

PEER REVIEW PLAN

**Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Aquatic and Riparian Habitat Restoration and Protection Study
And Detailed Project Report
Section 206**

May 2010



**US Army Corps
of Engineers** ®
Albuquerque District

TABLE OF CONTENTS

I.	PURPOSE AND REQUIREMENTS.....	3
II.	STUDY INFORMATION	5
III.	AGENCY TECHNICAL REVIEW (ATR)	11
IV.	MODEL CERTIFICATION AND APPROVAL.....	14
V.	REVIEW SCHEDULES AND COSTS	16
VI.	PUBLIC PARTICIPATION	17
VII.	PCX COORDINATION	17
VIII.	MSC APPROVAL	18
IX.	REVIEW PLAN POINTS OF CONTACT.....	18
X.	STATEMENT ON THE COMPLETION OF ATR – Draft Detailed Project Report.....	19
XI.	STATEMENT ON THE COMPLETION OF ATR – Ecosystem Restoration Modeling	20
XII.	STATEMENT ON THE COMPLETION OF ATR – Final Detailed Project Report.....	21
XIII.	STATEMENT ON THE COMPLETION OF ATR – Environmental Assessment	22
XIV.	TEAM ROSTERS.....	23
XV.	ACRONYMS AND ABBREVIATIONS	24

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

I. PURPOSE AND REQUIREMENTS

A. Purpose

This Review Plan defines the scope and level of peer review for the Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study and Detailed Project Report / Environmental Assessment (EA). This RP is a component of the Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study Project Management Plan (PMP). It will be referenced as an appendix to any updates to the Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study PMP. Engineer Circular (EC) 1165-2-209 (EC 209) "Civil Works Review Policy" provides the procedures for improving the quality and credibility of U.S. Army Corps of Engineers (USACE) decision documents through an independent review process. It complies with Section 515 of Public Law 106-554 (referred to as the "Data Quality Act"); and the Final Information Quality Bulletin for Peer Review by the Office of Management and Budget (referred to as the "OMB Bulletin"). It also provides guidance for the implementation of Section 2034 of WRDA 2007 (P.L. 110-114). EC 209 also presents a framework for establishing the appropriate level and independence of review and detailed requirements of review documentation and dissemination.

B. References

- CECW-CP Memo for Distribution, "Peer Review Process", 30 March 2007
- Engineering Circular (EC) EC 1165-2-209, Civil Works Review Policy, 29 January 2010
- EC 1105-2-407, Planning Models Improvement Program: Model Certification, 31 May 2005
- EC 1165-2-203 "Policy Compliance Review Checklist", 15 October 1996
- Engineering Regulation (ER) 1110-2-12, Quality Management, 30 Sep 2006
- ER 1105-2-100 "Planning Guidance Notebook & Appendices D, F, G & H", as amended
- Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study Project Management Plan
- Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study Preliminary Restoration Plan

In addition, the PDT shall write the draft report to confirm that work was been done in accordance with established professional principles, practices, codes, and criteria and for compliance with laws and policy, including those referenced in the References section.

C. Requirements

This review plan was developed in accordance with EC 1165-2-209, which establishes the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision documents through independent review. The EC outlines three levels of review:

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

District Quality Control (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR). In addition to these three levels of review, decision documents are subject to policy and legal compliance review and, if applicable, safety assurance review and model certification/approval.

1. DQC

DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). It is managed in the home district and may be conducted by staff in the home district as long as they are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before approval by the District Commander. The Major Subordinate Command (MSC)/District quality management plans address the conduct and documentation of this fundamental level of review; DQC is not addressed further in this review plan.

2. ATR

ATR is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of the project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products and assure that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc.), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home MSC.

3. Policy and Legal Compliance Review

Decision documents will be reviewed throughout the study process for their compliance with law and policy. These reviews culminate in Division-level (MSC) determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further. Guidance for policy and legal compliance reviews is addressed further in Appendix F, ER 1105-2-100, Planning Guidance Notebook. When policy and/or legal concerns arise during DQC or ATR that are not readily and mutually resolved by the PDT and the reviewers, the District will seek issue resolution support from the MSC in accordance with the procedures outlined in Appendix F, ER 1105-2-100. The home district Office of Counsel is responsible for the legal review of each decision document and signing a certification of legal sufficiency.

4. Model Certification/Approval

EC 1105-2-407 requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. The EC defines planning models as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision-making.

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

The EC does not cover engineering models used in planning. Engineering software is being address under the Engineering and Construction (E&C) Science and Engineering Technology (SET) initiative. Until an appropriate process that documents the quality of commonly used engineering software is developed through the SET initiative, engineering activities in support of planning studies shall proceed as in the past. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed.

II. STUDY INFORMATION

A. *Decision Document*

The purpose of the Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study and Detailed Project Report / Environmental Assessment (EA) is to present the results of plan formulation, alternative analysis, and environmental documentation to support to restoration of Janes-Wallace Memorial Dam's degraded ecosystem function and dynamic processes, to a more natural and stable condition. This will be an Integrated Detailed Project Report (DPR) / Environmental Assessment (EA). The document will provide planning, engineering, and implementation details of the recommended restoration plan to allow final design and construction to proceed subsequent to South Pacific Division approval.

B. *Study Description*

Authorized by the Water Resources Development Act of 1996, as amended through P.L. 106-580, Dec 29, 2000, this Detailed Project Report (DPR) is a planning decision document that reaffirms economic justification, engineering design, and alternative formulation for the Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection project.

Pursuant to EC 1165-2-209, coordination with the Planning Center of Expertise (PCX) for Ecosystem Restoration is recommended. It is anticipated that while this study will be challenging and beneficial, it will not be novel, controversial or precedent setting, nor have significant national importance. An Environmental Impact Statement (EIS) will not be prepared, and the study will not require an Independent External Peer Review (IEPR).

1. Study Area Description

This single purpose ecosystem restoration project is located on El Rito Creek, a tributary of the Pecos River, downstream of Santa Rosa, NM. The Janes-Wallace Memorial Dam, a.k.a Power Dam, was constructed in 1929 of a combination of earthen materials and concrete. It measured 25 feet in height and approximately 400 feet in length. The dam was used to generate hydroelectric power. The City of Santa Rosa stopped using the dam for hydroelectric power in 1971. The dam stored approximately 65 acre feet of water. There are no residences downstream of the dam on El Rito Creek.

In 1999, the concrete portion of the dam sustained structural damage after a large storm event. Due to the damage, the State of New Mexico breached the dam. Currently, the dam measures 20 feet in height and 290 feet in length. The pool has decreased from 9 acres to approximately 4

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

acres.

The lowering of the water table as led to an increase in both wetland and exotic vegetation around the lake's perimeter. The lake supports approximately 5 acres of adjacent wetland and exotic vegetation. El Rito Creek from the dam to its confluence with the Pecos River is approximately 1,100 feet and supports riparian and wetland type vegetation.

The lake is currently used for recreation including fishing. Until recently, the New Mexico State Game Commission leased the area from the City of Santa Rosa. They designated Janes-Wallace Memorial Dam as a State Wildlife Area.

The Santa Rosa area climate is semiarid continental. The summers are hot and breezy, and the winters are crisp, clear and sunny. The average annual precipitation is about 12 to 14 inches of moisture. The majority of the annual precipitation comes from brief but intense afternoon thunderstorms, some of which can be severe. These storms usually occur during the late summer and early fall. Wind velocities are steady, and humidity is generally low. The average frost-free season is about 193 days. The elevation of the project area is 5,000 feet.

The project area is located within the Plains Mesa Grassland Province (Plains Grasslands). The Plains Grasslands consist of the shortgrass, midgrass, and tallgrass prairies of the National Grasslands. The characteristic plant species that are abundant throughout the shortgrass prairie include blue grama (*Bouteloua gracilis*) and buffalo grass (*Buchloe dactyloides*). The midgrass prairie ecosystem is co-dominated by little bluestem (*Schizachyrium scoparium*), and plains bristlegrass (*Setaria vulpiseta*). The tallgrass prairie is dominated by big bluestem (*Andropogon girardii*). Soils of the survey area consist of Hollomex-Reeves complex soils and Bluhol loam soils.

The town of Santa Rosa sits within much of the last, best, natural wetland habitat in New Mexico. Large expanses of land consist of permanent and seasonal wet meadows or "Cinegas." Janes Wallace Memorial Dam and Lake are surrounded with fresh water and alkaline wetlands. These wet meadows are dominated by saltgrass (*Distichlis spicata*) and Baltic rush (*Juncus arcticus* var. *balticus*). The wet meadows near the lake have been known to support a federally listed threatened species called the Pecos sunflower (*Helianthus paradoxus*).

Exotic species such as salt cedar (*Tamarix* spp.) and Russian olive (*Elaeagnus angustifolia*) have begun to invade the area in and around the lake and creek. These species are on the federal list of noxious weeds in the United States.

Wildlife species in the area include Red-wing Blackbird, Brewer's Blackbird, Western Sandpiper, Double-crested Cormorant, Mourning Dove and plateau striped whiptail lizard.

2. Proposed project

The proposed ecosystem restoration project consists of rehabilitating the Janes Wallace Memorial Dam, increasing the pool size from 4 to 9 acres, removing approximately 25,000 cubic yards of fine grain sediments and removing exotic woody vegetation from El Rito Creek and the surrounding areas. The City of Santa Rosa owns all water rights of El Rito creek at Janes Wallace Memorial Dam. No additional water rights acquisition would be required.

The dam would safely pass large flood flow events. Maintenance of lake water levels would allow for continued support of the adjacent littoral shelf and shoreline wetlands and continued

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

recreational use for the public. Removing 25,000 cubic yards of sediment would increase the depth of the existing lake from 5 feet to 15 feet. Increasing the depth of the lake would improve the diversity and types of aquatic habitat for native fish and other aquatic species. If the dam is restored, the New Mexico Department of Game and Fish could once again stock the lake with Rainbow Trout, Bluegill, Sunfish and Catfish, thus increasing the fishing opportunities in the area.

The expected outputs would include 5 additional acres of surface water, greater flow control from the outlets of the dam to manage for wetland and aquatic species. The depth of the lake would be increased from 5 feet to 15 feet. The volume of the lake would increase from approximately 4,453,610 gallons (1.4 acre-feet) to 44,683,159 gallons (6 acre-feet). The restoration of this significant ecosystem will benefit aquatic organisms, fishery, migratory bird species as well as resident wildlife species. Removing exotic vegetation would restore approximately five acres of wetland habitat and may increase the presence of the Pecos sunflower.

Study and project costs are estimated at \$6.7 million.

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206



C. Factors Affecting the Scope and Level of Review

Quality Control [QC] will be reviewed through DQC and ATR reviews.

Challenges include:

- New Corps policy and procedures for performing feasibility studies including:
 - Planning Guidance Notebook Appendix F has not been finalized;
 - Appendix G is relatively new;
 - Appendix H is relatively new;
 - New Peer Review Guidance;
 - Corps PCX reviews still not standardized.

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

- Rigorous schedules.

Risk for this project is considered low overall because:

- The Corps has completed studies and projects of this nature recently and successfully;
- Human safety factors are currently believed to be minimal;
 - Currently, the information with regards to human safety factors is insufficient for a more definite determination;
 - The PDT as every intention to further assess safety factors as the study progresses.

This project study will not require an IEPR as it will not include an Environmental Impact Statement (EIS) and total project cost is less than \$45 million. The PDT has determined that the study / project:

- Is not expected to be controversial:
 - Public meetings have not shown there to be any public dispute as to the size, nature or effects of the project;
 - Public meetings have not shown there to be any public dispute as to the economic or environmental cost or benefit of the project.
- Is not expected to have adverse impacts on scarce or unique cultural, historic, or tribal resources:
 - Any modification to the existing dam will follow the current footprint;
 - Sites for ecosystem restoration alternatives will be in areas of previous disturbance.
- Is not expected to have adverse impacts on any fish or wildlife species or their habitat whether or not they be listed as endangered or threatened under the Endangered Species Act of 1973;
 - Any modification to the existing dam will follow the current footprint;
 - Experience doing similar Corps project within SPA has shown that adverse impacts are unlikely.
 - Is not likely to contain influential scientific information, nor is it likely to be a highly influential scientific assessment;
 - Experience doing similar Corps project within SPA has shown that adverse impacts are unlikely.
- Does not involve the rehabilitation or replacement of existing hydropower turbines, lock structures, or flood control gates;
- Is not expected to be based on novel methods, does not present complex challenges for interpretation, does not contain precedent-setting methods or models, and will not present conclusions that are likely to change prevailing practices.

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

- Ecosystem restoration within the Pecos River Basin is an activity for which SPA has ample experience and industry to treat this activity as routine and to be able to determine what methods and models will be used.
- Has minimal life safety risk.
 - Any modification to the existing dam will follow the current footprint;
 - Experience doing similar Corps project within SPA has shown that adverse impacts are unlikely
 - No population center below the project area;
 - Small number of structures immediately adjacent to the floodplain
 - Width of floodplain results in low flow velocities
 - Provides similar or better life safety risk than the without project condition

Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study does have significant interagency interest with New Mexico Game and Fish and US Fish and Wildlife Services (USFWS) showing significant interest in the endangered species, notably the Pecos Sunflower in the area.

As a result, DQC and ATR will focus on:

- Completeness and compliance of H&H analysis;
- Review of the planning process and criteria applied;
- Review of the methods of preliminary analysis and design;
- Compliance with sponsor, program and NEPA requirements;
- Completeness of preliminary design and support documents; and
- Spot checks for interdisciplinary coordination.

D. In-Kind Contributions

Per the PMP, the local sponsor will be included in the review process during DQC or ATR review as part of their in-kind contributions to the study/ project. Additional in-kind contributions provided by the local sponsors may be:

- Existing reports and data that they contribute to the study / project;
- Assistance during public involvement actions;
- Assistance during the formulation of alternatives;
- Attendance at Alternative Review Conference (ARC) and any briefings.

The in-kind contributions listed above do not require peer review. All in-kind work products will undergo review by the PDT for a determination of adequacy; products will ultimately undergo DQC.

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

III. AGENCY TECHNICAL REVIEW (ATR)

A. *General*

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

Eco-PCX Comment to first draft PMP: ATR team leaders are not required to be outside the MSC for CAP projects, PgMP for S206 projects is being drafted by the PCX currently and will include implementation guidance on ATR reviews for CAP projects.

B. *Products for Review*

It is anticipated that the ATR process will begin after the ATRT has been assigned by the Ecosystem-PCX, and will initially cover the Draft DPR. As alternative plans are formulated, the review process will focus on data, assumptions and the engineering, scientific, economic, social & environmental analysis process. Major review process milestones will include the preparation for the ARC and EA.

Any contractor deliverables will be reviewed for adequacy as stated in their scope of work. Contractor generated reports and data will be reviewed in conjunction or as part of the DPR and supporting documentation during required review milestones such as ATR.

In addition to the EA, additional documents that will require ATR include the entire decision document, any planning or engineering models, and MCASES for the final document. Technical appendices and other supporting documentation will be provided for additional reference.

C. *Required ATR Team Expertise*

The ATRT has yet to be determined, but will be determined by the PCX with SPA input. As reviewers' names, qualifications and years of relevant experience are decided, they will be added to the Review Plan.

- The Ecosystem-PCX Standard Operating Procedures and Program Management Plan have not been updated recently. When an update is available, that information will be referenced in this RP.
- Reviewers shall review the draft report to confirm that work was done in accordance with established professional principles, practices, codes, and criteria and for compliance with laws and policy. Comments on the report shall be submitted into DrChecks.

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

- 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.
- Grammatical and editorial comments shall not be submitted into DrChecks. Comments but should be submitted to ATRT Leader via electronic mail using tracked Changes feature in the Word document or as a hard copy mark-up. The ATRT Leader shall provide these comments to the Project Manager and Plan Formulator.
- 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 for the concern; and
 - Specific actions needed to resolve the comment.
- The “Critical” comment flag in DrChecks shall not be used unless the comment is discussed with the ATRT Leader and/or the Project Manager first.

Note: SPA reserves the right to nominate specific reviewers by technical discipline.

Anticipated number of ATRT reviewers: At the minimum, reviewers would include economics, environmental, and engineering.

The expertise that should be brought to the review team may include, but is not necessarily limited to, the following:

- Hydraulic Engineering – The reviewer should have extensive knowledge of HEC-RAS modeling including the use of GIS (ARC-INFO) inputs to the model. The reviewer should also have a solid understanding of the geomorphology of alluvial rivers.
- Southwestern Hydrology – The reviewer should have extensive knowledge of hydrology of the Rio Grande basin or similar.
- Economics – The reviewer should be familiar with the processes used in evaluation of ecosystem restoration projects and have recent experience in preparing economic analysis plans for ecosystem restoration feasibility studies. HEC-FDA will be used for analysis, as will IMPLAN. Analysis will address all four project accounts during the F4 phase.
- Biology and Ecosystem – The reviewer should have a solid background in the habitat types to be found in the arid southwestern United States, and understand the factors that influence the reestablishment of native species of plants and animals.
- Cultural Resources – The reviewer should have extensive Corps’ experience regarding cultural resources on public and tribal lands. They need to be familiar with Department of Defense as well as USACE policies and procedures as they pertain to Corps studies and projects. <http://www.usace.army.mil/CECW/Pages/cultural.aspx>

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

- Design, Plans and Specifications – The reviewer should have recent experience in the design and of plans and specifications for levees and river bridges, to include tie in to natural features.
- Plan Formulation – The reviewer should have recent experience in reviewing Plan Formulation processes for multi-objective studies and be able to draw on “lessons learned” in advising the PDT of best practices.
- Geotechnical Engineering – The reviewer should carry a Professional Engineer’s license and have recent experience in the Corps’ design requirements for levee work. This person should also have experience in investigating existing subsurface conditions and materials; determining their physical/mechanical and chemical properties that are relevant to the project considered, assessing risks posed by site conditions; designing earthworks and structure foundations; and monitoring site conditions, earthwork and foundation construction.
- Cost Engineering – The reviewer should have extensive Corps’ experience in the application of scientific principles and techniques to problems of cost estimating, cost control, business planning and management science, profitability analysis, project management, and planning and scheduling.

D. Documentation of ATR

PCX shall instruct the ATR leader or the OEO to prepare a Review Report that shall:

- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer.
- Include the charge to the reviewers.
- Describe the nature of their review and their findings and conclusions.
- 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.

DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

1. The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
2. The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
3. The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

4. The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

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

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

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

IV. MODEL CERTIFICATION AND APPROVAL

A. General

The use of certified or approved models for all planning activities is required by EC 1105-2-407. This policy is applicable to all planning models currently in use, models under development and new models. The appropriate PCX will be responsible for model certification/approval. The goal of certification/approval is to establish that planning products are theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. The use of a certified or approved model does not constitute technical review of the planning product. Independent review of the selection and application of the model and the input data and results is still required through conduct of DQC and ATR. Independent review is applicable to all models, not just planning models. Both the planning models (including the certification/approval status of each model) and engineering models used in the development of the decision document are described below:

B. Planning Models

The following planning models are anticipated to be used:

- HEC-FDA 1.2.4 (Certified). The Hydrologic Engineering Center's Ecosystem restoration Analysis (HEC-FDA) program provides the capability for integrated

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

hydrologic engineering and economic analysis for formulating and evaluating ecosystem restoration plans using risk-based analysis methods. The program will be used to evaluate and compare the future without- and with-project plans to aid in the selection of a recommended plan.

- Habitat Evaluation Procedures (HEP)
http://el.ercd.usace.army.mil/emrrp/emris/emrshelp6/habitat_evaluation_procedure_and_habitat_suitability_indices_tools.htm ;
 - Primary Purpose – To document the quality and quantity of available habitat for selected wildlife species or functionality of the Bosque ecosystem. HEP may be used in three planning activities: wildlife habitat assessments (including both baseline and future conditions), trade-off analyses, and compensation analyses.
 - Applicable habitat types – most terrestrial, wetland, and aquatic habitats in the United States
 - Category assessed – Habitat suitability for selected fish, wildlife, or invertebrates
 - Output – habitat suitability for each cover type and the entire project area for each evaluation species
 - Comparison of habitat types – Can directly compare habitats within the geographic ranges of the evaluation species
 - In accordance with the Model Certification White Paper dated Mar 08 drafted by the Eco-PCX, HEP has been recommended for use in Ecosystem Restoration Projects without further certification required as long as indicator species used in the Habitat Suitability Index (HSI) have published Blue Books (listed in white paper).
 - Eco-PCX states that HEP has been cleared for use in Ecosystem Restoration Projects without further certification required as long as indicator species use in the Habitat Suitability Index (HSI) have Blue Books.
- Habitat Suitability Index Model (HSI)
 - Primary Purpose – To document the existing and forecast future quality and quantity of available habitat within the study area. The model will be used to quantify changes in quantity and quality of habitat resulting from the future with and without projects. The model outputs will also facilitate evaluation of alternative plans and use of CE/ICA if applicable.
 - Provides habitat information useful for impact assessment and habitat management. Several types of habitat information are provided. The HSI can be used to derive quantitative relationships between key environmental variables and habitat suitability. The model synthesizes the habitat use information into a framework appropriate for field application and is scaled to produce an index value between 0.0 (unsuitable habitat) and 1.0 (optimum habitat). The model is a hypothesis of species-habitat relationships.

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

C. *Engineering Models*

The following engineering models are anticipated to be used:

- Flo- 2D. Approved for flood routing and floodplain mapping. It is used by the Corps Flood Plain Management Group and includes graphics and reporting. This model was used for hydrologic routing for with and without project floodplains and flood stages. This model was reviewed for this project in 2006.
- MCACES. This is a cost estimating model that was developed by Building Systems Design Inc. The Corps began using this model in 1989. This will be used as a tool to determine cost estimates for project alternatives before Design.
- HEC-RAS 4.0. The Hydrologic Engineering Center's River Analysis System (HEC-RAS) program provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. This model was used for with project flood stages and levee design for this project. It was reviewed in house June 2009.

V. *REVIEW SCHEDULES AND COSTS*

The Albuquerque District shall provide labor funding by cross charge labor codes. Funding for travel, if needed, will be provided through government order. The Project Manager will work with the ATRT Leader to ensure that adequate funding is available and is commensurate with the level of review needed. Any funding shortages will be negotiated on a case by case basis and in advance of a negative charge occurring.

The ATRT leader shall provide organization codes for each team member and a responsible financial point of contact (CEFMS responsible employee) for creation of labor codes. Reviewers shall monitor individual labor code balances and alert the ATRT Leader to any possible funding shortages.

Once actual costs are determined, this RP will be revised. Until then, ATR review and assistance is estimated to be about \$70,000 for the study.

The initial technical review strategy session (TRSS) forms the basis for a quality control plan for all major projects and is held early in the project development phase. All members of the project delivery (including representatives of the customer) and independent technical review teams as well as functional chiefs are required to participate in the initial TRSS. As of October 2009 ATR team members have not been selected and TRSS will occur when they have been identified. It is anticipated that TRSS will occur in November 2009.

Value Engineering (VE) studies were completed for the authorized project in 1987. VE will be required for this DPR in accordance with CESP R 1110-1-8.

A. *Model Certification/Approval Schedule and Cost*

HEC- FDA 1.2.4 is a certified model; therefore no additional model certification is anticipated.

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

VI. PUBLIC PARTICIPATION

The public will be invited to comment directly to the PDT through public scoping meetings and public review periods programmed into the feasibility schedule. Documents for review will be made available on the Albuquerque District public web page <http://www.spa.usace.army.mil/>.

Significant and relevant public comments from the NEPA workshops and public scoping meeting(s) will be made available to the ATR team to ensure that public comments have been considered in the development of the draft and final IFR/EIS. However, the draft FR/EIS will be independently reviewed prior to the conclusion of the public comment period, and, therefore, these comments will not be available to the ATR members. In the event that the final FR/EIS is significantly revised from the draft, another ATR will be scheduled and public comments on the draft will be available to the reviewers.

The vertical team and designated PCX shall determine if Peer Reviewers will be nominated by the public, including scientific or professional societies and the public will have opportunities to review the Integrated Feasibility Report/EA as required by the NEPA compliance process. If additional project purposes are identified at a later date, the District will initiate coordination with the vertical team and PCX and the decision for EPR will be made at that time.

VII. PCX COORDINATION

Review plans for decision documents and supporting analyses outlined in EC 1165-2-209 are coordinated with the appropriate Planning Center(s) of Expertise (PCXs) based on the primary purpose of the basic decision document to be reviewed. The lead PCX for this study is the National Ecosystem restoration Planning Center of Expertise located at SPD. This review plan will be submitted through the PDT District (SPA) Planning Chief, 505-342-3201, to the PCX Director, 415-503-6852 for approval. The PCX will be asked to manage the review, and is requested to review and comment on the sufficiency of the ATRT proposed. The approved review plan will be posted to the PCX and SPA websites. Any public comments on the review plan will be collected by the PDT District for resolution and incorporation if needed. Any public comments directed to either the PCX or to HQ will be forwarded to SPA. NOTE: Based upon recent coordination between USACE-HQ and USACE-PAO, SPA will only use titles and phone numbers on the RP placed upon the SPA website for public review.

PCX shall instruct the ATR leader or the OEO to prepare a Review Report that shall:

- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer.
- Include the charge to the reviewers.
- Describe the nature of their review and their findings and conclusions.
- 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.

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

VIII. MSC APPROVAL

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

IX. REVIEW PLAN POINTS OF CONTACT

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

- SPA Contact, Planning Chief (505-342-3201)
- Ecosystem-PCX Director, (309-794-5448)
- SPD District Support Team Lead, (415-503-6558)

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

XI. STATEMENT ON THE COMPLETION OF ATR – Ecosystem Restoration Modeling

The Army Corps of Engineers, Albuquerque District has completed the Ecosystem Restoration Modeling of the Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study and Detailed Project Report / Environmental Assessment (EA). Notice is hereby given that an 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; 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 independent team composed of _____ staff. All comments resulting from ATR have been resolved.

ATR Leader, Janes-Wallace Dam 206	Date
-----------------------------------	------

Project Manager, Janes-Wallace Dam 206	Date
--	------

Chief, Planning Branch Albuquerque District	Date
--	------

CERTIFICATION OF ATR

A summary of all comments and responses are attached. Significant concerns and the description of the resolution are as follows:

(Describe the major technical concerns, possible impact and resolution)

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

Colonel (P), Corps of Engineers, Commanding South Pacific Division	Date
---	------

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

XII. STATEMENT ON THE COMPLETION OF ATR – Final Detailed Project Report

The Army Corps of Engineers, Albuquerque District has completed the Final Detailed Project Report with appendices of the Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study and Detailed Project Report / Environmental Assessment (EA). Notice is hereby given that an 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; 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 independent team composed of _____ staff. All comments resulting from ATR have been resolved.

ATR Leader, Janes-Wallace Dam 206

Date

Project Manager, Janes-Wallace Dam 206

Date

Chief, Planning Branch
Albuquerque District

Date

CERTIFICATION OF ATR

A summary of all comments and responses are attached. Significant concerns and the description of the resolution are as follows:

(Describe the major technical concerns, possible impact and resolution)

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

Colonel (P), Corps of Engineers, Commanding
South Pacific Division

Date

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

XIII. STATEMENT ON THE COMPLETION OF ATR – Environmental Assessment

The Army Corps of Engineers, Albuquerque District has completed the Environmental Assessment with appendices of the Janes-Wallace Memorial Dam, Santa Rosa, New Mexico Aquatic and Riparian Habitat Restoration and Protection Study and Detailed Project Report / Environmental Assessment (EA). Notice is hereby given that an 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; 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 independent team composed of _____ staff. All comments resulting from ATR have been resolved.

ATR Leader, Janes-Wallace Dam 206

Date

Project Manager, Janes-Wallace Dam 206

Date

Chief, Planning Branch
Albuquerque District

Date

CERTIFICATION OF ATR

A summary of all comments and responses are attached. Significant concerns and the description of the resolution are as follows:

(Describe the major technical concerns, possible impact and resolution)

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

Colonel (P), Corps of Engineers, Commanding
South Pacific Division

Date

REVIEW PLAN
Janes-Wallace Memorial Dam, Santa Rosa, New Mexico
Section 206

XV. ACRONYMS AND ABBREVIATIONS

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