DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, U.S. ARMY CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

CEPOD-PDC

6 Dec 12

MEMORANDUM FOR COMMANDER HONOLULU ENGINEER DISTRICT (CEPOH-PP-C/CINDY BARGER), BUILDING 230, FORT SHAFTER, HI 96858-5440

SUBJECT: Review Plan Approval for the Kanaha Pond Continuing Authorities Program Section 1135 Feasibility Report, Island of Maui, Hawaii, Ecosystem Restoration Project

1. References:

a. Engineering Circular 1165-2-209, Civil Works Review Policy, 31 January 2010, and Change 1, 31 January 2012.

b. Policy Memorandum #1, HQ USACE, CECW-P, 19 January 2011, subject: Continuing Authority Program Planning Process Improvements.

c. Review Plan for the Kanaha Pond Section 1135 Feasibility Report, Island of Maui, Hawaii, Honolulu District, U.S. Army Corps of Engineers.

2. The enclosed Review Plan (reference 1.c.) for the Kanaha Pond, Island of Maui, Hawaii, ecosystem restoration feasibility report was prepared IAW references 1.a. and 1.b. The Pacific Ocean Division Civil Works Division is the lead office to execute this Review Plan. This plan does not include Type I Independent External Peer Review.

3. I approve this Review Plan. It 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.

4. The point of contact for this memorandum is Mr. Russell Iwamura, Senior Economist, Civil Works Integration Division, at 808-835-4625 or email Russell.K.Iwamura@usace.army.mil.

Encl

GREGORY J. GUNTER
Colonel, EN
Acting Commander

REVIEW PLAN

KANAHA POND WILDLIFE SANCTUARY ECOSYSTEM RESTORATION PROJECT
ISLAND OF MAUI, HAWAII

Feasibility Study
Continuing Authorities Program (CAP)
Section 1135 of Water Resources Development Act (WRDA) of 1986
Public Law (PL) 99-662

U.S. Army Corps of Engineers, Honolulu District

MSC Approval Date: 6 December 2012
Last Revision Date: 19 November 2012

US Army Corps
of Engineers ®

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REVIEW PLAN

KANAHA POND WILDLIFE SANCTUARY ECOSYSTEM RESTORATION PROJECT ISLAND OF MAUI, HAWAII

Feasibility Study
Continuing Authorities Program (CAP)
Section 206 of Water Resources Development Act (WRDA) of 1986,
Public Law (PL) 99-662

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Kanaha Pond Wildlife Sanctuary (KPWS) Ecosystem Restoration Project, Island of Maui, Hawaii, Continuing Authorities Program (CAP), Section 1135 project decision document.

Section 1135 of the Water Resources Development Act (WRDA) of 1986, Public Law (PL) 99-662, is one of the legislative authorities within the CAP under which the Secretary of the Army, acting through the Chief of Engineers, is authorized to plan, design, and implement certain types of water resources projects without additional project specific congressional authorization. CAP projects are water resource related projects of smaller scope, cost, and complexity than typical U.S. Army Corps of Engineers (USACE) civil works projects which require specific authorization by Congress. Under the delegated authority of Section 1135, USACE is authorized to plan, design and construct projects to restore the environment and construct new projects to restore areas degraded by USACE projects without project specific congressional authorization. Projects must have the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability, and biological diversity.

Additional information on this program can be found in Engineer Regulation (ER) 1105-2-100, Planning Guidance Notebook, Appendix F, Amendment #2, 31 January 2007.

b. Applicability. This Review Plan was developed following the USACE Pacific Ocean Division (POD) Model Review Plan (MRP), dated May 2011. The POD MRP is applicable to those Section 1135 project decision documents that do not require an Independent External Peer Review (IEPR).

c. References.

(1) Engineer Circular (EC) 1165-2-209, Civil Works Review Policy, 31 January 2010 and Change 1, 31 January 2012.

(2) Director of Civil Works Policy Memorandum #1, CAP Planning Process Improvements, 19 January 2011.

(3) EC 1105-2-412, Assuring Quality of Planning Models, 31 March 2010.

(4) ER 1110-1-12, Quality Management, 30 September 2006.

(5) ER 1105-2-100, Planning Guidance Notebook, Appendix F, CAP, Amendment #2, 31 January 2007.

(6) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 November 2007.

(7) KPWS Project Management Plan (PMP), dated July 2003.

(8) USACE POD Quality Management Plan, December 2010.

(9) USACE Honolulu District (POH) Civil Works Review Policy (ISO CEPOH-C_12203), 1 November 2010.

d. Requirements. This POD MRP was developed in accordance with EC 1165-2-209, 31 January 2010 and Change 1, 31 January 2012, and the Director of Civil Works Policy Memorandum#1, 19 January 2011, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works CAP products by providing a seamless process for review of all Civil Works projects during the Feasibility Phase. The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), IEPR, and Policy and Legal Compliance Review. In addition to these levels of review, CAP decision documents are subject to cost engineering review and certification (per EC 1165-2-209) and Director of Civil Works Policy Memorandum #1 and the Value Management Plan requirements in the Project Management Business Process Reference 8023G and the ER 11-1-321, Change 1.

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 this Section 1135 decision document is POD. POD will coordinate and approve the review plan and manage the ATR.

Upon approval by POD, POH will post the approved review plan on its public website. A copy of the approved review plan (and any updates) will be provided to the Ecosystem Restoration Planning Center of Expertise (ECO-PCX) to keep the ECO-PCX appraised of requirements and review schedules.

3. STUDY INFORMATION

a. Decision Document. The KPWS Ecosystem Restoration Project is located in the town of Kahului on the island of Maui, Hawaii. This Section 1135 decision document will be prepared in accordance with ER 1105-2-100, Appendix F, Amendment #2, 31 January 2007. The approval level of the decision document (if policy compliant) is POD. An Environmental Assessment (EA) will be prepared with the decision document.

b. Project Sponsor. The non-Federal sponsor is the State of Hawaii, Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW).

c. Study/Project Description. The KPWS encompasses approximately 237 acres and is located on the north coast of the island of Maui, Hawaii. The KPWS Ecosystem Restoration Project is located in the town of Kahului on the island of Maui, Hawaii. The project will restore existing natural ecosystem functions and processes of the wetland areas of Kanaha Pond, and restore aquatic habitat for native and endangered waterbird species in the area. The project is

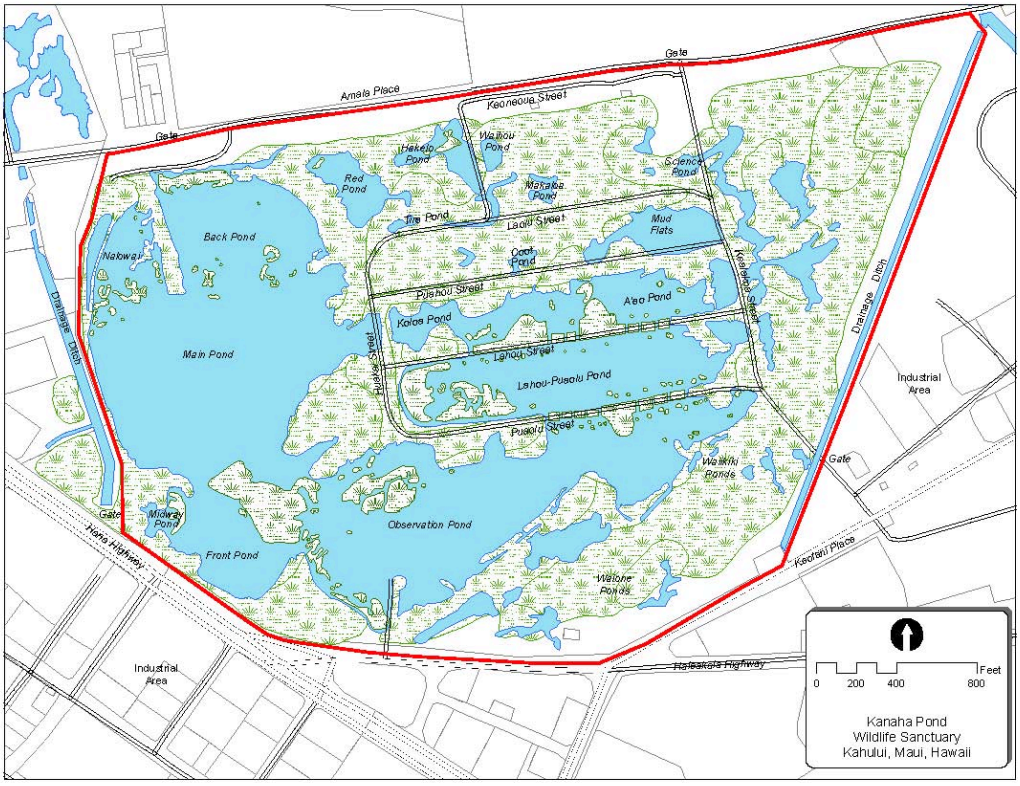
adjacent to Kahului International Airport. It is bounded on its northern (or *makai*) side by Amala Place; by an industrial area on its westerly edge; by an open ditch at its eastern boundary, which is owned by Alexander and Baldwin (A&B); and at its southern (or *mauka*) edges by Kahului Airport Road, Haleakala Highway, and Hana Highway. Figure 1 depicts the extent of the wetland restoration area.

The property upon which KPWS is situated is owned by the State of Hawaii, Department of Transportation. The KPWS is administered through an inter-agency agreement as a protected wildlife refuge by the non-Federal Sponsor, DOFAW. Public access to KPWS is controlled by DOFAW.

Authorized under the Rivers and Harbors Acts of 1916, 1919 and 1927, USACE dredged Kahului Deep Draft Harbor in the early 1900s. The dredge materials were placed in the KPWS area, altering the natural ponds. Under Section 1125 of WRDA 1996, POH is restoring the functions of the KPWS to improve and restore the habitat.

The Preliminary Restoration Plan was approved by the POD in June 2003, allowing the POH to enter the feasibility phase. This project is grandfathered in under Section 1135 of WRDA 1996 to be 100% federally funded through the feasibility phase. A Project Partnership Agreement will be required for the design and implementation phase.

Figure 1: Kanaha Pond Project Area



The goal of the feasibility study is to develop a plan that meets USACE requirements that focuses on the goal to restore wetland habitat and function to Kanaha Pond.

The project primary objectives are:

- Increase foraging habitat for listed Hawaiian waterbirds in the shallow water, mudflat, and poikilohaline[1] environments of Kanaha Pond;

- Increase nesting and loafing habitat for the endangered Hawaiian Stilt; and

- Decrease predation on protected Hawaiian waterbirds.

The KPWS consists of a series of brackish ponds and associated wetlands on 23 acres of land located within the isthmus area of Maui between the town of Kahului and the main airport. Fish ponds in this area were constructed during the rule of King Kapiiohookalani over two hundred years ago for the purpose of raising fish for consumption. It is reported that the water quality in the ponds was good as a result of the natural springs that continuously fed the ponds and overflowed through an open ditch to Kahului Harbor.

When Kahului Harbor was dredged around 1910, a portion of Kanaha Pond in the vicinity of the junction of Kahului's Main Street and Haleakala Highway was filled with material dredged from the harbor. During the partial filling of the pond, the existing overflow drainage ditch was replaced with a new channel, with control gates and an outfall to the ocean. The U.S. Navy also altered the land within KPWS considerably during construction of the Naval Air Station Kahului (NASKA) in the 1940s. During and after World War II, numerous munitions bunkers and fill-based access roadways were constructed within the KPWS. As a result of these activities, the northeastern portion of the original pond was filled between 1930 and 1954.

In addition to the physical alteration of the ponds during construction of Kahului Harbor and NASKA, the A&B and airport drainage culverts were constructed along the east and west sides of KPWS in the 1970s and 1980s. These large concrete drainage culverts divert storm water runoff, keeping it from entering the ponds and consequently changing the overall amount of water recharge to and circulation within the ponds.

Due to lack of consistent funding, limited baseline information has been collected to date. The alternatives formulation briefing is scheduled to occur in the spring of Fiscal Year 2013.

Alternatives: Alternatives have not been formulated as of yet for the project. Management measures to restore the aquatic habitat functions at KPWS have been identified that address one

[1] Poikilohaline environment are bodies of water with extremely variable salinity. Poikilohaline water salinities may range anywhere from 0.5 to greater than 300. These waters tend to vary in salinity over a biologically meaningful range seasonally or a roughly comparable time scale. The benthic communities vary throughout the poikilohaline waters with the salinity. For KPWS, there is a range of varying scales of salinity throughout the wetland from salt water to brackish water.

or more of the project objectives. The management measures have been grouped under two categories of "reshaping" and "water control".

- Reshaping. The reshaping measures include removing portions of the existing road berms and reshaping the fill material into habitat that is more suitable for foraging, nesting and loafing for endangered Hawaiian waterbirds.

- Water control. The water control measures include the installation of one or more additional shallow water pumps or other distribution features and distributing pumped water to new or existing isolated ponds.

Estimated Construction Costs. A formulated array of alternatives is currently being developed. The estimated construction costs range from $5 to $7 million.

d. In-Kind Contributions. Products and analyses provided by the non-Federal sponsor as in-kind services are subject to DQC and ATR, similar to any products developed by USACE. Because the feasibility phase is 100% federally funded, there are no proposed work in-kind products for this phase.

4. DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). POH shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of POH and POD.

Consistent with the POH Quality Manual, DQC will be documented using the POH DQC review table. When all comments have been addressed and back checked, the DQC lead will sign a DQC certification in compliance with the POH Quality Manual. The DQC comments and responses will be provided for the ATR team at each review.

a. Products to Undergo DQC. The following products will be subject to DQC:

- Draft and final integrated feasibility study/EA.

- All technical reports and appendices developed in support of the integrated feasibility study/EA.

- The draft and final EA decision.

b. Required DQC Expertise. The following expertise is needed for DQC:

Table 1: DQC Required Expertise

DQC Team Members/Disciplines	Expertise Required
Planning	The planning reviewer should be a senior water resources planner with experience in wetland restoration in urban settings.
Economics	The economics reviewer should be a senior economist with experience in conducting Cost Effectiveness/Incremental Cost Analysis needed to identify a National Ecosystem Restoration (NER) plan.
Environmental Resources	The environmental resource reviewer should have experience in developing a wetland restoration project in an urban setting. In addition, the environmental resource reviewer should have expertise in compliance with all federal environmental laws for a Section 1135 wetland restoration project.
Hydrologist/Hydraulic Engineering	The hydrologist/hydraulic engineering reviewer will be an expert in the field of hydraulics and have a thorough understanding of wetland restoration requirements based on study objectives and proposed measures.
Cost Engineering	The cost engineering reviewer will be the Cost Mandatory Center of Expertise (MCX) Staff or Cost MCX Pre-Certified Professional with experience in preparing cost estimates for wetland restoration projects.
Real Estate	The real estate reviewer will have experience with ecosystem restoration projects. All land is under the management of the non-Federal Sponsor (DOFAW).

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency 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 results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by POD and is conducted by a qualified team from outside POH that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside POD.

a. Products to Undergo ATR. The following products will be subject to ATR:

- The draft and final Feasibility Report and Environmental Assessment.
- The draft and final EA decision document.

b. Required ATR Team Expertise. The following ATR expertise is required for this project. Because the project is small, where possible ATR team members will address multiple disciplines and emphasis. POD will identify the final make-up of the ATR team and identify the ATR team leader in consultation with the PM, vertical team and centers of expertise. Once identified, the ATR team members for this study and a brief description of their credentials will be added in Attachment 1.

Table 1: ATR Required Expertise

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional preferably with experience in preparing Section 1135 decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc). The ATR Lead must be from outside POD.
Planning	The planning reviewer should be a senior water resources planner with experience in wetland restoration in urban settings.
Economics	The economics reviewer should be a senior economist with experience in conducting Cost Effectiveness/Incremental Cost Analysis needed to identify a NER plan.
Environmental Resources	The environmental resource reviewer should have experience in developing a wetland restoration project in an urban setting. In addition, the environmental resource reviewer should have expertise in compliance with all federal environmental laws for a Section 1135 wetland restoration project.
Hydrologist/Hydraulic Engineering	The hydrologist/hydraulic engineering reviewer will be an expert in the field of hydraulics and have a thorough understanding of wetland restoration requirements based on study objectives and proposed measures.
Cost Engineering	The cost engineering reviewer will be the Cost MCX Staff or Cost MCX Pre-Certified Professional with experience in preparing cost estimates for wetland restoration projects.

ATR Team Members/Disciplines	Expertise Required
Real Estate	The real estate reviewer will have experience with ecosystem restoration projects. All land is under the management of the non-Federal Sponsor (DOFAW).

c. Documentation of ATR. DrChecks[sm] 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 been 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 order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks[sm] will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes POH, POD, and possible the ECO-PCX and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-2-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks[sm] with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;

- 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;

- Identify and summarize each unresolved issue (if any); 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 the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed, based on work reviewed to date, for the draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

IEPR may be required for decision documents under certain circumstances. 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. A risk-informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. IEPR panels will consist 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. There are two types of IEPR:

- Type I IEPR. Type I IEPR reviews are managed by the Outside Eligible Organization (OEO) external to USACE. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study.

All CAP projects are excluded from Type I IEPR except Section 205 and Section 103 projects and those projects that include an EIS or meet the mandatory triggers for Type I IEPR as stated in EC 1165-2-209. Exclusions from Type I IEPR for Section 205 and Section 103 projects will be approved on a case by case basis by the POD Commander, based upon a risk informed decision process as outlined in EC 1165-2-209 and may not be delegated.

- Type II IEPR. Type II IEPR, or Safety Assurance Review, is managed by the Risk Management Center (RMC) and is conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards

pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to 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.

For Section 14, 107, 111, 204, 206, 208, and 1135 decision documents prepared under this POD MRP, Type II IEPR is not anticipated to be required in the design and implementation phase, but this will need to be verified and documented in the review plan prepared for the design and implementation phase of the project.

IAW reference 1.c.(2) of this review plan, this Section 1135 decision document (Feasibility Phase) is excluded from Type I IEPR.

7. POLICY AND LEGAL COMPLIANCE REVIEW

All 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 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 POD Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

8. COST ENGINEERING MANDATORY CENTER OF EXPERTISE (MCX) REVIEW AND CERTIFICATION

For CAP projects, ATR of the costs may be conducted by pre-certified district cost personnel within the region or by the Walla Walla Cost MCX. The pre-certified list of cost personnel has been established and is maintained by the Cost MCX at: https://kme.usace.army.mil/EC/cost/CostAtr/default.aspx. The cost ATR member will coordinate with the Cost MCX for execution of cost ATR and cost certification. The Cost MCX will be responsible for final cost certification and may be delegated at the discretion of the Cost MCX.

9. MODEL CERTIFICATION AND APPROVAL

a. Planning Models. The approval of planning models under EC 1105-2-412 is not required for CAP projects. The POD Commander is responsible for assuring models for all planning activities are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support

decision making. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

In accordance with EC 1105-2-412 Paragraph 5.c, models that are single-use or study-specific require approval that the model is a technically and theoretically sound and functional tool that can be applied during the planning process by knowledgeable and trained staff for purposes consistent with the model's purpose and limitation. For this project, the PM will coordinate with the ECO-PCX in determining the appropriate level of review for model approval. At this time, an additional ATR reviewer has been added to specifically approve models for site specific use.

The following planning models are anticipated to be used in the development of the decision document:

Table 2: Proposed Planning Models

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certified/Approval Status
Kanaha Pond Study Specific GIS-based Model	In the absence of any regionalized ecosystem output model that quantifies habitat benefits for wetland habitat in Hawaii, a customized GIS-based model will be developed specifically for use on the Kanaha Pond Ecosystem Restoration Project. This is considered to be an appropriate approach, as this type of model can be tailored to focus on metrics that are directly applicable to the project objective. In particular, habitat quality parameters contained within the Managing Endangered Species Habitat in Hawaii (MESHH) model can serve as a key dataset for quantification of habitat benefits in the model.	Approval review to be coordinated with ECO-PCX.
Institute of Water Resources Planning Suite	This model assists with formulating plans, cost-effectiveness, and incremental cost analysis, which are required for ecosystem restoration projects. An "annualizer" module has been included to allow for easy calculations of equivalent annual average values, total net values, and annualizing non-monetary benefits and calculating costs.	Certified

b. Engineering Models. EC 1105-2-412 does not cover engineering models used in planning. 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. As part of the USACE Scientific and Engineering Technology initiative, many engineering models have been identified as preferred or acceptable for use on USACE studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

There are no engineering models anticipated to be used in the development of the decision document except for the cost engineering model described in Table 3.

Table 3: Proposed Engineering Models

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certified/Approval Status
Microcomputer Aided Cost Engineering System (MCACES) 2nd Generation (MII)	The MCACES/MII construction cost estimating software, developed by Building Systems Design, Inc, is a tool used by cost engineers to develop and prepare all Civil Works cost estimates. Using the features in this system, cost estimates are prepared uniformly allowing cost engineering throughout the USACE to function as one virtual cost engineering team.	Cost Engineering MCX Required Model

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. The ATRs for this study will be accomplished in accordance with the cost and schedule in the PMP. As of the approval date of this Review Plan, the ATRs of the various documents are scheduled as follows:

- Draft Feasibility Report and EA: January 2013.
- Final Feasibility Report and EA: July 2013.
- Estimated cost: $35,000.

The estimated cost for the Draft Feasibility Report and EA is $20,000. The estimated cost for the Final Feasibility Report and EA is $15,000.

b. Model Review Schedule and Cost. For CAP decision documents prepared under the POD Model Review Plan, use of existing certified or approved planning models is encouraged. Where uncertified or unapproved model are used, review of the model for use will be accomplished through the ATR process. The Kanaha Pond Study Specific GIS based Model will be used on a one-time basis. Consistent with EC 1105-2-412, the model will require approval for use. The approval review of the single use site specific model will be coordinated with the ECO-PCX to determine if approval during ATR is acceptable. In the event that the ECO-PCX requires a separate or regional approval, schedule and costs will be adjusted accordingly.

11. PUBLIC PARTICIPATION

State and Federal resource agencies may be invited to participate in the study covered by this review plan as partner agencies or as technical members of the PDT, as appropriate. Agencies

with regulatory review responsibilities will be contacted for coordination as required by applicable laws and procedures. The ATR team will be provided copies of public and agency comments. A Public Involvement Plan (PIP) is under development. The PIP will ensure that the formal public input processes are well planned and facilitated in an effective manner, meeting applicable federal and State policies and regulations including the National Environmental Policy Act (NEPA). The purpose of the PIP is to communicate with the public in a collaborative, open, and transparent manner. The PIP will aim to:

- Build awareness of the KPWS Ecosystem Restoration Project.
- Gain an understanding of the concerns and desires of the community.
- Generate appreciation for complexity of the problems and support for the proposed solution(s).
- Explain the legal authorities that apply to the project.
- Meet regulatory requirements such as NEPA during project development by seeking public input.
- Get public input into the assessment process.

The PIP will outline specific times, forums and audiences in which to engage the stakeholders, and the general public. The PIP will be implemented in its entirety.

12. REVIEW PLAN APPROVAL AND UPDATES

The POD Commander is responsible for approving this review plan and ensuring that use of the POD CAP MRP is appropriate for the specific project covered by the plan. The review plan is a living document and may change as the study progresses. POH is responsible for keeping the review plan up to date. Minor changes to the review plan since the last POD approval are documented in Attachment 3. Significant changes to the review plan (such as changes to the scope and/or level of review) should be re-approved by POD following the process used for initially approving the plan. Significant changes may result in POD determining that use of the POD CAP MRP is no longer appropriate. In these cases, a project specific review plan will be prepared and approved in accordance with EC 1165-2-209 and Director of Civil Works Policy Memorandum #1. The latest version of the review plan, along with the POD Commander's approval memorandum, will be posted on the POH webpage.

13. REVIEW PLAN POINTS OF CONTACT

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

Honolulu District
Ms. Athline Clark
Project Manager
Civil and Public Works Branch
Programs and Project Management Division
U.S. Army Corps of Engineers, Honolulu District
Building 230, Room 307
Ft. Shafter, HI 96858-5440
Telephone: (808) 835-4032

Review Management Organization/Pacific Ocean Division
Mr. Russell Iwamura
Senior Economist
U.S. Army Corps of Engineers, Pacific Ocean Division
Building 525 CEPOD-PDC
Ft. Shafter, HI 96858-5440
Telephone: (808) 835-4625

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The ATR has been completed for the *<type of product>* for the Kanaha Pond Wildlife Sanctuary, Maui, Hawaii. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-209 and Director of Civil Works Policy Memorandum #1. 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 USACE policy. The ATR also assessed the 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 DrChecks[sm].

SIGNATURE _____ _____

Name Date
ATR Team Leader
Office Symbol/Company

SIGNATURE _____ _____

Name Date
Project Manager (home District)
Office Symbol

SIGNATURE _____ _____

Name Date
Architect Engineer Project Manager[1]
Company, location

SIGNATURE _____ _____

Name Date
Review Management Office Representative
Office Symbol

[1] Only needed if some portion of the ATR was contracted.

CERTIFICATION OF AGENCY TECHNICAL REVIEW (CONT'D)

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 Date
Chief, Engineering Division (home District)
Office Symbol

SIGNATURE _____ _____

Name Date
Chief, Planning Division (home District)
Office Symbol

ATTACHMENT 3: REVIEW PLAN REVISIONS

Table 6: Review Plan Revisions

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Table 7: Standard Acronyms and Abbreviations

Term	Definition	Term	Definition
AFB	Alternative Formulation Briefing	NER	National Ecosystem Restoration
ASA(CW)	Assistant Secretary of the Army for Civil Works	NEPA	National Environmental Policy Act
ATR	Agency Technical Review	NHPA	National Historic Preservation Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
CWA	Clean Water Act	OMB	Office and Management and Budget
DPR	Detailed Project Report	OMRR&R	Operation, Maintenance, Repair, Replacement, and Rehabilitation
DQC	District Quality Control/Quality Assurance	OEO	Outside Eligible Organization
EA	Environmental Assessment	OSE	Other Social Effects
EC	Engineer Circular	PCX	Planning Center of Expertise
EIS	Environmental Impact Statement	PDT	Project Delivery Team
EO	Executive Order	PAC	Post Authorization Change
ER	Engineer Regulation	PMP	Project Management Plan
FDR	Flood Damage Reduction	PL	Public Law
FEMA	Federal Emergency Management Agency	POH	U.S. Army Corps of Engineers, Honolulu District
FRM	Flood Risk Management	POD	U.S. Army Corps of Engineers, Pacific Ocean Division
FSM	Feasibility Scoping Meeting	QMP	Quality Management Plan
GRR	General Reevaluation Report	QA	Quality Assurance
HEP	Habitat Equivalency Protocol	QC	Quality Control
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RED	Regional Economic Development
IEPR	Independent External Peer Review	RMC	Risk Management Center
ITR	Independent Technical Review	RMO	Review Management Organization
IWR	Institute of Water Resources	RTS	Regional Technical Specialist
MCX	Mandatory Center of Expertise	SAR	Safety Assurance Review
MSC	Major Subordinate Command	USACE	U.S. Army Corps of Engineers
NED	National Economic Development	WRDA	Water Resources Development Act