace.army.mil] who serve as the San Francisco District points of contact for this Review Plan.

APPENDIX A

STATEMENT OF TECHNICAL REVIEW COMPLETION OF AGENCY TECHNICAL REVIEW HAMILTON WETLAND RESTORATION PROJECT SAN FRANCISCO DISTRICT

The San Francisco District has completed the Hamilton Wetland Restoration Project work products, including the DDR and Plans and Specifications. Notice is hereby given that an agency technical review, that is appropriate to the level of risk and complexity inherent in the project, has been conducted as defined in the Review Plan. During the agency technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level obtained; and reasonableness of the result, including whether the product meets the customer's needs consistent with law and existing Corps policy. The ATR was accomplished by an agency team composed of staff from multiple districts. All comments resulting from the ATR have been resolved.

Clyde Okazaki,	Date
SPD RBT Chief	

Hamilton Wetland Restoration Project Agency Technical Review Team

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 Okazaki Chief, RBT

South Pacific Division

Date

Lyn Gillespie

Chief, ETS Division San Francisco District 22 Aug 12
Date

APPENDIX B

REVIEW PLAN TEAMS

PROJECT DELIVERY TEAM

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Larry Crawley	Engineering	(415) 503-6890	Lawrence.J.Crawley@usace.army.mil
Blair Jackson	Civil Design / Technical Lead	(415) 503-6896	Blair.T.Jackson@usace.army.mil
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Justin Kosta	Environmental	(415) 503-6859	Justin.M.Kosta@usace.army.mil
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