



**US Army Corps
of Engineers®**



**Greenup Locks and Dam Major Rehabilitation Report and Environmental
Assessment**

Review Plan

**U.S. Army Corps of Engineers, Huntington District
June 2010**

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I. INTRODUCTION / PROJECT BACKGROUND

This Review Plan (RP) for the Greenup Major Rehabilitation Report and Environmental Assessment has been prepared to document the procedures and assigned responsibilities for conducting technical reviews of the project and decision documents in order to ensure the quality, reliability, and credibility of the package. The RP is a collaborative product of the Project Delivery Team (PDT) at the Huntington District (LRH) and the USACE Navigation Planning Center of Expertise (CELRN-NC) of the Lakes and Rivers Division (LRD).

The Greenup Lock and Dam structure is located on the Ohio River approximately five miles below the town of Greenup, Kentucky. The Ohio River is the largest tributary of the Mississippi River. It is approximately 981 miles long and is located in the Eastern United States. The Ohio River allows for commercial navigation from the Great Lakes to its confluence with the Mississippi River.

Construction of the locks was initiated in October 1955 and the locks were placed in operation in November 1959. Construction of the dam itself began in June 1958 and the pool was raised to its full height in June 1962. The lock includes a main chamber and auxiliary chamber. The main lock chamber is 110ft x 1,200ft, and the auxiliary lock is 110ft x 600ft. The dam is a non-navigable, moveable gated structure with a top length of 1,287ft including a hydroelectric power generating plant in 1982. The hydroelectric power plant replaced a 245ft footed fixed weir with a 223ft open crest. The dam has nine tainter gates, a clear span of 100ft between 14ft intermediate piers and 15ft end piers, with a damming height of 35ft above the sills, and clearance above maximum high water when fully raised of approximately 5ft. The gates are non-submergible ogee sill units.

Greenup Locks and Dam is the tenth busiest of the USACE's 198 lock and dam projects based on tonnage. Average annual tonnage from 1995-2008 was 67.3 million tons. Energy-related commodities dominate traffic with coal accounting for 58% and petroleum products almost 10% of the total. Nearly all of the coal is destined for domestic electric utilities, with much of the coal coming from the Appalachian coal fields. Current projections indicate that by the year 2050 tonnage at the Greenup project will be between 72 million tons and 118 million tons.

Due to a recent miter gate failure, the risk of failure of the main dam, lock chamber gates and other operating features is no longer manageable or acceptable. The project is currently rated as a Dam Safety Action Class (DSAC) I project. The DSAC I rating means that the situation at the project is "urgent and compelling." The DSAC I rating is the highest possible risk designation.

The authorized Greenup Lock Extension project is currently in the Preconstruction Engineering and Design (PED) phase with funding provided from the General Investigation appropriation. Plans and specifications are complete for the mooring cells and new miter gates. LRD is awaiting appropriation of funds to initiate construction. Since there have been continuing delays in receipt of CG funds to initiate construction of the project, a Major Rehabilitation Report (MRR) was initiated in 2010 to allow rehabilitation features to be identified and designed using O&M funds to minimize risk of future failures.

The Major Rehabilitation Study will evaluate an array of alternatives to ensure the Locks and Dam continue to function and is able to provide the level of service for which the project was approved. The recommended plan will provide the optimal schedule for repairing, replacing, or improving the critical components of the dam. Environmental impacts are expected to be minor and a Finding of No Significant Impacts (FONSI) is anticipated. The planning effort will also identify and evaluate the environmental impacts which will be integrated as an EA into the decision document. An Environmental Impact Statement is not anticipated for this project. The rehabilitation study will only focus on improving, replacing, or rehabilitating existing components of the locks and dam and is not anticipated to have significant economic, environmental, or social effects to the nation. No significant interagency interest in the project is anticipated. The rehabilitation work under study is authorized; however, the construction of any recommended rehabilitation project requires the approval of the Secretary of the Army.

II. REFERENCES

EC 1165-2-209 "Civil Works Review Policy" dated 31 January 2010
EC 1105-2-410 "Review of Decisions Documents" dated 22 August 2008
EC 1105-2-408 "Peer Review of Decision Documents" dated 31 May 2005
EC 1105-2-407 "Planning Models Improvement Program: Model Certification" dated 31 May 2005
ER 1105-2-100 "Planning Guidance Notebook," dated April 2000
Major General Riley Memorandum on Peer Review Process, dated 30 May 2007
EC 1165-2-203 "Technical and Policy Compliance Review" dated 15 October 1996
ER 1165-2-119 "Water Resources Policies and Authorities - Modifications to Completed Projects" dated 20 September 1982
EP 1130-2-500 "Project Operations - Partners and Support (Work Management Guidance and Procedures)" dated 27 December 1996
ER 1110-2-1156 "Safety of Dams-Policy and Procedure" dated 29 April 2003

III. PURPOSE AND REQUIREMENTS

A. Purpose

Pursuant to Engineering Circular (EC) 1165-2-209, "Civil Works Review Policy," EC 1105-2-410, "Review of Decision Documents," EC 1105-2-408, "Peer Review of Decision Documents," Office of Management and Budget's "Final Information Quality Bulletin for Peer Review," and the 30 May 2007 memorandum from Major General Don Riley, USACE Director of Civil Works, this document outlines a Project Review Plan (RP) for the Greenup Locks and Dam Major Rehabilitation Report, WV and Environmental Assessment (MRR/EA). This document is currently being developed by LRH.

This RP presents the process for District Quality Control (DQC), Agency Technical Review (ATR) and Independent External Peer Review (IEPR) that will be implemented as part of the Greenup Locks and Dam Major Rehabilitation Report and Environmental Assessment. These processes are essential to improving the quality of the products that we produce. The Project Management Plan (PMP) for the study includes this RP since the RP is considered a component of the PMP. The Greenup Locks and Dam Major Rehabilitation Project is a single purpose project for inland navigation.

B. Requirements

EC 1165-2-209 outlines the requirement of the three technical review approaches (DQC, ATR, and IEPR) and provides guidance on Corps Planning Centers of Expertise (PCX) involvement in the approaches. This document addresses review of the MRR as it pertains to both approaches and planning coordination with the appropriate PCX. The Greenup Locks and Dam Major Rehabilitation Report and EA will investigate inland navigation issues in the study area and will result in recommendation of a plan for the rehabilitation of the dam.

1. District Quality Control (DQC)

DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Greenup Locks and Dam Major Rehabilitation Report and EA Project Management Plan (PMP). This will be managed in the District and conducted by in-house staff as long as the reviewers are not doing the work involved in the study, including any contracted work that will be reviewed. Basic quality control tools include a Quality Management Plan (QMP) providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before the approval by the District Commander.

The Major Subordinate Command (MSC)/District will be directly responsible for the QM and QC respectively, and to conduct and document this fundamental level of review. A Quality Control Plan (QCP) is included in the PMP for the subject study and addresses DQC by the MSC/District.

DQC is required for this study and will be accomplished throughout.

2. Agency Technical Review (ATR)

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-to-day 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 reviews the various work products and assures 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. EC 1105-2-408 requires that DrChecks (<https://www.projnet.org/projnet/>) be used to document all ATR comments, responses, and associated resolution accomplished.

This RP outlines the planned approach for meeting this requirement for the Greenup Locks and Dam Major Rehabilitation and EA. ATR is required for this study.

3. Independent External Peer Review (IEPR)

This is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted.

In accordance with EC 1165-2-209, there are two types of Independent External Peer Review (IEPR). Type I IEPR is conducted on project studies. It is of critical importance for those decision documents and supporting work products where there are public safety concerns, significant controversy, a high level or complexity or significant economic, environmental and social effects on the nation. EC 1165-2-209 states, however, that Type I IEPR is not limited to only those cases and most studies should undergo this form of review. The requirement for Type I IEPR is based upon Section 2034 of WRDA 2007, the OMB Peer Review Bulletin and other USACE policy considerations.

Type I reviews are managed outside the USACE and panel members will be selected by an Outside Eligible Organization (OEO) using the National Academies of Science (NAS) policy for selecting reviewers. IEPR panels will be made up 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.

For IEPR on decision documents, such as the Greenup Lock and Dams Major Rehabilitation Report and EA, the Review Managing Organization (RMO) will be the appropriate PCX. The vertical team will advise the MSC Commander as to whether Type I IEPR is appropriate or whether sufficient rationale exists to support a request for exclusion.

The conditions determining whether Type I IEPR will be undertaken are as follows:

- There is a significant threat to human life;
- Where the estimated total cost of the project, including mitigation costs, is greater than \$45 million based on a reasonable estimate at the end of the reconnaissance phase¹;

¹ An exclusion from Type I IEPR for a project costing more than \$45 million can only be granted by the Chief of Engineers.

- Where the Governor of an affected State requests a peer review by independent experts; or
- Where the DCW or the Chief of Engineers determines that the project study is controversial due to significant public dispute over either the size, nature, or effects of the project or the economic or environmental costs or benefits of the project

There is no significant threat to human life associated with the project and project is not anticipated to be controversial. Also, the Governor of the State of Kentucky is not likely to ask for an independent external peer review. However, the estimated total cost of the project is greater than \$45 Million, the Greenup Locks and Dam Major Rehabilitation Report and EA will require Type I IEPR.

Type II IEPR or the Safety Assurance Review (SAR) shall be conducted on design and construction activities for hurricane and storm risk management and flood risk management projects, as well as other projects where potential hazards pose a significant threat to human life. This applies to new projects and to the major repair, rehabilitation, replacement or modification of existing facilities. The requirement for Type II (SAR) IEPR is based upon Section 2035 of WRDA 2007, the OMB Peer Review Bulletin and other USACE policy considerations.

As the Greenup Locks and Dam Major Rehabilitation Report and EA is not a hurricane and storm risk management project or a flood risk management project Type II (SAR) IEPR is not required for this project.

4. Policy and Legal Compliance Review

In addition to the technical reviews described above, 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. The technical review efforts addressed in this Circular are to augment and complement the policy review processes by addressing compliance with published Army policies pertinent to planning products, particularly policies on analytical methods and the presentation of findings in decision documents. DQC and ATR efforts are to include the necessary expertise to address compliance with published planning policy. Counsel will generally not participate on ATR teams, but may at the discretion of the district or as directed by higher authority. When policy and/or legal concerns arise during DQC or ATR efforts that are not readily and mutually resolved by the PDT and the reviewers, the district will seek issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H, ER 1105-2-100. IEPR teams are not expected to be knowledgeable of Army and administration policies, 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. For decision documents requiring IEPR, legal reviews will be conducted concurrent with ATR of the preliminary, draft, and final feasibility report and environmental impact statement, if required.

5. Planning Center of Expertise (PCX) Coordination

This project is an inland navigation project. Pursuant to EC 1165-2-209, the District will coordinate with the Inland Navigation Planning Center of Expertise (PCXIN) in the Great Lakes and Ohio River Division (LRD) Planning Center located in Huntington, West Virginia, as the lead PCX to organize teams to perform the reviews at various stages throughout the study. This PCX is responsible for the accomplishment and quality of ATR for this study. The ATR Team Lead will coordinate with Cost Engineering Directory of Expertise at Walla Walla for ATR of the MII estimate, construction schedules, and contingencies.

6. Public Review and Comment

As part of the peer review, opportunities will be provided for the public to comment on the study and decision documents that are to be reviewed. The Huntington District will make the Draft Greenup Locks and Dam Major Rehabilitation Report and EA available to the public for comment when completed and sponsor public meetings and workshops, if needed. The reviewers will be provided the formal public comments in the final draft document.

7. Model Review and Certification

The certification or approval of planning models is to assure that high quality methods and tools are available to enable informed decisions on investments in the Nation's water resources infrastructure and natural environment. In accordance with EC 1105-2-407, planning models are defined as any models and analytical tools that Corps 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. They do not include engineering models used in planning. The District will coordinate with the Navigation PCX to meet model approval requirements.

It is too early in the formulation process to know which models will be utilized during the analysis. When it becomes clear which models will be used, or if new ones need to be developed, those models will be certified and approved in accordance with EC 1105-2-407.

IV. REVIEW PROCESS

A. District Quality Control (DQC)

1. DQC for Planning Products

DQC for Planning products will be undertaken throughout the study process utilizing LRH's ISO certified process for development of a Quality Control Plan (QCP). The QCP is a plan for quality control and is developed for each Planning product according to the inherent level of risk/complexity/controversy. The QCP will follow one of two paths; Level-one or Level-two.

Planning will conduct a risk analysis and determine the appropriate level of QCP for the Greenup Major Rehabilitation and EA and develop either a Level-one or Level-two QCP at that time. Risk determination will be made with consideration to policy factors such as: regulation, legislation, social/environmental factors, project funding and risk aversion; and technical factors such as: project size, complexity, uniqueness, inherent uncertainty, staff qualifications, project cost, schedule, political sensitivity, certainty of goal and review schedule.

If it is determined through the risk analysis that there are no anticipated significant effects or controversy expected a Level-one QCP will be developed for the project. It will be prepared and reviewed through strict guidelines for content and format. This QCP document would be developed by Lead and journey level planners and coordinated with relevant Section Chiefs and included as part of the PMP.

If it is determined through the risk analysis that the level of risk associated with the project warrants a Level-two QCP, one will be developed to specifically address the risk-driven components of the project. It will be approved by the Chief of Planning, and included as part of the PMP.

2. DQC for Engineering Products

Engineering will prepare a QCP for engineering products. If it is believed that the project will produce products of a routine, recurring nature then a generic QCP may be prepared. Risk, complexity, cost, and visibility will be the criteria used to determine if a generic QCP is required.

Quality of Engineering products will be achieved through the following means:

a. **Quality Production.** Throughout the design process the PDT is assigned the responsibility for the production of a quality product. The goal of the PDT is to provide quality engineering and design services and carry out the right actions the first time. PDT members must take pride in their work, ownership of the design, and an interest in the overall quality of the product. A thorough understanding of the work is required, and the work must be assigned to the appropriate design professionals. The PDT will identify the appropriate design criteria to meet the customer's needs. Specialized training or outside consultants will be obtained when required. The design will be undertaken with full communication between PDT members to ensure product compatibility.

(b) **Internal Quality Checks and Reviews.** Each member of the PDT will ensure a quality product in their functional area through internal design checks, reviews, and interaction with the ATR team. Only quality products will be released for use by other PDT members.

(c) **Design Checks.** A design check is a detailed evaluation of the engineering analysis and contract documents prepared by each engineering discipline as an extension of the design process. All checked drawings, computations, quantity estimates, and analyses will be annotated to show the initials of the designer and the checker and the date of action. The checker will be qualified to originate the design that they check. Design checklists may be developed by each engineering discipline to strengthen the design process.

(d) **PDT Reviews.** Throughout the design process the PDT will conduct PDT Reviews of the product at various stages of development.

B. Agency Technical Review (ATR)

The ATR process will be conducted throughout the study process. Once the ATR team has been identified, frequent coordination between PDT members and ATR panel members will be encouraged.

As part of the QCP for the Greenup Lock and Dam Major Rehabilitation Report and EA, an ATR team will be formed to perform periodic reviews of the study efforts, including the project assumptions, analyses, and calculations, as needed throughout the study process.

The ATR team will meet with PDT members as needed. Coordination throughout the study will be accomplished through individual contact between the PDT and the ATR team. The ATR will focus on the following:

- Review of the study planning process,
- Review of the methods of analysis and design of the alternatives and recommended plan,
- Compliance with program and NEPA requirements, and
- Completeness of study and support documentation

The ATR is conducted by experienced peers within the same discipline who are not directly involved with the development of the study or project being reviewed and are outside of the home district. Management of ATR reviews are conducted by professionals outside of the home MSC. For planning feasibility-level studies the ATR is managed by the appropriate Planning Center of Expertise (PCX) with appropriate consultation with the allied Communities of Practice such as engineering and real estate. The Inland Navigation PCX is responsible for identifying the ATR team members. The Huntington District may provide suggestions on possible reviewers. The ATR team members will reside outside the Huntington District with the ATR team leader from outside the Great Lakes and Ohio River Division.

It is anticipated that the review team will consist of eight reviewers, one from each of the following disciplines: engineering design, hydraulics and hydrology, economics, environmental, real estate, plan formulation, operations and cost engineering. A brief description of the disciplines required for the ATR team are identified below:

- Engineering Design – the reviewer(s) should have extensive knowledge of concrete and steel structures including tainter gate designs for inland navigation studies.
- Hydraulics and Hydrology – the reviewer(s) should have extensive knowledge of hydrology and hydraulics models/studies for rivers similar to the Ohio River.
- Economics – the reviewer should have a strong understanding of economic models or studies relative to inland navigation.
- Environmental – the reviewer(s) should have strong background in riverine ecosystems (e.g. riparian, aquatic) and Ohio and Kentucky environmental laws and regulations.
- Real Estate – the reviewer should have knowledge in reviewing RE Plans for studies (e.g. navigation servitude).
- Plan Formulation – the reviewer(s) should have a strong knowledge in current planning policies and guidance related to planning studies.
- Operations - the reviewer should have a strong knowledge in current operations of inland navigation projects.
- Cost Engineering – the reviewer should have a strong knowledge of the cost estimating practices for inland navigation projects.

All ATR comments will be entered into DrChecks, where they will be addressed by the team and backchecked by the ATR panel. A copy of the ATR comments and responses will be included in the Final draft of the Major Rehabilitation Report and EA.

The cost for ATR is estimated to be \$40,000.

3. Independent External Peer Review (IEPR)

In accordance with EC 1165-2-209 a Type I IEPR is required when the total project cost, including mitigation exceeds \$45 million. Therefore a Type I IEPR will be performed.

The Type I IEPR Panel will be coordinated by the Planning Center of Expertise (PCX) for Inland Navigation. Establishment of the panel will be through contract with an independent scientific and technical advisory organization that must be a 501(c)(3)(Internal Revenue Code of 1986) organization or with the National Academy of Sciences. An Outside Eligible Organization (OEO) will select the reviewers, all of whom should be independent of USACE and free of conflicts of interests. The public, including scientific and professional societies will be welcome to nominate panel members. The final selection of the panel members rests with the OEO.

The panel will be able to evaluate whether the interpretation of analysis and conclusions based on analysis are reasonable. The panel will be given the flexibility to bring important issues to the attention of decision makers. However, the panel will be instructed to not make a recommendation on whether a particular alternative should be implemented, as the Chief of Engineers is ultimately responsible for the final decision on a planning or reoperations study. The panel may, however, offer their opinion as to whether there are sufficient analyses upon which to base a recommendation for construction or funding. The panel will accomplish a concurrent review that covers the entire decision document. The panel will address all underlying engineering, economic and environmental work. The panel will submit comments to DrChecks, where they will be addressed by the team and backchecked by the IEPR panel.

The panel will submit, through the PCX, a final report containing the panel's economic, engineering and environmental analysis of the Major Rehabilitation Report, including an assessment of the adequacy and acceptability of the economic, engineering and environmental methods, models and analyses. The Type

I IEPR panel review will begin simultaneously with the public review period for the Draft Major Rehabilitation Report. The public review period will be for thirty calendar days, commensurate with the requirement for public comment on an Environmental Assessment, which is being prepared for the project. The PCX will provide the IEPR panel reviewers public comments that address significant scientific or technical issues. No more than 60 days after the beginning of the public comment period on the Draft Major Rehabilitation Report, the IEPR Panel will submit a final report. The recommendations of the IEPR Panel and PDT responses will be presented to the Civil Works Review Board by the District Engineer, Huntington District with an IEPR Panel member or Outside Eligible Organization representative in attendance. Written recommendations of an IEPR Panel member and the responses of HQUSACE will be made available to the public on the Huntington District web site.

1. Disciplines Needed for IEPR

It is anticipated that the IEPR team will be comprised of six panel members with the following backgrounds:

- Plan Formulator – The Panel Member should have a degree in planning or a related field and should have extensive experience in the plan formulation process, particularly with the Corps' 6 step planning process. Panelist should be familiar with evaluation of alternative plans for inland navigation projects. Familiarity with USACE standards and procedures is required.
- NEPA and Biology/Ecology - The panel member should have, at minimum, a Masters Degree in ecology/biology or related science. Panelist should also have particular knowledge of inland navigation, the National Environmental Policy Act (NEPA) process and requirements, and other pertinent environmental statutes and policies.
- Hydrology and Hydraulics Engineer – The Panel Member should be a Professional Engineer and have experience with engineering analysis related to inland navigation and major rehabilitation projects. The Panel member will hold at minimum, a B.S. degree in Civil Engineering, or Hydrology and Hydraulics Engineering. The Panel Member should be familiar with standard Corps hydrologic and hydraulic computer models (HEC-RAS, HEC-HMS, & HEC-ResSim). The Panel Member should have experience with unsteady flow dam failure analysis modeling.
- Economist – The Panel Member should have a degree in economics or a related field and should be able to evaluate the appropriateness cost/benefit analysis used. Experience dealing directly with HEC-FDA is encouraged. The Panel Member should also be familiar with risk and uncertainty analysis (i.e. Monte Carlo type simulation). Panel Member should also have experience with National Economic Development analysis procedures, particularly as they relate to inland navigation projects. At least 5 years experience directly working for or with USACE is highly recommended.
- Soils Engineer - The Panel Member should possess a PhD in geotechnical engineering, also a MS degree is acceptable. Experience in navigation dam design and evaluation is mandatory, as well as familiarity with the USACE dam safety guidance.
- Structural Engineer – The Panel Member should possess at least a Masters Degree in civil engineering and extensive experience dealing with inland navigation structures. Familiarity with all USACE dam safety guidance and engineering regulations is desirable.

The cost of the Type I IEPR is estimated to be \$180,000.

V. REVIEW SCHEDULE

<u>TASK</u>	<u>Date</u>
Update of Project Review Plan	May 2010
Coordinate with MSC and post on website	June 2010
PCX identifies ATR team	September 2010
Review of Models	on-going
ATR of Draft Report	December 2012 – January 2013
Public Review of Draft Report	August – September 2013
ATR Certification of Final Report	November 2013

VI. PROJECT REVIEW PLAN

The components of the RP were developed pursuant to the requirements of EC 1105-2-408 and EC 1165-2-209. The decision documents that will undergo peer review are the Major Rehabilitation Report and Environmental Assessment, as well as the technical appendices to the Main Report. No sponsor in-kind products are expected to be prepared.

A. Scientific Information

The final decision document (and supporting documentation) is anticipated to contain standard engineering, environmental and economic analyses and information; therefore no influential scientific information is likely to be contained in any of the documentation.

B. Study Challenges

The study being conducted will recommend the best solution for rehabilitation of the Greenup dam. Challenges associated with the study would include estimating the probability of the various failure scenarios, capturing the financial impacts of the various failure scenarios, determining the optimal timing for the rehabilitation strategies, and packaging the rehabilitation strategies into study alternatives for comparison. The risks associated with these challenges are the possibility of either over-rehabilitating and spending funds that could better be used elsewhere in the nation or under-rehabilitating and suffering a significant project failure that has serious impact to the nation and the region. The costs and duration of these failures might be in the magnitude of hundreds of thousands of dollars a day for a period of 45 days or more.

C. Public Involvement

A Public Involvement Plan will be formulated to ensure public involvement throughout the major rehabilitation study process. Public review of the EA is scheduled for August through September 2013. All comments received as part of the public review period will be provided to ATR and IEPR panel members at the beginning of the respective review. Additionally, public comments and responses will be provided in the final EA.

<u>TASK</u>	<u>START DATE</u>	<u>FINISH DATE</u>
Public Scoping Meeting	TBD	TBD
Public Involvement Plan	TBD	TBD
Public Review of Report & EA	August 16, 2013	September 17, 2013

D. Dissemination of Public Comments

Proceedings from all public meetings and comments received during public review will be included in the final versions of the EA with responses included.

E. Points of Contact

Questions about this Review Plan may be directed to [REDACTED]. She may be contacted directly by phone at [REDACTED] or by email at [REDACTED]

Appendix A – Points of Contact

PDT Members	Discipline	Office Symbol	Telephone	Email
██████████	Project Manager	CELRH-PM	██████████	██████████
██████████	Lead Engineer	CELRH-EC-DC	██████████	██████████
██████████	Plan Formulation/Economics	CELRH-PM-PD-F	██████████	██████████
██████████	Environmental	CELRH-PM-PD-R	██████████	██████████
██████████	Operations & Maintenance	CELRH-OR-TM	██████████	██████████
██████████	Hydraulics & Hydrology	CELRH-EC-WH	██████████	██████████
██████████	Structures	CELRH-EC-DS	██████████	██████████
██████████	Geotechnical	CELRH-EC-GS	██████████	██████████
██████████	Dam Safety	CELRH-EC-GS	██████████	██████████
████	Cost Engineering	N/A	████	████

Table A-1. PDT Roster

PCXIN	Position	Office Symbol	Telephone	Email
██████████	Navigation PCX Program Manager	CELRD-PDS-P	██████████	██████████
██████████	Navigation Technical POC	CELRH-NC	██████████	██████████

Table A-2. PCXIN Points of Contact

ATR Panel Members ²	Discipline	Office Symbol	Telephone	Email
TBD	ATR Lead/Engineering			
TBD	Plan Formulation			
TBD	Economics			
TBD	Environmental			
TBD	Cost Engineering			
TBD	Operations & Maintenance			
TBD	Hydraulics & Hydrology			
TBD	Real Estate			

Table A-3. ATR Panel Members

² The PDT is willing to make recommendations as to appointees to the ATR Panel.