

MEMORANDUM OF UNDERSTANDING
Between
UNITED STATES ARMY CORPS OF ENGINEERS
And
THE FEDERAL ENERGY REGULATORY COMMISSION
On
NON-FEDERAL HYDROPOWER PROJECTS

The United States Army Corps of Engineers (Corps) and the Federal Energy Regulatory Commission (Commission), as parties to this Memorandum of Understanding (MOU), hereby acknowledge and declare as follows:

I. Introduction

In the interest of mutual cooperation for facilitating non-Federal hydropower development, the Commission and the Corps developed this Memorandum of Understanding to coordinate the respective regulatory processes associated with the authorizations required to construct and operate non-Federal hydropower projects.

II. Purpose

The purpose of this MOU is to establish a framework for early coordination and participation among the signatories to this agreement to ensure the timely review of and action on proposed non-Federal hydropower development applications. Cooperation among the MOU signatories will ensure each agency's review and responsibilities under the National Environmental Policy Act (NEPA) and other related statutes are met in connection with the authorizations required to construct and operate hydropower facilities licensed by the Commission. The MOU signatories anticipate that the Corps will act as a cooperating agency in most circumstances. However, there may be some circumstances where both agencies will be better served by a different form of coordination. This MOU does not preclude such arrangements.

III. Statutory Background

- A. National Environmental Policy Act of 1969 (42 U.S.C. § 4321 et seq.)** requires all agencies of the Federal Government to use a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences in planning and decision-making which may have an impact on the environment. Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved.

- B. Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403)** requires authorization from the Secretary of the Army, acting through the Corps, for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States, and applies to all structures, from the smallest floating dock to the largest commercial undertaking. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g. riprap, revetment, bulkhead), mooring structures such as pilings, aerial or sub-aqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. The Corps' Section 10 requirements for non-Federal hydropower development are met through the Commission's licensing process.
- C. Section 14 of the Rivers and Harbors Act (33 U.S.C. § 408)** makes it illegal for anyone to occupy or alter a Corps civil works project without express permission of the Corps. Section 14 authorizes the Secretary of the Army, on the recommendation of the Chief of Engineers, to grant approval for the temporary occupation or use of any public works when the Secretary determines that such occupation or use will not be injurious to the public interest. Provided further, the Secretary may, on the recommendation of the Chief of Engineers, grant approval for the alteration or permanent occupation or use of any public works when, in the judgment of the Secretary, such operation or use will not be injurious to the public interest and will not impair the usefulness of the public work. The authority to approve projects has been delegated from the Secretary of the Army to the Chief of Engineers.
- D. Section 404 of the Clean Water Act (33 U.S.C. § 1344)** requires authorization from the Secretary of the Army, acting through the Corps, for the discharge of dredged or fill material into all waters of the United States, including wetlands. Discharges of fill material generally include, without limitation: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; dams and dikes; artificial islands; property protection or reclamation devices such as riprap, groins, seawalls, breakwaters, and revetments; beach nourishment; levees; fill for intake and outfall pipes and sub-aqueous utility lines; fill associated with the creation of ponds; and any other work involving the discharge of fill or dredged material. A Corps permit is required whether the work is permanent or temporary. Examples of temporary discharges include dewatering

of dredged material prior to final disposal, and temporary fills for access roadways, cofferdams, storage, and work areas.

- E. Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. § 1413)**, as amended, requires authorization from the Secretary of the Army, acting through the Corps, for the transportation of dredged material for the purpose of dumping it in ocean waters. Discharges of dredged or fill materials into territorial seas also requires authorization under Section 404 of the Clean Water Act (CWA).

- F. Federal Power Act (16 U.S.C. § 791, et seq.)** authorizes the Commission to issue preliminary permits and licenses under Part I for non-Federal hydropower projects, including those utilizing Corps facilities. The Commission considers applications from potential project developers for preliminary permits, which, upon issuance, give the permittee the right to priority of application for a license while the permittee obtains data and performs feasibility studies. In addition, before applicants can apply for a license, the Commission requires the applicant to participate in a rigorous pre-filing process. Prior to issuing a decision on a license application, the Commission conducts environmental, dam safety, public safety, and security reviews of hydropower projects and related facilities, including primary transmission lines, and as the lead federal agency prepares the overall NEPA documentation (18 C.F.R. Part 380). In conjunction with the NEPA review, the Commission performs a detailed review of the environmental effects and reasonable alternatives to the proposed project, including appropriate mitigation and enhancement measures. A summary of that review, including conclusions and recommendations, is included in the NEPA document. The Commission can impose requirements in any license issued to ensure the safety and security of, and protect navigation affected by, projects within its jurisdiction. During construction of the hydropower facilities, the Commission conducts periodic inspections to ensure compliance with conditions attached to the license and to ensure the constructed water retaining features of the project meet the Commission's Division Dam Safety and Inspections Engineering Guidelines. Once the project is in operation, the Commission conducts inspections of the project, which focuses on equipment, operation, dam safety, public safety and compliance with license requirements, including environmental measures.

IV. Roles and Responsibilities

- A. The Federal Energy Regulatory Commission:** The Commission issues preliminary permits and licenses to non-Federal entities for the development of hydropower projects under its jurisdiction, including projects utilizing Federal

dams or other Federal facilities where Congress has not authorized power development as a project purpose.

B. U.S. Army Corps of Engineers: The Corps has constructed water resources projects throughout the Nation where a potential exists for the development of hydropower energy. The Corps can allow the development of hydropower by non-Federal entities at suitable projects, provided that the installation and operation of the hydropower facility is found to be compatible with the purposes for which Congress authorized the project and would not be injurious to the public interest, and provided that there is no Federal interest in developing hydropower at the facility.

1. The Corps evaluates requests for the temporary or permanent modifications of its projects under Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 408) through information provided by the developer to the Corps District responsible for the project at which hydropower development is under consideration. Final approval of the request rests with the Director of Civil Works. To the maximum extent practicable, the Corps will use the design and environmental information the developer has provided to the Commission for its license process.
2. The Corps administers a regulatory program to protect the Nation's aquatic resources, including wetlands, under Sections 9 and 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. Proposed non-Federal hydropower plants may require one or more permits and/or approvals from the Corps under these statutes. The Corps' Section 10 requirements for non-Federal hydropower development are met through the Commission's licensing process.

V. NEPA Lead Federal Agency. NEPA is the overarching environmental statute requiring the identification of impacts to the quality of the human environment, consideration of alternatives, and public involvement in the process. A primary objective of NEPA is to ensure that environmental information is available to public officials and citizens before irrevocable commitments of resources are made. This agreement supports these principles, and the signatory Federal agencies acknowledge their respective responsibilities for complying with the requirements of NEPA. To prevent the duplication of efforts by Federal agencies and encourage information sharing and integration of agency processes, NEPA allows for the designation of a lead Federal

agency for environmental documentation. Other agencies that have authorities related to the same project may serve as cooperating agencies on the environmental document.¹

As the agency with the approval/disapproval authority for the licensing of hydropower projects, the Commission shall serve as the lead Federal agency for the preparation of the environmental document. This MOU encourages early involvement between the Commission and the Corps, and among public and other government agencies during the pre-filing stage of licensing and the NEPA evaluation process. The Corps understands that it is the Commission's policy that an agency that has served as a cooperating agency in a proceeding may not thereafter intervene and become a party in the proceeding.

This MOU acknowledges that it is critically important that the Commission receive comments from the Corps on all project-specific information regarding the proposed non-Federal hydropower development. This includes project specifications and plans and any impacts the project would have on Federally authorized Corps projects, project lands and/or on waters of the United States, including wetlands, at key stages of project development. These comments are necessary to foster an efficient procedure to develop documentation to meet both agencies' disclosure and decision-making requirements. This MOU establishes a process to facilitate the timely licensing and permitting of hydropower projects, whereby both agencies will follow the attached two-phased approach for synchronizing the agencies' processes (Attachment A) to the extent a project developer is willing to participate as described in the attachment. In implementing the two-phased approach, both agencies will:

- Work together and with applicants and other stakeholders, as appropriate, including during the pre-filing scoping and study determination phase and before complete applications for the necessary authorizations are filed;
- Identify and resolve issues as quickly as possible;
- Attempt to build a consensus among governmental agencies and their stakeholders;
- Provide for the effective and efficient pre-filing and post-filing environmental review for non-Federal hydropower development.

VI. Project Purpose and Need and Alternatives Analysis Coordination

A. Coordinate

1. As the lead agency under NEPA responsible for the preparation of the analysis and decisions for the review of new hydropower projects and projects undergoing relicensing, the Commission is responsible for determining the purpose and need

¹ 40 C.F.R. § 1501.5 – NEPA and Agency Planning – Lead Agencies; 40 C.F.R. § 1501.6 – NEPA and Agency Planning – Cooperating Agencies.

of the energy project for purposes of the Commission's NEPA document and the Commission's licensing process.² The Commission shall coordinate early on the scope of the NEPA analysis for all activities under Federal purview and strive to ensure that the purpose and need, the suite of alternatives, and evaluation presented in the NEPA document are useable by the Corps in carrying out the Corps' legal responsibilities under binding statutes and regulations (e.g. conducting the Corps' public interest review, determining the "least environmentally damaging practicable alternative" under the CWA Section 404(b)(1) guidelines, and fulfilling other applicable legal requirements). Although the Corps must exercise its independent judgment while carrying out its regulatory responsibilities, the Corps will give deference, to the maximum extent that the Corps determines to be practicable, to the Commission in defining the project purpose, project need, and project alternatives. If the Corps cannot concur or conditionally concur with the Commission's determination as to the project purpose and need, and the suite of alternatives to be addressed in the NEPA document, every effort shall be made to resolve such disputes at the lowest level possible and in accordance with the dispute resolution process identified in Section VIIIA of this MOU, if necessary.

2. The Corps will complete an independent permit decision in carrying out its regulatory responsibilities pursuant to Section 404 and an independent analysis and decision-making process pursuant to Section 14. When the Commission provides to the Corps its preliminary draft NEPA documents, the Corps will review and provide written comments on the relevant portions of those documents, as appropriate in accordance with the timelines established by the Commission regulations or for individual projects. Preliminary draft Commission NEPA documents will include advance copies of the purpose, need, and alternatives sections of the NEPA documents, as well as advance copies of the draft and final NEPA documents. As appropriate the Corps will assist the Commission in the preparation of relevant Regulatory sections of the environmental document to the extent that the information is necessary for the Corps to adopt the document to support its independent permit decision.
3. Corps review of Commission NEPA documents will be completed and coordinated with the Commission as stated in the Commission's process schedule for that project. The Commission will coordinate the relevant sections of the environmental documentation schedule with the Corps to ensure timely reviews.

² 10 C.F.R. § 51 Subpart A - National Environmental Policy Act--Regulations Implementing § 102(2).

4. The Corps and the Commission hereby agree to work with each other and with other participating agencies or entities, as appropriate, to ensure that timely decisions are made and that the responsibilities of each agency are met. Specifically, subject to the availability of resources and in accordance with applicable laws, regulations, Army policies, and Commission policies, each agency agrees to:

a. Commit to Early Involvement

- i. Conduct an early initial review. Each agency will fully participate during the pre-filing scoping and study determination phase of licensing in order that issues identified by the respective agencies and stakeholders may be fully disclosed and discussed as early as possible.
- ii. Identify agency contacts for the proposed project. If a prospective applicant or agency needs assistance in determining regional, local or project specific contacts, then the identified contacts will assist in identifying additional contacts. The initial agency contacts are:

Chief, Operations and Regulatory Division
Directorate of Civil Works
Headquarters, U.S. Army Corps of Engineers
441 G Street, N.W.
Washington, D.C. 20314

Director, Division of Hydropower Licensing
Federal Energy Regulatory Commission
Office of Energy Projects
888 First Street
Washington, D.C. 20426

- iii. As appropriate, each agency will meet with prospective applicants and other agencies when requested by the prospective applicant, the lead agency, or at its own initiative, to identify areas of potential concern to other agencies and to assess the need for and availability of agency resources to address issues related to the proposed project.
- iv. Consult in establishing a schedule. For projects utilizing the Commission's Integrated Licensing Process (ILP), the Commission has established specific and expeditious timeframes for licensing.

The Commission will notify the Corps as early as possible of these timeframes for upcoming applications for the relicensing of existing projects and the licensing of new hydropower projects. Although the Commission will take into consideration the relative priorities of other projects subject to this agreement, it will, absent extraordinary circumstances, proceed according to the ILP timeframes. In establishing this schedule, the Commission and the Corps will strive to ensure that all applicable review and approval activities occur on a concurrent, rather than sequential, basis with the objective of avoiding unnecessary delays and redundancy in the process and the schedule established by the Commission. If at any point during the consultation process, the Corps or the Commission anticipates an inability to comply with the agreed-upon schedule, it will communicate the reason for this inability as soon as possible. The agencies will then work together to help avoid the anticipated delay when appropriate. The Commission will give public notice of the pre-filing and post-filing processing schedule for each project, including the timeframes for completing environmental documentation.

- b. Participate Proactively.** After the Commission notifies the Corps and gives public notice that an applicant has filed a Notice of intent to file a license or relicense application and during the pre-filing stage of licensing under the ILP, the Corps will:
- i. Identify the applicable statutory, regulatory, and policy responsibilities for the application.
 - ii. Identify the issues and concerns related to the proposed project that need to be addressed in order for the Corps to meet its obligations.
 - iii. Provide the applicant, and/or other agencies, relevant studies, data, (such as maps showing features over which the agency may have jurisdiction), and any other information concerning the status of matters the agency considers relevant (including matters that may be under consideration, such as the results of threatened and endangered species consultation, essential fish habitat consultation, or cultural resources investigations). Corps project data requested by the applicant will be released, or otherwise made available, to the applicant pursuant to appropriate security measures for each phase of the licensing process (i.e. Notice of Intent; pre-filing; approval).

- iv. Identify issues and concerns, and attempt to resolve same during the scoping and study determination phases of pre- licensing.
 - v. Attempt to resolve outstanding environmental issues raised in the draft environmental document prior to issuance of the final environmental document.
- c. Share data.** The agencies will share the information gathered, considered, and relied upon with all other relevant agencies. Specifically, the Commission and Corps agree to:
- i. Cooperate in the preparation of requests for additional studies or data, to avoid duplicative requests and strive to compile a consistent set of information on which all of the agencies will rely. The Commission will be responsible for requesting additional information to the extent that the Commission believes the analysis is needed and would normally be required by the Commission if the Corps were not involved. If the Corps believes that additional analysis is needed, but the Commission does not agree that such analysis would be required under the regulatory procedures of the Commission, such analysis will be the responsibility of the Corps.
 - ii. Cooperate in identifying and developing information at the level of detail required to complete environmental and cultural resources project review.
- d. Communicate informally.** The signatory agencies agree to informally communicate with each other and other relevant agencies throughout the process to ensure that issues are raised as soon as possible and shared among all agencies. The lead agency will coordinate and share information with all relevant participating agencies consistent with the Commission's ex parte regulations.
- e. Attend Public Meetings/ Hearings.** Upon request and as appropriate, the agencies will participate jointly in any public meetings, scoping meetings, and/or hearings held by the other agency as a normal part of the agency review process. The agencies' participation in the meetings or hearings will be consistent with all relevant laws and regulations and coordinated with appropriate Commission staff and Corps Division and District Commanders or their representatives.
- f. Coordinate Feasibility Study of Hydropower Potential.** The Commission will require, in its preliminary permits granting priority of

application for a license at a Corps dam, that the permittee coordinate any studies for a proposed project with the appropriate Corps District Engineer. This is to ensure that the studies carried out during the preliminary permit term will result in a plan of development consistent with the authorized purposes including operations of the Federal project.

VII. Process

A. Design, Construction and Operation.

1. The licensed hydropower facilities that will be an integral part of or that could affect the structural integrity or operation of the Corps' project shall be designed and constructed in consultation with and subject to the review and approval of the Corps under Section 14, Rivers and Harbors Act of 1899, 33 U.S.C. 408 pursuant to the current guidance implementing that authority.³
2. The Corps' approval of the final design with regard to impact on navigation will be exercised under Section 4(e) of the Federal Power Act for all proposed non-Federal hydropower facilities.
3. Section 10 of the Federal Power Act requires licensees to reimburse the United States, through annual charges imposed by the Commission, the costs associated with the Corps' review and approval of the design and construction, plans and specifications, and the inspection of construction, cited in paragraph A(1) and A(2) above, for power development at Corps projects, provided that charges shall not be assessed for information, services, or relationships that would normally be provided to the public. Funds collected from the licensee for such reimbursement purposes cannot be made available to the Corps for expenditure. Section 17 of the Federal Power Act, as amended by Public Utilities Act of 1935 directs the disposition of all charges collected from licensees shall be paid into the Treasury of the United States. Therefore, within its Hydropower Program annual budget development, the Corps will request, without obligation, the funds it deems sufficient to cover administration costs related to the Commission licensing activities.

³ Engineer Circular 1165-2-216, Water Resources Policies and Authorities, Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408.

4. Copies of all correspondence between the licensee and the Corps regarding the schedule and progress of the design review and approval will be provided to the Commission's appropriate Division Dam Safety and Inspections (D2SI) Regional Engineer. The D2SI-Regional Engineer will not authorize construction of the facility to start until the Corps District Engineer's written approval of the construction plans and specifications has been received by the D2SI-Regional Engineer.

5. The Commission's D2SI-Regional Engineer will be responsible for surveillance of the construction activities within the licensed project boundary. The licensee's proposed Quality Control and Inspection Program (QCIP) will be furnished to the Corps for review and comment, for those features that could affect the Corps facility, prior to approval by the D2SI-Regional Engineer. The construction of the facilities will be inspected by the D2SI-Regional Engineer's staff during construction of the project, generally at monthly intervals. Copies of the reports of these inspections will be furnished to the Corps. The Corps shall perform periodic or continuous inspections at critical stages of the construction of those portions of the licensed project works that, in the judgment of the Corps, may affect the integrity or operation of existing project structures. A schedule of Corps proposed inspections will be furnished to the D2SI-Regional Engineer. The D2SI-Regional Engineer and the Corps shall take all necessary steps in coordination to avoid duplication of inspections. Copies of the Corps' inspection reports will be furnished to the D2SI-Regional Engineer within 30 days of the date of inspection for routine inspections and Periodic Inspections within 150 days. Any conditions discovered during the Corps inspections that could affect the safety of the structures will be immediately reported to the appropriate D2SI-Regional Engineer. However, the Corps reserves the right to enter the construction site at any time to perform an inspection. Any construction deficiencies or difficulties detected by the Corps' inspections will be immediately reported to the D2SI-Regional Engineer. Upon review, the D2SI-Regional Engineer will refer the matter to the licensee for appropriate action. The Corps' inspector will report to the D2SI-Regional Engineer or his representative regarding the need to stop construction while awaiting resolution of construction deficiencies or difficulties if such deficiency or difficulty would affect the integrity of existing project structures. In cases when construction practice or deficiency may result in an imminent danger to the integrity and safety of the existing project, the Corps inspector has the authority to stop construction while awaiting the resolution of the problems. If construction is stopped permanently, the D2SI-Regional Engineer and Commission will ensure actions are taken to restore the Corps project to its preconstruction condition.

6. The completed licensed facilities will be inspected periodically by the D2SI-Regional Engineer's staff to determine that the facility is being properly operated, maintained, administered in conformance with license conditions, and that it continues to meet the Commission's Division Dam Safety and Inspections Engineering Guidelines. Copies of the reports of these inspections will be furnished to the Corps within 30 days of the date of inspection.
7. Portions of the licensed project works that may affect the integrity and operation of the Corps' project will be inspected and evaluated by the Corps District Engineer as a separate item under the Corps' Periodic Inspection and Continuing Evaluation of Completed Civil Works Structures Program. Copies of the reports of these inspections will be furnished to the D2SI-Regional Engineer within 30 days of the date of inspection. The Corps and the Commission will take all necessary steps in coordination to avoid duplication of inspections.
8. The Commission will require that the licensee assist the Corps District office by integrating the operation of the licensed hydropower facility into the Corps' emergency action plan. Additionally, the Commission will require the licensee to participate at its own cost in any emergency action plan exercises that the Corps deems necessary.
9. In the interest of hydropower operation compatible with other authorized functions of the Federal project, the Commission, upon recommendation by the Corps, will require the licensee to enter into a Memorandum of Agreement with the Corps describing the mode of hydropower operation acceptable to the Corps. The D2SI-Regional Engineer shall be a party to these decisions. This Memorandum of Agreement shall be subject to revision by mutual consent of the Corps and licensee as experience is gained by actual project operation. Should the Corps fail to reach an agreement with the licensee, the matter will be referred to the Director, Office of Energy Projects (OEP) or successor office, for resolution. Copies of the signed memorandum between the Corps and the licensee and any revision thereof shall be furnished to the OEP and the D2SI-Regional Engineer.

B. Access to the Project. The Commission will require the permittee or licensee to coordinate the development of its plans for access to the site during site investigation, construction, and operation with the Corps.


- C. Annual Charge for the Use of Government Facilities.** Pursuant to Section 10(e) of the Federal Power Act, the Commission is required to assess a reasonable annual charge for the use of the Corps' facilities.
- D. Coordination with the Commission on Corps Regulatory Requirements under Section 10 of the River and Harbor Act of 1899.** The Corps' Section 10 requirements for power-related activities are met through the Commission's licensing procedure including insertion of terms and conditions in the license, which are in the interest of navigation. Section 4(e) of the Federal Power Act requires approval of plans by the Secretary of the Army regarding navigation interests. This authority was delegated by the Chief of Engineers to respective Corps Division Engineers on September 5, 1980.

VIII. Administration of the MOU


- A. Dispute Resolution.** While retaining ultimate responsibility for making determinations and exercising individual responsibilities in accordance with existing statutory responsibilities, the Commission and the Corps will consult with one another to resolve disputes using existing dispute resolution methods in accordance with this agreement. If no agreement can be reached, either agency may refer the matter to a higher management level within its respective agency. The Commission and the Corps reserve the right to make a final decision on any matter within their respective regulatory authorities.
- B. Modification and Termination.** This MOU may be modified or amended at any time upon written request of either party hereto and the subsequent written concurrence of the other. This MOU may be terminated by either party upon providing sixty (60) days advance written notice.
- C. Acknowledgement that the authority and responsibilities of the parties under their respective jurisdictions are not altered by the MOU.**
 - 1. The policy and procedures contained within this MOU are intended solely as guidance to improve the working relationships of the signatory agencies in connection with expeditious decisions with regard to non-Federal hydropower project authorizations. This MOU does not, and is not intended to, impose any legally binding requirements on Federal agencies, States, or the regulated public, and does not restrict the authority of the employees of the signatory agencies to exercise their discretion in each case to make regulatory decisions based on their judgment about the specific facts and application of relevant statutes and regulations.

2. This MOU is not a final agency action by any of the signatory agencies, and does not, and is not intended to, create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by any person or party against the United States, its agencies, its officers, or any other person.
3. This MOU is to be construed in a manner consistent with all existing laws and regulations.
4. This MOU neither expands nor is in derogation of those powers and authorities vested in the participating agencies by applicable laws, statutes, or regulations.
5. This MOU does not alter or modify compliance with any Federal law, regulation or guidance.
6. This MOU does not direct or apply to any party outside of the signatory agencies. The terms of this MOU are not intended to be enforceable by any party other than the signatories hereto.
7. The participating agencies intend to fully carry out the terms of this MOU.
8. This MOU does not limit the ability of any of the participating agencies to review and respond to final applications.
9. This MOU is neither a fiscal nor funds obligation document. It does not obligate, commit or authorize the expenditure of funds and cannot be used as the basis for the transfer of funds. Any endeavor involving the reimbursement or contribution of funds between the parties to the MOU will be in accordance with applicable laws, regulations, and procedures. Such endeavors, if any, will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This MOU does not provide such authority.
10. Nothing in this MOU, in and of itself, requires any signatory agency to enter into any contract, grant, or interagency agreement.
11. All provisions in this MOU are subject to the availability of funds.

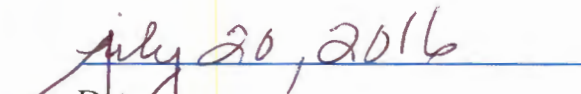
ACCORDINGLY, the Parties have signed this Memorandum of Understanding on the dates set forth below, to be effective for all purposes as of the date last signed. The signatures may be executed using counterpart original documents.




Jo-Ellen Darcy
Assistant Secretary of the Army
(Civil Works)



Norman C. Bay
Chairman, Federal Energy
Regulatory Commission



Date



Date

Attachment A

Two-Phased Approach to Synchronize the FERC-USACE Processes for Authorizing Non-Federal Hydropower Projects

Overview

The Department of Energy (DOE) estimates that there is a potential for 12 gigawatts of new hydropower in the U.S. by adding power at non-powered dams.¹ Assessments from DOE and the United States Army Corps of Engineers (USACE) agree that at least six gigawatts of that potential exist at USACE facilities.²

Adding power at USACE non-powered dams involves completing three regulatory processes: the Federal Energy Regulatory Commission (FERC) licensing process; the USACE 408 process (a technical review of hydropower development proposals and granting permission to modify a dam) and the USACE Regulatory 404 process (impacts to waters of the U.S. pursuant to Section 404 of the Clean Water Act). All three of these processes require project proposal identification, information gathering, and environmental and engineering analyses to support a licensing, permitting, or regulatory decision³.

In 2011, FERC and USACE revised an Interagency [MOU](#) that describes the agencies' intent to coordinate their regulatory responsibilities for authorizing non-federal hydropower projects, including such projects at non-powered USACE dams. The MOU notes that "the signatory agencies will develop more specific guidance to ensure that the Corps' review is undertaken concurrently with the Commission's licensing and NEPA processes to the maximum extent practicable."

Based on the MOU, and experience with developers sharing concern over the redundancy of the permitting processes, DOE and Oak Ridge National Laboratories (ORNL) facilitated a dialog between FERC hydro licensing, compliance, and dam safety staff, and USACE 408 and USACE Regulatory 404 staff to explore ways for completing FERC's and USACE's permitting reviews in a more coordinated manner. This effort has involved a series of interviews with FERC, USACE, and developers with case experience, followed by workshops and webinars with FERC, USACE, DOE, and a facilitation team of ORNL staff supported by Kearns & West, a public workshop and comment period, and subsequent meetings with FERC, USACE, DOE and the facilitation team. This document is the result of this effort and outlines how a Phase 1 coordinated environmental review followed by a Phase 2 engineering and technical review could increase efficiency and decrease process time.

¹ The National Hydropower Asset Assessment Program, Non-Powered Dam Resource Assessment can be found [here](#).

² The Hydropower Resource Assessment at Non-Powered USACE Sites can be found [here](#).

³ The term "permit" or "permitting" is used throughout the document to describe the three concurrent processes recognizing that the FERC process results in a license decision, the USACE 408 process results in a letter stating whether the dam can be modified, and the USACE Regulatory process results in a permit decision.

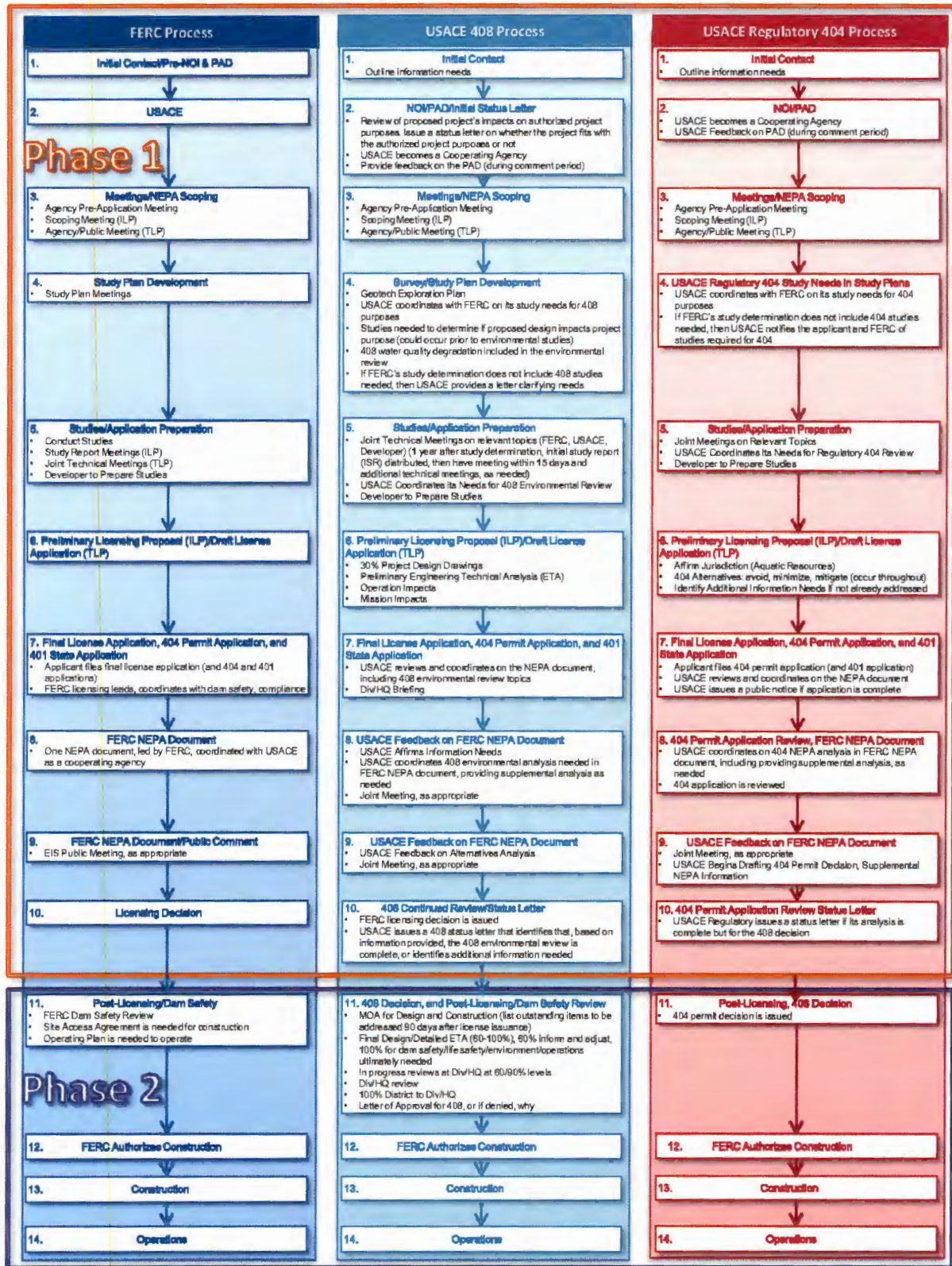
Synchronized Environmental Review Followed by Engineering and Technical Analysis

Below is a flow chart showing how a two-phased approach can be followed, should the developer choose to do so. It is within the developer's discretion to use this new approach or the current approaches available (the "status quo"). It should be noted that none of these potential improvements would require a rulemaking or legislative action.

The Two-Phased, Synchronized Environmental Review allows the environmental impacts of a project to be evaluated up front through one coordinated environmental review addressing FERC licensing, USACE 408 environmental review (for non-federal hydropower projects at USACE facilities), and USACE Regulatory 404 environmental review. It provides for a FERC license, a USACE 408 status letter on the 408 environmental review, and a USACE Regulatory 404 status letter on its environmental review to be issued prior to the USACE 408 decision, and USACE Regulatory 404 permit decision. This option is further described throughout this document.

This document reflects a commitment by both FERC and USACE to coordinate information and regulatory needs for each of the three FERC and USACE processes, and to work with the developer, relevant agencies and others to achieve an efficient approach that synchronizes the set of processes.

FERC-USACE Two-Phase Process, Synchronized Environmental Review



Potential Tradeoffs of the Two-Phased Process

While each agency's regulatory responsibilities remain unchanged the timeframes in which they occur change. Also, it should be noted that tradeoffs may need to be made in order to better coordinate the permitting efforts and reduce timeframes. An example is how agencies and prospective developers are encouraged to interact and provide information earlier and more often at certain points in the regulatory processes. This can represent an earlier commitment of effort and resources, with a greater investment in project planning and design at an earlier stage, particularly sharing conceptual designs, and considering USACE 408 and USACE 404 environmental impacts earlier. The benefits of conducting such investment are early identification of design conflicts, improved communication among and with review agencies, and more comprehensive environmental review during Phase 1. It will also likely facilitate the agencies having the necessary information to render a permit decision sooner.

Benefits of Conducting Synchronized Processes

Conducting FERC and USACE review processes in a synchronized manner should:

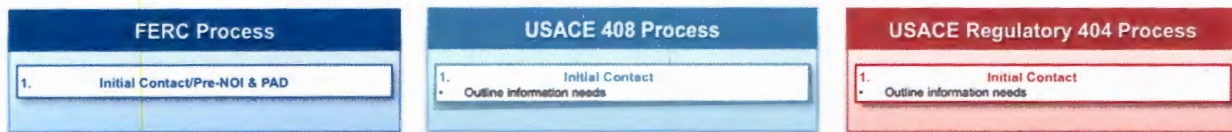
- **Increase Efficiencies.** The FERC and USACE processes have often occurred in sequence: first the FERC licensing process is completed, and then the USACE 408 and USACE Regulatory 404 processes are completed. This can result in multiple iterations of the project proposal and associated engineering design, and duplicative information gathering and environmental analyses. Developer engagement and improved coordination with both agencies up front and throughout could reduce these inefficiencies by helping to better define the project and associated impacts, including refining the engineering design and other important attributes early, and determining and conducting a single set of studies acceptable to both agencies.
- **Reduce the Overall License/Permit Application Review Time.** Although each process is distinct, conducting the permitting processes in a synchronized manner can potentially reduce the combined licensing/permitting review time relative to the status quo where one or more processes are conducted sequentially.
- **Result in a Single (Joint) NEPA Environmental Document, Supplemented, as needed.** The proposed approach for synchronizing the permitting processes includes FERC conducting its NEPA environmental review with USACE being a cooperating agency. This would involve FERC and the USACE signing a Letter of Understanding (LOU) to establish USACE's status as a cooperating agency for the preparation of an Environmental Assessment (EA) or Environmental Impact Statement (EIS). Even in cases where the USACE is not a cooperating agency the environmental reviews will be synchronized.
- **Result in More Certainty and Less Risk for Developers.** The synchronized process approach will increase the likelihood that the FERC license and 408 environmental review and USACE Regulatory 404 environmental review status letters are issued at approximately the same time, reduce environmental uncertainties in Phase 2, and, therefore, potentially increasing the likelihood that the project will move forward to construction authorization and operation. It also allows developers to invest in the project incrementally and to provide increased financial

investment in the technical and engineering designs of a project progressively as there is more certainty after the environmental review.

FERC-USACE Two-Phased, Synchronized Permitting Processes

This approach would enable a developer to complete the FERC licensing and USACE permitting processes in two phases where the environmental review process is completed first (including the issuance of the FERC license and status letters on the USACE 408 environmental review completed with a 30% engineering design in Phase 1 and the USACE Regulatory 404 review), followed by Phase 2 which is the USACE 408 decision and USACE Regulatory 404 permit decision and FERC administration of license requirements.

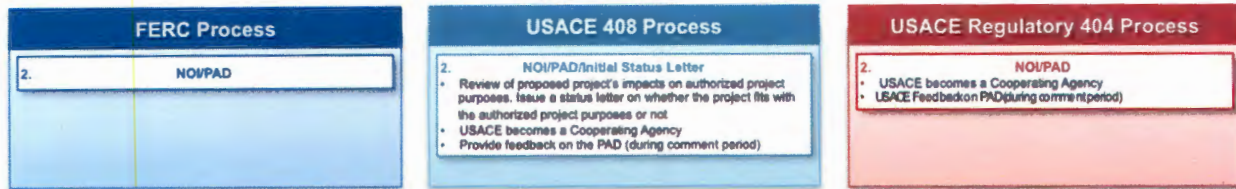
Phase 1 - Step 1: Initial Contact Prior to Filing the Notice of Intent (NOI) and Pre-Application Document (PAD)



In Step 1, it is suggested that the developer engage both the FERC and USACE District FERC coordinators by convening joint or individual meetings. FERC staff is available to discuss the FERC licensing process. USACE District FERC coordinators will convene relevant USACE 408, USACE Regulatory 404 and other appropriate staff who outline the information that is required for each process to facilitate a coordinated FERC-USACE process. The developer should coordinate directly through the USACE District FERC Coordinator with the appropriate USACE District staff to informally explore initial designs and obtain preliminary or conceptual feedback on how design options could impact existing congressionally authorized purposes and mission areas at the dam, including operations and maintenance.

As an initial step in the development process, the developer should provide USACE 408 staff with a description of the preliminary conceptual design of the proposed project, the proposed location of the powerhouse, and the anticipated changes, if any, in flow characteristics that would occur at the USACE facilities related to the hydropower project's operation. USACE 408 staff will conduct an initial review of the conceptual design to determine if it appears to be compatible with authorized project purposes. If additional information and/or studies are needed to address the compatibility of the proposed project with USACE purposes, USACE 408 staff will provide the developer with an outline of the data and study requirements. These studies could be done concurrently with or before other licensing studies. USACE 408 will also address water quality degradation in Phase 1. The developer should also work with USACE Regulatory 404 staff to the extent that impacts to waters of the U.S., as regulated under Section 404, are known or could potentially occur to ensure that they understand information needs for regulatory review.

Step 2: NOI/PAD and Initial 408 Status Letter



The developer files a Notice of Intent (NOI) and Pre-Application Document (PAD) with FERC, which includes a description of the proposed project, a compilation of existing information on potentially impacted resources, and a proposed list of studies to be conducted for the application. Under the two-phased approach, in addition to what the FERC regulations require to be included in the NOI and PAD for the licensing process, the developer should include the information and proposed studies needed for USACE 408, such as a 30% engineering design, or as otherwise specified during Step 1 by USACE, and USACE Regulatory 404 such as a delineation of waters of the U.S., including wetlands that would be potentially impacted by any aspect of construction (e.g., construction, staging, access roads, borrow pits, etc.). (See <http://www.usace.army.mil/missions/Civil-Works/Regulatory-Programs-and-Permits/juris/> for additional information).

For the licensing process, as required by the [18 C.F.R. § 5.6\(d\)](#), the PAD must identify the preliminary issues and studies list for each resource area, and address the following:

- Issues pertaining to the identified resources;
- Potential studies and information gathering requirements;
- Relevant federal, state or tribal waterway plans;
- Relevant resource management plans.

Resource areas listed include:

- Existing environment and resource impacts (based on existing, relevant and reasonably available information);
- Geology, topography, and soils (descriptions and maps);
- Water resources (quality and quantity);
- Fish and aquatic resources (description and impacts);
- Wildlife and botanical resources including invasive species;
- Description of floodplains, wetlands, riparian and littoral habitat;
- Rare, threatened and endangered species;
- Recreation and land use;
- Aesthetic resources;
- Socioeconomic resources;
- Cultural resources;
- Tribal resources;
- Description of river basin and sub-basin information.

The developer should also include the scope of studies necessary to verify that authorized project purposes are not impacted and to identify any potential impacts for USACE 408 and USACE Regulatory 404 purposes that may need to be addressed as well as FERC licensing needs.

USACE Regulatory 404 requirements can be found at [33 CFR 325](#) and include, but are not limited to:

- Public Interest Review Factors which may be relevant to the proposal including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.
- Discussion of alternatives and avoidance, minimization, and compensatory mitigation in accordance with [the Clean Water Act's Section 404\(b\)\(1\) Guidelines \(40 CFR 230\)](#).
- Potential impacts to protected tribal resources, tribal rights (including treaty rights) and tribal lands, if known.
- A compensatory mitigation plan that meets the requirements of [33 CFR 332](#).
- USACE Regulatory 404 recommends the project proponent discuss specific project needs with the Regulatory 404 office prior to undertaking such studies.

For projects located at USACE navigation facilities, these types of studies generally include numeric hydraulic modeling to verify that outdraft conditions impacting navigation are not created due to hydroelectric discharges. The developer may elect to perform these studies prior to moving to Step 3 in the development process.

After review of the USACE 408 studies, USACE 408 staff will review the conceptual design and studies and consider the proposed project's impacts on the USACE project purpose. USACE 408 will then issue a status letter on whether the proposed hydropower design concept appears to be compatible or feasible given the USACE project purposes, or the letter will explain where potential conflicts exist.

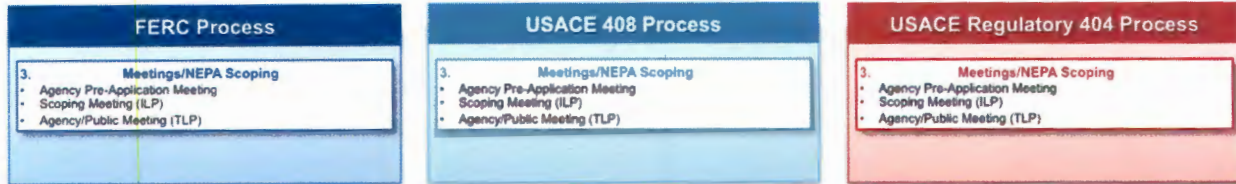
Through issuance of a public notice, FERC will invite USACE to become a cooperating agency in accordance with the MOU (in section II, Purpose, page 1). When USACE is a cooperating agency, USACE 408 and USACE Regulatory 404 staff will identify the scope of their involvement through the LOU. USACE Regulatory 404 participation would be scaled to reflect the type of Regulatory permit likely required. For instance, if the activity that is subject to Section 404 jurisdiction qualifies for a general permit, NEPA has already been completed for the authorization of that activity and USACE Regulatory 404 staff will be substantially less involved in the development of the environmental document than if the project requires an individual permit.

USACE 408 implementation guidance ([Engineering Circular 1165-2-216](#)) clarifies USACE 408 information needs, and may be periodically updated or superseded.

USACE 408 and USACE Regulatory 404 staff will review the PAD and provide comments on information and study needs, project design, and other aspects important for USACE 408 and USACE Regulatory 404

processes if such information has not previously been provided to the developer. These comments will be filed in the project’s FERC docket according to the timeframes and steps outlined in the Traditional Licensing Process (TLP) or Integrated Licensing Process (ILP), or as otherwise established by FERC public issuances for the proposed project.

Step 3: Meetings or NEPA Scoping



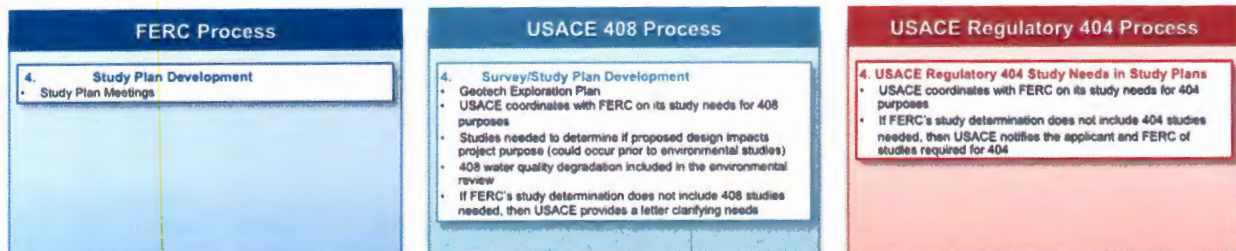
Under the Traditional Licensing Process (TLP), the developer schedules and conducts a joint agency/public meeting (joint meeting) inviting all pertinent agencies, including USACE 408 and USACE Regulatory 404 staff, Indian tribes, resource agencies, and members of the public to explain the developer’s proposal and its potential environmental impact, review the PAD, and discuss the data to be obtained and studies to be conducted. The developer can also request a pre-application meeting with FERC, USACE 408 and USACE Regulatory 404 staff.

Under the ILP, FERC schedules and conducts a public scoping meeting. FERC staff will contact the USACE District FERC coordinator to coordinate, to the extent feasible, scheduling the agency scoping meeting. These meetings will include identification of the issues for NEPA analysis, may include a discussion of the studies that need to be conducted to inform the draft and final license application and USACE 408 and USACE Regulatory 404 reviews, and will be publicly noticed for the specific project.

The first scoping meeting must be held within 30 days after the issuance of a notice commencing the ILP and in the case of a TLP, the first joint meeting must be held no earlier than 30 days from, and no later than 60 days after, the Commission’s approval of a request to use the TLP. USACE 408 and USACE Regulatory 404 staff will participate in the joint or public scoping meeting, as applicable.

USACE 408 staff will work with the developer on necessary instruments to enable USACE project site access, affirm boundary requirements for the project and provide right of entry to the project for further information gathering and design purposes.

Step 4: Study Plan Development/Survey



Under the TLP, the process for determining studies ([See 18 C.F.R. 4.38\(b\)\(5\) and \(6\) and 4.38\(c\)](#)), includes:

- the filing of study requests by licensing participants, including the USACE;
- the referral of any unresolved disputes over the studies among the agencies, including the USACE, tribes, and developer with the Commission for resolution; and
- if USACE is not satisfied with the FERC study determination decision, USACE will notify the applicant of the studies required and file a copy of that correspondence with FERC.

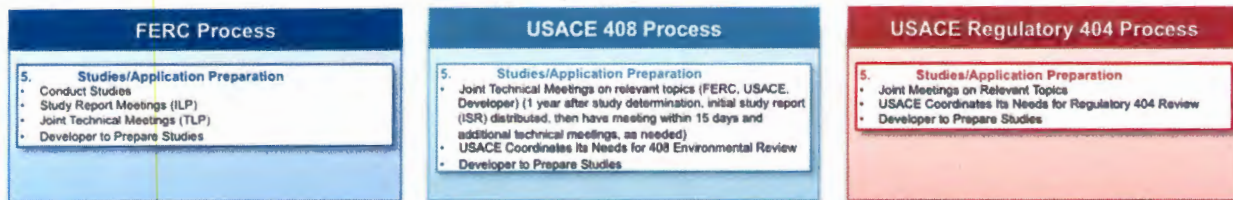
Under the ILP, the process for study plan development (See [18 C.F.R. §§ 5.9](#), and [5.11-13](#)), includes:

- the filing of study requests by licensing participants,⁴ including the USACE;
- the filing of a proposed study plan by the developer;
- holding a meeting by the developer to clarify the proposed study plan and attempt to resolve any outstanding issues with respect to the proposed study plan;
- filing comments on the proposed study plan by participants;
- filing a revised study plan(s) by the developer based on the participant comments; and
- rendering FERC staff’s study plan determination. If FERC’s study determination does not include USACE 408 and USACE Regulatory 404 studies needed USACE will notify the applicant of the studies required and file a copy of that correspondence with FERC.

In the FERC letter issued on its study plan determination, it will note that the determination is not intended, in any way, to limit the USACE’s and other agency’s proper exercise of its independent statutory authorities to require additional studies.

In Step 4, the developer will submit a geotechnical exploration plan to USACE 408 staff. The plan will be a general plan for the geotechnical design and intentions of the project and not a complete design. The 408 water quality non-degradation policy will be evaluated as part of the environmental review.

Step 5: Studies/Application Preparation



In the case of a TLP, the developer conducts studies and then includes its findings in a draft license application. The developer must also include a response to any agency or Indian tribe request for studies in the draft license application. An agency, including USACE, or Indian tribe will have 90 days to provide written comments. If the written comments indicate a substantive disagreement with the conclusions of a project’s anticipated resource impacts or with the proposed mitigation measures, the

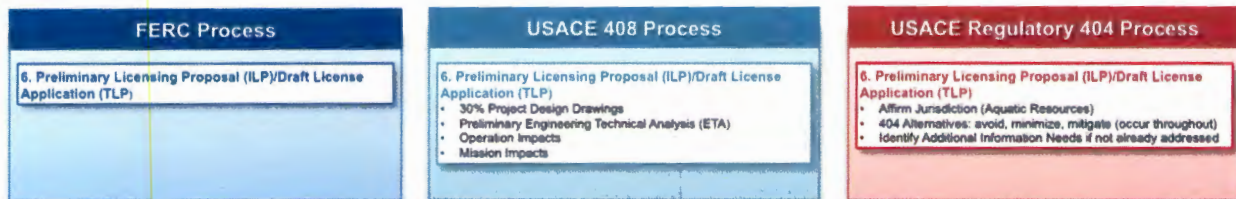
⁴ “Licensing participants” are those interested parties, including Commission staff, who actively participate in the Integrated Licensing Process.

developer must hold a joint meeting with the disagreeing entity and other agencies with similar interests and expertise to attempt to reach agreement. If USACE has made study requests the developer will also address these requests in the draft license application.

In the case of an ILP, the developer conducts studies required by the Study Plan Determination and, after one year, issues an Initial Study Report (ISR). Within 15 days of ISR filing, the developer holds a meeting with the licensing participants, including USACE, to discuss the ISR, review the study findings, and explore what modifications to the study plan are needed. (Note: Further information on the purpose of the ISR is available on FERC's website.)

Within 15 days of the ISR meeting, the developer files a meeting summary which describes any proposed modifications to ongoing studies or new studies. Participants may file a disagreement concerning the meeting summary and recommend modifications or new studies within 30 days of the developer filing the meeting summary. Responses to any participant filing are due 30 days later. No later than 30 days from the due date for filing responses, FERC staff will render a determination resolving any remaining disagreements on the need for modifications or new studies and amend the Study Plan accordingly. No later than two years after FERC's approval of the study plan and schedule, the developer files an updated study report, which describes the developer's overall progress in implementing the study plan and schedule and the data collected. The report must also include any modifications to ongoing studies or new studies proposed by the developer.

Step 6: FERC Preliminary Licensing Proposal (ILP) or Draft License Application (TLP) and USACE Review

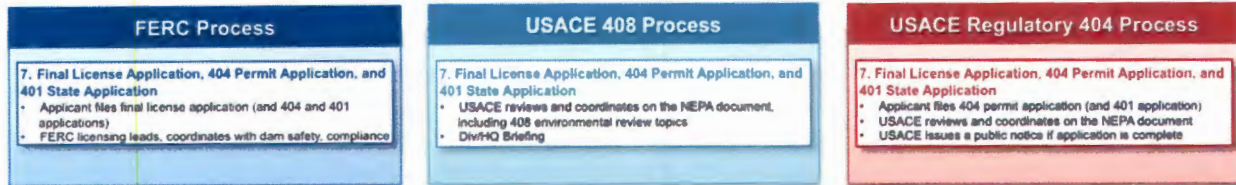


Under the TLP, the developer prepares a draft license application and under the ILP, the developer prepares a draft license application or Preliminary Licensing Proposal for review by the licensing participants. The draft license application and Preliminary Licensing Proposal requirements are discussed in [18 CFR 4.38\(c\)\(4\)](#) and [18 CFR § 5.18](#), respectively.

The USACE Regulatory 404 Program does not have an official "draft permit application" submittal and review process, but the developer can and should discuss permit application considerations and evaluation requirements with the USACE Regulatory 404 staff prior to submittal of an application if there are questions, especially as it pertains to avoiding, minimizing, and compensating for impacts to aquatic resources. During this time, if they have not already done so, the developer should consider delineating all aquatic resources proposed for impact (e.g. construction, staging, borrow pits, etc.) and submit a request to USACE 404 Regulatory for a jurisdictional determination. This could also occur in Step 5.

USACE 408 also reviews the draft license application or Preliminary Licensing Proposal for USACE 408 environmental review purposes and files any feedback in the FERC docket for the proposed project.

Step 7: Final License Application, 404 Permit Application, and 401 State Application



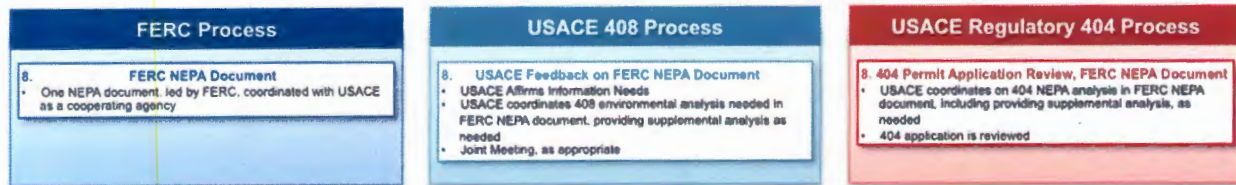
The developer prepares and submits a final license application to FERC, the USACE 404 Regulatory permit application (with a copy to FERC), and a single 401 application that includes FERC license, USACE Regulatory 404 and USACE 408 environmental information relevant for the 401.

USACE District 408 staff briefs both the Division and Headquarters staff at the 30% design level.

For the USACE Regulatory 404, if activity requires a standard individual permit, the developer must submit a complete application and USACE Regulatory 404 issues a public notice, soliciting comment on the proposal. The USACE Section 404 application should include a clear delineation of aquatic resources, location of all regulated impacts (e.g., fill associated with construction, access roads, borrow pits, staging, dredging, etc.), and a brief description of avoidance, minimization, and compensation mitigation of impacts to waters of the U.S. The application must include all adjacent property owners, including those who may be affected by any potential changes to streamflow patterns upstream and downstream of the proposed activity.

It is also important to note that the information FERC needs to complete its review may not be sufficient for USACE Regulatory 404 purposes. For instance, prior to USACE Regulatory 404 rendering a permit decision, the developer must provide a final compensatory mitigation plan.

Step 8: FERC NEPA Document, USACE 408 Process, and USACE 404 Application Review

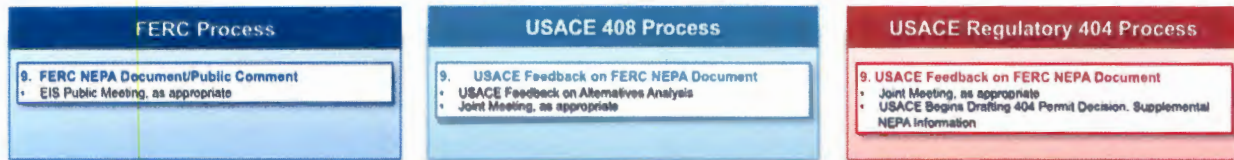


FERC issues its NEPA document, either an EA or EIS, based on its record of information for the project, including the final license application and any information subsequently filed by the licensing participants, including USACE 408 and USACE Regulatory 404 staff. FERC and USACE use existing data to inform the NEPA document, as it is relevant to the project. The document will either be an EA or EIS as determined by FERC based on the project record of information.

Through the FERC process, any required consultations, such as those under [Section 7 of the Endangered Species Act](#) and [Section 106 of the National Historic Preservation Act](#), will be completed. FERC will be

the lead federal agency for compliance with those laws, notifying the resource agencies in accordance with applicable regulations.⁵ Both FERC and USACE are responsibly, however, for consulting with federally recognized tribes if the activities they are authorizing have the potential to significantly (i.e., materially) affect protected tribal resources, tribal rights (including treaty rights) and tribal lands.

Step 9: USACE Feedback on FERC NEPA Document, 404 Progress

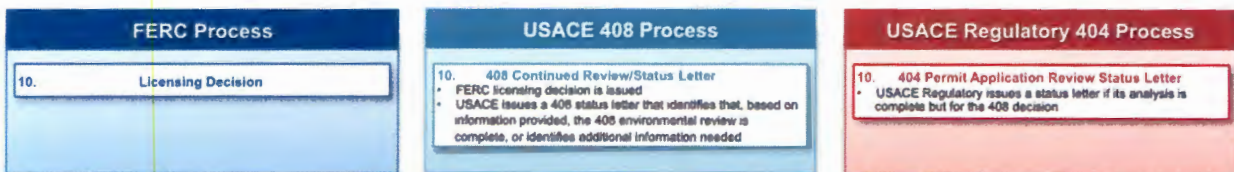


If USACE is a cooperating agency, USACE 408 and USACE Regulatory 404 staff provide feedback to FERC staff on the NEPA document prior to its issuance, as according to the timelines specified in the LOU, including any comments on the environmental alternatives analysis as it relates to USACE Regulatory 404 needs, areas related to USACE 408 needs, and any other additional needs/topics to be addressed, as appropriate.

If USACE is not a cooperating agency, USACE 408 and USACE Regulatory 404 staff would provide similar feedback on the record during the comment period following the issuance of the NEPA document. USACE 408 and/or USACE Regulatory 404 staff may also meet with the developer; however, if USACE is a cooperating agency, then to the extent specified in the LOU with FERC staff, USACE staff will not discuss the contents of any draft, internal working NEPA document (unpublished), or any internal discussions they may have had with FERC staff regarding the draft, internal working document.

USACE 408 and USACE Regulatory 404 begin to prepare any supplemental environmental information to comply with Section 408 or USACE Regulatory Section 404 requirements to include in, or supplement, the FERC NEPA document, if necessary.

Step 10: FERC Licensing Decision, USACE 404 Application Review Status Letter, USACE 408 Environmental Status Letter

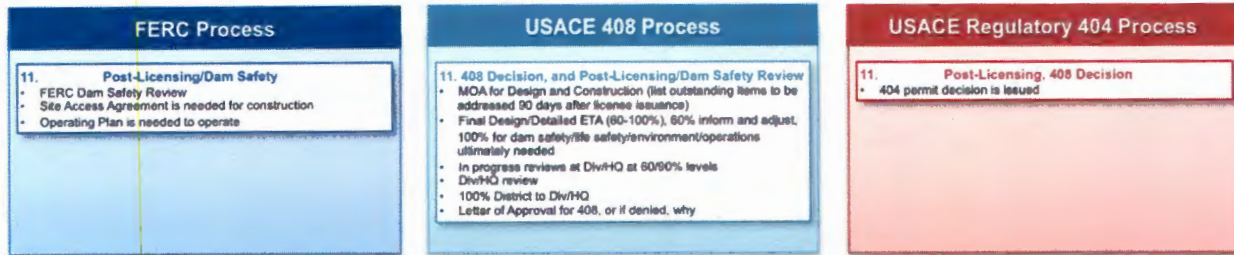


FERC makes the licensing decision. If all USACE Regulatory 404 permit application components are included in the application and reviewed to be satisfactory, USACE Regulatory staff will issue a Permit Application Review Status Letter to the developer, with copies to USACE 408 and the FERC docket for the project. The letter will state that based on current information, the USACE Regulatory 404 evaluation is complete, but for the USACE 408 review. Likewise, USACE 408 will issue a status letter on

⁵ See 50 CFR 402.07, 50 CFR 600.920(b), and 36 CFR Part 800.2(a)(2).

its environmental review stating that, based on current information, the USACE 408 environmental review is complete, pending USACE 408 and FERC technical, engineering and safety analysis. If USACE 408 or USACE Regulatory 404 still need additional information to complete their respective reviews, they will notify the applicant, with a copy to FERC, if they have not already done so.

Phase 2 - Step 11: Post-Licensing, USACE 408 Progress



After issuance of the FERC license and the status letters on the USACE 404 Regulatory permit and the USACE 408 environmental review, the developer will provide available design information to FERC and USACE 408 staff. This submittal will be made at the discretion of the developer when the project is ready to proceed to final design and construction.⁶ USACE 408 focuses its review on technical, engineering and safety aspects of the project to determine whether the alteration would impair the usefulness of the work and evaluates the impact of the alteration on the public interest.

The developer must commence and complete construction of the project works in the time period stipulated in the license.⁷

A joint meeting will be scheduled between FERC, USACE 408, and the developer to review the status of the proposed design and to determine the design steps and schedule required to achieve USACE 408 permit approval and FERC approval of the design for construction. The initial meeting will include FERC staff from both the regional and headquarters offices based upon the complexity of the design issues. The USACE 408 team will include a vertically integrated representation by personnel at the District, the Division and Headquarters. Topics to be covered at this meeting include:

- The need, plan and schedule for additional geotechnical exploration and other site data required to support the design;
- The need for a Board of Consultants or an Independent External Peer Review (an IEPR is not required on USACE projects less than \$40 million);
- The desirability of developing and reviewing partial designs such as a 60% design in order that basic design issues involving stability seepage and other major design concerns can be

⁶ However, in deciding when to file the design information, the developer must account for any due dates specified in the license for filing the design information, as well as the license requirements for when construction must commence.

⁷ Section 13 of the Federal Power Act (FPA) states that a licensee must commence construction within the timeframe fixed in the license, which shall not be more than 2 years from the issuance date of the license. The deadline for commencement of construction may be extended once, but not longer than 2 years.

addressed prior to the development of detailed construction drawings. It is anticipated that an intermediate design stage may not be required for smaller less involved projects;

- A schedule for a Potential Failure Mode Analysis (PMFA) and the design information required for the PMFA;
- Specific design concerns related to USACE 408 and FERC dam safety needs and any specialized analysis needed to evaluate these concerns;
- The identification of specific staff for both USACE and FERC who will serve as contact points during this phase of the process; and
- The identification of and plan to address specific conditions contained in the FERC license that require approval prior to authorization to proceed to construction.

Following this meeting, the developer must furnish the USACE 408 and FERC a scope and schedule for the submission of all final design documents, the plans and specifications, and various other critical documents for the project as discussed during the meeting and that are required by the license. To the extent required by the license, various documents (e.g., Design Documents, Plans and Specifications, Quality Control Inspection Plans, Surveillance and Monitoring Plan, and Temporary Construction Emergency Action Plan) must be developed and submitted for review prior to FERC's Construction Authorization. These documents should be organized and prepared so that they can be used for both FERC and USACE's 408 requirements/reviews. It is intended that all documents will be reviewed concurrently by FERC and USACE 408.

The developer will also submit to USACE 408 staff, with a copy to FERC, a Regulating Plan (or Operating Plan) describing powerhouse operations and noting restrictions needed to protect primary USACE federal interests.

A standard article in a FERC license for a project at a USACE dam requires the developer to enter into an agreement with USACE to coordinate its plans for site access and activities on USACE lands. Also, USACE requires Design and Construction plans which include a list of outstanding topics to be addressed for the USACE 408 application. The developer then submits a USACE 408 application which will include a minimum of 60 percent design. Submissions with as complete a design as possible will contribute to a more efficient and timely review. USACE will review the 408 application to make a formal determination of whether the alteration would impair the usefulness of the work and evaluates the impact of the alteration on the public interest.

The USACE District 408 submits the 408 Draft Decision Document to the Division and then Headquarters for review. The USACE Division office will generally take 60-90 days to review the District's recommendation and then make a recommendation to USACE Headquarters. USACE Headquarters will generally take no more than 30 days to review the Division recommendation and issue a determination on the proposed project unless additional time is warranted.

If approved, USACE issues its 408 approval decision and then subsequently issues the final 404 permit decision to the developer with copies to FERC.

Step 12: FERC Authorizes Construction, USACE 408 Decision



Once all preconstruction requirements (e.g., receipt of USACE-licensee operating agreement; and approvals of dam safety, financing, and environmental plans that are required pre-construction) have been satisfied and FERC receives USACE written approval for construction, FERC then authorizes construction of the project. It is important to note that the specific schedule and required design submittals and activities will differ based on project complexity and relevant design issues for the project.

If not previously established, a Memorandum of Agreement between the developer and USACE 408 is required and must be filed with FERC prior to the start of construction to finalize terms of site access, bonding, site restoration, safety, security, emergency actions, and other subjects, as appropriate.

Step 13: Construction

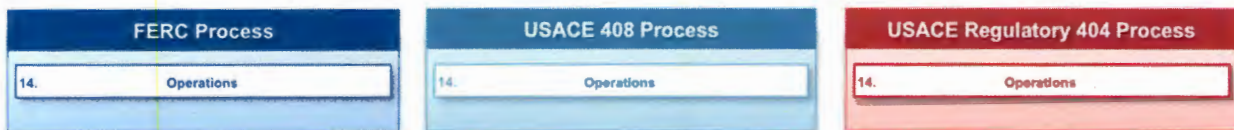


The developer constructs the project coordinating with FERC, USACE 408 staff, and USACE Regulatory 404 staff, as appropriate. On-site inspections to check compliance with licensing and permitting terms and conditions are performed by both FERC and USACE.

Within 90 days of completion of construction of the authorized facilities, the developer must file for FERC approval exhibits A, F, and G describing and showing the project facilities as built.

Prior to the start of operation, the developer must develop a Memorandum of Agreement between the developer and USACE 408 describing the detailed operation of the powerhouse which will include an Emergency Operating Plan. The developer should file the MOA with FERC for approval at least 90 days prior to the desired operation commencement date.

Step 14: Operations / Permit Compliance



The developer then operates the project and provides reports to FERC and USACE, as appropriate. FERC and the USACE perform periodic inspections of the licensed project features. Also, FERC requires a Part 12D initial independent consultant's inspection that must be completed and the report is filed no later

than five years from the date of first commercial operation or the date on which the powerhouse is subject to normal water levels, whichever comes first.

Conclusion

The FERC-USACE two-phased, synchronized approach enables a quality and efficient coordinated environmental review using one NEPA document and one Section 401 application, to the extent States accept a single application. The status letters issued by USACE 408 on the preliminary design, and then on the 408 environmental review and USACE Regulatory 404 application review process coincident with the FERC license issuance provides the certainty developers are seeking that, to the extent no new information is identified in subsequent steps, the environmental review is complete. Phasing the environmental review first followed by the more detailed engineering and technical analyses enables the developer to incrementally fund the project. It is hoped that by establishing these improved permitting processes it will enable increased development of hydropower at non-power dams in a more efficient manner.