

REVIEW PLAN

ESPAÑOLA VALLEY, RIO GRANDE AND TRIBUTARIES, NEW MEXICO GENERAL INVESTIGATION DETAILED FEASIBILITY STUDY

U.S. Army Corps of Engineers
Albuquerque District

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**US Army Corps
of Engineers®**

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1 - Purpose and Requirements

1.1 Purpose

This Review Plan defines the scope and level of peer review for the Española Valley, Rio Grande and Tributaries, New Mexico, General Investigation Report Detailed Feasibility Study and integrated Environmental Assessment (Española GI), a multi-purpose Flood Risk Management (FRM) and Ecosystem Restoration study.

1.2 References

- EC 1105-2-412, Assuring Quality of Planning Models, 2011-03-13
- EC 1165-2-203, Policy Compliance Review Checklist, 1996-10-15
- EC 1165-2-214, Civil Works Review Policy, 2012-12-15
- ER 1105-2-100 “Planning Guidance Notebook & Appendices, as amended
- CECW-CP Memo for Distribution, “Peer Review Process”, 2007-03-30
- QMS 02500-SPD, Preparation and Approval of Review Plans
- QMS 02500.1-SPD, Supplemental Review Plan Checklist
- Study Project Management Plan

1.3 Requirements

This review plan was developed in accordance with EC 1162-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all US Army Corps of Engineers (USACE) Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1162-2-214) and planning model certification/approval (per EC 1105-2-412).

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 decision documents is typically either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. The primary RMO for the peer review effort described in this Review Plan is the Ecosystem Restoration PCX.

The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies. The FRM- PCX will be a secondary RMO for this study.

3 - Study Information

3.1 Decision Document

The Española GI, a multi-purpose project, will identify ecosystem restoration, FRM and incidental recreation alternatives that are technically feasible, economically practicable, sound with respect to environmental considerations, and publicly acceptable. The study was begun in response to the authority provided by Congress in the Flood Control Act 18 Aug 1941, Section 4, Public Law (PL) 228, 77th Congress, 1st Session, H.R. 4911, Rio Grande and Tributaries, and the resolution approved by the Committee on Environmental and Public Works December 10, 2009. The resolution resolved that “The Secretary of the Army is requested to review the report of the Chief of Engineers on the Rio Grande and Tributaries transmitted to Congress on June 27, 1949, and other pertinent reports, with a view to determining whether any modification of the recommendations contained therein are advisable in the interest of flood control, ecosystem restoration and other allied purposes on the Rio Grande and its tributaries in New Mexico.”

EC 1162-2-214 requires coordination with the appropriate RMO. 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. The estimated cost of the project is projected to be less than \$45 million dollars, an Environmental Assessment (EA) will be prepared, and the study may require Independent External Peer Reviews (IEPR).

3.2 Study / Project Description

The study area is located in southern Rio Arriba County and includes a small portion of northern Santa Fe County. Study area’s boundaries currently extend one mile east and west of the centerline of both the Rio Chama and Rio Grande from the northern border of Ohkay Owingeh Pueblo, through the Santa Clara Pueblo lands and to the southern border of San Ildefonso. The Rio Grande tributaries Santa Cruz River, Arroyo Guachupangue, Santa Clara Creek, and the Rio Pojoaque are also included in the study area (Figure II-1).

The City of Española lies within the study area and extends along both the east and west banks of the Rio Grande. Española is approximately 25 miles north-northwest of Santa Fe and 85 miles south of the New Mexico-Colorado border. The 2000 U.S. Census determined that 9,688 of Rio Arriba County's 41,190 people lived within Española.

Three Native American Pueblos lie within the study area. They are: Ohkay Owingeh, Santa Clara and San Ildefonso. The 2000 U.S. Census determined that for the Ohkay Owingeh Pueblo, Santa Clara Pueblo and the San Ildefonso Pueblo, the population of these Pueblos were 592, 980 and 458 respectively.

The Ohkay Owingeh Pueblo is the northern most pueblo in the study area. It’s mainly situated north of the Rio Grande /Rio Chama confluence and includes both banks of both the upstream

(north of the confluence) Rio Grande and Rio Chama. To the north of the Ohkay Owingeh Pueblo and within the study area is non-tribal land.

The Santa Clara Pueblo is located south of the Ohkay Owingeh Pueblo and is separated from Ohkay Owingeh Pueblo by non-tribal land. Santa Clara Pueblo is situated immediately next to the City of Española along the Rio Grande south of the Rio Chama confluence (denoted in Appendix B as the “downstream Rio Grande”) and includes three tributaries that flow directly into the Rio Grande. They include: the Santa Cruz River, which flows into the Rio Grande from the east; Arroyo Guachupangue, flows into the Rio Grande from the west; and the Santa Clara Creek, which is south of the Guachupangue and flows into the Rio Grande from the west. Santa Clara Pueblo’s Rio Grande corridor is a heavily ‘checker boarded” area with many private, non-Indian in-holdings close by, including those belonging to the City of Española. The majority of the City of Española is located within the exterior boundaries of Santa Clara Pueblo.

The San Ildefonso Pueblo is the southernmost pueblo in the study area. It lies south of the City of Española and Santa Clara Pueblo along the Rio Grande. San Ildefonso is also situated at the lower end of the Rio Pojoaque, which flows into the Rio Grande from the east. Figure II-1 shows a visual representation of the study area. This study area falls within New Mexico Congressional District number 3.

Pueblo - Any of some 25 Native American peoples living in established villages in northern and western New Mexico and northeast Arizona.

pueblo - A permanent village or community of any of the Pueblo peoples, typically consisting of multilevel adobe or stone apartment dwellings of terraced design clustered around a central plaza.

This study is primarily an ecosystem restoration study / project. Ecosystem Restoration alternatives will be formulated USACE’s Cost Effectiveness / Incremental Cost Analysis (CE/ICA) and will be determined as being consistent with the National Ecosystem Restoration (NER) account.

Since the FSM in April 2009, the Los Conchas wildfire occurred in the Santa Clara Creek watershed that changed the hydrologic, hydraulic and sediment baseline conditions of Santa Clara Creek within the Española study area. The projected changes affect the lower end of Santa Clara Creek above its confluence with the Rio Grande, a backwater area on the Rio Grande upstream of its confluence with Santa Clara Creek, and on the Rio Grande downstream from the confluence. A Technical Assistance Report was completed by SPA in December 2011 that included FRM recommendations on Santa Clara Creek. It is possible that additional FRM measures will be developed during the Española Valley feasibility study to address the changed conditions.

Should FRM remain a purpose of this study, FRM measures are will be formulated and determined as being consistent with the National Economic Development (NED) account using the latest version of HEC-FDA. These measures could include, but are not necessarily limited to: J-Hooks, Bendway weirs, dams, levees, structure raising, and dry or wet flood proofing.

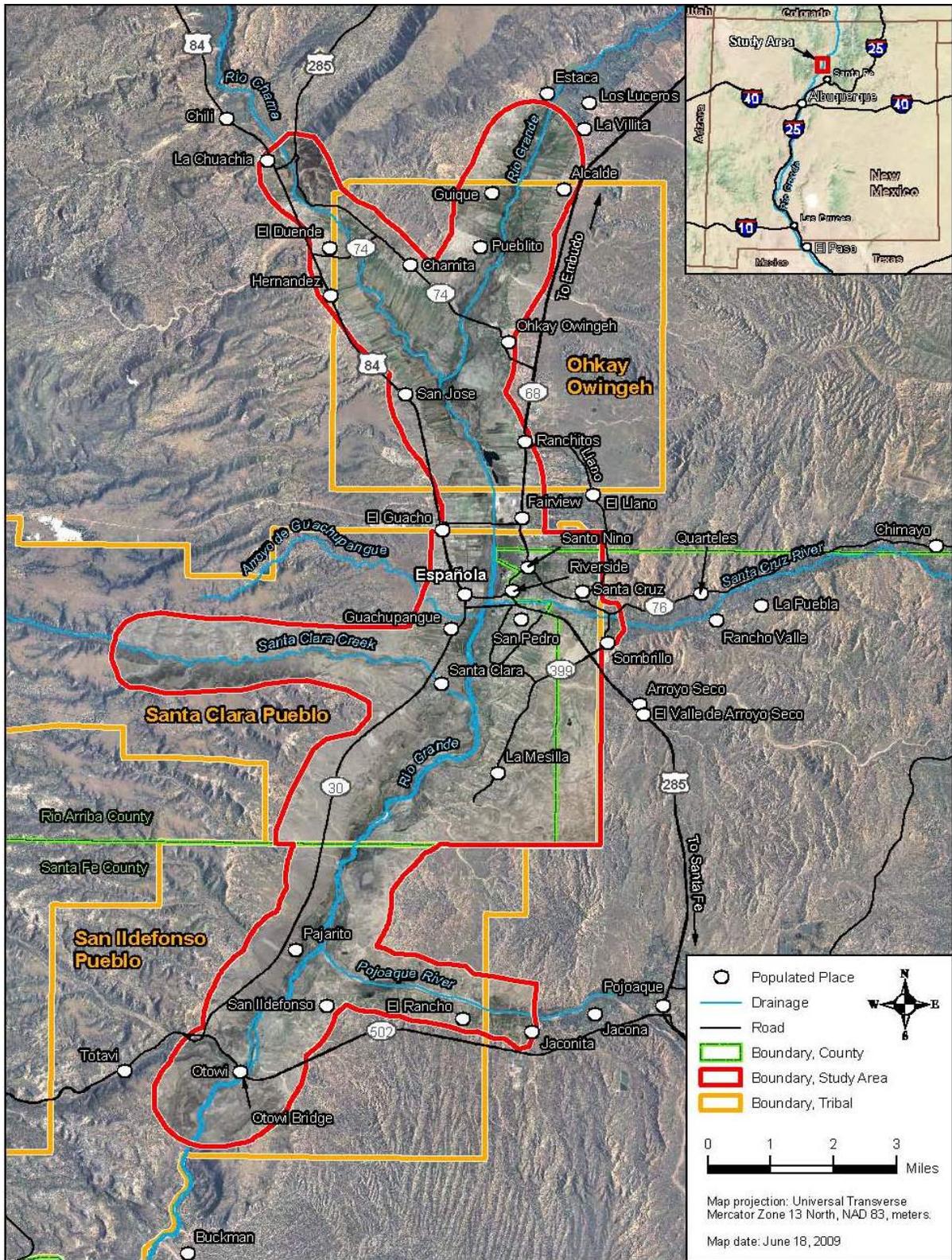


Figure 3-1 Vicinity Map

3.3 Factors Affecting the Scope and Level of Review

Challenges include:

- New Corps' policies and procedures for performing feasibility studies including:
 - SMART Planning
 - Laws, regulations and their resulting USACE policy and guidance have not been updated to reflect the changes to USACE planning procedures required by the policies and guidance provided for SMART Planning. Because of this, scheduling of milestones (those mandated per existing regulations, as well as the new milestones frequently added to by SMART planning) and the various necessary tasks by each Project Delivery Team (PDT) member's technical specialty are difficult to determine, as are their individual durations. Because of the difficulty in creating accurate schedules, it is difficult to cost these milestones, tasks and total study cost.
 - Expiration of EC 1162-2-214 in January 2013. This EC has already been extended for a year, which is very rare, and we have been told that another extension is unlikely. The requirements for Peer Review Plans, and now Review Plans, was predicated on this EC. This uncertainty makes it difficult to maintain accurate study schedules and estimated costs.
 - New study requirements, such as charettes, are being added to SMART Planning without funding being provided. First Corps civil works project to have three tribes as signatories to the Feasibility Cost Share Agreement.
- The study does not receive funding each FY. This makes it difficult to maintain momentum and consistency. And since our three sponsors are each governments in their right, no receiving consistent funding for the study makes it difficult for the sponsors to know how much in-kind services or monies will be required during their own FYs.
- The study does not have a dedicated PDT. Each PDT member also serves on other studies / projects making schedule of meetings, milestones, charettes and product deliveries challenging. This in turn makes cost estimating challenging.
- More than 25 possible federal, state, local, and non-governmental agencies and utilities as stakeholders. So far, none of these individual agencies or utilities have communicated any concerns for the study or future implementation.
- No Corps certified models for ecosystem restoration applicable to the study area.
 - The study is using a habitat inventory called the Combined Habitat Assessment Protocols (CHAP). Even though CHAP has not been certified by the Ecosystem Restoration PCX, it is currently being used in several ongoing studies within USACE. We expect to receive permission for single use soon.

This project is considered to have low overall risk, including life / safety assurance, because:

- None of the proposed features are controversial in design, location or function.
 - SPA has completed ecosystem restoration and FRM studies and projects of this nature, along the Middle Rio Grande, recently and successfully.

- There will no governmental taking (Federal, state or local) of property for the project. Any non-tribal and private property would be acquired through voluntary agreements with the landowner.
- The vast majority of the study area is on tribal land, as are the currently proposed 'structural' management measures and future alternatives. The only management measures proposed off of tribal lands are such things a zoning changes.
- Health and human safety factors may be minimal.
 - This study is primarily an ecosystem restoration study / project. The sponsor on whose lands the FRM management measures would be built has indicated that they are anticipating removing this purpose from the study. However, since the FSM in April 2009, the Los Conchas wildfire occurred in the Santa Clara Creek watershed that changed the hydrologic, hydraulic and sediment baseline conditions of Santa Clara Creek within the Española study area. The projected changes affect the lower end of Santa Clara Creek above its confluence with the Rio Grande, a backwater area on the Rio Grande upstream of its confluence with Santa Clara Creek, and on the Rio Grande downstream from the confluence. A Technical Assistance Report was completed by SPA in December 2011 that included FRM recommendations on Santa Clara Creek. It is possible that additional FRM measures will be developed during the Española Valley feasibility study to address the changed conditions.
 - Per standing regulations, any construction within the floodplain as a result of this study, must be assessed as to whether the alternative increases the risks of damages from future flooding.
 - The Albuquerque District (SPA) Chief of Engineering will assess the threat to human life after the PDT has completed its assessment of the Tentatively Selected Plan. If at that time, the Chief determines that there is significant life safety risk, the vertical team will determine if an IEPR is warranted.
- Ecosystem Restoration alternatives will be formulated USACE's Cost Effectiveness / Incremental Cost Analysis (CE/ICA) and will be determined as being consistent with the National Ecosystem Restoration (NER) account.
- If the sponsors decide to keep FRM as a purpose of this study, or if the Los Conchas wildfire has changed the hydrologic, hydraulic and sediment conditions of Santa Clara Creek (see map p.4) and the Rio Grande such that additional FRM alternatives are formulated, FRM alternatives will be determined as being consistent with the National Economic Development (NED) account using the latest version of HEC-FDA.
- The latest approved USACE processes and policies for the Other Social Effects (OSE) and Regional Economic Development (RED) will be used and followed.
- The latest approved USACE processes and policies for minimizing risk due to climatic uncertainty will be used and followed.
- This project may not require Independent External Peer Review (IEPR). See Section 6 for PDT rationale.

3.4 In-Kind Contributions

Products and analyses provided by the non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. The in-kind contributions and analyses to be provided by the non-Federal sponsor include:

- T&E species surveys.
- Existing reports and hard data that can contribute to the study / project.
- Assistance during public involvement actions.
- Assistance during the formulation of alternatives.
- Determining the location of ecosystem restoration projects.

4 - District Quality Control (DQC)

4.1 Products to Undergo 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). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

- Draft Report / Environmental Assessment (**before** Public, Technical, Policy and Legal Reviews but prior to the Final Report Milestone).
- Draft Report / Environmental Assessment (**after** Public, Technical, Policy and Legal Reviews but prior to the Final Report Milestone).

4.2 Documentation of DCQ

Reviewers shall review the draft decision document to confirm that work was done in accordance with established professional principles, practices, codes, and criteria and for compliance with laws and policy. Comments, responses and backchecks will be documented in DrChecks software and provided as report in subsequent compliance packages.

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.

Review comments shall contain these four principal elements:

1. A clear statement of the concern.
2. The basis for the concern, such as law, policy, or guidance.
3. Significance for the concern, and
4. Specific actions needed to resolve the comment.

DrChecks review software will be used to document all DQC comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that address content or policy compliance issues. Comments to grammar, style or spelling should be not added to Dr Checks but should be submitted to the PM who will compile these comments to be transmitted to the PM via email.

In some situations, especially addressing incomplete or unclear information, commenter’s will seek clarification by coordinating directly with PDT member to assess whether further specific concerns may exist.

The DQC documentation in DrChecks will include each DQC comment and the PDT response. A copy of the DQC comments will be submitted to the ATR Team.

4.3 Required DQC Expertise

This optional section could identify the required expertise needed to conduct DQC consistent with the District/MSO Quality Management plans

DQC Team Members/Disciplines	Expertise Required
Planning	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.
Economics	The reviewer should be familiar with the processes used in evaluation of FRM projects and have recent experience in preparing economic analysis plans for FRM feasibility studies. HEC-FDA will be used for analysis, as will IMPLAN. Analysis will address all four project accounts during the F4 phase.
Ecological Resources	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
Hydrology	The reviewer should have extensive knowledge of hydrology of the Rio Grande basin or similar.
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.
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; and designing earthworks and structure foundations.
Civil Engineering	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.
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.

5 - Agency Technical Review (ATR)

5.1 Products to Undergo ATR

- Hydrology and Hydraulic Modeling (at HEC).
- Ecosystem Restoration Modeling (at the Ecosystem Restoration PCX).
- Draft Report / Environmental Assessment (**before** Public, Technical, Policy and Legal Reviews but prior to the Final Report Milestone).
- Draft Report / Environmental Assessment (**after** Public, Technical, Policy and Legal Reviews but prior to the Final Report Milestone).

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 the designated RMO and is conducted by a qualified team from outside the home district 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 the home MSC.

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 address content or policy compliance issues. Comments to grammar, style

or spelling should be not added to Dr Checks but should be submitted to the ATRT Lead who will compile these comments to be transmitted to the PM via email.

The four key parts of a quality review comment should include:

- The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures.
- The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed.
- 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
- 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, commenter’s will seek clarification by coordinating directly with PDT member to assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include each ATR comment, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, 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 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR, the ATR team will prepare a Review Report summarizing the review. Review Reports should 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 will 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) or may use the ones included in this Review Plan.

5.2 Required ATR Team Expertise

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

Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, Ecological Resources, etc).
Planning	The reviewer should be a senior professional and 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. The reviewer should also have recent knowledge of accepted planning models.
Economics	The reviewer should be a senior professional and be familiar with the processes used in evaluation of FRM projects and have recent experience in preparing economic analysis plans for FRM feasibility studies. HEC-FDA will be used for analysis, as will IMPLAN. Analysis will address all four project accounts during the F4 phase. The reviewer should also have recent knowledge of accepted economics models.
Ecological Resources	The reviewer should be a senior professional and 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. The reviewer should also have recent knowledge of accepted habitat models.
Cultural Resources	The reviewer should be a senior professional and 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
Hydrology	The reviewer should be a senior professional and have extensive knowledge of hydrology of the Rio Grande basin or similar. The reviewer should also have recent knowledge of accepted hydrological models.
Hydraulic Engineering	The reviewer should be a senior professional and 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. The reviewer should also have recent knowledge of accepted hydraulic models.
Risk Analysis	The risk analysis reviewer should be a senior professional and will be experienced with performing and presenting risk analyses in accordance with ER 1105-2-101 and other related guidance, including familiarity with how information from the various disciplines involved in the analysis interact and affect the results.
Geotechnical Engineering	The reviewer should be a senior professional and 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; and designing earthworks and structure foundations.
Civil Engineering	The reviewer should be a senior professional and have recent experience in the design and of plans and specifications for levees and river bridges, to include tie in to natural features.
Cost Engineering	The reviewer should be a senior professional and 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.

Required ATR Team Expertise for Review of Engineering Technical Appendix and Implementation Documents:

Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, Ecological Resources, etc).
Geotechnical Engineering	The reviewer should be a senior professional and 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; and designing earthworks and structure foundations.
Civil Engineering	The reviewer should be a senior professional and have recent experience in the design and of plans and specifications for levees and river bridges, to include tie in to natural features.
Hydrology	The reviewer should be a senior professional and have extensive knowledge of hydrology of the Rio Grande basin or similar. The reviewer should also have recent knowledge of accepted hydrological models.
Hydraulic Engineering	The reviewer should be a senior professional and 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. The reviewer should also have recent knowledge of accepted hydraulic models.
Cost Engineering	The reviewer should be a senior professional and 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.

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

5.3 Documentation of ATR

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

- The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures.
- The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed.
- 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
- 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 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 the district, RMO, MSC, 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 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks 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).

6 - Independent External Peer Review (IEPR)

IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1162-2-214, 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 outside the USACE and are conducted on project studies. 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. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1162-2-214.
- Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are 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.

6.1 Decision on IEPR at time of Feasibility Scoping Meeting

It was anticipated that while this study will be challenging and beneficial, it would not be novel, controversial or precedent setting, nor have significant national importance. At the time of the FSM in April 2009, the PDT had determined that the study did not require an IEPR, as it would not include an Environmental Impact Statement (EIS), cost \$45 million or more and may NOT include a FRM component.

The PDT had determined that the study / project:

- Is not expected to be controversial.
 - All construction activity will take place on sponsor's (tribal) property.
 - Tribal members or contractors are members of the PDT and are working with SPA PDT members to formulate site specific management measures.
 - Local non-governmental organizations (NGOs), such as the Audubon Society, are assisting the sponsors with ecosystem monitoring.
 - SPA has received no negative responses from any local NGOs.

- SPA is not proposing any management measures, and therefore no formulated alternatives, that could be considered novel or innovative.
- SPA is proposing management measures, and therefore formulated alternatives that have been used along the Rio Grande recently and successfully.
- The study is using a habitat inventory called the Combined Habitat Assessment Protocols (CHAP). Even though CHAP has not been certified by the Ecosystem Restoration PCX, it is currently being used in several ongoing studies within USACE. We expect to receive permission for single use soon.
- The governor for the State of New Mexico has not conveyed that this study in controversial to that office.
- The state and Federal representatives for the study area are aware of the study and support the study.
- There will no governmental taking (Federal, state or local) of property for the project. Any non-tribal and private property would be acquired through voluntary agreements with the landowner.
- Is not expected to have adverse impacts on scarce or unique cultural, historic or tribal resources.
- Is not expected to have adverse impacts on any fish or wildlife species or their habitat whether or not they are listed as endangered or threatened under the Endangered Species Act of 1973.
- Is not likely to contain influential scientific information, nor is it likely to be a highly influential scientific assessment.
- 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 conclusion that are likely to change prevailing practices.
 - SPA is not proposing any management measures, and therefore no formulated alternatives, that could be considered novel or innovative.
 - SPA is proposing management measures, and therefore formulated alternatives that have been used along the Rio Grande recently and successfully.
 - The study is using a habitat inventory called the Combined Habitat Assessment Protocols (CHAP). Even though CHAP has not been certified by the Ecosystem Restoration PCX, it is currently being used in several ongoing studies within USACE. We expect to receive permission for single use soon.
 - Ecosystem Restoration alternatives will be formulated USACE's Cost Effectiveness / Incremental Cost Analysis (CE/ICA) and will be determined as being consistent with the National Ecosystem Restoration (NER) account.
 - FRM alternatives will be determined as being consistent with the National Economic Development (NED) account using the latest version of HEC-FDA.
 - The latest approved USACE processes and policies for the Other Social Effects (OSE) and Regional Economic Development (RED) will be used and followed.

- The latest approved USACE processes and policies for minimizing risk due to climatic uncertainty will be used and followed.
- Is not expected to be challenging in any unique way.
 - SPA is not proposing any management measures, and therefore no formulated alternatives, that could be considered novel or innovative.
 - None of the proposed features are controversial in design, location or function.
 - SPA has completed ecosystem restoration and FRM studies and projects of this nature, along the Middle Rio Grande, recently and successfully.
 - SPA has received no negative responses from any local NGOs.
 - Designs are not anticipated to require any redundancy, resiliency and / or robustness outside of current USACE engineering practices.
 - Implementation is not expected to require unique construction sequencing.
 - Without knowing when or how much funding will be received for construction, SPA is unable to predict whether there will be reduced or overlapping design / construction schedules.
- Health and human safety factors may be minimal.
 - This study is primarily an ecosystem restoration study / project. The sponsor on whose lands the FRM management measures would be built has indicated that they are anticipating removing this purpose from the study.
 - Per standing regulations, any construction within the floodplain as a result of this study, must be assessed as to whether the alternative increases the risks of damages from future flooding.
 - The Albuquerque District (SPA) Chief of Engineering will assess the threat to human life after the PDT has completed its assessment of the Tentatively Selected Plan. If at that time, the Chief determines that there is significant life safety risk, the vertical team will determine if an IEPR is warranted.

6.2 Current Decision on IEPR

Since the FSM in April 2009, the Los Conchas wildfire occurred in the Santa Clara Creek watershed that changed the hydrologic, hydraulic and sediment baseline conditions of Santa Clara Creek within the Española study area. The projected changes affect the lower end of Santa Clara Creek above its confluence with the Rio Grande, a backwater area on the Rio Grande upstream of its confluence with Santa Clara Creek, and on the Rio Grande downstream from the confluence. A Technical Assistance Report was completed by SPA in December 2011 that included FRM recommendations on Santa Clara Creek. It is possible that additional FRM measures will be developed during the Española Valley feasibility study to address the changed conditions.

Due to the changes in hydrology, hydraulics and sediment caused by the Los Conchas wildfire, this RP will assume that FRM management measures / alternatives may be added to study.

Based on the criteria in EC 1162-2-214 and the discussion in Section 3, "Factors Affecting the Scope and Level of Review", Type I IEPR may be conducted for this study. This project study

may require Type I IEPR as it may include health and human safety factors that were not anticipated at the time of the original RP.

The IEPR will focus on the formulation of the tentatively selected flood risk management alternatives. The review panel will be composed of individuals with expertise in arid region riverine systems ecology, groundwater surface water interactions, geotechnical engineering, hydraulic, hydrologic and sediment modeling. It is not anticipated that the public, including scientific or professional societies, will be asked to nominate potential external peer reviewers. It is recommended that the panel conduct a site visit if possible.

The IEPR will be conducted by a contractor managed by the FRM-PCX. The FRM-PCX will follow the process established in EC 1162-2-214 in managing the IEPR.

6.3 Products to Undergo Type I IEPR

The entire integrated feasibility report with appendices will be provided to the IEPR team.

6.4 Required Type I and Type II IEPR Panel Expertise

Anticipated reviewers as well as number of reviewers will be determined by the PDT and ATR team after the ATR process. At a minimum, the IEPR panel will consist of engineering, environmental and economics disciplines.

Type I IEPR Panel Members/Disciplines	Expertise Required
Civil Engineering	The reviewer should be a senior professional and have recent experience in the design and of plans and specifications for levees and river bridges, to include tie in to natural features.
Economics	The reviewer should be a senior professional and be familiar with the processes used in evaluation of FRM projects and have recent experience in preparing economic analysis plans for FRM feasibility studies. HEC-FDA will be used for analysis, as will IMPLAN. Analysis will address all four project accounts during the F4 phase. The reviewer should also have recent knowledge of accepted economics models.
Ecological Resources	The reviewer should be a senior professional and 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. The reviewer should also have recent knowledge of accepted habitat models.

Hydraulic Engineering	The reviewer should be a senior professional and 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. The reviewer should also have recent experience in the design and of plans and specifications for levees and river bridges, to include tie in to natural features. Lastly, 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.
Geotechnical Engineering	The reviewer should be a senior professional and 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; and designing earthworks and structure foundations.

Type II IEPR Panel Members/Disciplines	Expertise Required
Civil Engineering	The reviewer should be a senior professional and have recent experience in the design and of plans and specifications for levees and river bridges, to include tie in to natural features.
Economics	The reviewer should be a senior professional and be familiar with the processes used in evaluation of FRM projects and have recent experience in preparing economic analysis plans for FRM feasibility studies. HEC-FDA will be used for analysis, as will IMPLAN. Analysis will address all four project accounts during the F4 phase. The reviewer should also have recent knowledge of accepted economics models.

Ecological Resources	The reviewer should be a senior professional and 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. The reviewer should also have recent knowledge of accepted habitat models.
Hydraulic Engineering	The reviewer should be a senior professional and be a senior professional and 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. The reviewer should also have recent experience in the design and of plans and specifications for levees and river bridges, to include tie in to natural features. Lastly, 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.
Geotechnical Engineering	The reviewer should be a senior professional and 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; and designing earthworks and structure foundations.

6.5 Documentation of Type I and Type II IEPRs

a. The IEPR panels will be selected and managed by an Outside Eligible Organization (OEO) per EC 1162-2-214. Panel comments will be compiled by the OEO and should address the adequacy and acceptability of the economic, engineering and environmental methods, models, and analyses used. IEPR comments should generally include the same four key parts as described for ATR comments in Section 4.d above. The OEO will prepare a final Review Report that will accompany the publication of the final decision document and shall:

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

- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

The final Review Report will be submitted by the OEO no later than 60 days following the close of the public comment period for the draft decision document. USACE shall consider all recommendations contained in the Review Report and prepare a written response for all recommendations adopted or not adopted. The final decision document will summarize the Review Report and USACE response. The Review Report and USACE response will be made available to the public, including through electronic means on the internet.

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

8 - Cost Engineering Directory of Expertise (DX) Review and Certification

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. The DX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The DX will also provide the Cost Engineering DX certification. The RMO is responsible for coordination with the DX.

9 - Model Certification and Approval

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, 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 use of a certified/approved planning model does not constitute technical review of the planning product. 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).

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 (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps 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).

Planning Models. The following planning models have been used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
HEC-FDA 1.2.4	Provides the capability for integrated hydrologic engineering and economic analysis for formulating and evaluating FRM plans using risk-based analysis methods. The program will be used to evaluate and compare the future without- and with-project alternatives to aid in the selection of a recommended plan to manage flood risk.	Certified
Combined Habitat Assessments Protocol (CHAP)	A spatially based multi-purpose field inventory and assessment accounting tool that when applied to a site or area can generate an appraised habitat value for fish and wildlife. It is currently being used in several USACE studies that have an ecosystem restoration component. The study's Habitat Team (See Section 13.2 for a list of agencies.) used CHAP to inventory the existing conditions and to project future without project conditions.	Waiting on Eco - PCX for single – use approval

Engineering Models. The following engineering models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
HEC-RAS 4.0 (River Analysis System)	HEC-RAS provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. The program will be used for steady flow analysis to evaluate the future without- and with-project conditions along the Rio Grande and its tributaries.	HH&C CoP Preferred Model
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.	
Flo- 2D	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.	Approved for flood routing and floodplain mapping.

10 - Review Schedules and Costs

The draft Feasibility Scoping Meeting (F3 or FSM) document went through PDT, DQC and ATR and was approved at the MSC. The FSM was conducted ahead of schedule on 15 April 2009. Because this study has not received consistent or adequate yearly funding since the FSM, the Alternative Formulation Briefing (AFB) document was not prepared by 9 October 2010 (per schedule dated 2 March 2009).

10.1 ATR Schedule and Cost

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.

ATR will be initiated at the Alternatives Milestone, the Tentatively Selected Plan Milestone, the Agency Decision Milestone, the Final Report Milestone and the Final Report Milestone. The ATR Lead will determine if which ATR technical specialties will participate for each milestone.

Per discussions with the Ecosystem Restoration PCX, the decision document will go to ATR for review prior to public, policy and legal review. The decision document will go back for ATR after public, policy and legal review. The ATR Lead will determine if which ATR technical specialties will participate for each document.

Once the study again receives funding, actual costs will be determined and this RP will be revised. Until then, ATR review and assistance is estimated to be between \$75,000 and \$100,000 for the study.

10.2 Ecosystem Restoration Model Certification / Approval Schedule and Cost

The Project Manager will work with Ecosystem Restoration PCX 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 PCX shall provide organization codes 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 Cost study PM of any possible funding shortages.

Once the study again receives funding, actual costs will be determined and this RP will be revised. Until then, PCX review and assistance is estimated to be between \$10,000 and \$15,000 for the study.

10.3 Type I IEPR Schedule and Cost

Type I IEPR will be initiated during SMART Planning's concurrent public, technical, policy and legal review. The PDT will determine technical specialties will participate.

Once the study again receives funding, actual costs will be determined and this RP will be revised. Until then, IEPR review and assistance is estimated to be between \$100,000 and \$125,000 for the study.

10.4 Type II IEPR Schedule and Cost

Type II IEPR will be initiated during Planning Engineering and Design. The PDT will determine technical specialties will participate.

Once the study again receives funding, actual costs will be determined and this RP will be revised. Until then, IEPR review and assistance is estimated to be between \$100,000 and \$125,000 for the study.

10.5 In-Progress Reviews (IPRs)

Type II IEPR will be initiated during Planning Engineering and Design. The PDT will determine technical specialties will participate.

Once the study again receives funding, actual costs will be determined and this RP will be revised. Until then, IPRs are estimated to be between \$15,000 and \$25,000 for the study.

10.6 Value Engineering (VE)

Value Engineering (VE) will be initiated during SMART Planning's concurrent public, technical, policy and legal review.

Once the study again receives funding, actual costs will be determined and this RP will be revised. Until then, IPRs are estimated to be between \$15,000 and \$25,000 for the study.

11 - Public Participation

Public involvement is anticipated throughout the Feasibility Study. The Sponsors (Pueblos of Ohkay Owingeh, Santa Clara, and San Ildefonso) as independent governmental entities have determined that Corps PDT presentations / workshops given at their tribal council meetings meet the requirements of public involvement.

An Executive Committee comprised of the District Engineer, Tribal Liaison, Corps Project Manager, all three sponsor's Project Managers, and the Tribal Governors of each Pueblo, meet quarterly or as needed.

12 - Review Plan Approval and Updates

The South Pacific Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, 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. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander 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 the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC.

13 - Review Plan Points of Contact

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

- SPA Contact, Planning Chief (505) 342-3201
- PCX Director, (415) 503-6852
- SPD Reviewer, District Support Team Lead, (415) 503-6556

Team Rosters

13.1 PDT Members

<u>Name</u>	<u>Discipline</u>	<u>Phone Number</u>
	Project Management	505-342-3635
	Plan Formulation	505-342-3204
	Cost Engineering	505-342-3411
	Hydrology, Hydraulics & Sedimentation [H&H]	505-342-3680
	Economics	505-342-3366
	Ecological Resources	505-342-3264
	Cultural Resources	505-342-3687
	Geotechnical	505-342-3427
	Environmental Engineering	505-342-3138
	Civil Engineering	505-342-3419
	Geospatial	505-342-3664
	Real Estate	505-342-3229
	Tribal Liaison	505-342-3355

13.2 Habitat Team (Existing and Future Condition determination using CHAP)

<u>Name</u>	<u>Discipline</u>	<u>Phone Number</u>
	USACE, Fisheries Biologist	505-342-3264
	Pueblo of Ohkay Owingeh	
	Pueblo of Santa Clara	
	Pueblo of San Ildefonso	
	Bureau of Reclamation	
	Bureau of Indian Affairs	
	US Fish & Wildlife Service	
	NM Game & Fish	
	NM Department of Forestry	
	Audubon Society	

13.3 ATRT (TBD by Eco-PCX)

<u>Name</u>	<u>Discipline</u>	<u>District</u>	<u>Phone</u>
	Planning	Walla Walla	509-527-7615

13.4 Vertical Team

<u>Name</u>	<u>Discipline</u>	<u>Location</u>	<u>Phone</u>
	Ecological Resources	Eco-PCX	(206) 764-7205
	TBD	FRM-PCX	
	SMART Planning	Fort Worth	(817) 886-1725
	Facilitator	IWR	(303) 963-4564
	Risk Register Expert	Honolulu	(808) 835-4035
	Economics	HQ	(202) 761-5534
	Environmental	HQ	(202) 761-1380
	Planning & Policy	HQ	(202) 761-7770
	Civil Engineer	HQ/RIT	(202) 761-4085
	Planning and Policy	SPD	(415) 503-6590
	Cultural Resources	SPD	(415)503-6585
	ATRT Lead	Walla Walla	

STATEMENT ON THE COMPLETION OF ATR

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The Agency Technical Review (ATR) has been completed for the Ecosystem Restoration Modeling of the Española, Rio Grande and Tributaries, New Mexico, General Investigation study. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1162-2-214. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks.

ATR Leader, Española Valley GI

Date

Project Manager, Española Valley GI, SPA

Date

Chief, Planning Branch, SPA

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.

B.G. Michael C. Wehr

Date

Division Engineer

South Pacific Division

STATEMENT ON THE COMPLETION OF ATR

+

The Army Corps of Engineers, Albuquerque District has completed the Draft Report / Environmental Assessment (**before** Public, Technical, Policy and Legal Reviews) with appendices of the Española, Rio Grande and Tributaries, New Mexico, General Investigation study. 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, Española Valley GI

Date

Project Manager, Española Valley GI, SPA

Date

Chief, Planning Branch, SPA

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.

B.G. Michael C. Wehr
Division Engineer
South Pacific Division

Date

STATEMENT ON THE COMPLETION OF ATR

+

The Army Corps of Engineers, Albuquerque District has completed the Draft Report / Environmental Assessment (*after* Public, Technical, Policy and Legal Reviews but prior to the Final Report Milestone) with appendices of the Española, Rio Grande and Tributaries, New Mexico, General Investigation study. 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, Española Valley GI

Date

Project Manager, Española Valley GI, SPA

Date

Chief, Planning Branch, SPA

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.

B.G. Michael C. Wehr
Division Engineer
South Pacific Division

Date

REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number
2009-04-09	Original	