PEER REVIEW PLAN

Middle Rio Grande Flood Protection Project, Bernalillo to Belen, New Mexico General Re-evaluation Report

US Army Corps of Engineers ®
Albuquerque District

April 2009

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PURPOSE

This document presents the process that assures quality products for the Middle Rio Grande Valley, Bernalillo to Belen, New Mexico General Re-evaluation Report (GRR), a single purpose project. This Review Plan (RP), a component of the Project Management Plan (PMP), defines the responsibilities and roles of each member on the study and technical review team. This RP includes an Agency Technical Review (ATR) plan that is governed by the South Pacific Division (SPD) Quality Assurance plan. The basis for the Quality Assurance Plan is the SPD Quality Management Plan. The RP is also the Quality Control Plan (QCP) for this study.

The products to be reviewed by the Agency Technical Review Team (ATRT) include, but are not necessarily limited to:

1 Without Project Hydraulic and Hydrologic (H&H) Computational Modeling
   - Already completed.
2 Feasibility Scoping Meeting (FSM or F3) Package
   - The purpose of the FSM is to bring the USACE vertical team, the non-Federal sponsor, and resource agencies together to reach agreement on the problems and solutions to be investigated during the feasibility study and the scope of analysis required.
3 Alternative Review Conference Package (ARC or F4) – a SPD specific milestone
   - The Alternative Review Conference will evaluate the final plans, reach a consensus that the evaluations are adequate to select a plan and prepare AFB issues.
4 Alternative Formulation Briefing (F4a) Package
   - The AFB was established to save time and costs in the preparation and review of feasibility and general reevaluation reports, and to facilitate Headquarters participation in plan formulation. The purpose of the AFB is to confirm that the plan formulation and selection process, the tentatively selected plan, and the definition of Federal and non-Federal responsibilities are consistent with applicable laws, statutes, Executive Orders, regulations and current policy guidance. The goal is to identify and resolve any legal or policy concerns that would otherwise delay or preclude Washington-level approval of the draft report, and to allow the districts to release the draft report to the public concurrent with the Headquarters policy compliance review of the draft report.
5 With Project Hydraulic and Hydrologic (H&H) Computational Modeling

- The H&H section wants to conduct a seamless, single discipline review of the modeling in advance of the F4 milestone review. The H&H should be certified *before* it can be used in the document.
- Water resource professionals use numerical models to simulate things such as how much water flows out of a basin, and when, in response to a given amount of rainfall over the watershed (hydrologic modeling), or how fast, deep and wide would that amount of water flow within the valley topography (hydraulic modeling).

6 Draft Report Package (including NEPA documentation) and package

7 Final Report Package (including NEPA documentation) and package

- HQUSACE is responsible for establishing technical, policy, and legal compliance requirements for specific projects, and providing final compliance documentation for Washington-level decision makers, generally the Chief of Engineers, ASA(CW), OMB, and Congress. The HQUSACE team is responsible for confirming the policy and legal compliance planning products; supporting the resolution of issues requiring HQUSACE, ASA (CW) or OMB decisions; continuously evaluating the overall project development process, including the peer review and policy compliance processes (including responsibilities delegated to MSCs); and recommending appropriate changes when warranted.

Under the provisions of new Corps of Engineers policies, as detailed in references listed below, the ATR will be conducted by specialists from Corps organizations outside of the Albuquerque District. ATR will be conducted for all decision documents and modeling, and will be independent of the technical production of the project. This Review Plan is, by reference, a part of the Project Management Plan (PMP) for this Feasibility Study.

APPLICABILITY

This document provides the QCP for this Feasibility Study. It identifies quality control processes and technical review for all work to be conducted under this study authority, including in-house, sponsor and contract work.

REFERENCES

- EC 1165-2-203 “Policy Compliance Review Checklist”, 1996-10-15

- ER 1105-2-100 "Planning Guidance Notebook & Appendices D, F, G & H", as amended
- CECW-CP Memo for Distribution, "Peer Review Process", 2007-03-30
- EC 1105-2-410 "Review of Decision Documents", 2008-08-22

STUDY OVERVIEW

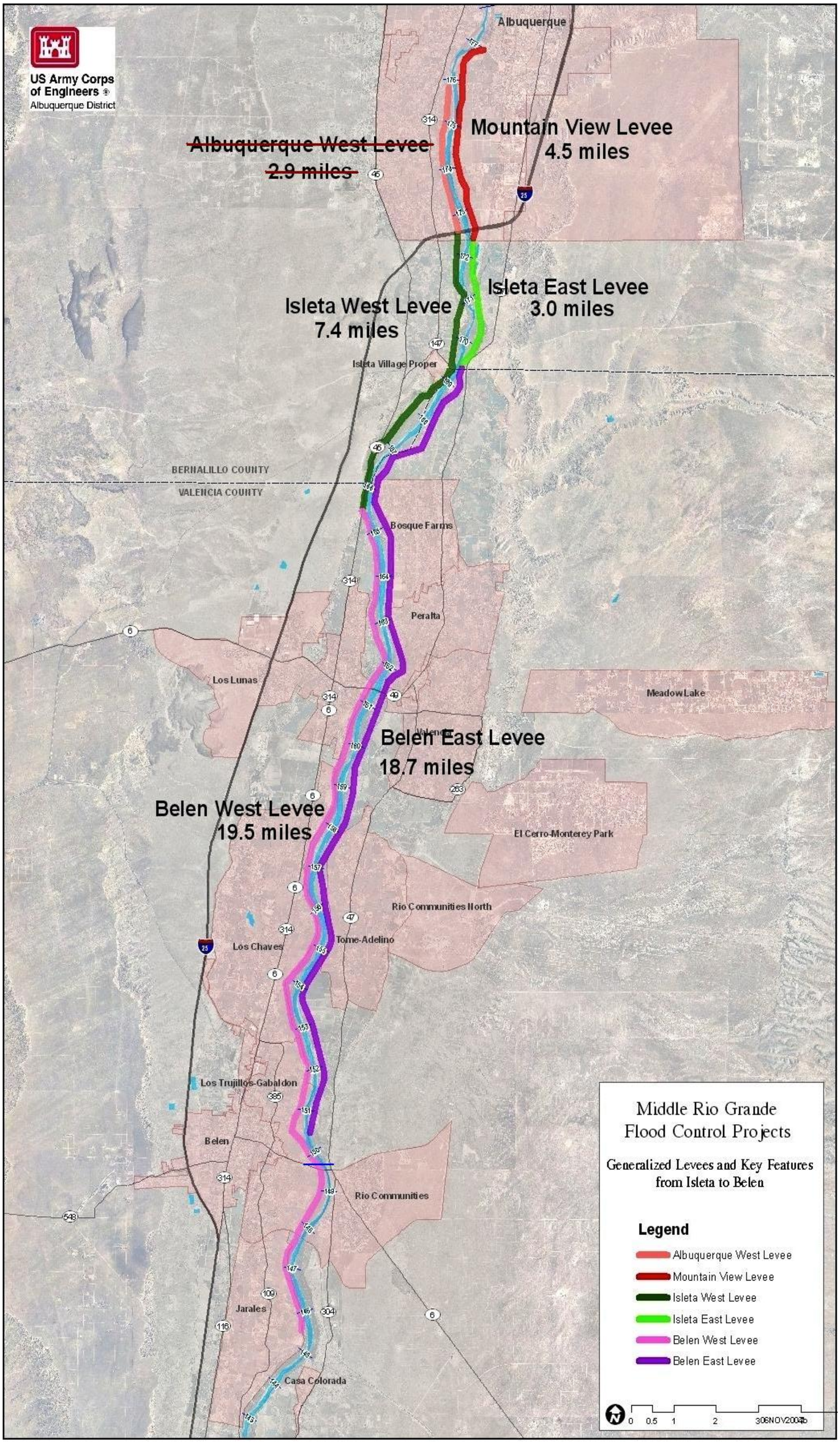
The Middle Rio Grande Flood Protection Project was designed in response to a series of six Congressional actions authorizing studies of the Rio Grande, particularly the Middle Rio Grande Valley. The flooding problems along the Middle Rio Grande between Bernalillo and Belen, New Mexico are documented in a 1979 feasibility report, *Middle Rio Grande Flood Protection, Bernalillo to Belen, New Mexico, Interim Feasibility Report*. There has been no significant flooding in the project area since those listed in the 1979 report.

During the course of a Limited Re-evaluation Report (LRR) study for the Belen East and West units, several events occurred that impacted the study and have resulted in expanding the scope of the Belen LRR study into the current GRR. The Albuquerque District, U.S. Army Corps of Engineers (Corps, USACE) and the Middle Rio Grande Conservancy District (MRGCD) have collaborated to re-evaluate a previously authorized flood damage reduction project in the Middle Rio Grande Valley.

The study area of the GRR investigations includes the three southern river reaches and five units (Mountain View, Isleta East and West, and Belen East and West) located in Bernalillo and Valencia counties, New Mexico and extends approximately twenty river miles from the southern border of Albuquerque to just past the southern border of Belen. The study area encompasses approximately 110 square miles of drainage area and includes several small rural communities on both sides of the Rio Grande between Albuquerque and Belen, most of which are unincorporated. See map following page.

The original, authorized plan was for levee replacement. Spoil bank levees are now located in the project area which engineered levees would replace. Any future levees would follow the same footprints reducing possible impacts. Non-structural flood risk management measures will also be considered and evaluated and the PDT will determine if levees remain the best plan.

Coordination with the vertical team has not yet occurred.


US Army Corps of Engineers
Albuquerque District
Albuquerque
~~Albuquerque West Levee~~
~~2.9 miles~~
Mountain View Levee
4.5 miles
Isleta East Levee
3.0 miles
Isleta West Levee
7.4 miles
Isleta Village Proper
BERNALILLO COUNTY
VALENCIA COUNTY
Bosque Farms
Peralta
Los Lunas
Meadow Lake
Belen East Levee
18.7 miles
Belen West Levee
19.5 miles
El Cerro-Monterey Park
Rio Communities North
Los Chaves
Tome-Adelino
Los Trujillos-Gabaldon
Belen
Rio Communities
Jarales
Casa Colorada
Middle Rio Grande
Flood Control Projects
Generalized Levees and Key Features
from Isleta to Belen
Legend
Albuquerque West Levee
Mountain View Levee
Isleta West Levee
Isleta East Levee
Belen West Levee
Belen East Levee
0 0.5 1 2
30NOV2004b

REVIEW REQUIREMENTS

Initial Quality Control [QC] review will be handled within the Section or Branch performing the work, or by staff of the non-Federal sponsors, the MRGCD. Additional QC will be performed by the Project Delivery Team (PDT) during the course of completing the Feasibility Study.

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. It is expected that the MSC/District quality management plans address the conduct and documentation of this fundamental level of review.

ATR (which replaces the level of review formerly known as Independent Technical Review [ITR]) 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-today production of a 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 review 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.

IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. IEPR is generally for feasibility and reevaluation studies and modification reports with EISs. IEPR is managed by an outside eligible organization (OEO) that is described in Internal Revenue Code Section 501(c) (3), is exempt from Federal tax under section 501(a), of the Internal Revenue Code of 1986; is independent; is free from conflicts of interest; does not carry out or advocate for or against Federal water resources projects; and has experience in establishing and administering IEPR panels. The scope of review will address all the underlying planning, engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project.

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Pursuant to EC1105-2-410, coordination with the Planning Center of Expertise (PCX) for Flood Risk Management 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. However, the estimated cost of the project is projected to be in excess of $40 million dollars, a Supplemental Environmental Impact Statement will be prepared, and the study will require an Independent External Peer Review (IEPR).

Challenges include:

1 New Corps policy and procedures for performing feasibility studies;
2 Properly incorporating a decades long project history through many personnel changes;
3 Rigorous schedules.

This project is considered to have low overall risk because:

1 The Corps has completed studies and projects of this nature recently and successfully;
2 Health and human safety factors are currently believed to be minimal;
    - Currently, the information with regards to health and human safety factors is insufficient for a more definite determination.
    - The PDT as every intention to further assess safety factors as the study progresses.
3 Un-engineered spoil bank levees already exist throughout the project area which give surrounding areas some measure of flood risk management.

This project study will require an IEPR as it will include a Supplemental Environmental Impact Statement (EIS) and total project costs may be in excess of $45 million. The PDT has determined that the study / project:

1 Is not expected to be controversial;
    - Future engineered, levee alternatives will follow the footprint of the existing, spoil bank levees;
    - 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.
2 Is not expected to have adverse impacts on scarce or unique cultural, historic, or tribal resources;
    - Future engineered, levee alternatives will follow the footprint of the existing, spoil bank levees;

- Sites for flood risk management alternatives (levees) will follow the footprints of the existing spoil bank levees.
- The Pueblo de Isleta is working closely with both the Corps and the MRGCD to ensure no adverse impacts.

3 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;
- Future engineered, levee alternatives will follow the footprint of the existing, spoil bank levees;
- Experience doing similar Corps project within SPA has shown that adverse impacts are unlikely.

4 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.

5 Does not involve the rehabilitation or replacement of existing hydropower turbines, lock structures, or flood control gates;

6 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.
- Flood risk management within the Rio Grande 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.

7 Has minimal life safety risk.
- Future engineered, levee alternatives will follow the footprint of the existing, spoil bank levees;
- Experience doing similar Corps project within SPA has shown that adverse impacts are unlikely;
- Currently, the information with regards to health and human safety factors is insufficient for a more definite determination;
- The PDT as every intention to further assess safety factors as the study progresses.

As a result, DQC, ATR and IEPR will focus on:

1 Completeness and compliance of H&H analysis;
2 Review of the planning process and criteria applied;
3 Review of the methods of preliminary analysis and design;
4 Compliance with client, program and NEPA requirements;
5 Completeness of preliminary design and support documents; and

6 Spot checks for interdisciplinary coordination.

In accordance with Section 2035 of WRDA 2007, EC 1105-2-410 requires that all projects addressing flooding or storm damage reduction undergo a safety assurance review during design and construction. Safety assurance factors must be considered in all reviews for those studies. Implementation guidance for Section 2035 is under development. When guidance is issued, the study will address its requirements for addressing safety assurance factors, which at a minimum will be included in the draft report and appendixes for public review. Prior to preconstruction engineering and design (PED) of the project identified for construction, a PMP will be developed that will include safety assurance review. Safety assurance review will also be accomplished during construction.

REVIEW PLAN

Basic Information

Documentation that will be the ultimate focus of the peer review process is:

1 Without- project Hydraulics, Hydrology and Sediment
2 F3 – Existing Conditions Report
3 With-project Hydraulics, Hydrology and Sediment
4 F4 – Alternative Review Conference
5 F4a – Alternative Formulation Briefing
6 Draft Report (including NEPA documentation) and package
7 Final Report (including NEPA documentation) and package

Process

It is anticipated that the ATRT process will begin after the ATRT has been assigned by the FRM-PCX, and will initially cover the F3. 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 F3, F4 and Supplemental Environmental Impact Statement.

An ATRT Leader shall be designated for the review by the FRM-PCX and will come from outside the MSC. The PDT requests that the PCX recommend an ATRT Leader and ATRT from district(s) that have experiences in flood risk management projects in large, semi-arid river systems similar to that in the Middle Rio Grande valley. In general, the ATRT Leader is responsible for providing information necessary for setting up the

reviews, to include value engineering, communicating with the Project Manager and Plan Formulator, providing a summary of critical review comments, collecting grammatical and editorial comments from the ATRT, ensuring that the ATRT has adequate funding to perform the review, facilitating the resolution of the comments, and certifying that the ATR has been conducted and resolved in accordance with policy. The ATRT Leader will review the draft and final reports to determine if there is substantial new information that requires further review prior to ATR certification.

Anticipated number of ATRT reviewers: See review disciplines listed below.

Per the PMP, the local sponsor may 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:

1 Existing reports and hard data that they contribute to the study / project;
2 Assistance during public involvement actions;
3 Assistance during the formulation of alternatives;
4 Attendance at F3 and F4 conference and briefings.

The in-kind contributions listed above do not require peer review. The MRGCD will not be preparing their own products for this study that would require DQC or ATR.

PCX Coordination

The appropriate PCX for this document is the National Flood Risk Management Planning Center of Expertise located at SPD. This review plan will be submitted through the PDT District (SPA) Planning Chief [redacted] (505-342-3201, [redacted]@usace.army.mil) to the PCX Program Manager, [redacted] (415-503-6852, [redacted]@usace.army.mil) for review and concurrence. 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:

1 Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer.

2 Include the charge to the reviewers.
3 Describe the nature of their review and their findings and conclusions.
4 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.

Timing

The ATR Peer Review process is envisioned to begin the spring of FY09 with the draft F3 report. Please see Purpose section as well as Appendix B dated April 2009. As additional information becomes available, this RP will be updated.

Communication

1 The team will use DrChecks to document the ATR and IEPR process. The Project Manager will facilitate the creation of a project portfolio in the system to allow access by all PDT, ATRT and IEPR members. An electronic version of the document, appendices, and any significant and relevant public comments in Word format shall be posted at: ftp://ftp.usace.army.mil/pub/ at least one business day prior to the start of the comment period.

2 The PDT shall send the ATRT and IEPR Leaders one hard copy (with color pages as applicable) of each document and appendices for each reviewer such that the copies are received at least one business day prior to the start of the comment period. For those reviewers not requiring hard copies for their review, documents will be posted at: ftp://ftp.usace.army.mil/pub/ at least one business day prior to the start of the comment period.

3 The PDT may host an ATR kick-off meeting virtually to orient the ATRT during the first week of the comment period. If funds are not available for an on-site meeting, the PDT shall provide a presentation about the project, including photos of the site.

4 The Project Manager shall inform the ATRT and IEPR Leaders when all responses have been entered into DrChecks .

5 A revised electronic version of the report and appendices with comments incorporated shall be posted at ftp://ftp.usace.army.mil/pub/ for use during back checking of the comments.

6 PDT members shall contact ATRT or IEPR members or leaders as appropriate to seek clarification of a comment's intent or provide clarification of information in the report. Discussions shall occur outside of DrChecks but a summary of discussions may be provided in the system.

7 Reviewers will be encouraged to contact PDT members directly via email or phone to clarify any confusion. DrChecks shall not be used to post questions needed for clarification.

8 The ATRT, PDT, and vertical team shall conduct an after action review (AAR) no later than three weeks after the policy guidance memo is received from HQUSACE for the AFB and draft reports.

Review Disciplines

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

1 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.

2 Southwestern Hydrology – The reviewer should have extensive knowledge of hydrology of the Rio Grande basin or similar.

3 Economics – The reviewer should be familiar with the processes used in evaluation of flood risk management projects and have recent experience in preparing economic analysis plans for flood risk management feasibility studies. HEC-FDA will be used for analysis, as will IMPLAN. Analysis will address all four project accounts during the F4 phase.

4 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.

5 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

6 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.

7 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.

8 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.

9 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.

10 Real Estate -

Project Delivery Team Members

See Appendix A

ATRT (TBD by FRM-PCX)

See Appendix A

ATRT Responsibilities

1 The FRM-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.

2 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.

3 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.

4 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.

5 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.

6 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

PDT responsibilities

1 The PDT shall review comments provided by the ATRT in DrChecks and provide responses to each comment using "*Concur*", "*Non-Concur*", or "*For Information Only*". *Concur* responses shall state what action was taken and provide revised text from the report if applicable. *Non-Concur* responses shall state the basis for the disagreement or clarification of the concern and suggest actions to negotiate the closure of the comment.

2 PDT members shall contact the PM and ATRT managers to discuss any "non-concur" responses prior to submission.

3 SPA will provide revisions to the ATRT for final back check either as hardcopy or at: ftp://ftp.usace.army.mil/pub/.

Resolution

1 Agency Technical Reviewers shall back check PDT responses to the review comments and either close the comment or attempt to resolve any disagreements through conference calls.

2 Reviewers may "agree to disagree" with any comment response and close the comment with a detailed explanation. ATRT members shall keep the ATRT Leader informed of problematic comments. The vertical team will be informed of any policy variations or other issues that may cause concern during MSC and / HQ review.

RP Certification

To fully document the ATR process, a statement of technical review will be prepared. Certification by the ATRT Leader and the Project Manager will occur once issues raised by the reviewers have been addressed to the review team's satisfaction. Indication of this concurrence will be documented by the signing of a certification statement (see attachment). A summary report of all comments and responses will follow the statement and accompany the report throughout the report approval process.

IEPR Process

This 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. The criteria for application of IEPR are: (1) the total project cost exceeds $45 million; (2) there is a significant threat to human life; (3) it is requested by a State Governor of an affected state; (4) it is requested by the head of a Federal or state agency charged with reviewing the project if he/she determines the project is likely to have a significant adverse impact on resources under the jurisdiction of his/her agency after implementation of proposed mitigation (the Chief has the discretion to add IEPR under this circumstance); (5) there is significant public dispute regarding the size, nature, effects of the project; (6) there is significant public dispute regarding the economic or environmental cost or benefit of the project; (7) cases where information is based on novel methods, presents complex challenges for interpretation, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices; or (8) any other circumstance where the Chief of Engineers determines IEPR is warranted. IEPR may be appropriate for feasibility studies; reevaluation studies; reports or project studies requiring a Chiefs Report, authorization by Congress, or an EIS; and large programmatic efforts and their component projects. IEPR is managed by an outside eligible organization (OEO) that is described in Internal Revenue Code Section 501(c)(3), is exempt from Federal tax under section 501(a), of the Internal Revenue Code of 1986; is independent; is free from conflicts of interest; does not carry out or advocate for or against Federal water resources projects; and has experience in establishing and administering IEPR panels. The scope of review will address all the underlying planning, engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project.

The IEPR may focus on the formulation of the flood risk management plan. 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. The entire feasibility report with appendices will be

provided to the IEPR team. 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. A representative of the panel or an OEO representative will attend the Civil Works Review Board.

The IEPR will be conducted by a contractor and managed by the FRM-PCX. The FRM-PCX will follow the process established in EC 1105-2-410 in managing the IEPR.

Primary disciplines or expertise needed for the review – the IEPR panel may include the same disciplines as the ATRT, but for most studies the makeup of the IEPR panel is a subset of the ATR disciplines and may focus on more specific aspects of the study. Final determination of the review disciplines required for IEPR will be determined later in the study process through consultation between the PDT and ATRT. At a minimum, the IEPR panel will consist of engineering, environmental and economics.

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

The IEPR will follow the Draft Report ATR. The IEPR is estimated to cost approximately $100,000. Please see Appendix B for review scheduling as of April 2009.

SPA, with assistance from the PCX, shall prepare a written proposed response to the IEPR Review Report, whether the views expressed in the report are adopted or not adopted, the actions undertaken or to be undertaken in response to the report, and the reasons those actions are believed to satisfy the key concerns stated in the report (if applicable).

The proposed response will be coordinated with the MSC District Support Teams and HQUSACE to ensure consistency with law, policy, project guidance, ongoing policy and legal compliance review, and other USACE or National considerations. The IEPR comments and responses will be discussed at the Civil Works Review Board (CWRB) with an IEPR panel or OEO representative in attendance. Upon satisfying its concerns, HQUSACE will determine the appropriate command level for issuing the formal USACE response to the IEPR Review Report.

When USACE response is issued, the district shall disseminate the final IEPR Review Report, USACE response, and all other materials related to the review on its website, and include them in the applicable decision document. Chief of Engineers' reports for decision documents that undergo IEPR shall summarize the IEPR Review Report and

USACE responses. This documentation will become a critical part of the review record and will be addressed in recommendations made by the Chief of Engineers.

REVIEW COSTS

1 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.

2 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.

3 Reviewers shall monitor individual labor code balances and alert the ATRT Leader to any possible funding shortages.

4 Once actual costs are determined, this RP will be revised. Until then, ATR review and assistance is estimated to be between $60,000 – $75,000 for the study.

REVIEW MILESTONES SCHEDULE

See Appendix B.

The vertical team is being engaged during F3 phase through this Review Plan, and will continue through the F4 and Design.

PUBLIC COMMENT

Public involvement is anticipated throughout the Feasibility Study. The Corps and Sponsor, MRGCD, has hosted three public workshops in the latest round of public meetings. Public comments were received during those public meetings and were addressed as requested.

Public Comment Action	Estimated Date
Public Scoping Meetings	21, 23 & 24 July 2008
Public Comments or Questions	Ongoing
Draft Supplemental SEIS Public Meetings	August – September 2012

The public will have opportunity to provide written comments on draft SEIS.

Dissemination of Public Comment

Release of the draft SEIS for public review will occur after issuance of the AFB policy guidance memo and concurrence by HQUSACE. The District will make the draft decision document available to the public for comment at the same time it is submitted for review (or during the review process) and sponsor a public meeting where oral presentations on scientific issues can be made to the reviewers by interested members of the public. ATR and IEPR reviewers will be provided with all public comments. The public review of necessary State or Federal permits will also take place during this period.

Upon completion of the review periods, comments will be consolidated in a matrix and addressed, if needed. A summary of the comments and resolutions will be included in the document.

Potential Alternatives

Preliminary Alternatives have yet to be Considered. When plan formulation of alternatives has been conducted by the PDT, this RP will be revised.

Model Certification

Hydraulic & Hydrologic Computational Models

1 Hydrologic Engineering Center River Analysis System(HEC-RAS); and / or
   - Developed by the Corps' Hydrological Engineering Center
   - The function of this model is to complete one-dimensional hydraulic calculations for a full network of natural and man made channels
   - User interface
   - Hydraulic Analysis
   - Data storage and Management
   - Graphics and reporting
   - Implements the risk-based analysis procedures contained in EM 1110-2-1619

2 FLO-2D
- Approved for flood routing and floodplain mapping
- Used by the Corps Flood Plain Management group
- Graphics and reporting

Economic Computations

1 Hydrologic Engineering Center Flood Damage Analysis Version 1.2.4 (Certified)
- Developed by the Corps' Hydrological Engineering Center
- Developed to assist Corps staff in analyzing the economics of flood-damage-reduction projects
- Stores hydrologic and economic data necessary for an analysis;
- Provides tools to visualize input data and results;
- Computes Expected Annual Damage and Equivalent Annual Damages; and
- Implements the risk analysis procedures described in EM 1110-2-1619.

Engineering Computational Models

1 MCASES
- This is a cost estimating model that was developed by Building Systems Design Inc. The Army Corps of Engineers began using this model in 1989.

In accordance with the EC 1105-2-407, Planning Models Improvement Program: Model Certification, the Engineering models will be approved for use through the Engineering and Construction Science and Engineering Technology (SET) program.

Project Cost Estimate

1 Total project costs are currently estimated at approximately $40 million which is less than the $45 million cutoff for IEPR. However there is some concern that since this project was authorized by Congress over 20 years ago, that the 902 limit may have been exceeded and may indeed be over the $45 million cutoff. It is unknown at this time whether the final decision document will require Congressional authorization.

2 The FRM-PCX will coordinate and schedule with the Cost Engineering Directory of Expertise (DX) at the Walla Walla district to conduct reviews (ATR) of cost estimates, construction schedules and contingencies included in all decision documents requiring Congressional authorization.

3 The Cost Engineering DX will assign the reviewer(s) to the ATR teams and will utilize USACE personnel and/or the private sector to assure highly qualified persons are available to conduct these reviews. If the Cost Engineering DX identifies the need for an IEPR, it will inform the FRM-PCX and will assist the FRM-PCX with establishing the charge for the external independent peer review.

RP Approval

The PDT will carry out the review plan as described. The Project Manager will submit the plan to the PDT District Planning Chief for approval. Coordination with PCX will occur through the PDT District Planning Chief. Signatures by the individuals below indicate approval of the plan as proposed.

Policy and Legal Compliance Review

In addition to the technical reviews, decision documents will be reviewed throughout the study process for their compliance with law and policy. These reviews culminate in Washington-level 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 Chief of Engineers. Guidance for policy and legal compliance reviews is addressed further in Appendix H, ER 1105-2-100. Technical reviews described in EC 1105-2-410 are to augment and complement the policy review processes by addressing compliance with published Army polices pertinent to planning products, particularly polices on analytical methods and the presentation of findings in decision documents. DQC and ATR efforts are to include the necessary expertise to address compliance with published planning policy. Counsel will generally not participate on ATR teams, but may at the discretion of the district or as directed by higher authority. When policy and/or legal concerns arise during DQC or ATR efforts that are not readily and mutually resolved by the PDT and the reviewers, the District will seek issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H ER 1105-2-100. IEPR teams are not expected to be knowledgeable of Army and administration polices, nor are they expected to address such concerns. An IEPR team should be given the flexibility to bring important issues to the attention of decision makers. Legal reviews will be conducted concurrent with ATR of the AFB pre-conference documentation, and the draft and final Feasibility Report and SEIS

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STATEMENT ON THE COMPLETION OF ATR

The Army Corps of Engineers, Albuquerque District has completed the F3 - Feasibility Scoping Meeting Package with appendices of the Middle Rio Grande Valley, Bernalillo to Belen, New Mexico General Re-evaluation Report. 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.

_____ _____
ATRT Leader, Española Valley GI Date

_____ _____
[redacted] Date
Project Manager, Española Valley GI

_____ _____
[redacted] Date
Chief, Planning Branch
Albuquerque District

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.

_____ _____
JANICE L. DOMBI Date
COL, USA
Commanding

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STATEMENT ON THE COMPLETION OF ATR

The Army Corps of Engineers, Albuquerque District has completed the With-Project Hydraulic Modeling of the Middle Rio Grande Valley, Bernalillo to Belen, New Mexico General Re-evaluation Report. 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.

_____ _____
ATRT Leader, Bernalillo to Belen, GRR Date

_____ _____
[redacted] Date
Project Manager, Bernalillo to Belen, GRR

_____ _____
[redacted] Date
Chief, Planning Branch
Albuquerque District

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COL, USA
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STATEMENT ON THE COMPLETION OF ATR

The Army Corps of Engineers, Albuquerque District has completed the F4 - Alternative Review Conference Package with appendices of the Middle Rio Grande Valley, Bernalillo to Belen, New Mexico General Re-evaluation Report. 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.

_____ _____
ATRT Leader, Bernalillo to Belen, GRR Date

_____ _____
[redacted] Date
Project Manager, Bernalillo to Belen, GRR

_____ _____
[redacted] Date
Chief, Planning Branch
Albuquerque District

CERTIFICATION OF ATR

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COL, USA
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STATEMENT ON THE COMPLETION OF ATR

The Army Corps of Engineers, Albuquerque District has completed the F4a – Alternative Formulation Briefing Package with appendices of the Middle Rio Grande Valley, Bernalillo to Belen, New Mexico General Re-evaluation Report. 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.

_____ _____
ATRT Leader, Bernalillo to Belen, GRR Date

_____ _____
[redacted] Date
Project Manager, Bernalillo to Belen, GRR

_____ _____
[redacted] Date
Chief, Planning Branch
Albuquerque District

CERTIFICATION OF ATR

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STATEMENT ON THE COMPLETION OF ATR

The Army Corps of Engineers, Albuquerque District has completed the Draft Report Package with appendices of the Middle Rio Grande Valley, Bernalillo to Belen, New Mexico General Re-evaluation Report. 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.

_____ _____
ATRT Leader, Bernalillo to Belen, GRR Date

_____ _____
[redacted] Date
Project Manager, Bernalillo to Belen, GRR

_____ _____
[redacted] Date
Chief, Planning Branch
Albuquerque District

CERTIFICATION OF ATR

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_____ _____
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COL, USA
Commanding

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STATEMENT ON THE COMPLETION OF ATR

The Army Corps of Engineers, Albuquerque District has completed the Final Report Package with appendices of the Middle Rio Grande Valley, Bernalillo to Belen, New Mexico General Re-evaluation Report. 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.

_____ _____
ATRT Leader, Bernalillo to Belen, GRR Date

_____ _____
[redacted] Date
Project Manager, Bernalillo to Belen, GRR

_____ _____
[redacted] Date
Chief, Planning Branch
Albuquerque District

CERTIFICATION OF ATR

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_____ _____
JANICE L. DOMBI Date
COL, USA
Commanding

Appendix A – Team Members

Project Delivery Team Members

[redacted]

Cost Engineering	505-342-3
Project Management	505-342-3270
Geotechnical	505-342-3427
Environmental	505-342-3358
Structural Engineering	505-342-3311
Environmental Engineering	505-342-3680
Environmental Engineering	505-342-3295
Geotechnical	505-342-3317
Geotechnical	505-342-3315
Geospatial	505-342-3664
Plan Formulation	505-342-3204
Cultural Resources	505-342-3359
Real Estate	505-342-xxxx
Economics	505-342-3366
Tribal Liaison	505-342-3355
Hydrology, Hydraulics & Sedimentation [H&H]	505-342-3336
Civil Engineering	505-342-3406

ATRT (TBD by FRM-PCX)

Name	Discipline	District	Phone

Appendix B – Milestone Schedule [April 2009]

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RESOURCE	TASK	DURATION	EST. START	EST. FINISH
PDT	F3 Existing Conditions Con't	0 days	1-Jan-09	1-Jan-09
Skalbeck	Finalize F3 Draft	5 days	20-Apr-09	24-Apr-09
ATRT / MRGCD / BOR	ATR F3 Report	25 days	2-Jun-09	7-Jul-09
PDT & SPD	Feasibility Scoping Meeting (F3)	5 days	21-Aug-09	27-Aug-09
PDT	Plan Formulation of Alternatives	19 days	7-Oct-09	3-Nov-09
PDT	Identify Recommended Plan	5 days	21-May-10	27-May-10
ATRT / MRGCD / BOR	ATR & Value Engineering F4 Package	25 days	15-Sep-10	20-Oct-10
	Independent External Peer Review	145 days	21-Oct-10	20-May-11
PDT / ATRT / SPD	F4 Conference	5 days	9-Jun-11	15-Jun-11
PDT / ATRT	Backcheck Conference Comments	5 days	30-Jun-11	7-Jul-11
SPD	F4 Policy Guidance Memo	10 days	11-Jul-11	22-Jul-11
PDT,ATRT,SPD & HQ	F4A Alternative Formulation Briefing	5 days	8-Sep-11	14-Sep-11
SPD	HQ Policy Guidance Memorandum to SPA	5 days	7-Nov-11	14-Nov-11
PDT	Compile Technical Appendices - P2 Report Start	45 days	15-Nov-11	20-Jan-12
Skalbeck	Draft GRR	10 days	9-May-12	22-May-12
ATRT / MRGCD / BOR	ATR Draft GRR	25 days	28-Jun-12	2-Aug-12
PDT	Public Meeting (F6)	35 days	3-Aug-12	21-Sep-12
Bittelle	Independent External Peer Review Draft GRR w/public comments	80 days	23-Oct-12	21-Feb-13
SPA & SPD	Conduct Feasibility Review Conference (F7)	5 days	5-Apr-13	11-Apr-13
ATRT	ATR of Policy Compliance Package	25 days	3-Jun-13	8-Jul-13
Skalbeck	Final Report to SPD (F8)	2 days	9-Jul-13	10-Jul-13
CWRB	F8 Review	30 days	11-Jul-13	21-Aug-13
ASA / OMB	ASA / OMB Review	30 days	22-Aug-13	3-Oct-13
?	Final Report Policy Compliance Certification	30 days	4-Oct-13	18-Nov-13
SPA	Final Report Recommended Package	5 days	19-Nov-13	25-Nov-13
HQ	Chief of Engineers Approval	30 days	26-Nov-13	8-Jan-14
ASA / CWRB	ASA (CWRB) Approval	30 days	9-Jan-14	19-Feb-14
?	Transmittal to Congress	30 days	3-Apr-14	14-May-14
Congress	Congressional Authorization & Complete FONSI [CW200]	120 days	15-May-14	29-Oct-14

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