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PDDM CHAPTER 4

ENVIRONMENTAL COMPLIANCE AND PERMITTING

4.1 INTRODUCTION

A primary goal of the Federal Lands Highway (FLH) program is to balance environmental compliance and permitting with feasible design solutions that facilitate safe access to the nation's Federal lands. The U.S. Department of Transportation (DOT), Federal Highway Administration's (FHWA's) FLH Divisions (Central, Eastern, and Western) are responsible for conducting environmental analyses and ensuring compliance with various Federal, state, tribal, and other laws, regulations, and policies as part of the project development and delivery process. The level of analysis and compliance requirements and the roles and responsibilities for FHWA and its partner agencies vary by FLH program and project. This chapter presents an overview of the environmental review process and describes the key implementation steps to ensure environmental stewardship and regulatory compliance.

The process discussed in this chapter overlaps with the planning/programming and design processes described in other chapters. During planning or when a project is programmed for FHWA funding, the preliminary environmental concerns and requirements are identified, the initial project description is defined, and the purpose and need are established. The environmental review process is integrated into the overall design process to facilitate context sensitive solutions and the exchange of information between designers and environmental specialists. The results of environmental studies can influence the design, just as the design options can influence the regulatory and permitting requirements for a project. Close collaboration between disciplines is imperative to ensure environmental compliance for the FLH program.

4.1.1 PURPOSE

The purposes of this chapter are:

1. To provide guidance on FHWA's environmental role in development and delivery of FLH projects and to explain how FHWA's role is different for each program.
2. To provide guidance on identifying and addressing environmental issues and ensuring compliance with the various laws, regulations, and policies that guide environmental compliance and permitting.
3. To describe the overall environmental compliance process and key implementation steps for FLH projects, while recognizing that each FLH Division may have specific procedures to follow throughout the process.

4.1.2 FEDERAL LANDS HIGHWAY PROGRAM

The FLH Divisions implement projects under the FLH program, which focuses on improving access to Federal lands. [Chapter 2](#) presents an overview of the program and various funding options available for transportation facilities on or that access Federal lands. FHWA has nationwide agreements with some Federal partner agencies that guide implementation of projects on their lands, including environmental responsibilities. When these agreements are not already in place, or additional responsibilities warrant documentation, the FLH Division establishes a project agreement to outline roles and responsibilities of the partner agencies. These agencies may include the Federal Land Management Agency (FLMA), state or local agency applying for funding, and/or tribal government. Environmental roles and responsibilities established through the nationwide agreements are discussed below, and typical roles and responsibilities for other FLH-funded projects are presented as guidance for the environmental review process.

4.1.2.1 Federal Lands Transportation Program

The [Federal Lands Transportation Program](#) (FLTP) applies to transportation infrastructure owned and maintained by another Federal agency, including the U.S. Department of the Interior, Bureaus of Land Management (BLM) and Reclamation, National Park Service (NPS), and U.S. Fish and Wildlife Service (FWS); U.S. Department of Agriculture, Forest Service (FS); and U.S. Army Corps of Engineers (USACE). With the involvement of other Federal agencies on FLTP projects, FHWA established [agreements with the agencies](#) to outline roles and responsibilities for each agency, which covers program responsibilities, planning and design expectations, environmental compliance responsibilities, and other applicable responsibilities.

Under the FLTP, a FLMA may take full responsibility for a project with minimal involvement from FHWA or FLH (stewardship and oversight role only). Environmental compliance requirements for these projects are the responsibility of the FLMA and are not specifically covered in this document (refer to the [FLH – Stewardship and Oversight Guidance, dated December 2, 2014](#)). When the FLMA requests FLH involvement in a project (e.g., for design and construction), the agencies must establish a common understanding of their roles and responsibilities for environmental compliance. The nationwide agreements generally establish these roles and responsibilities, and these roles may be modified through project agreements if necessary.

4.1.2.2 Federal Lands Access Program

The [Federal Lands Access Program](#) (FLAP) applies to transportation facilities that provide access to, are adjacent to, or are located on Federal lands and that are or will be maintained by a state or local agency or tribal government. FLAP projects are identified through a call for projects, and the applicants could be any state or local agency or tribal government, resulting in a wide range of partner agencies for project implementation. For FLAP projects, the project agreement will specify roles and responsibilities for FLH and the partner agencies. Typically, FLH serves as the lead agency for the environmental review process and all Federal compliance requirements. Occasionally, another Federal agency may be involved and lead or assist with certain Federal compliance requirements. The state or local agency is often responsible for compliance with

applicable state and local requirements, and the tribal government would be responsible for compliance with applicable tribal requirements.

4.1.2.3 Tribal Transportation Program

The [Tribal Transportation Program](#) was established to provide safe and adequate transportation and public road access to and within Indian reservations, Indian lands, and Alaska Native Village communities. FLH Headquarters works closely with the U.S. Department of the Interior and the Bureau of Indian Affairs (BIA) to administer the program. The agencies established a [Memorandum of Agreement](#) (May 24, 1983) to clarify roles and responsibilities under the program. The FLH Headquarters reviews and approves a program of projects proposed by the BIA. Based on that program of projects, funds are transferred to the BIA for delivery of projects. All project development work, including environmental compliance, is typically performed by the BIA.

4.1.2.4 Other Funding Programs

FLH may be asked to provide project delivery services for projects funded through the [Emergency Relief for Federally Owned \(ERFO\) Roads Program](#), [Emergency Relief \(ER\) Program](#), [Defense Access Roads \(DAR\)](#), or other funding mechanisms through agreements with partner agencies (e.g., funding direct from another Federal, state, and/or local agency). For each of these programs, project agreements will define the roles and responsibilities of FLH and the partner agencies for the environmental review process. When another Federal agency provides funding for a transportation project that FLH designs or builds, the FLTP agreements discussed above may be followed.

4.2 ENVIRONMENTAL REGULATIONS, GUIDANCE, AND PROCEDURES

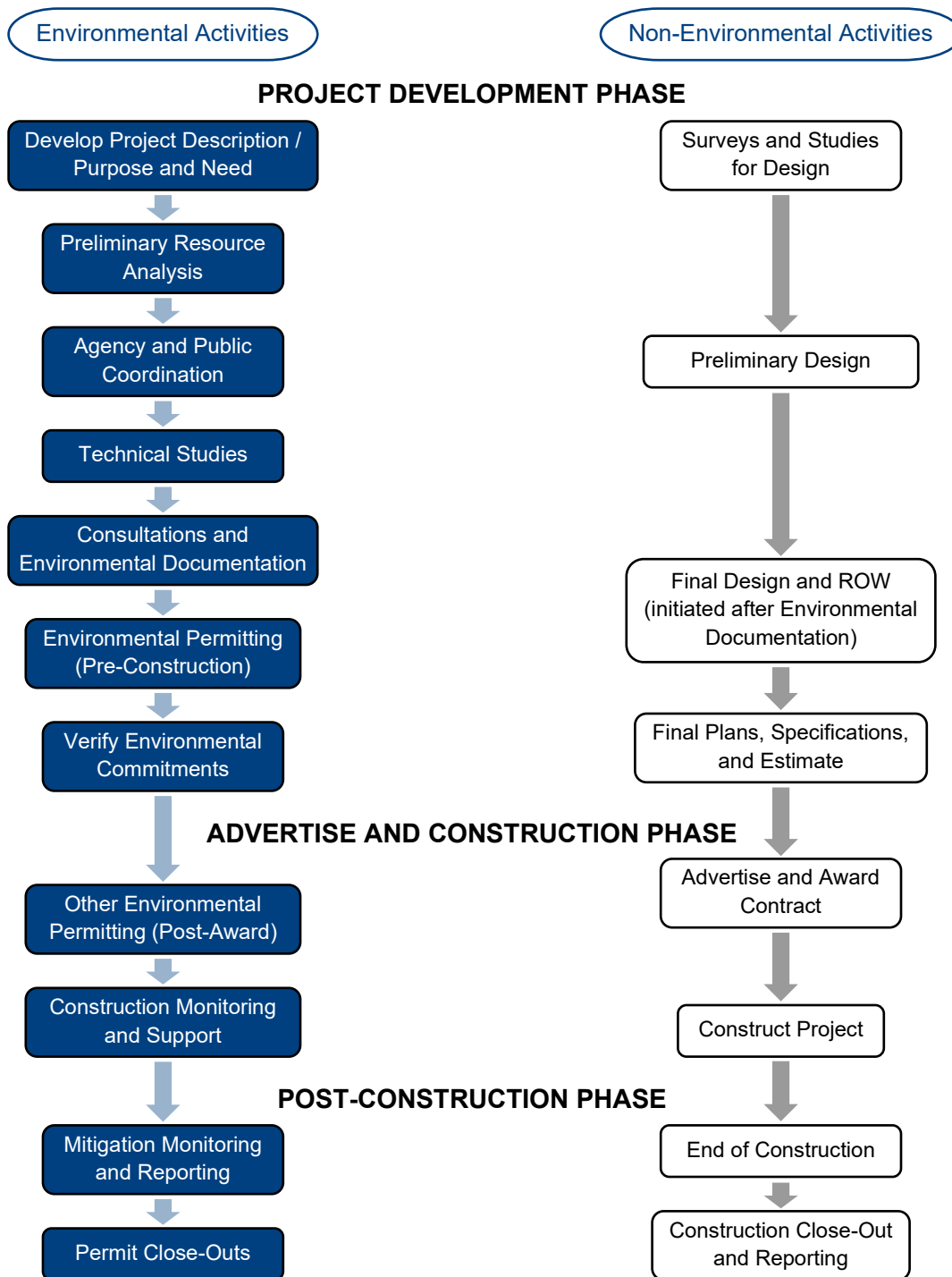
This section presents the environmental regulations, guidance, and procedures applicable to most FLH projects. Each section covers a specific regulation or discipline and includes an overview of the regulations and guidance, followed by a section on procedures to follow for environmental compliance and permitting from project initiation through construction and identifies key deliverables that may be required. This section is not meant to cover every regulation and guidance that could apply to a project but covers those most commonly addressed for FLH projects.

The environmental review process is the overall process that FLH Divisions follow to ensure transportation projects comply with all applicable environmental laws, regulations, and policies. This process follows FHWA's policy for environmental impact and related procedures in 23 CFR 771.105(a), as quoted below, and is tailored to match the type and magnitude of the project and its anticipated social, economic, and other environmental issues:

"To the maximum extent practicable and consistent with Federal law, all environmental investigations, reviews, and consultations be coordinated as a single process, and compliance with all applicable environmental requirements be reflected in the environmental review document required by this part."

Environment Team: The environment team leads the environmental review process and consists of FLH environmental specialists and technical experts, resource staff, and/or NEPA specialists from partner agencies, and consultants as needed to supplement FLH staff and provide technical expertise. On complex projects, this team may be formally established and have regular meetings or discussions throughout the process. On less complex projects, the team may be more informal, with FLH specialists reaching out to partner agency staff as needed.

Environmental Review Process: The following sections present the typical coordination responsibilities, laws, and regulations that FLH Divisions must consider during the environmental review process. Exhibit 4.2-A depicts an overview of the typical environmental review process and shows how it relates to other processes conducted simultaneously.

Exhibit 4.2-A OVERVIEW OF ENVIRONMENTAL REVIEW PROCESS

Note: This flowchart is intended to present an overview of the typical environmental review process. Environmental activities often overlap one another, with some tasks being conducted concurrently. Each FLH Division also has its own terminology and standard scope for the environmental activities. Always follow the approved scope of work for each project.

4.2.1 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

NEPA ([42 USC 4321](#); PL 91 90) provides a framework for environmental planning and decision making by Federal agencies. NEPA directs Federal agencies to conduct environmental reviews to consider the potential effects or impacts of a proposed action on the environment. The Council on Environmental Quality ([CEQ guidance](#)) provides additional information and resources.

The principles or essential elements of NEPA decision making include the following (these may vary depending on the project's class of action and complexity):

- Assessment of the social, economic, and environmental impacts of a proposed action;
- Analysis of a range of reasonable alternatives to the proposed project, as appropriate based on the applicant's defined purpose and need for the proposed action;
- Consideration of mitigation: avoidance, minimization, and compensation;
- Interagency participation: coordination and consultation, as appropriate;
- Public involvement, as appropriate, to provide opportunities to participate and comment; and
- Documentation and disclosure.

[23 CFR 771](#) includes FHWA's policies and procedures for implementing NEPA, which are updated as needed based on other laws and regulatory updates. The regulations state that it is FHWA's policy that, to the maximum extent practicable and consistent with Federal law, all environmental investigations, reviews, and consultations be coordinated as a single process, and compliance with all applicable environmental requirements be reflected in the environmental document (i.e., EIS – Environmental Impact Statement, EA – Environmental Assessment, and CE – Categorical Exclusion).

These implementing regulations also provide information related to the classes of action as described below (23 CFR 771.115) as well as identify specific categories of FHWA actions that classify as a CE (23 CFR 771.117). The regulations provide guidance for preparation of an EA or EIS and refer to 23 USC 139 for further guidance.

Class of Action: Three classes of action prescribe the review process and level of environmental documentation required for an FHWA action. Other agencies use the same three levels of documentation, but they may not use the same term, classes of action:

- Class I Action (EIS): The EIS process is completed in the following steps: Notice of Intent (NOI), draft EIS, final EIS, and record of decision (ROD).
- Class II Action (CE): The CE process is for categories of actions that do not individually or cumulatively have a significant effect on the human environment, 23 CFR 771.115(b). CE documented projects still require an environmental review process but do not have specific NEPA process requirements as described for EAs and EISs.
- Class III Action (EA): The EA process is for projects where the significance of the environmental impact is not clearly established. All actions that are not Class I (EIS) or II (CE) are Class III (EA). The EA process is typically completed in the following steps

depending on complexity of the project: public scoping, EA, and Finding of No Significant Impact (FONSI).

FHWA adopted the policy of managing the NEPA project development and decision making process as an "umbrella," referred to as the environmental review process, under which all applicable environmental laws, executive orders, and regulations are considered and addressed prior to the final project decision. Conclusion of the environmental review process results in a decision that addresses multiple concerns and requirements. The FHWA [Environmental Review Toolkit](#) provides information on environmental documentation, public involvement, and other relevant topics. A resource available to FHWA staff only is the [Environmental Discipline SharePoint](#) site that provides information and training on a variety of environmental topics.

It is important to note that FLMAs have their own NEPA regulations and these need to be considered and discussed as part of identifying roles and responsibilities. CEQ's website provides a comprehensive list of [Other Federal Agency NEPA Procedures](#). Environmental requirements for other agencies need to be integrated into the environmental review process.

4.2.1.1 Environmental Scoping and Preliminary Resource Reviews

Successful project delivery requires an early understanding of FLH's proposed action, area of potential impact, and which environmental resources may be present and require specific studies or detailed analyses. As part of initial environmental scoping activities, FLH (with support from partners and/or consultants as needed) will conduct background research, outreach, and desktop or field reviews to identify potential resource concerns. A variety of tools may be used to conduct this research, such as project scoping reports, files of projects previously completed in the area, online databases, field visits and/or surveys, and direct communication with resource and permitting agencies. FLH will also define a study area to be used for technical studies and preliminary analyses. This study area may be modified or refined as the design progresses to create a smaller area for analyses. Once preliminary design information is available, FLH will reassess potentially affected environmental resources.

Key topics to consider and identify during environmental scoping are:

- Anticipated NEPA class of action (i.e., EIS, EA, or CE);
- Alternative design options that may avoid or minimize adverse impacts to resources;
- Environmental impacts that may be unusually expensive or burdensome to mitigate for or may introduce substantial risk;
- The need to conduct additional studies beyond the standard technical studies and who will do them (e.g., consultant, other agency, internal staff);
- The need for permits or approvals from other agencies; and
- The scale of agency, tribal, and public coordination appropriate for the project.

FLH environmental personnel should provide input on, or at a minimum review, the project agreement to ensure a clear understanding of roles and responsibilities. FLH environmental personnel will often lead preliminary resource reviews and share findings with the project

team. However, some programs place greater burden on the partner agency to lead the environmental review process (for example, the NPS typically serves as the lead for NPS projects). Moreover, when projects involve multiple Federal stakeholders, it is common for Federal agencies to divide responsibilities for environmental compliance based on staff availability and expertise or applicability of programmatic agreements that may streamline decision-making. Ideally, these issues are resolved early in the environmental review process and documented in project agreements when applicable.

Unless otherwise noted, FLH-specific procedures for carrying out studies are left to the discretion of the project team, so long as laws/regulations/policy/guidance specific to the resources are followed. In the spirit of keeping environmental documents brief and readable, most technical studies are developed as separate documents and briefly summarized and/or referenced in the environmental document.

When reports and studies generated by other discipline teams directly impact environmental decision-making (e.g., geotechnical reports, traffic studies, resident/business relocation studies), the environmental document should incorporate them by reference and in some cases include them as an appendix.

4.2.1.2 Environmental Documentation

The nature of a project in combination with its potential for impacts and the potential significance of those impacts determine the NEPA class of action (discussed in [Section 4.2.1](#)) and the scope of investigations and documentation for each affected resource. The majority of FLH projects will fall under the Class II class of action, commonly referred to as CEs, and may only require documentation saved to the project file (e.g., a checklist or memo to file). Categorical Exclusions are issued for actions that do not individually or cumulatively have a significant effect on the environment. An EA is prepared for actions in which the significance of the environmental impact is not clearly established, when unusual circumstances preclude a CE from applying, and/or in cases where there is not an applicable CE category available. An EIS is prepared for projects where it is known that the action will have a significant effect on the environment. Results of the technical studies described in the previous section are summarized in the environmental document. The most relevant national resource for specific information on the required contents of environmental documents is the FHWA [Technical Advisory T6640.8A](#). Each FLH Division office may have specific environmental document guidance and templates. Other useful resources for NEPA are the [AASHTO Practitioner's handbooks](#) that contain 18 sections that cover items such as defining the purpose and need, maintaining a project file, and assessing indirect effects and cumulative impacts.

While this section focuses primarily on the NEPA process when FLH is the lead agency, it may be utilized as a guide for projects where a partner agency is completing the environmental documentation according to its regulations and guidance.

4.2.1.2.1 Purpose and Need

The purpose and need statement is essential in establishing a basis for the definition of the project or development of alternatives and establishing the project objectives and issues to be resolved through the design. The purpose and need statement must be developed early, typically during environmental scoping, to guide the design and the rest of the process. When alternatives are evaluated, the purpose and need help with the identification and eventual selection of a preferred alternative. The purpose and need section is, in many ways, the most important piece of the environmental document. A clear, well-justified purpose and need statement explains to the public and decisionmakers that the proposed project is necessary and worthwhile. It should provide some background on the overall reason for the project and identify issues being addressed and objectives for the project.

A helpful resource for guidance on developing the purpose and need statement can be found in the FHWA memo from September 1990 [The Importance of Purpose and Need in Environmental Documents](#).

4.2.1.2.2 Project Description and Alternatives

Based on the preliminary design, the environmental staff, in coordination with the project team, develops and refines the project description to identify the specific activities being proposed, the construction methods and measures anticipated, the timeline for project implementation, and other useful details for impact analyses. For any project, it is recommended that the environmental staff obtain written approval of the project description from the project team and partner agencies to ensure a common understanding of what is being proposed and analyzed.

Alternatives may be considered for any project under any NEPA class of action. The alternatives developed for a project should meet the purpose and need. The alternatives may also be used to comply with other federal regulations that require alternatives analysis (e.g., [Section 4\(f\)](#) and [Clean Water Act](#)). When a CE applies to a project an alternatives analysis is not required, but alternatives may be considered informally early in the environmental review process if determined appropriate for the project. Documentation of alternatives considered for a project classified as a CE will vary by project. At a minimum, it is good practice to summarize in a memo-to-file the alternatives that were considered and document the decision for the alternative selected for the project.

At a minimum, an EA must describe and evaluate the action alternative (or “build alternative”) and the no action alternative (or “no build alternative”). FLH may evaluate more than one reasonable alternative for the project when deemed appropriate. When only addressing one or a small subset of build alternatives, it is common practice to include information in the EA about alternatives considered but dismissed during the screening process. If the required environmental document is an EIS, cooperating and participating agencies and the public should be given an opportunity to provide input on the range of alternatives and in determining the methods and level of detail for the analysis of alternatives. The draft EIS should discuss all “reasonable alternatives” and must also summarize those alternatives eliminated from detailed study.

Alternatives analysis should clearly indicate why and how the particular range of project alternatives was developed, including what kind of public and agency input was used. In addition, alternatives analysis should explain why and how alternatives were eliminated from consideration. It must be made clear what criteria were used to evaluate alternatives, at what point in the process the alternatives were removed, who was involved in establishing the criteria for assessing alternatives, and the measures for assessing the alternatives' effectiveness. For further guidance refer to FHWA's [Alternatives](#) section of the Environmental Review Toolkit.

4.2.1.2.3 Categorical Exclusion

The FHWA implementing regulations ([23 CFR 771](#)) include a list of actions that generally meet the criteria for a CE. CEs are divided into two groups. The first group of actions, known as the C list from 23 CFR 771.117(c), includes types of actions that normally do not cause significant environmental impacts. The second group, known as the D list from 23 CFR 771.117(d), consists of additional actions that may require additional supporting analysis to document that the project meets the criteria for a CE and will not cause significant environmental impacts.

All projects considered for a CE must undergo an “unusual circumstances” review as defined in 23 CFR 771.117(b). If a project involves one or more of these unusual circumstances, resource studies should be conducted to determine whether the CE classification is appropriate. As defined in 23 CFR 771.117(b), unusual circumstances include the following:

- Significant environmental impacts;
- Substantial controversy on environmental grounds;
- Significant impact on properties protected by [Section 4\(f\)](#) of the DOT Act or [Section 106](#) of the National Historic Preservation Act (NHPA); or
- Inconsistencies with any Federal, state, or local law, requirement or administrative determination relating to the environmental aspects of the action.

It is standard FLH procedure to prepare a memorandum and/or checklist to file for most CE projects, regardless of their status on the C list or D list. Each FLH Division has a standard format or template for CE documentation. The document should contain the purpose and need statement; project description; summary of agency, stakeholder, tribal, and public outreach and coordination or consultation; brief resource analyses to support the CE determination; and other relevant information that demonstrates a CE classification is appropriate for the project. The level of detail and specific format will vary by project complexity. The CE project files should include justification for classifying the project as a CE (typically through the CE memo or checklist) as well as records of coordination and compliance with the various environmental regulations applicable to the project.

For FLH projects, the assumption that a CE applies to a project may be made early in the process, such as during scoping, based on the understanding of the project at that time, but the final documentation that a CE determination was made is completed after the environmental review process is complete (i.e., once compliance with other applicable regulations has been completed, excluding permitting). Per FHWA's NEPA implementing regulations (23 CFR 771.113), the CE

classification or determination must be made before final design starts, property acquisition is initiated, or any work related to construction begins, with exceptions.

4.2.1.2.4 Environmental Assessment

An EA is prepared for actions in which the significance of the environmental impact is not clearly established, when unusual circumstances preclude a CE from applying, and/or in cases where there is not an applicable CE category available. Should environmental analysis and interagency review during the EA process find a project to have no significant impacts on the quality of the environment, a Finding of No Significant Impact (FONSI) is issued. If during the EA process it is identified that the project will have significant impacts, then an EIS is prepared.

EA documents are less common for FLH projects since most project actions fit a CE category and do not result in any significant impacts.

While public scoping meetings and/or public hearings are optional for EAs, it is important to decide the level of public involvement required based on the project needs (refer to [Section 4.2.2](#) for more information about agency, tribal, and public coordination).

EA Process and Documentation: The EA should be a concise document and not contain long descriptions of detailed information not applicable to the proposed action. Appendices may be utilized to reference additional information that can be summarized in the main body of the EA. The EA appendix materials may include supporting documentation such as a biological resources report, wetland and waters delineation report, and documentation of compliance with Section 106 or other laws, regulations, and executive orders (compliance with other laws and regulations should be included with the EA if completed prior to approval and distribution of the EA).

The [FHWA Technical Advisory T6640.8A](#) suggests an outline for the EA (including a sample FONSI) and describes the information to be included for each item in the outline. A typical EA includes the following;

- Cover Sheet and Signature Page;
- Purpose and Need;
- Proposed Action and Alternatives (including a minimum of a proposed action and no-action alternative);
- Affected Environment, Environmental Consequences, and Mitigation Measures and/or Environmental Commitments (covering all discipline areas where the significance of impact is uncertain);
- Consultation and Coordination (summary of early and ongoing consultation and coordination efforts with agencies, Tribes, and the public); and
- Appendices (e.g., discipline resource reports, supporting compliance documentation).

Distribution of the EA: Once the EA document has been completed (and legal review/approval if required per Division guidelines), distribute the EA for public review and comment for a minimum period of 30 days.

The distribution process includes the following steps.

- Publish a Notice of Availability (NOA) of the EA in a local newspaper(s). If applicable, the draft Section 4(f) and 6(f) evaluations are included in the notice for public review and comment.
- Make the EA available for public inspection through venues such as the project website, public library, etc.
- Distribute copies (electronic distribution is preferred) of the EA with the NOA to Federal, state, and local government agencies likely to have an interest in the action and/or have interest or special expertise (e.g., EPA for wetlands, water quality, air, noise, etc.) in those areas addressed in the EA.
- If appropriate, conduct a public hearing or public information meeting according to [23 CFR 771.119\(e\)](#).
- If no significant impacts are identified, revise the EA (if needed) to address any public or agency review comments. If proposed changes are minor, an “erratum” may be issued with the FONSI instead of a Revised EA that addresses the minor changes.

Finding of No Significant Impact (FONSI): The FONSI is a separate decision document that sets forth and supports the FHWA’s conclusions that the proposed action has no significant impacts. The FONSI documents compliance with NEPA and other applicable environmental laws, Executive Orders, and related requirements. Signature of the FONSI is the FHWA NEPA decision document and indicates that NEPA review and compliance with all applicable environmental regulations has been completed for the project.

Distribution of the FONSI: Once the FONSI has been approved, distribute it with the EA (if applicable the Revised EA or “Erratum”) through a public notice. Standard practice is to distribute the FONSI following the same process as done for the EA, including publishing an NOA. No public meeting is required at this stage. Issuance of the FONSI completes the NEPA process.

Limitations on Claims Notice: If the project has a potential risk for litigation, discuss with legal counsel to determine whether a limitations on claims notice will be helpful for a project. This notice is published in the Federal Register after or concurrent with the issuance of the NEPA Decision (i.e., FONSI or ROD) and invokes a 150-day period during which claims arising under Federal law seeking judicial review of the project decision are allowed under [23 USC 139\(l\)](#). A limitations on claims notice can be used for CE determinations, but it is not common practice. If no claims notice is published, then the applicable statutory or regulatory period for filing claims applies. For example, [28 USC 2401\(a\)](#) imposes a 6-year statute of limitation for every civil action brought against the U.S. unless there is another law that creates a specific statute of limitations period.

4.2.1.2.5 Environmental Impact Statement

EISs are rarely prepared for FLH projects and therefore this section provides a high-level overview of what is required for preparation and distribution of an EIS document. An EIS is prepared for projects where it is known that the action will have a significant effect on the environment. The process is similar to the EA process but includes additional requirements to ensure compliance

with NEPA regulations. The [FHWA Technical Advisory T6640.8A](#) provides a suggested outline for the EIS. The advisory contains considerable detail regarding the content for each item. The main sections are the same as those identified above for an EA.

If an EIS is required on a FLH project, it is critical to coordinate with Division legal counsel and FHWA headquarters NEPA staff to ensure the project is following the most current guidance. Agreements between FHWA and FLMAs may also include additional requirements and guidance for EISs.

EIS Process and Documentation (Notice of Intent, Draft EIS, Final EIS, and ROD): The following is an overview of the EIS process and documentation requirements to be completed starting with publication of the Notice of Intent (NOI) in the Federal Register through issuance of the ROD. Refer to the Technical Advisory T6640.8A and FHWA implementing regulations (23 CFR 771) for detailed instructions.

- Pre-NOI activities. Coordinate with HQ to determine what pre-NOI activities must be done prior to publishing the NOI;
- Publish NOI in the Federal Register. On August 17, 2006, FHWA issued a [Memorandum](#) outlining requirements for Federal Register Notices to ensure the timely publication of notices in the Federal Register;
- Conduct scoping (including a public scoping meeting);
- Develop draft EIS and approve for circulation. EISs must be 200 pages or fewer (body of the document), unless the lead agency establishes a new page limit for the environmental impact statement for that project);
- Circulate draft EIS for comment (publish NOA – public comment period is for a minimum of 45 days and no more than 60 days dependent on [Section 4\(f\)](#) evaluation requirements);
- Hold public meeting or hearing (if required) at least 15 days after NOA;
- Collect comments and respond to substantive comments (comment summary must be included in the final EIS);
- Complete a combined final EIS/ROD in a single document (unless the final EIS has substantial changes to the proposed action or new circumstances or information warrant separate documentation);
- Review and issue final EIS/ROD (review for legal sufficiency and approve);
- Publish NOA of final EIS/ROD; and
- Consider options for Limitations on Claims notices as discussed under EAs.

4.2.1.2.6 Re-evaluations

A re-evaluation is a review of any proposed change in an action, affected environment, anticipated impact, applicable requirements, or mitigation measure as they relate to the environmental document or decision. This may include reopening of a consultation for compliance with federal regulations such as Endangered Species Act and NHPA compliance and/or if a partner agency conducts a re-evaluation of their NEPA decision. A re-evaluation may occur at any time after

issuance of the original NEPA decision. For EISs, two circumstances are identified in [23 CFR 771.129](#) that require a written re-evaluation:

1. When an acceptable final EIS is not received by the agency within three years from the date of the draft EIS circulation from 23 CFR 771.129(a); or
2. When the project sponsor requests further approvals if major steps to advance the project (for example, authority to acquire a significant portion of right-of-way or to undertake final design) have not occurred within three years after the approval of the final EIS, final EIS supplement, or the last major agency approval or grant from 23 CFR 771.129(b).

The purpose of a re-evaluation is to determine whether an environmental document or decision remains valid. A re-evaluation may be conducted for any level of environmental document (CE, EA/FONSI, and EIS/ROD). The re-evaluation should be concise and tailored to the change in circumstances. A re-evaluation does not serve as the supplemental analysis or supplemental documentation that may be required under [23 CFR 771.130](#). FHWA issued [NEPA Re-Evaluation Joint Guidance](#) to supplement the process described in 23 CFR 771.129.

A re-evaluation may result in preparation of a memorandum to file that provides a review of the environmental documentation and clarifies any project changes or new circumstances that affect the validity of the document or decision. FLH does not have a set format for a re-evaluation.

4.2.2 AGENCY, TRIBAL, AND PUBLIC COORDINATION

This section provides an overview of agency, tribal, and public coordination requirements. Specific topics include agency roles and responsibilities, identification of the lead Federal agency for environmental compliance, a summary of agency roles under NEPA (e.g., lead, joint lead, cooperating, and participating agencies), and identification of Tribes and members of the public (e.g., stakeholder and interest groups). The responsibilities assigned under these different roles are intended to help streamline the environmental process by fostering close coordination among the partner and resource and regulatory agencies; encouraging the integration of NEPA requirements with other Federal environmental review, consultation, and permitting processes; eliminating duplication in Federal, State, tribal, and local procedures; and ultimately arriving at environmentally responsible transportation decisions.

Federal Lead Agency for Environmental Review Process: Defining clear roles and responsibilities will help streamline the environmental process by identifying early in the project development process the roles of each Federal agency, specifically identifying lead agencies for applicable Federal regulations (e.g., ESA, NHPA, etc.). For a small number of FLH projects, FHWA is the only Federal agency involved in the project; in those cases, FLH will be the lead agency for all applicable Federal regulations.

NEPA Agency Roles: NEPA and FHWA implementing Regulations ([23 CFR 771](#)) defines lead, cooperating, and participating agency roles during the preparation of an environmental impact statement (EIS) or complex environmental assessment (EA). Section 139 ([23 USC 139](#)) and FHWA's implementing regulations also guide agency roles for the completion of the environmental document to support NEPA compliance, as described above for the environmental review process. Invitations to other agencies are typically sent to designate their roles during the

process and confirm their action under NEPA. These roles also may apply to an EA process, but may or may not be formally designated roles. When FLH processes a categorical exclusion (CE) for a project, that does not preclude other Federal agencies from also having a decision under NEPA and preparing their own documentation or adopting FLH's CE determination. A NEPA lead agency may not be designated in this case, although the lead for the environmental review process should still be designated to guide the overall process and ensure compliance with other applicable laws and regulations.

FHWA's Section 139 guidance defines agency roles for the environmental review process as follows:

- **Lead Agency and Joint-Lead Agencies:** The lead agency, in general, is the DOT for transportation projects. However, agreements with other Federal agencies may allow another agency to take the lead for the overall environmental review process. Joint-lead agencies may be established if multiple Federal agencies are involved in the project and have lead roles during the process. The lead agency(ies) facilitate an expeditious review process, ensure preparation of the appropriate environmental document under NEPA, and consider and respond to comments from participating agencies.
- **Cooperating Agencies:** Refers to any Federal agency, other than a lead agency, that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed project or project alternative. A state or local agency of similar qualifications or, when the project's potential impacts are on lands of tribal interest, a Native American Tribe may, by agreement with the lead agencies, also become a cooperating agency.
- **Participating Agencies:** Participating agencies are those with an interest in the project. The standard for participating agency status is more encompassing than the standard for cooperating agency status described above. Therefore, cooperating agencies are, by definition, participating agencies. But not all participating agencies are cooperating agencies. They may be Federal, state, or local agencies or federally recognized Indian Tribal governmental units. Their roles could include providing comments or input on technical studies, reviewing the environmental document, and presenting issues of concern to the lead agency(ies).

Public Involvement/Coordination: Public participation is an integral part of the transportation process. Early and continuous public involvement brings diverse viewpoints and values into the decision-making process. This process enables agencies to make better informed decisions through collaborative efforts, building mutual understanding and trust between the agencies and the public they serve. A variety of Federal statutes, regulations, and executive orders require public involvement in the transportation decision making process (including 23 CFR, Section 106 of the NHPA, Section 4(f) of the DOT Act, Americans with Disabilities Act of 1990, Civil Rights Act (Title VI), and executive orders). The public may include project stakeholders, property owners, interest groups, other agencies not directly involved with the project, etc. The level of public involvement is dependent on the type of project, potential for controversy, and expectations of partner agencies. Methods used for public involvement are discussed in [Section 4.2.2.1](#).

Tribal Coordination and Consultation: Several statutes, regulations, and executive orders require Federal agencies to consult with federally recognized Tribes and Alaska Native Claims Settlement Act Corporations (ANCSA Corporations). "Indian Tribe" or "Tribe" means an Indian, or Alaska Native Tribe, band, nation, pueblo, village, or community that the Secretary of the Interior recognizes as an Indian Tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, [25 USC 5130](#). For the purposes of this chapter, the use of "Indian Tribe" or "Tribe" is used interchangeably and also will be used to include consultation with Native Hawaiian Organizations and ANCSA Corporations.

Under NEPA regulations and as part of the environmental review process, Tribes should be coordinated with early in the environmental review process and be involved throughout the process. The NHPA requires Federal agencies to notify Tribes of an undertaking and consult with them on the cultural review process if requested (see [Section 4.2.4](#)). Government-to-government consultation with federally recognized Tribes is separate from NHPA requirements for tribal consultation but often overlaps. It is useful to be familiar with the various requirements not only to ensure compliance, but also to explore opportunities to integrate consultation requirements.

The following executive orders address consultation with Indian Tribes:

- [Executive Order 13175](#): Consultation and Coordination with Indian Tribal Governments Issued by President Clinton in 2000, as reaffirmed by President Obama in 2009; and
- [DOT Executive Order 5301.1A](#) on Department of Transportation Programs, Policies and Procedures Affecting American Indians, Alaska Natives and Tribes. This order requires the DOT and all of its agencies (including the Federal Highway Administration) to "consult with Indian Tribes before taking any actions that may significantly or uniquely affect them."

4.2.2.1 Agency, Tribal, and Public Coordination Review Process

The level of agency, Tribal, and public coordination varies by project and must be tailored to the project to be the most effective. Agency roles should be established at the onset of a project and in a manner that ensures all parties agree to their respective roles and can fulfill their obligations. This is typically handled through the FLH-Partner(s) Project Agreement, but if not formalized there, FLH environmental personnel may establish subsequent written agreements (formal or informal) to document the roles and responsibilities of all agencies involved for the various environmental tasks (e.g., Section 7 and 106 consultation leads, resource surveys and reporting, mitigation implementation). For projects that require a complex EA or an EIS, agency roles should be formally documented in compliance with NEPA regulations.

For the [public involvement](#) process, typical steps include:

- Identify stakeholders and interested parties with interest in the project or that could be affected by the project;
- Determine level of public involvement/outreach required (varies by project and dependent on NEPA Class of Action – more prescriptive for an EA/EIS process than for a CE);
- Create a public involvement plan, if necessary;

- Include environmental documentation and environmental review process details on the project website, as applicable; and
- Hold public meetings/hearings, if necessary.

Stakeholder coordination may consist of mailing project information letters, posting public notices or information about the project on websites or at local venues, periodic public meetings, or other methods appropriate to the project to adequately engage the public. If a complex public involvement process is expected, a public involvement plan should be prepared. This plan would identify the appropriate public outreach techniques to meet the needs of the project. Every project is different; therefore, each public involvement plan will be unique.

An option to consider for public outreach is to utilize [virtual public involvement](#). This type of outreach has the potential of reaching a wider audience when compared to a traditional public meeting/open house style.

A key component of the outreach process is to contact Tribes that may be affiliated with the area, be knowledgeable about tribal or cultural resources in the area, or be interested in the project. This outreach would encompass all Tribes, but the specific process for Federally recognized Tribes involves government-to-government consultation (refer to [FHWA's Tribal Consultation](#) guidance for further information). Government-to-government consultation takes into consideration the impacts of a project on the Tribe and its members (e.g., housing, economic, transportation, fisheries). Similar to other Federal requirements, it is important to identify which Federal agency will lead tribal consultation. For most FLH projects when the FLMA is lead agency for NEPA, the FLMA will lead tribal consultation. Typically, the FLMA has established relationships with Tribes having interest in the area and is best equipped to lead that effort. This process may also overlap the Section 106 tribal outreach and consultation process, and the agency leading that process should lead the tribal outreach.

The typical steps for tribal outreach and consultation include the following:

- Identify all Tribes (including Native Alaskan and/or Native Hawaiian groups) with lands and/or Tribes that claim cultural patrimony in the general area of the project and specify which Tribes are Federally recognized;
- Develop a list of tribal contacts, including tribal leadership; Tribal Historic Preservation Officer, if one; Cultural Resources Manager; Natural Resources contacts, and others, as appropriate to the project and its potential impacts;
- Prepare and send letters to the Tribes to determine their interest in the project, knowledge of resources that may be a concern, and confirm if they would like to be a consulting party (consultation would only take place with Federally recognized Tribes; other Tribes would be part of the general outreach process);
- Follow up with Tribes following initial letters to confirm no interest or concerns for the project (appropriate format of follow up may include phone calls, meetings, additional letters, etc.);
- Establish an approach to address concerns identified by any of the Tribes, such as design modifications, additional studies or research, or further coordination with the Tribe; and

- Develop a plan for consultation with Federally recognized Tribes that requested consultation, which may consist of follow up phone calls, email correspondence, and/or meetings.

4.2.3 ENDANGERED SPECIES ACT AND FISH/WILDLIFE LAWS

The [Endangered Species Act of 1973](#) (ESA) governs activities which may affect Federally listed species and designated critical habitat. The ESA is administered by the FWS and the National Oceanic and Atmospheric Administration (NOAA) Fisheries Office (or National Marine Fisheries Service [NMFS]), collectively referred to as the 'Services.' Section 7 of the ESA requires that Federal action agencies consult with the Services to ensure that a proposed action is not likely to jeopardize the continued existence of a Federally listed species or result in the destruction or adverse modification of designated critical habitat. When a project is proposed in an area where endangered or threatened species, their habitat, or designated critical habitat is located, an evaluation of the impact of that project on those species/habitats must be conducted. All projects with a Federal nexus (actions authorized, funded, or carried out by a Federal agency) are subject to Section 7 of the ESA, and the Federal agency must consider the effects of the action on listed species to ensure compliance with the ESA. As with other applicable Federal regulations, it is important to determine the Federal lead agency early in the environmental review process.

There are three potential effect determinations that can be made for each listed species or designated critical habitat in the project's action area:

- The action will have "no effect" (NE) on the species or critical habitat. The Federal agency makes the NE determination, and no consultation is required with the Service(s).
- The action "may affect, is not likely to adversely affect" (NLAA) the species or critical habitat. The Federal agency initiates informal consultation with the Service(s) for NLAA determinations.
- The action "may affect, is likely to adversely affect" (LAA) the species or critical habitat. The Federal agency initiates formal consultation with the Service(s) for LAA determinations.

The Services have provided a complete description of procedures and requirements for conducting Section 7 consultations and conferences (used for candidate or proposed species, if desired) in the [Endangered Species Act Consultation Handbook](#).

Other Fish/Wildlife Laws: In addition to the requirements of ESA, the following fish and wildlife regulations and laws may apply to the project:

The [Migratory Bird Treaty Act](#) (MBTA) of 1918 (16 USC 703–712), administered by the FWS, makes it unlawful to take, import, export, possess, sell, purchase, or barter any migratory bird, with the exception of game birds during established hunting seasons. If a transportation project is unable to avoid impacts to migratory birds or their eggs (examples of activities that could affect migratory birds include bridge demolition, tree removal, and ground disturbance), mitigation measures should be identified to avoid impacts to the extent practicable, otherwise a take permit may be required from the FWS. Impacts to uninhabited nests are not violations of the MBTA.

The [Magnuson-Stevens Act](#) is the 1996 amendment to the Fishery Conservation and Management Act of 1976 (i.e., the Magnuson Act). The law, administered by the NMFS, is the primary law governing marine fisheries management in U.S. federal waters and created a habitat conservation approach. Within the United States, approximately 1,000 federally managed species have designated essential fish habitat (EFH). Federal agencies are required to consult with the NMFS on all activities or proposed activities authorized, funded, or undertaken by the agency that may affect EFH. This process is typically conducted in conjunction with the Section 7 consultation process described above. The [EFH Mapper](#) shows designated EFH.

Other laws requiring the consideration of wildlife and fish include the following:

- Tribal and state laws;
- The [Bald and Golden Eagle Protection Act](#) (16 USC 668–668d);
- The [Marine Mammal Protection Act of 1972](#) (16 USC 1361–1407); and
- The [Fish and Wildlife Coordination Act](#) (16 USC 661-666c).

Vegetation: The [Noxious Weed Act](#) of 1975 (PL 93-629) established a Federal program to control the spread of invasive plant species. Amendments to the law in 1990 (PL 101- 624) identify additional requirements for FLMAs to develop and fund a plant management program, implement cooperative agreements with states regarding undesirable plants on agency lands, and establish integrated management systems to control undesirable plants targeted by the cooperative agreements.

[Executive Order 13112](#) (Invasive Species) requires Federal agencies to work to prevent and control the introduction and spread of invasive species.

4.2.3.1 ESA and Fish/Wildlife Laws Review Process

This section identifies typical environmental resource studies and reports that may be required for ESA and Fish/Wildlife compliance. As stated earlier in this chapter, it is common to divide responsibilities for completion of resource surveys and environmental compliance with Federal partners. While resource studies may be led by FLH (often with support of a consultant), the Federal partner may lead the development of resource studies and reports.

Biological resources studies and documentation can include a variety of surveys (e.g., habitat assessments, nest surveys, vegetation surveys) and reports to support compliance with Section 7 of the ESA, as well as regulations protecting sensitive fish, wildlife, and vegetation and FLMA land management plans. This section describes the ESA Section 7 documentation and biological reports that are commonly required for FLH projects to support environmental compliance.

Section 7 Documentation: The first step in the ESA Section 7 documentation process is to identify species and designated critical habitat that could occur in the project action area. The action area is defined in [50 CFR 402.02](#) as all areas that could be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. Identify the action area early. It can be based on preliminary design for the purpose of generating species lists ([USFWS IPaC](#) resource list and [NMFS Find a Species](#) may be used for initial species lists). The

next step is to conduct a preliminary evaluation (typically using desktop research) to determine the potential for project effects on the species and designated critical habitat.

After compiling the initial species list(s), a site visit should be conducted (e.g., habitat assessment, focused or protocol-level species surveys) to evaluate the likelihood of the species being found within the action area and to assess any primary constituent elements of designated critical habitat that overlaps the action area. Based on the field results and project description, an analysis is conducted to determine if the project may affect listed species and critical habitat, and if so, if any of those effects may be adverse. This information is captured in the appropriate ESA document as described below.

Two primary types of documentation may be completed: no-effect memorandum or a biological assessment (BA). If a project will have no effect (NE) on any Federally listed species or designated or proposed critical habitats, consultation with the FWS or NMFS is not required. In this case, a no-effect memorandum can be written for the project and saved in the project file. A no-effect memorandum is an abbreviated assessment documenting the absence of any impacts on species or critical habitat.

If a project may result in effects (including projects with beneficial effects) on Federally listed species or critical habitat, a BA is prepared, with effect determinations made for each species and critical habitat. Official species lists must be requested directly from the Services and attached to the BA when consultation is required, and an updated list may be needed if the BA is not completed within 90 days. The BA is submitted to the FWS or NMFS to request consultation under Section 7 of the ESA, whether informal or formal. Informal consultation occurs when the effect determination(s) in the BA is “may affect, not likely to adversely affect”. If the FWS or NMFS agrees, the agency issues a concurrence letter and consultation is complete. If just one effect determination in the BA is “may affect, likely to adversely affect,” then formal consultation is required. The FWS and/or NMFS will use the BA’s analysis to help inform the development and issuance of their biological opinion and to make a jeopardy finding for species that could be adversely affected. This concludes formal consultation unless a re-initiation is triggered prior to project completion.

Some agencies have programmatic consultations that could expedite the consultation process for certain actions and species. One example is the [FHWA programmatic consultation strategy for the Indiana and Northern Long-eared bats](#) in the central and eastern U.S. This describes the current FWS conservation and consultation strategies related to the bats.

The organization of BAs can vary. In general, the report should include these elements:

- Cover page, table of contents, executive summary;
- Project description – describe proposed action, project location and action area;
- Identification of all Federally listed and proposed species and critical habitat that may be affected, including methods for identifying those species (e.g., surveys);
- Description of each species, species status and habitat requirements;
- Description of environmental baseline within action area – include information from resource agency databases, agency or local experts, and site survey;

- Analysis and quantification of effects of the action – consider direct and indirect effects (associated with project construction and operation, as well as with interrelated or interdependent activities);
- Assessment of cumulative effects for projects that require formal consultation;
- List of conservation measures, if any;
- Summary of effect determinations for each species and critical habitat; and
- References (include studies, species lists and agency correspondence).

An overview of the formal and informal consultation processes is provided in Chapters 3 and 4 of the [Endangered Species Act Consultation Handbook](#). FHWA provides the [ESA Webtool](#) to assist in the preparation of BAs and the consultation process. If consultation is also required under the [Magnuson-Stevens Fishery Conservation and Management Act](#), the BA should include an essential fish habitat assessment and discussion of species protected under that act.

Biological Reports: Projects may need to consider potential impacts on various sensitive species, such as FS or BLM sensitive species, management indicator species, and state-listed species. The approach to evaluate and analyze these species is the same as for Federally listed species and would include compiling a project-specific species list, conducting field surveys, and analyzing project impacts. This analysis is documented in a biological report. The biological report may be similar in format to the BA, but would only address the non-Federally listed species and other applicable biological considerations, such as migratory birds, noxious weeds, and sensitive vegetation communities. It may need to include specific effect determinations or content to meet partner agency expectations, such as for ensuring compliance with FS and BLM management plans, or state laws.

4.2.4 NATIONAL HISTORIC PRESERVATION ACT (SECTION 106)

The [National Historic Preservation Act](#) (NHPA) of 1966 (54 USC 300101 et seq.), as amended, established the Advisory Council on Historic Preservation (ACHP), National Register of Historic Places (NRHP), and State and Tribal Historic Preservation Offices (SHPO/THPO), and promoted the preservation of prehistoric and historic resources through Federal government programs and actions. [Section 106](#) (codified at Section 306108) requires Federal agencies to take into account the effects of their undertakings on historic properties. Each Federal agency was tasked with designating a Federal Preservation Officer (FPO) that is responsible for coordinating agency activities under the NHPA. When multiple Federal agencies have responsibility for approving a FLH project, the project agreement or other documentation should clarify expectations about which Federal agency will take the lead for the Section 106 process.

The implementing regulations for the [Protection of Historic Properties](#) (36 CFR 800) outline the Section 106 process, which consists of initiating consultation with interested parties (e.g., tribal governments, SHPO, THPO, other agencies, the public, historical societies), identifying historic properties within the determined area of potential effects (APE), assessing adverse effects, and resolving adverse effects. The specific effort should be scaled to match the undertaking. Per the regulations, if the undertaking is a type of activity that does not have the potential to cause effects

on historic properties, assuming such historic properties were present, the Federal agency has no further obligations under Section 106.

The American Association of State Highway and Transportation Officials (AASHTO) Center for Environmental Excellence published the [*Practitioner's Handbook for Consulting Under Section 106 of the National Historic Preservation Act*](#) (No. 06, August 2016), which provides recommendations for complying with Section 106. The handbook explains the typical Section 106 process for transportation projects and how it integrates with the environmental review process. The NPS has also published a number of NRHP [Bulletins](#) and other guidance documents to help agencies with their review process.

Key terms relevant to the Section 106 process are:

- Undertaking – a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license, or approval.
- Area of Potential Effect – the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.
- Historic Property – any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP.
- Determination of Eligibility – a determination made by the Federal agency that a cultural resource is or is not eligible for listing in the NRHP based on four criteria, seven aspects of integrity and criteria considerations established by the Secretary of the Interior ([36 CFR Part 60](#)); recommendations of eligibility may be presented by a qualified consulting firm, and the Federal agency is responsible for presenting the eligibility findings to consulting parties.
- Finding of Effect – a finding made by the Federal agency based on the extent to which the undertaking would cause an alteration to the characteristics of a historic property that qualify it for inclusion in or eligibility for the NRHP; one of three findings can be made (no historic properties affected, no adverse effect on historic properties, or adverse effect on historic properties).
- Memorandum of Agreement – the agreement document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking upon historic properties when adverse effects are known prior to approving an undertaking.
- Programmatic Agreement – this agreement document can be executed at the project-level or program-level. A project programmatic agreement (PA) can be used when the Section 106 process cannot be completed and effects to historic properties are unknown and can replace a memorandum of agreement (MOA) to resolve adverse effects ahead of approving an undertaking. A program PA presents an alternative to the standard Section 106 process for typical undertakings funded by an agency's program and typically streamlines the process if certain conditions are met.

4.2.4.1 Section 106 Review Process

Historic properties documentation is developed to support compliance with [Section 106](#) of the NHPA and environmental analysis under NEPA. They are also used to support the [Section 4\(f\)](#) review process. Historic properties are Section 4(f) properties unless they are determined to be archaeological resources that do not warrant preservation in place. General standards for the documentation are described in the Section 106 implementing regulations and are refined by state-specific agreements, regulations, handbooks, and manuals. The ACHP, SHPOs and THPOs that may be involved as consulting parties often have guidance for Federal agencies on the documentation to improve consistency across projects and agencies. Some agencies, such as the BLM and FS, have national or regional handbooks that guide their documentation. The [AASHTO Practitioner's Handbook](#) discusses what should be documented for transportation projects, but not how it should be documented.

A typical historic properties identification study involves background research, review of previous reports and documentation, outreach (e.g., Tribes, public, historical societies, agency cultural staff), pedestrian surveys, architectural surveys, and archaeological sub-surface testing. These activities must be conducted by qualified personnel, so FLH will typically retain a consultant for this work. As a Section 106 responsibility, the lead Federal agency for the Section 106 process must define an APE, which is based on the potential project effects and is used as the geographic limit for the consultation. It is defined in coordination with the design team, partner agencies, Section 106 consulting parties and the consultant, as appropriate.

4.2.4.2 Section 106 Documentation

The results of the historic properties identification studies are compiled in a report that follows appropriate agency guidance for the project location. This report may be a general report or a more specific archaeological or historic or architectural resources report, depending on the needs of the project. The report will describe the project/undertaking, APE, background research, historic property expectations, methodology for the investigation, and field surveys (if multiple reports, one may describe archaeological resources and one may describe historic/architectural resources), NRHP eligibility recommendations for potential historic properties in the APE, potential effects to historic properties (based on agency expectations and state guidelines and may be high-level if design is preliminary), and recommendations for avoidance or minimization measures (if appropriate). The report is part of the submittal package to the SHPO or THPO for Section 106 consultation and may be distributed to others upon request and with consideration for keeping sensitive cultural information confidential. If warranted, a separate finding of effect document may be prepared to discuss effects to historic properties and document the effect finding for the project.

The lead Federal agency for the Section 106 process will compile project information letters to send to consulting parties to initiate consultation; letters to send to the SHPO or THPO with information on the APE, eligibility determinations, and findings of effects (note this may be one letter or multiple, depending on the specific approach for the consultation); and other letters or informal correspondence (e.g., emails, meeting notes) to document consultation discussions.

If adverse effects to historic properties are determined or expected, the lead Federal agency must find ways to avoid, minimize or mitigate adverse effects. If adverse effects will be mitigated, an MOA will be executed between the SHPO/THPO, Federal agency(ies), and other consulting parties, as appropriate, to document measures that will be implemented to resolve the adverse effects. Other types of agreements may also be established for other purposes, such as a PA. This type of agreement may require the preparation of additional reports or documentation, such as a historic context or Historic American Buildings Survey and Historic American Engineering Record reports.

As early as possible in the project delivery process, information on potential historic property locations should be reviewed with the design to preliminarily assess the potential for effects. The design may warrant modification to avoid or minimize effects, if appropriate, or a plan for addressing potential adverse effects may be developed to facilitate early consultation with the SHPO/THPO. The finding of effect should not be made until the design is far enough along to understand the extent of ground disturbance or other potential impacts to historic properties in the APE. All of this information should be properly documented as part of the Section 106 documentation, which is saved in the project file. The results of the investigation and consultation process should be summarized in the environmental document, and copies of key correspondence, such as the final consultation letter from the SHPO/THPO, may be appended to the environmental document. If other Federal agencies are involved in the consultation process, copies of the documentation should also be provided to them for their records.

4.2.5 CLEAN WATER ACT

The [Clean Water Act](#) (CWA) of 1972 (33 USC 1251 et seq.) was enacted to restore and maintain water quality of the Nation's waters through the elimination of pollutants. It established national programs for the protection of water quality, including permitting mechanisms for the discharge of pollutants into waters of the United States (U.S.).

Key sections of the CWA are:

- [Section 303](#) requires the development of water quality standards in each state and identification of waters that exceed those standards and require plans to improve water quality in impaired waters (303(d) list).
- [Section 401](#) requires the U.S. Environmental Protection Agency (EPA), state, Tribe, or other interstate governmental agency to certify activities that may result in discharges into waters of the U.S. and require a Federal license or permit (e.g., hydroelectric license, Section 404 permit) to ensure those activities comply with water quality standards.
- [Section 402](#) established the [National Pollutant Discharge Elimination System](#) (NPDES), allowed states to administer their own permit programs for pollutant discharges, and identified permitting requirements for point-source discharges into waters of the U.S. This section typically covers wastewater and stormwater discharges.
- [Section 404](#) established a program to regulate the discharge of dredged or fill material into waters of the U.S. and requires the issuance of a permit for any activities resulting in such discharge, unless an exemption applies.

The EPA, states, or Tribes issue water quality certifications under Section 401 of the CWA, depending on the location of the project. Note that the EPA has jurisdiction on federally managed lands that are lands of exclusive federal jurisdiction (LEFJ).

The EPA or states issue permits under Section 402 of the CWA, depending on where the project is located, who is obtaining the permit, and which agency has authority. The EPA and most states have general permits for stormwater and other pollutant discharges to expedite the permitting process for common activities, for example, construction general permits. Individual permits may be issued for activities that do not fall under the general permits. Similar to Section 401 permits, the EPA has jurisdiction for Section 402 permitting on LEFJ.

The USACE issues permits under Section 404 of the CWA (note, some states and Tribes administer the 404 program); these permits include standard individual permits, general (regional, programmatic, or nationwide) permits, and letters of permission.

For purposes of issuing permits, the EPA and USACE have established a definition of waters of the U.S. (e.g., wetlands, streams, open waters, etc.) and verify jurisdiction of aquatic resources that meet that definition. Due to recent court cases and changing regulations, this definition is continually being refined to better clarify the [limits of Federal jurisdiction](#).

4.2.5.1 Clean Water Act Review Process

Aquatic resource studies are used to support compliance with the CWA, [Executive Order 11990](#), and other state/local laws when applicable. This study typically involves desktop research, such as review of aerial imagery and stream and wetland data; field surveys to delineate aquatic resources following appropriate agency protocols and guidelines; and mapping to show the results of the study, with a focus on mapping aquatic resources that meet the definition of waters of the U.S. Aquatic resource surveys/delineations are often conducted early in the project development process to support the design process and avoid sensitive resources and to assess the potential need for permits.

To support permitting under the CWA, the delineation of aquatic resources or potential waters of the U.S. is used to identify the extent of the USACE's jurisdiction. The delineation methodology must follow applicable USACE guidelines for delineations of wetlands and other waters, such as the 1987 Corps of Engineers Wetlands Delineation Manual (Wetlands Research Program Technical Report Y-87-1), Regional Supplements to the Wetlands Delineation Manual, [Ordinary High Water Mark Identification memo](#) (Regulatory Guidance Letter 05-05, December 7, 2005), and [A Field Guide to the Identification of the Ordinary High Water Mark \(OHWM\) in the Arid West Region of the Western United States](#) (ERDC/CRREL TR-08-12, August 2008).

Report contents and mapping guidelines vary by USACE Division and District. FHWA does not have specific guidance for delineations because this study and reporting should follow the applicable USACE guidance. At a minimum, the delineation report should contain the following information:

- Description of the survey or study area, including its size, location, and general conditions;

- Methodology used to conduct the delineation, including any limitations on data collection or unique situations;
- Description of the delineated aquatic resources in the survey/study area, including the type of resources (e.g., wetland, pond, creek, river), mapped extent of the resources (area, linear feet of width and length for streams), and characteristics of the resources;
- Maps depicting the location of the survey/study area, aquatic resources (refer to District guidance for specific format), and other useful information (e.g., soil types, national data for streams and wetlands); and
- Supporting information from the background research (e.g., soils descriptions) and fieldwork (e.g., data sheets, photographs, plant list).

The boundaries of potential waters of the U.S. should be considered preliminary until verified by the USACE, which may be done through the permitting process or via a preliminary or approved jurisdictional determination process. The analysis of impacts is conducted initially as part of the environmental document preparation using preliminary designs and again as part of the permit application process using the final or more complete designs. Geographic information system data are often overlaid with the design data to quantify impacts to waters of the U.S., and the mapping conducted as part of the delineation process is key to ensure the data overlay properly. Depending on the extent of impacts, compensatory or other mitigation measures may be required to comply with the CWA, and this should be evaluated during the analysis process and permitting.

4.2.6 RIVERS AND HARBORS APPROPRIATION ACT

[The Rivers and Harbors Appropriation Act of 1899](#) (RHA) regulates most kinds of obstructions to navigation. The law applies to any dredging or disposal of dredged materials, excavation, filling, channelization, or any other modification of a navigable water of the United States, and applies to all structures. Navigable waters are defined as those waters that are subject to the ebb and flow of the tide and/or are presently used, have been used in the past, or may be susceptible to use to transport interstate or foreign commerce. The USACE and Coast Guard maintain lists of navigable waters under their jurisdiction.

Section 10 of the RHA ([33 USC 403](#)) requires a permit from the USACE for structures or work that affect the course, location, or condition of the water body. Section 9 ([33 USC 401](#)) of the RHA requires authorization from the U.S. Coast Guard for the construction of any bridge, dam, dike, or causeway over or in navigable waters of the U.S.

Section 14 of the RHA, as amended, and codified in [33 USC 408](#) ([Section 408](#)) provides that the USACE may grant permission for another party to alter a Civil Works project upon a determination that the alteration proposed will not be injurious to the public interest and will not impair the usefulness or purpose of the Civil Works project. An alteration refers to any action that builds upon, alters, improves, moves, occupies, or otherwise affects the usefulness, or the structural or ecological integrity of a USACE civil works project.

4.2.6.1 Rivers and Harbors Appropriation Act Review Process

Compliance with the [Rivers and Harbors Act](#) is similar to that discussed for compliance with the Clean Water Act requirements. For navigable waters and compliance with the Rivers and Harbors Act, the delineation should also provide sufficient information to characterize the extent of the navigable waters and the tidal influence on those waters. Some states have laws that tier off the CWA and regulate certain activities in waterways under the state's jurisdiction. In those states, the state definition of waterways should be reviewed prior to conducting the delineation to ensure it covers both jurisdictions. Similarly, waters along the coast may also be subject to coastal agency jurisdiction, which may expand the extent of the waters. The delineation report should explain the purpose of the report, and which agencies have jurisdiction over the aquatic resources if multiple agencies may be involved with permitting.

4.2.7 SECTION 4(F) OF THE USDOT ACT

The U.S. Department of Transportation Act (U.S. DOT Act) was signed on January 1, 1967 and formally created the DOT. [Section 4\(f\)](#) was one of many provisions in the U.S.DOT Act, and it serves a unique purpose for resource preservation:

It is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites according to [49 USC 303\(a\)](#).

[Section 4\(f\)](#) (codified at 23 USC 138 and 49 USC 303) requires agencies of the DOT to consider park and recreation lands, wildlife and waterfowl refuges, wild and scenic rivers (designated as recreational), and historic sites during transportation project development. The Section 4(f) process requires identifying Section 4(f) properties in or near the project area, then determining if Section 4(f) properties are "used". Use of a Section 4(f) property occurs: (1) when land is permanently incorporated into a transportation facility; or (2) when there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose; or (3) when there is a constructive use (a project's proximity impacts are so severe that the protected activities, features, or attributes of a property are substantially impaired).

Exceptions to the requirement of Section 4(f) approval are identified in [23 CFR 774.13](#) and are applied when a project meets certain conditions that demonstrate a use would not occur (e.g., temporary occupancy that is so minimal as to not constitute a use, improvements to eligible historic roads, enhancement projects, Federal lands transportation facilities described in [23 USC 101\(a\)\(8\)](#)). Depending on the exception that applies to the project and Section 4(f) property, additional documentation, such as a letter to the official with jurisdiction, may be needed to support the determination.

FHWA guidance provides the following options for Section 4(f) compliance when an exception does not apply:

- [De Minimis impact determination](#) – In some instances, the use of a Section 4(f) property is negligible and therefore FLH may make a *de minimis* finding without the requirement to conduct an Individual Section 4(f) Evaluation.

- Nationwide Programmatic Section 4(f) evaluations – FHWA has developed five nationwide programmatic Section 4(f) evaluations for independent bikeways or walkways, historic bridges, minor use of historic sites, net benefits to the property, and minor use of parks, recreation lands, and refuges. A benefit of using nationwide programmatic evaluations is to streamline the process by considering pre-defined alternatives and following template documentation. Refer to the constraints and requirements of each nationwide programmatic in the [Section 4\(f\) Policy Paper](#).
- Individual Section 4(f) Evaluation – A full individual evaluation is used to demonstrate that no feasible and prudent avoidance alternative to Section 4(f) use(s) is available and demonstrate that the action incorporates all possible planning to minimize harm to the property resulting in such use. Individual Section 4(f) evaluations are often time consuming and require review from FHWA legal counsel.

Key terms relevant to Section 4(f) are:

- Section 4(f) Property – Section 4(f) property means publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance.
- Use – Except as set forth in §§ [774.11](#) and [774.13](#), a “use” of Section 4(f) property occurs:
 1. When land is permanently incorporated into a transportation facility;
 2. When there is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose as determined by the criteria in § [774.13\(d\)](#); or
 3. When there is a constructive use of a Section 4(f) property as determined by the criteria in § [774.15](#).

4.2.7.1 Section 4(f) Review Process

The first step in the [Section 4\(f\)](#) process is the identification of Section 4(f) properties that are in or near a project area. This may involve desktop research, coordination with land managing agencies, field surveys (typically associated with the cultural resources investigation), and review of GIS data and mapping that may show park or recreation area boundaries and historic property boundaries.

Coordination with the official with jurisdiction (OWJ), defined as the entities and individuals who manage the property, is important when a Section 4(f) property is identified in the project area. In the case of historic sites, the OWJ is either the SHPO or THPO. For parks and recreation areas, the OWJ is the land managing agency. Section 4(f) properties should be identified as early as practicable in the project development process in order to consider complete avoidance of the protected resources.

After Section 4(f) properties have been identified, the next step is to identify the potential for “use” of each Section 4(f) property (as described in the previous section) or if an exception can be applied.

FLH will determine if a “use” of the Section 4(f) property is expected based on the design and ROW needs and in coordination with the OWJ. The most common form of use is when land is permanently incorporated into a transportation facility, often through ROW modifications. Another form of use is commonly referred to as temporary occupancy and results when Section 4(f) property, in whole or in part, is required for project construction-related activities. Constructive use is about severe proximity impacts and is not as common on FLH projects.

Section 4(f) compliance may be documented in the environmental document or in a separate memorandum to file or letter(s) in the project file. The Section 4(f) process depends on the type of Section 4(f) property used and whether or not the use meets the criteria of a *de minimis* impact. A finding of use is made for each individual Section 4(f) property. Multiple forms of documentation may be used for a project if multiple Section 4(f) properties may be subject to use in different ways (e.g., *de minimis* may be applied to one property, while an exception is applied to another).

When FLH determines a Section 4(f) exception applies, FLH typically states the exception in the environmental document; a separate report is not generated. The only additional documentation that may be required is a signed statement from the OWJ that they concur with the exception (required only when applicable to the exception category). Exceptions to a Section 4(f) approval can be found at [23 CFR 774.13\(a\) through \(g\)](#).

In situations where FLH determines a Section 4(f) use will occur and an exception does not apply, one of the following options apply:

- **De Minimis Impact Determinations:** A *de minimis* use broadly means that impacts on the Section 4(f) property are negligible. This processing option is often efficient in part because an Individual Section 4(f) Evaluation is not required. The determination must include sufficient supporting documentation to demonstrate that the impacts, after avoidance, minimization, mitigation, or enhancement measures are taken into account, are *de minimis* as defined in [23 CFR 774.17](#); and that the agency coordination and public involvement required by [23 CFR 774.5\(b\)](#) was completed.
 - ◇ The benchmarks and procedures for determining Section 4(f) impacts are *de minimis* are different for historic sites versus parks, recreation areas, and wildlife and waterfowl refuges. For historic sites, FLH informs the SHPO or THPO of FLH’s intent to make a *de minimis* impact determination, and they must provide written concurrence on FLH’s finding. Consulting parties identified in accordance with [36 CFR 800](#) are also consulted. *De minimis* impact determinations cannot be applied if there is an adverse effect to the historic property. Documentation supporting the Section 106 finding, *de minimis* impact determination, and concurrence must be saved in the project file.
 - ◇ For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact must not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f). FLH informs the OWJ (typically the property owner or manager; sometimes there are multiple OWJs) of intent to make *de minimis* impact determination. FLH provides for public opportunity to review and comment on the action before obtaining the OWJ’s written concurrence that the use will not adversely affect the features, attributes, or activities qualifying the

property for protection under Section 4(f). The intensity of public outreach is commensurate with the scale of the proposed Section 4(f) use. Documentation of the public involvement and OWJ concurrence must be saved in the project file.

- **Programmatic Section 4(f) Evaluations:** Five [nationwide programmatic evaluations](#) are available: Independent Bikeway or Walkway Projects (1977); Use of Historic Bridges (1983); Minor Involvement with Parks, Recreation Lands, and Wildlife and Waterfowl Refuges (1986); Minor Involvement with Historic Sites (1986); and Net Benefit (2005). Each programmatic evaluation has different impact thresholds, alternatives analysis requirements, and coordination/concurrence requirements. Documentation required to apply a programmatic Section 4(f) evaluation must support that the specific programmatic criteria have been met (see [23 CFR 774.3\(d\)\(1\)](#)) and typically follows template language established in the programmatic documents. A separate Section 4(f) memo may be prepared to document the findings. In addition, the environmental document concludes that Section 4(f) compliance was satisfied by the applicable programmatic evaluation (see [23 CFR 774.7\(f\)](#)).
- **Individual Section 4(f) Evaluations:** Individual Section 4(f) evaluations are only required when the project results in a greater than *de minimis* impact and a programmatic evaluation or exception cannot be applied to the situation. This process is generally much more extensive than other Section 4(f) processing options due to avoidance alternatives analysis and coordination requirements. The Individual Section 4(f) evaluation must include sufficient analysis and supporting documentation to demonstrate that there is no feasible and prudent avoidance alternative and must summarize the results of all possible planning to minimize harm (see [23 CFR 774.7\(a\)](#)). In demonstrating that there is no feasible or prudent avoidance alternative to avoiding the Section 4(f) property, a variety of alternatives should be considered, including the no action alternative, previously dismissed NEPA alternatives, alternative modes, alternative locations, alignment shifts, and design modifications. To ensure all possible planning to minimize harm has been incorporated into the action, FLH typically consults with the OWJ and considers design modifications, replacement of land/facilities of comparable function, monetary compensation, and measures included in the Section 106 agreement document, if applicable. For projects requiring a least overall harm (LOH) analysis under [23 CFR 774.3\(c\)](#), that analysis must be included within the Individual Section 4(f) evaluation. LOH analysis is a thorough evaluation of how alternatives weigh against each other in terms of the factors provided in 23 CFR 774.3(c).

Individual Section 4(f) evaluations are processed in two distinct stages: draft and final. Draft evaluations must be circulated to the U.S. Department of Interior and shared with the OWJs. A minimum of 45 days is provided for agency review. Final Section 4(f) evaluations are subject to FHWA legal sufficiency review prior to approval.

4.2.8 CLEAN AIR ACT

The [Clean Air Act](#) (CAA) of 1970, as amended, provides the legal framework for pollution control and reduction in the United States. The CAA sets limits on the allowable concentrations of a pollutant in the air (i.e., National Ambient Air Quality Standards (NAAQS)). Geographic areas that

do not meet the NAAQS for a particular criteria pollutant are considered *nonattainment*, areas that meet the NAAQS are *attainment*, and some areas that previously were nonattainment but later meet the NAAQS are re-designated to attainment with a Maintenance Plan and are known as *maintenance areas* until acceptable air quality is met and maintained. To comply with the CAA, states are required to develop state implementation plans (SIPs), which describe how the state will achieve an acceptable level of pollution. Compliance with the CAA requires FHWA and other agencies to demonstrate Transportation Conformity in nonattainment and maintenance areas, confirming that the transportation system's emissions do not exceed that provided by the SIP.

Many FLH projects are in rural areas with attainment status and are therefore not subject to transportation conformity. Of the FLH projects located in nonattainment or maintenance areas, many are project types listed in [40 CFR 93.126](#) and therefore exempt from the requirement to determine project-level conformity. However, for the remainder of non-exempt projects in nonattainment or maintenance areas, FLH must ensure the project comes from a currently conforming transportation plan and transportation improvement plan, and FLH must make a project-level conformity determination.

4.2.8.1 Clean Air Act Review Process

The first step for Clean Air Act compliance is to determine if the project is located in areas designated as nonattainment or maintenance (see [EPA Green Book](#) or [FHWA HEPGIS](#) to identify if the project is designated for criteria pollutants). Most FLH projects will be exempt from transportation conformity (refer to [40 CFR 93.126](#)). However, for the remainder of non-exempt projects in nonattainment or maintenance areas (for the following pollutants: CO, O₃, PM₁₀, PM_{2.5}, or NO_x), FLH must ensure the project comes from a currently conforming metropolitan transportation plan (MTP) and transportation improvement plan (TIP), and FLH must make a project-level transportation conformity determination.

There are two common types of [CAA environmental documentation](#):

1. **Project-Level Transportation Conformity:** The project-level transportation conformity determination is a statement in the environmental document determining that the final agency decision comes from a currently conforming transportation plan and transportation improvement plan and that the proposed project will not create or contribute to any new violations of the NAAQS nor delay timely attainment of the NAAQS.
2. **Hot-Spot Analysis:** Transportation conformity regulations require project-level quantitative, or "hotspot," determinations for nonexempt projects within carbon monoxide (CO) or particulate matter (PM_{2.5} or PM₁₀) nonattainment and maintenance areas. Hot-Spot Analysis is generally documented in a separate report and incorporated by reference to the environmental document. Hotspot analyses require specialized expertise and are often performed by consultants for FLH projects.

Project level transportation conformity and hot-spot analysis (when required) is completed as part of the environmental review process and documented in the environmental document or in a technical report. The requirements for project-level transportation conformity include the following:

- Identification of a conforming MTP or TIP in place and confirmation if the project is included in the conforming plan and TIP;
- Analyses use the latest emissions model (currently [MOVES5](#) for all states except CA);
- Interagency consultation (refer to the area's conformity SIP for interagency consultation procedures) and include all relevant agencies (e.g., EPA, MPO, state DOT, local transportation agencies, and state/local air quality planning agencies);
- Public involvement is usually done concurrent with other public involvement activities;
- Projects may require a hot-spot analysis for projects in nonattainment and maintenance areas for CO (for project types identified in [40 CFR 93.123\(a\)\(1\)](#)) or PM_{2.5} and PM₁₀ (for project types identified in [40 CFR 93.123\(b\)\(1\)](#)); and
- Compliance with control measures in PM SIP.

4.2.9 COASTAL ZONE MANAGEMENT ACT

The [Coastal Zone Management Act](#) (CZMA), administered by NOAA, provides for the management of the nation's coastal resources and includes programs such as the National Coastal Zone Management Program. This program is a partnership between coastal states, territories, and the Federal government. [Section 307 of the CZMA](#), called the "federal consistency" provision, generally requires that Federal actions, within and outside the coastal zone, which have reasonably foreseeable effects on any coastal use (land or water) or natural resource of the coastal zone be consistent with the enforceable policies of a state's Federally approved coastal management program. A Federal consistency review is triggered when it is reasonably foreseeable that a Federal action will have coastal effects, referred to as the "effects test". The regulations for CZMA Federal Consistency Reviews are located at [15 CFR 930](#).

4.2.9.1 Coastal Zone Management Act Review Process

For FLH projects in the coastal zone or that could affect coastal resources, FLH will coordinate with the state coastal zone management agency and, if appropriate, NMFS, who oversees the CZMA. Each state has its own process for complying with the CZMA regulations. Therefore, it is important to check with the state in which the specific project is located and follow the appropriate process, including reviewing the applicable coastal management plan or program. Federal projects should follow the federal consistency determination process, which involves preparation of a memorandum or letter that describes the project, discusses effects on coastal resources (e.g., water resources and quality, recreation, natural resources, coastal uses), and documents the federal agency's consistency determination.

FLH submits its [consistency](#) determination to the coastal zone management agency for review and concurrence. Certain time limits apply, and once the state agency concurs, the process is considered complete. The consistency determination and all written coordination should be saved in the project file. If the federal agency determines the project would not affect coastal resources, a negative determination is made and documented in the file; no further coordination is required.

4.2.10 FARMLAND PROTECTION POLICY ACT

The [Farmland Protection Policy Act](#) (FPPA) governs impacts to farmlands in the United States and is administered by the U.S. Department of Agriculture. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used as farmland. It can be forest land, pastureland, cropland, open space, or other land, but not water or urban built-up land. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency. Compensation for the loss or conversion of farmland or land that could be used as farmland may be required on a project-by-project basis.

4.2.10.1 Farmland Protection Policy Act Review Process

Compliance with the FPPA involves a review of soils and farmland data to determine if important farmland is in a project area and an analysis of potential impacts on the farmland to determine if it would be converted as a result of the project. Some states have farmland data in GIS format that can be downloaded and overlaid with the project design or reviewed in a mapping program. Documentation associated with FPPA compliance may include farmland conversion rating forms as well as written communication with the local conservation district or state office of the Natural Resources Conservation Service (NRCS). In coordination with NRCS, FLH will determine if compensatory mitigation is needed to offset the conversion or permanent loss of farmland. This type of mitigation may consist of preserving farmland nearby in perpetuity (creating a conservation easement) and coordinating with local landowners that have farmland. The FPPA documentation is saved in the project file.

4.2.11 HAZARDOUS MATERIALS AND WASTE

Primary laws governing hazardous materials and waste are the [Resource Conservation and Recovery Act of 1976](#) (RCRA) and the [Comprehensive Environmental Response, Compensation, and Liability Act of 1980](#) (CERCLA, also known as Superfund). RCRA was established to ensure proper management and disposal of hazardous wastes and was amended to include a clean-up provision for former hazardous sites and regulate underground storage tanks. It contains various requirements for hazardous waste management, such as prohibiting open dumping, restricting land disposal of hazardous wastes, permitting storage, treatment, and disposal facilities.

CERCLA was established to clean up hazardous waste sites, which included establishment of a funding program to support those clean-up activities, and to identify hazardous sites that could pose a threat to the environment. The EPA oversees CERCLA by requiring removal or remedial actions to clean up hazardous sites and reduce or remove the threat to the environment. FLH projects that could disturb or otherwise affect hazardous sites or could result in environmental impacts as a result of the disturbance or release of hazardous materials or waste must be further evaluated to determine appropriate measures to comply with the regulations.

4.2.11.1 Hazardous Materials and Waste Review Process

The first step for compliance with hazardous materials and waste regulations is to determine if a project may affect lands with the potential to harbor hazardous substances. If potential hazardous material sites are identified during project development, an appropriate survey (e.g., Environmental Site Assessment) may be required to confirm the presence or absence of hazardous substances, and coordination with resource agency officials must be performed. FLH follows the American Society for Testing and Materials (ASTM) standard for environmental site assessments. If a project includes structures (e.g., bridges, buildings, etc.) that may contain hazardous materials (e.g., asbestos, lead, etc.) an evaluation may need to be completed.

- Utilize [databases/mapping](#) to identify if there are any known waste sites located within or near the project area.
- If there are indications of potential contamination and further detailed research is recommended, a Phase I Environmental Site Assessment (Phase I ESA) should be conducted.
- A Phase I ESA evaluates the potential for contamination to be present through historical research and a site visit to observe existing conditions (no sampling or testing), and concludes whether or not additional investigation is necessary.
- A Phase II ESA is limited field investigation (soil, water, and air sampling) conducted prior to acquisition and construction to characterize the nature and extent of any contamination. A Phase II investigation is undertaken based on the findings of a Discipline Report or a Phase I ESA.
- Phase III, if needed, would be cleanup and remediation.

Additional Hazardous Materials Guidance: [Interim Guidance – Hazardous Waste Sites Affecting Highway Project Development](#) (1988) and [Supplemental Hazardous Waste Guidance](#) (1997).

4.2.12 HIGHWAY TRAFFIC NOISE

FHWA's highway traffic [noise regulations](#) at [23 CFR 772](#) provide procedures for noise studies and noise abatement measures to help protect the public's health, welfare, and livability. The regulations establish three types of projects which determine the level of noise analysis required.

Type I projects include highway construction on new locations, substantial horizontal or vertical alteration, and other criteria described in 23 CFR 772. Type I projects must undergo a noise analysis to assess the level of noise impacts and whether abatement is reasonable and feasible.

Type II "retrofit" projects are for noise abatement on existing highways. FLH does not have an active Type II noise program, so no FLH projects are Type II.

Type III projects are projects that do not meet the classifications of a Type I or Type II project. Type III projects do not require a noise analysis.

Most FLH projects are Type III, and therefore do not require a noise analysis. Construction noise impacts are generally not modeled, unless deemed necessary by FLH for projects located in

heavily urbanized areas or otherwise highly complex projects. Each State Department of Transportation has noise regulations or policies that FHWA has adopted, and FLH may follow the state process when evaluating noise impacts for its projects.

4.2.12.1 Highway Traffic Noise Review Process

Noise studies are prepared for Type I projects. The content of the study will depend on whether noise impacts are identified, and if so, whether noise abatement is reasonable and feasible. Generally, noise studies are documented in a separate report and incorporated by reference into the environmental document.

If noise analysis is required, follow the state DOT Noise Policy and refer to the FHWA [Regulations and Guidance](#).

The noise analysis should reflect the following steps for the project, including action alternatives if any:

- First determine if the project fits the definition of a [Type I](#) project (i.e., construction of a highway on new location, physical alteration of an existing highway with substantial horizontal or vertical alteration, additional of a through-traffic lane, auxiliary lane, interchange lanes, and/or addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot or toll plaza).
- If the project is a Type I project, conduct an [analysis of traffic noise impacts](#). The analysis includes the following: identification of existing activities, developed lands, and undeveloped lands, which may be affected by traffic noise; identification of project limits; measurement of noise levels; validation of the prediction model; prediction of noise levels; and determination of impacts.
- If the project would result in a traffic noise impact, [noise abatement](#) must be considered and evaluated for feasibility and reasonableness.

FLH does not currently construct Type II projects (“retrofit” projects for noise abatement on existing highways), so there are no associated requirements for documentation.

Type III projects (projects that are not classified as a Type I or II project) are identified as such in the environmental document. Narrative justification for categorizing a project as Type III is needed when it is not plainly obvious that the project meets the definition of Type III. Type III projects do not require a noise analysis.

4.2.13 LAND AND WATER CONSERVATION FUND ACT SECTION 6(F)

The [Land and Water Conservation Fund](#) (LWCF) was established by Congress in 1964 to fulfill a bipartisan commitment to safeguard our natural areas, water resources, and cultural heritage and to provide recreation opportunities to all Americans. [Section 6\(f\)](#) of the LWCF Act applies to all projects on non-federally managed land that affect recreational lands purchased or improved with LWCF funds. The LWCF has a [state program](#) and a [Federal program](#). The post-construction conversion regulations ([36 CFR 59](#)) apply only to the state program.

Pursuant to Federal law, LWCF grant-assisted areas are to remain available for public outdoor recreation use “in perpetuity”. Section 6(f) prohibits the conversion of property acquired or developed with LWCF funds to a nonrecreational purpose without NPS approval. NPS (or a designee of the NPS) is required to ensure that replacement lands of equal value, location, and usefulness are provided as a condition of such conversions, also known as *in-kind* replacement. Consequently, where conversions of Section 6(f) lands are proposed for highway projects, replacement lands are required. All conversions must be replaced with property(ies) of reasonably equivalent recreation usefulness and location and be of at least equal fair market value to the conversion area(s). FLH coordinates with NPS and the appropriate State Representative on conversions of Section 6(f) lands.

4.2.13.1 Section 6(f) Review Process

The first step for compliance with Section 6(f) requirements is to identify if any 6(f) funded properties on non-federally managed lands are in the project area (note that conversion requirements do not apply to federally managed lands). Contact the appropriate [State Representative](#) and/or [NPS contact](#) to confirm 6(f) property information and to determine if a conversion will be required. Identify the 6(f) grant boundaries and the reason for 6(f) funds on the property. Only project impacts to 6(f) funded areas need to be considered for compliance with 6(f). A conversion of property acquired or developed with LWCF funds to a nonrecreational purpose requires NPS approval.

Some projects may be determined consistent with the outdoor and recreational uses of the property (e.g., creation of trails). When this applies, FLH will get concurrence from the property owner/manager and coordinate with the appropriate State Representative to confirm that the property is not being converted to a use other than public outdoor recreation. This determination can be documented in the environmental document and supported by correspondence with the appropriate property owner/manager and LWCF State Representative.

When the project will result in a conversion of 6(f) funded property to a nonrecreational purpose, consultation with NPS (or a designee of the NPS) is required to ensure that replacement lands of equal value, location, and usefulness are provided, also known as in-kind replacement. All conversions must be replaced with property(ies) of reasonably equivalent recreation usefulness and location, and also be of at least equal fair market value to the conversion area(s). Reach out to the appropriate NPS Contact when a conversion is required. Consultation is typically initiated by means of letter or email to the NPS regional office or designated agency. Conversions must be approved by NPS through a formal Conversion Request. Consultation letters and conversion approvals are saved in the project file.

4.2.14 SOCIOECONOMIC

NEPA requires the consideration of social and economic impacts for FLH projects, and other regulations and laws that involve human health or environmental matters, or interrelated social and economic impacts (e.g., Title VI of the Civil Rights Act, Americans with Disabilities Act, Uniform Act, etc.) are considered during the process. These regulations mostly protect people from discrimination and ensure equal opportunity to participate in Federal programs and activities, such as the NEPA process.

4.2.14.1 Socioeconomic Review Process

The majority of FLH projects are not located in highly populated areas and/or do not result in social or economic impacts to a community. However, when potential or unknown impacts may occur, an analysis should be conducted. FLH follows guidance provided in [FHWA's Technical Advisory T 6640.8A](#) which requires analysis that looks at potential impact to the following items:

- Changes to neighborhoods or community cohesion;
- Changes in travel patterns and accessibility;
- Impacts to schools, recreation areas, churches, businesses, police/fire protection;
- Impacts on overall public safety; and
- Effects on elderly, handicapped, nondrivers, transit-dependent, and minority groups.

In some instances, FLH may conduct a [Community Impact Assessment \(CIA\)](#) to better understand impacted communities. A CIA is an iterative process to evaluate the effects of a transportation action on a community and its quality of life. The content of the CIA may vary widely depending on the specifics of the proposed action.

4.2.15 VISUAL IMPACTS

Various environmental laws and regulations take visual impacts into account. For example, visual impacts are generally assessed as part of the NEPA decision-making process. Visual impacts may also be an important part of assessing effects on historic properties under [Section 106](#). Similarly, the [Wild and Scenic Rivers Act](#) protects the visual serenity of certain waterbodies. In addition, each FLMA has requirements related to its own defined visual quality objectives, which can be more restrictive than the procedures cited above. FLH should ensure consistency with the visual standards identified in FLMA management plans.

4.2.15.1 Visual Impacts Review Process

For FLH projects in visually sensitive areas (e.g., along a scenic highway) or with possible visual concerns from a public perspective or due to a specific design feature (e.g., new structures or above-ground features, realignment), a visual impact assessment (VIA) may be appropriate. The VIA process is typically carried out in four phases: Establishment, Inventory, Analysis, and Mitigation. Each of these steps is described in detail in [Guidelines for the Visual Impact Assessment of Highway Projects](#). In general, these phases involve establishing the visual effect

area, describing the visual environment and viewer groups, analyzing changes to the visual environment, and identifying appropriate mitigation and enhancement measures. The guidelines identify four possible levels of documentation based on the scope, complexity, and controversy associated with a particular project and using a scoring system:

- VIA memorandum: If the project and its impacts are visually inconsequential, FLH should prepare a memo to the file or document the analysis in the environmental document.
- Abbreviated VIA: For routine or minor projects, an abbreviated VIA is appropriate and typically consists of a memo to the file or short report.
- Standard VIA: The level that results in a thorough examination of the visual issues associated with most projects involving new construction or substantial reconstruction is called a standard VIA. It consists of a stand-alone report that is summarized in the environmental document.
- Expanded VIA: Complex or controversial projects may require an expanded VIA, which would also be a stand-alone report and may involve more public outreach or involvement in the process.

4.2.16 WILD AND SCENIC RIVERS ACT

The [Wild and Scenic Rivers Act](#) (WSRA) provides protections to wild and scenic rivers and congressionally authorized study rivers. Congress or the Secretary of the Interior designates wild and scenic rivers based on their outstandingly remarkable values to preserve their free-flowing conditions and immediate environments. These rivers are part of the National Wild and Scenic Rivers System. [Section 7](#) of the WSRA is the provision that directs Federal agencies to protect the free-flowing condition and other values of such rivers. Wild and Scenic Rivers designated as Recreational may need to be considered under Section 4(f).

4.2.16.1 Wild and Scenic Rivers Act Review Process

For FLH projects that could affect a designated wild and scenic river corridor, FLH coordinates with the river-administering agency (this may be the NPS, BLM, FWS, FS, or a Tribe) on the potential impacts to the river and its outstandingly remarkable values. The first step is to review the designation of the river and its values and define the river corridor, then assess how the project could affect those values and identify if any mitigation measures would reduce those impacts. This analysis should be presented in a memo or report that is shared with the river-administering agency who is responsible for making a determination under Section 7 of the WSRA. The specific process for coordinating with river-administering agencies varies by region and project. This documentation, including correspondence with the river-administering agency and the final determination, is saved in the project file with the results summarized in the environmental document.

4.2.17 OTHER LAWS AND REGULATIONS

Other laws, regulations, policies, and guidance applicable to FLH projects are summarized in the appendix. While the list covers most major issue-areas, it is not exhaustive. FLH's partner agencies often have regulations and policies that the project team must understand and implement. In addition, FLH delivers projects in states, localities, and tribal lands which may have unique laws and regulations.

Laws and regulations beyond those provided in this chapter may be led by other FLH disciplines. In some instances, those laws and regulations will be evaluated as part of the environmental process in partnership with the other disciplines.

4.3 ENVIRONMENTAL PERMITTING

Transportation projects typically require a variety of Federal and state permits and occasionally local or other permits, depending on the location and nature of the activities. Surveys to support the investigations for the project may require permits from the FLMA, Tribe (if on tribal lands), or state; typical survey permits are highlighted below. Prior to construction activities, Federal and other permits may be required because of certain environmental impacts; these permits may be obtained by the Environmental staff before construction begins and are highlighted below. The need for other permits should be reviewed when evaluating impacts and assessing regulatory compliance requirements during the environmental review process. Some permits may be obtained by others (i.e., construction contractor or other disciplines) such as stormwater or dewatering permits, road encroachment permits, dust control permits, floodplain encroachment permits, and stationary equipment permits. Some FLMA's may require special use permits for certain activities (e.g., staging, borrow sites) on their lands; the FLH construction staff should coordinate the need for these permits with the contractor.

4.3.1 SURVEY PERMITS

Surveys on Federal lands may require a special use permit or other authorization from the FLMA. The FS, NPS, and BLM often issue special use permits or field authorizations for cultural surveys (e.g., ARPA), especially if ground disturbance (shovel testing) is expected, and sometimes these permits may cover multiple projects over a period of time. Other agencies may issue authorizations for surveying on their lands. Some states also require permits for cultural surveys to ensure qualified staff are performing the work, and these permits may last multiple years and cover multiple projects. Biological surveys do not often require special authorizations from FLMA's, but the landowner should always be notified in advance of the surveys. Right-of-entry is required for survey on private land.

Although not typically required for biological surveys at the beginning of a project, FWS and NMFS issue Recovery and Interstate Commerce permits for listed species under [Section 10\(a\)\(1\)\(A\) of the ESA](#). Typical activities that trigger this permit are abundance surveys, genetic research, relocations, capture and marking, and telemetric monitoring, which may be required as a mitigation measure for a project and implemented before or during construction (e.g., handling and relocating a listed animal). If a Biological Opinion is issued for a project, pre-construction survey and monitoring activities may be covered under that authorization, without the need for a separate permit. The biologist(s) doing the activity must demonstrate directly relevant experience with the species that would be affected.

4.3.2 CWA PERMITS

Permitting under the CWA is required for discharges into waters of the U.S. [Section 402](#) regulates stormwater and other point-source discharges, and [Section 404](#) regulates the discharge of dredged or fill material. [Section 401](#) requires water quality certification of Federally issued permits that involve a discharge into waters of the U.S. The permitting process for these permits depends

on the nature and extent of the impacts (discharges) and the agency with permitting jurisdiction. The typical process for each type of permit is presented below.

Section 402: NPDES permits are typically issued by the state, although the EPA retains permitting authority in some states and on tribal lands. The EPA and most states have Construction General Permits (CGP) that cover stormwater discharges for most construction activities. The requirements to get coverage under these permits is submittal of a notice of intent (NOI) and preparation of a stormwater pollution prevention plan (SWPPP). The need for the CGP is triggered by the type of construction activity and extent of disturbance, as described in the applicable CGP conditions. Templates for the NOI and SWPPP are often available from the agency responsible for issuing the permit. NOI submittal requirements vary by CGP, and requirements per the applicable CGP should be followed. Coordinate early to determine who is responsible for submittal of the NOI. Individual states may have specific erosion control and stormwater management requirements.

The SWPPP describes the erosion and sediment control measures that will be implemented during construction and the methods for monitoring and inspecting the work area. The contractor will be responsible for implementing the SWPPP, and FLH Divisions oversee its implementation to ensure compliance. In some cases, a project may meet the conditions for a waiver from stormwater permitting and notification to the state or EPA may or may not be required, depending on the agency. A SWPPP is also typically not required if a waiver applies, but an erosion control plan should still be prepared. Other general permits issued by the states, such as for dewatering or certain pollutant discharges, may require a full application or a simpler NOI, depending on the permit. Fees may be required for some permits and waivers. Refer to [Section 4.4.2.1](#) for NPDES permit closeout procedures.

Section 404: Discharge [permits](#) for dredged or fill material into waters of the U.S. are issued by the USACE, which has eight Divisions across the U.S. and multiple Districts within each Division. The main types of permits are standard (individual), regional or programmatic general, and Nationwide Permits. Individual permits cover all types of activities and discharges and have a more complex permitting process than the general permits. In some cases, a letter of permission may be issued in lieu of an individual permit, at the USACE's discretion. The USACE has issued regional or programmatic general permits in some areas to cover routine activities by certain agencies to expedite the permitting process, these permits do not typically apply to transportation projects implemented by FLH but should be reviewed before applying for an individual permit.

Individual Permits: For an individual permit, the application process typically begins with a pre-application meeting with the USACE to discuss the project and anticipated impacts to waters of the U.S. For FLH projects, FLH or a Federal agency partner would be responsible for Federal compliance requirements (e.g., NHPA, ESA) and provide that documentation to the USACE as part of the application to support its NEPA decision and demonstrate compliance with Federal regulations. The permit process also includes public notification and a detailed alternatives analysis ([404\(b\)\(1\)](#) guidelines). The application includes a detailed project description, discussion of impacts to waters of the U.S. and mitigation measures to protect water quality, alternatives analysis, the delineation report, consultation documents, and other supporting information (e.g., maps depicting impacts, design plans with cross-sections, correspondence with other agencies).

This process can take 6 months at a minimum and often takes longer because of the complexity of the project and involvement of multiple agencies.

Nationwide Permits and Regional General Permits: The USACE issues [Nationwide Permits](#) (NWP) approximately every 5 years. Most FLH projects should fit under an NWP, but occasionally an individual permit may be necessary. Each USACE District has information on permitting, including electronic applications, on their websites. Regional General Permits (RGPs) are issued by district and may be utilized for permit coverage depending on the RGP conditions. Check the applicable District website to confirm if an NWP and/or RGP would be applicable.

The [standardized application forms](#) include ENG 4345 (individual application) and ENG 6082 (Pre-construction Notification (PCN)), which can be used for any District as long as it is supplemented with District-specific required information. In cases where the state may also issue a permit for discharges or stream alterations, joint applications may be available to streamline the application process when multiple permits are needed on a project.

The notification package may be similar to the application submitted for an individual permit, but the public notification and detailed alternatives analysis are not required. The USACE will still need to see documentation of Federal compliance requirements but does not have a NEPA action for the verification process because NEPA was completed when the general permits were issued.

FLH projects typically fit under one or more of the following NWPs

- 3 (Maintenance);
- 13 (Bank Stabilization);
- 14 (Linear Transportation Projects); and/or
- 23 (Approved Categorical Exclusions).

The NWPs or any RGPs for the area should be reviewed closely before proceeding with an application for an individual permit. In many cases, the transportation project impacts will be minor with each crossing being considered a single and complete project under the Nationwide Permit Program ([33 CFR 330](#)) and should fit under one or more NWPs. Depending on the NWP and conditions, a PCN may or may not be required. If a PCN is required, the USACE typically takes 45 days to issue its authorization for coverage under the permit once the 401 water quality certification has been issued (if individual certification is necessary) or after receipt of a complete PCN. No fee is required for USACE permits. Refer to Section [4.4.2.1](#) for 404 permit closeout procedures.

Section 401: The water quality certification (i.e., [401 certification](#)) is triggered by the need for a Federal permit for discharges into waters of the U.S. (e.g., 404 permit). The certifying authority (i.e. states, certain Tribes, or EPA) issue the certification, depending on the project location. The EPA is the regulatory authority for projects located on lands of exclusive federal jurisdiction (LEFJ) (coordinate with the FLMA to confirm if the project area falls within a LEFJ).

The application process is typically conducted concurrently with the 404 permit process. For regional general permits and nationwide permits, the USACE must request 401 certification of the permit(s) through the certifying authority, which typically results in a programmatic-type of 401

certification. The certifying authority may impose specific conditions on the activities as part of the general certification, which would be incorporated into the Federal permit, and could require notification or individual 401 certification for certain activities. For individual 404 permits, individual 401 water quality certification is always required.

When an individual 401 certification is needed, the process follows guidance from the EPA , which is currently defined in the [Final 2023 Clean Water Act Section 401 Water Quality Certification Improvement Rule](#). This process includes a pre-application submittal to the certifying authority, a meeting to discuss the project, if needed, and a formal request for certification with a complete application. The application contents are also defined in the Rule, as minimum requirements, and are similar to those required for a USACE PCN or 404 individual permit application. The application form and contents to submit must follow the applicable certifying authority's guidance and process. An individual certification can take up to 1 year to obtain, but typically takes a few months, depending on the certifying authority and completeness of the application. Compliance with other laws may also be required, such as state laws for environmental processes if a state agency is issuing the certification, which could add to the submittal requirements and process. Some certifying authorities also have fees for the certification process.

4.3.3 RIVERS AND HARBORS APPROPRIATION ACT PERMITS

Permitting required under Sections 9 and 10 of the Rivers and Harbors Appropriation Act is similar to CWA Section 404 permitting. For activities that involve the building of any structure in the channel or along the banks of navigable waters of the U.S., the USACE issues [Section 10](#) permits, often in conjunction with Section 404 permits and using the same application process. Certain structures (e.g., bridges, causeways) over or in navigable waters that may impact navigation may require a [Section 9](#) permit from the U.S. Coast Guard. The application package to the Coast Guard includes plans with dimensions and navigational clearances and a project description, and the Coast Guard conducts a public review process before issuing the permit. This permit process can take a few months to several years, depending on the complexity of the project. Issuance of this Federal permit will also trigger the need for a [Section 401](#) water quality certification under the Clean Water Act. FHWA has a Memorandum of Understanding and a Memorandum of Agreement with the U.S. Coast Guard and other DOT agencies for coordinating and improving bridge planning and permitting ([MOA](#) and [MOU](#) executed January 14, 2014), which is designed to help expedite the bridge permitting process.

A [Section 408 permission](#) is required for the permanent or temporary alteration or use of any USACE civil works project. An alteration refers to any action that builds upon, alters, improves, moves, occupies, or otherwise affects the usefulness, or the structural or ecological integrity of a USACE civil works project. Coordinate with the appropriate [USACE district](#) to confirm if a Section 408 permission is required. Section 408 permission requires a determination that the requested alteration is not injurious to the public interest and will not impair the usefulness of the project. The 408 permission will be issued by the USACE at the District level. 408 permission may require submittal of an application package (if not reviewed under another application submittal such as through a 404 submittal) for the USACE to conduct engineering reviews, environmental reviews, risk analysis and real estate review.

4.3.4 TRIBAL, STATE, AND LOCAL PERMITS

Permits may be required by a Tribe, state, and/or local government depending on the location of the proposed project and the proposed activities. Refer to division specific guidance for permits that may be applicable to your project area. Typical permits may include fill/removal permits, water quality permits, species take permits, erosion and sediment control permits, and stormwater management permits. Depending on the permit type, some permits may be acquired by the contractor during construction.

4.4 CONSTRUCTION AND POST CONSTRUCTION SUPPORT

One of the highest priorities on any FLH construction project is to ensure compliance with environmental permits and requirements. A violation, no matter how unintentional or seemingly undamaging, can irreversibly harm the environment, resulting in civil and criminal actions, and adversely affect FLH's ability to get permits and environmental clearances in the future. Construction is expected to be consistent with the determinations and commitments of the environmental documentation and permitting. While the construction staff are responsible for meeting all of the environmental requirements for the project and foreseeing where difficulties may arise, the Environmental Specialist provides support as needed to ensure compliance throughout construction.

4.4.1 CONSTRUCTION SUPPORT

Common environmental support activities during construction will vary depending on the project and may include, but is not limited to, the following:

- Attending construction meetings;
- Reviewing and commenting on contractor submittals (e.g., SWPPP, diversion plans, changes to designs);
- Conducting site visits;
- Coordinating with regulatory agencies;
- Permit renewals.

FLH will obtain all permits necessary to construct the project prior to construction and provide copies to the FLH construction staff and contractor, unless the contractor is responsible for obtaining the permits (e.g., stormwater, dust permits, water withdrawal), then they are responsible for obtaining coverage before on-site work starts. The construction team is responsible for alerting the Environmental Specialist to any changes to proposed work that could affect environmental compliance, commitments, or permits. The Environmental Specialist is typically responsible for additional environmental documentation or compliance (e.g., re-opening consultations, coordinating with partner and regulatory agencies) and applying for and/or revising environmental permits as needed during construction. If another agency led any aspect of the environmental process originally, they will be responsible for reviewing the changes, conducting follow-up consultations or coordination, and preparing additional documentation, as applicable. The Environmental Specialist may also be responsible for renewing permits and paying annual fees, if applicable.

Monitoring during construction is used to ensure compliance with environmental commitments and permits and will be identified in the contract if it is a contractor responsibility, otherwise the responsibility may fall on a partner agency and be documented in an agreement with that agency. FLH construction staff are responsible for ensuring adherence to the contract and overseeing contractor-provided monitors or coordinating with the partner agency monitors. The Environmental Specialist coordinates with the construction staff on any concerns or issues that

arise during construction, such as if monitoring reveals a previously unidentified resource (such as a cultural site), and may lead or assist with providing reports to others if required by a regulatory agency or permit.

Resources that are commonly monitored during construction include wetlands, erosion control, water quality, and revegetation. For example, the contractor is required to ensure that the best management practices (BMPs) and measures identified in the SWPPP (as required by the NPDES permit) are properly installed and functioning. Sometimes monitoring is required to ensure no impacts to cultural resources (e.g., monitoring ground disturbing activities near a known archaeological site). Reporting in some form (e.g., reports, forms, memos) may be required during construction. Reporting is often provided by those conducting the monitoring, although the Environmental Specialist may submit reports to agencies if needed.

4.4.2 POST-CONSTRUCTION SUPPORT

Environmental support may continue after construction to meet permit requirements and ensure successful implementation of mitigation measures. Common post-construction environmental support activities will vary depending on the project but may include the following:

- Closing out CWA or other environmental permits;
- Monitoring and reporting to ensure post-construction BMPs, compensatory wetland or stream mitigation (if restored or created on site), or other mitigation measures were successful; and/or;
- Records management to maintain the project file in the event of a Freedom of Information Act or other request.

4.4.2.1 Permit Closeouts

Once the requirements of permits have been met, most permits will require a close out procedure that involves notifying the permitting agency. This process varies depending on the permit. For the CGP (NPDES), if FLH submitted the NOI, FLH is responsible for filing the Notice of Termination (NOT) or transferring to a partner agency (follow applicable CGP requirements for transferring or closing out the NPDES permit). For Section 404 permits, once all work in waters of the U.S. is complete, FLH can file a Certificate of Completion if required by the permit. Some permits may require additional information, such as post-construction photographs and as-built drawings. The Environmental Specialist must be familiar with the closeout requirements and ensure proper notification to the permitting agency is provided. If a permit is not ready to be closed out right after construction is complete due to additional monitoring needs, the Environmental Specialist will coordinate the additional requirements.

4.4.2.2 Post-Construction Monitoring

The Environmental Specialist will coordinate post-construction monitoring and reporting, if needed on a project, with regulatory or permitting agencies, others at FLH, partner agencies, and others as appropriate. The monitoring may involve field visits to monitor mitigation sites or taking

photographs after construction is complete. Reports may be required annually or more often to meet permit terms.

Monitoring after completion of construction will vary by the regulatory or permitting requirements. For example, it will be required if compensatory mitigation was provided through on- or off-site mitigation instead of a mitigation bank or in-lieu fee program as part of the Section 401 or 404 permitting process. The details of the monitoring will be in the compensatory mitigation plan and permits. Verification of compliance with the CGP for stormwater may also require post-construction photographs after final stabilization is complete which could take multiple growing seasons. Other monitoring may be necessary for new or innovative mitigation measures (e.g., wildlife crossing structures, slope stabilization, stormwater treatment or control).

If long-term monitoring is expected, the Environmental Specialist would arrange or contract for extended monitoring. It is preferable that long-term monitoring be completed by a partner agency when practicable and that the agency take over the applicable permit through a transfer. If FLH is responsible, a consultant may be retained to provide the support or FLH staff may do the monitoring if possible.

When FLH is responsible for post-construction monitoring, the Environmental Specialist will provide the necessary reporting to the regulatory or permitting agency.

As part of long-term, annual monitoring, the Environmental Specialist should be assessing the effectiveness of the mitigation and the monitoring results to adapt the mitigation, if needed, on the project. and to inform lessons learned for future projects.

4.4.2.3 Records Management

Once construction and any required monitoring has been completed, the environmental documentation and permits for the project should be retained per guidance provided in the [FHWA Records Disposition Manual](#) for FLH. The general rule, as established by case law, is that the administrative record should contain “all documents and materials directly or indirectly considered by the agency” in making its NEPA decision. Refer to the [AASHTO Practitioner’s Handbook #1](#) for further guidance on maintaining a project file and preparing an administrative record for NEPA. Effective January 1, 2023 all records retention for federal agencies must be electronic only.

4.5 TRACKING AND REPORTING

4.5.1 PAPAI

[Project and Program Action Information System](#) (PAPAI) is an online system used by FHWA field offices and Headquarters to track the status of the environmental review and permitting process for EA and EIS projects when FLH is the lead agency for NEPA compliance (projects that fit under CEs are not required to be in PAPAI but may be entered optionally). It also informs the [Permitting Dashboard](#) for Federal Infrastructure Projects, an online tool for governments and members of the public to track the status of infrastructure projects that are an EA or EIS Class of Action. Therefore, information entered into PAPAI may be distributed widely to the public.

PAPAI is accessed through FHWA's User Profile and Access Control System ([UPACS](#)). FLH populates PAPAI within 90 days of when a new EA or EIS is initiated (within 30 days for Major Infrastructure Projects) and updates information in PAPAI regularly, or within 5 business days of a project milestone. This aids FHWA Headquarters in monitoring project progress between major milestones and to accurately determine the total processing time from initiation of an EIS or EA to the approval of the final decision document, as well as timelines for required environmental permits and authorizations.

4.5.2 OTHER TRACKING AND REPORTING REQUIREMENTS

Endangered Species Act Cost Reporting: The ESA Amendments of 1988 included a provision requiring FWS to report to Congress an annual, species-by-species accounting of all reasonably identifiable Federal expenditures made primarily for the conservation of endangered or threatened species pursuant to the Act. Each FLH Division is responsible to track species-by-species expenditures and provide information to Headquarters on an annual basis.

Noise Abatement Measure Inventory: Required by [23 CFR 772.13\(f\)](#), highway agencies must maintain an inventory of all constructed noise abatement measures. FHWA collects this information every three years. FLH Divisions individually retain information related to the inventory and provide it to FHWA Headquarters upon request.

4.6 APPENDICES

4.6.1 LAWS AND REGULATIONS

Law or Regulation	Reference	Resource Topic
National Environmental Policy Act of 1969	42 USC Chapter 55	NEPA Process
FHWA Environmental Impact and Related Procedures	23 CFR 771-774	Overall Process
Americans with Disabilities Act of 1990	42 USC 12101	Discrimination
Civil Rights Act of 1964 (Title VI)	PL 88-352	Discrimination
Department of Transportation Programs, Policies and Procedures Affecting American Indians, Alaska Natives and Tribes	DOT EO 5301.1	Tribal Concerns
Endangered Species Act of 1973	16 USC 1531	Wildlife and Plant Species
Migratory Bird Treaty Act of 1918	16 USC 703-712	Migratory Birds
Magnuson-Stevens Fishery Conservation and Management Act	PL 94-265; PL 109-479	Marine Fisheries
Bald and Golden Eagle Protection Act	16 USC 668–668d	Bald and Golden Eagles
Marine Mammal Protection Act of 1972	16 USC 1361–1407	Marine Mammals
Anadromous Fish Conservation Act of 1965	16 USC 757a–757g	Anadromous Fish
Fish and Wildlife Coordination Act	16 USC 661-666c	Fish and Wildlife
Federal Noxious Weed Act	PL 93-629	Noxious Weeds
Invasive Species	EO 13112	Invasive Species
National Historic Preservation Act of 1966	54 USC 300101 et seq.	Cultural and Tribal Resources
Protection of Historic Properties	36 CFR 800	Cultural and Tribal Resources
Consultation and Coordination with Indian Tribal Governments	EO 13175	Tribal Concerns

Law or Regulation	Reference	Resource Topic
Clean Water Act of 1972 (Federal Water Pollution Control Act)	33 USC 1251 et seq.	Waters of the U.S., Water Quality
Rivers and Harbors Appropriation Act of 1899	33 USC 401 et seq.	Navigable Waters
US Department of Transportation Act of 1966	23 USC 138 and 49 USC 303	Parks, Recreation Areas, Wildlife Refuges (i.e., Section 4(f))
Clean Air Act of 1970	42 USC 7401	Air Quality
Coastal Zone Management Act of 1972	16 USC 1451-1464	Coastal Resources
Farmland Protection Policy Act	7 USC 4202	Farmlands
Land and Water Conservation Fund Act of 1965	54 USC 200301 et seq.	Recreational lands
Uniform Relocation Assistance and Real Property Acquisition Act	42 USC 4601 et seq.	Relocation and Real Property Acquisition
Wild and Scenic Rivers Act	16 USC 1271-1287	Wild and Scenic Rivers
Protection of Wetlands	EO 11990	Wetlands
Floodplain Management	EO 11988	Floodplains
Resource Conservation and Recovery Act	42 USC 6901 et seq.	Hazardous Materials
The Comprehensive Environmental Response, Compensation, and Liability Act of 1980	42 USC Chapter 103	Hazardous Materials