RECOMMENDED BEST PRACTICES FOR ENVIRONMENTAL REVIEWS AND AUTHORIZATIONS FOR INFRASTRUCTURE PROJECTS FOR FISCAL YEAR 2018

FEDERAL PERMITTING IMPROVEMENT STEERING COUNCIL

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Department of Agriculture

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Nuclear Regulatory Commission

Department of Homeland Security

Department of Housing and Urban Development

Advisory Council on Historic Preservation

Office of Management and Budget

Council on Environmental Quality

Executive Director of the Permitting Council as Chair of the Council

Applicability

Recommendations within this report do not supersede, amend, or modify National Environmental Policy Act (NEPA) or other applicable laws and regulations, and do not alter the responsibility of any government official to comply with or enforce any statute. Nor does this report supersede the Office of Management and Budget (OMB) and Council on Environmental Quality (CEQ) "Guidance to Federal Agencies Regarding the Environmental Review and Authorization Process for Infrastructure Projects," which is available at https://www.permits.performance.gov.

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Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
Agencies	Council Agencies
BA	biological assessment
BLM	Bureau of Land Management
C.F.R.	Code of Federal Regulations
CE	Categorical Exclusion
CEQ	Council on Environmental Quality
CEQR	City Environmental Quality Review
CERPO	Agency Chief Environmental Review and Permitting Officer
Clearinghouse	DoD Siting Clearinghouse
COL	Combined Operating License
CPP	Coordinated Project Plan
DoD	Department of Defense
DOE	Department of Energy
EA	environmental assessment
EIR	environmental impact report
EIS	environmental impact statement
EO	Executive Order
ERCOT	Electrical Reliability Council of Texas
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FAST-41	Title 41 of the Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FPISC-OED	Federal Permitting Improvement Steering Council—Office of the Executive Director
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	fiscal year
FY 2018 Best Practices Report	*Recommended Best Practices for Environmental Reviews and Authorizations for Infrastructure Projects for Fiscal Year 2018*
GIS	geographic information system
HQ	headquarters
IQED	Implementing Quality Environmental Documentation
MCE	mission compatibility evaluation
MOA	memorandum of agreement
MSA	Magnuson-Stevens Fishery Conservation and Management Act

NAPS	North Anna Power Station
NEC	Northeast Corridor
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NJ TRANSIT	New Jersey TRANSIT Corporation
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRC	Nuclear Regulatory Commission
NWR	National Wildlife Refuge
OMB	Office of Management and Budget
PA	Programmatic Agreement
PAPAI	Project and Program Action Information System
Permitting Council	Federal Permitting Improvement Steering Council
SEQRA	New York State Environmental Review Act
SHPO	State Historic Preservation Officer
SPR	U.S. Strategic Petroleum Reserve
State DOT	State Department of Transportation
Steering Committee	Steering Committee on Federal Infrastructure Permitting and Review Process Improvement
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
WAPA	Western Area Power Administration

Recommended Best Practices for Environmental Reviews and Authorizations for Infrastructure Projects for Fiscal Year 2018

Introduction

Title 41 of the Fixing America's Surface Transportation Act (FAST-41) (42 United States Code [U.S.C.] § 4370m) created a new governance structure, set of procedures, and funding authorities to improve the timeliness, predictability, and transparency of the Federal environmental review and authorization processes for covered infrastructure projects across a broad range of sectors (Office of Management and Budget [OMB] and Council on Environmental Quality [CEQ] 2017). Under FAST-41, the Federal Permitting Improvement Steering Council (Permitting Council) publishes a yearly report of best practices.[1] The Permitting Council published the first report on January 18, 2017 (Permitting Council 2017).

This document, *Recommended Best Practices for Environmental Reviews and Authorizations for Infrastructure Projects for Fiscal Year 2018* (FY 2018 Best Practices Report), outlines the recommended best practices for Council Agencies (Agencies) for fiscal year (FY) 2018 for environmental reviews and authorizations for large, complex infrastructure projects. These recommended best practices can be implemented in the environmental review and authorization process in a variety of ways, but Appendix A, *Agency Success Stories*, provides examples of Agency implementation that may assist other Agencies with their implementation of the best practices.

Background

FAST-41 directs the Permitting Council to issue recommendations for best practices at least once per year (42 U.S.C. § 4370m-1(c)(2)(B)).

This document builds on the Permitting Council (2017) by identifying, implementing, and institutionalizing those best practices that streamline and improve the Federal permitting process by increasing transparency and accountability, and improving early coordination and synchronization of Federal environmental reviews and authorizations.

FAST-41 (42 U.S.C. § 4370m-1(c)(2)(B)) directs the Permitting Council to issue recommended best practices for each of the following eight best practice categories at least once a year:

(i) Enhancing early stakeholder engagement, including fully considering and, as appropriate, incorporating recommendations provided in public comments on any proposed covered project;

[1] A *best practice* is a method, process, or activity developed through investigation and experience that is believed to be one of the most effective approaches for delivering a particular outcome when applied to a specific condition or circumstance. With proper procedures, checks, and testing, a desired outcome can be delivered with fewer problems and unforeseen complications. Best practices can also be defined as the most efficient (least amount of effort) and effective (best results) way of accomplishing a task, based on repeatable procedures that have proven themselves over time for large numbers of people and are supportive of continuous improvement.

(ii) Ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics;

(iii) Improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies;

(iv) Increasing transparency;

(v) Reducing information collection requirements and other administrative burdens on agencies, project sponsors, and other interested parties;

(vi) Developing and making available to applicants appropriate geographic information systems and other tools;

(vii) Creating and distributing training materials useful to Federal, State, tribal, and local permitting officials; and

(viii) Addressing other aspects of infrastructure permitting, as determined by the Council.

Discussion of FY 2018 Approach

The Permitting Council (2017) is a catalogue of best practices for infrastructure permitting that many agencies were already using at the time of the report's publication. Agencies developed the FY 2018 recommended best practices through a deliberative process in which they proposed potential best practices, refined them through comments from the Interagency Working Group and Agency Chief Environmental Review and Permitting Officers (CERPOs), and reviewed by Permitting Council members. The best practices in FY 2018 build on the Permitting Council's 2017 report by focusing its efforts on implementing and institutionalizing those best practices that will best address the issues and concerns commonly voiced about the permitting process. Implementing and institutionalizing the best practices identified in this report should enable Agencies to improve coordination, meet established timetables, increase transparency, and increase stakeholder buy-in. In some cases, agencies were already implementing a recommended best practice prior to the time of publication, and some of examples of these efforts are included as success stories in Appendix A of this report.

While the major focus of the FY 2018 Best Practices Report is on FAST-41 covered projects, Agencies may also be simultaneously involved with the environmental review and authorization of other infrastructure projects. FAST-41 seeks to pilot best practices to improve the permitting processes for eventual use in non-FAST-41 covered projects. The goal is for effective best practices to be institutionalized within and across the Agencies and appropriately applied to all infrastructure projects. Agencies that are not involved in the environmental review or authorizations in current FAST-41 covered projects can apply these recommended best practices to the environmental review and authorization of other infrastructure projects, and those projects will benefit from increased transparency, predictability, and improved environmental and community outcomes.

Table 1 summarizes the FY 2018 recommended best practices for each of these eight categories.

Table 1: Summary of Recommended Best Practices for FY 2018

Category	Recommended Best Practice for Federal Agencies
(i) Enhancing early stakeholder engagement	1. Consolidate and organize information on permitting requirements and processes on existing departmental or Agency websites and, where appropriate, use social media platforms and other technologies to share information and to identify and engage interested stakeholders. 2. Implement the Coordinated Project Plan provisions in the FAST Act (42 U.S.C. § 4370m-2(c)(1)). 3. Utilize pre-application processes (i.e., informal or formal coordination prior to application submittal) with project sponsors of FAST-41 covered projects.
(ii) Ensuring timely decisions	1. Align environmental review and authorization processes across Agencies at the outset of planning for FAST-41 covered projects to allow concurrent reviews where possible and to accurately reflect the sequence of the permitting process based on actual requirements. 2. Develop and/or utilize intra-agency performance metrics (e.g., durations for applicable authorizations, meeting target completion dates, other measures of timeliness and efficient use of resources) in accordance with the Agency's mission, and share across Agencies when developed.
(iii) Improving coordination between Federal and non-Federal entities	1. Encourage development and/or utilization of joint application processes or programmatic approaches among Federal, State, local, and tribal governments with similar authorities to reduce duplicative actions. 2. Establish interagency liaison positions (i.e., through Memorandums of Understanding or Memorandums of Agreement) or points of contact to improve communication and coordination with other Federal, State, local, and tribal governments; increase expertise; and facilitate permitting processes. 3. Use regularly scheduled in-person and/or virtual meetings to ensure coordination among Federal, State, local, and tribal governments to facilitate cooperation and accountability among parties involved in general permitting processes and in environmental reviews and authorizations for covered projects.
(iv) Increased transparency	1. Provide the project sponsor/applicant of a FAST-41 covered project information about the Agency's permitting review process, including all steps, either in early coordination (e.g., through the pre-application process) or once the Agency receives an application or other initiation of the applicable environmental review or authorization. 2. Use the Permitting Dashboard to track environmental reviews and authorizations across the Federal Government for projects subject to FAST-41 (42 U.S.C. § 4370m-2(b)), providing dates to the extent allowed by applicable laws, and using dependencies only when

Category	Recommended Best Practice for Federal Agencies
	determining dates is not feasible.
(v) Reducing administrative burdens	1. Develop and/or use environmental review and authorization process templates, application forms, flow charts, and/or checklists to assist the project sponsor/applicant with providing the required information in a timely manner. 2. Institute a process for transitioning FAST-41 covered project information to new environmental review staff, if needed, to ensure continuity of project-specific knowledge.
(vi) Use of Geographic Information Systems (GIS) and other tools	1. Provide stakeholders with a list of GIS information sources that are publicly available and used by Federal agencies to initially assess the potential for environmental resources in a project area. 2. Survey government and/or non-government users of current tools to identify potential improvements and, where feasible, improve usability and data availability for existing tools and intra-agency, interagency, and public applications. 3. Establish, utilize, and support the maintenance (updating) of one central Federal database of tribal areas of interest with tribal points of contact to facilitate timely government-to-government coordination and consultation.
(vii) Training	1. Ensure that at least one tutorial (e.g., print, video, and/or presentation materials) about the Agency's environmental review and authorization process(es) is posted online and available to Federal, State, and tribal governments and local permitting officials. 2. Survey Federal, State, and tribal governments and local permitting officials to identify currently available trainings to determine information gaps and potential improvements, and where feasible, create or improve existing resources.
(viii) Other best practices	1. Evaluate policies and procedures related to environmental reviews and authorizations, and identify and share information on past and planned efforts to improve the permitting process, associated assessments, and performance metrics.

Best Practice Category (i): Enhancing Early Stakeholder Engagement

> *(i) enhancing early stakeholder engagement, including fully considering and, as appropriate, incorporating recommendations provided in public comments on any proposed covered project (42 U.S.C. § 4370m-1(c)(2)(B)).*

Objectives:

Institutionalizing a formalized process for coordinated outreach efforts across Agencies, including early outreach and coordination with applicants and other stakeholders, will meet several objectives. It will foster early stakeholder engagement, thereby allowing Agencies to identify and address issues early in the permitting process. Early coordination and outreach identifies issues that need further study and that could delay permitting timetables if not identified early. Early coordination among Agencies allows for identification and possible minimization of bottlenecks in the process through mapping out the project's environmental reviews and authorizations, which increases the likelihood of meeting the schedule in permitting timetables. Early coordination also identifies recommendations for improvement grounded in local understanding and knowledge. Lastly, it improves trust and communication between Agencies and stakeholders. The vision for effective stakeholder engagement in infrastructure permitting is that the process includes fully informed, meaningful discussions between all involved parties, substantive communication about the realities of the project's potential impacts, and the means to address the interests of all potentially affected parties, to the extent possible (Permitting Council 2017).

Recommended Best Practices:

1. Consolidate and organize information on permitting requirements and processes on existing departmental or Agency websites and, where appropriate, use social media platforms and other technologies to share information and to identify and engage interested stakeholders.

Information about permitting requirements and processes is located on Agency websites. Organizing and presenting the information in a clear and concise manner will assist stakeholders and project sponsors in becoming involved earlier in the process. The Steering Committee on Federal Infrastructure Permitting and Review Process Improvement (Steering Committee) (2014) recommended utilizing new technologies including social media tools "to facilitate early and continuous public engagement." Further, CEQ (2012) notes agencies are to "utilize information technologies to inform the public about the progress of environmental reviews as well as the progress of Federal permitting and review processes." Using social media and other applicable technologies will increase the range of distribution to many audiences for early stakeholder involvement and ensure wide ranging participation for covered projects that span large distances. The Agency Success Story in Appendix A provides an example of an instance in which consolidating information on agency website assisted applicants and the public.

2. Implement the Coordinated Project Plan provisions in the FAST Act (42 U.S.C. § 4370m-2(c)(1)).

Coordinated Project Plans (CPPs) are project planning documents required by FAST-41. They describe the project, including location; list the roles and points of contact for agencies with

permitting and review authorities; have a permitting timetable for all of the project's Federal environmental reviews and authorizations; provide information about mitigation, minimization, and avoidance strategies; and provide the plan and timetable for public involvement. All applicable Agencies are required to review the CPPs quarterly for any necessary updates. As required by FAST-41, CPPs must identify a plan and schedule for public and tribal outreach and coordination, to the extent required by applicable law (42 U.S.C. § 4370m-2(c)(1)(B)(iv)). Having a plan and schedule for public involvement in the CPP allows Agencies to coordinate their outreach efforts and promotes early public involvement and throughout the environmental review and authorization process. "Intentional public participation helps build trust, improve stakeholder buy-in, and reduce the risk of litigation" (OMB and CEQ 2017:26). The public involvement plan and schedule in the CPPs could include items such as early coordination for identification of key concerns, public involvement in the determination of the range of reasonable alternatives, and public comment periods on the draft environmental impact statement.

3. Utilize pre-application processes (i.e., informal or formal coordination prior to application submittal) with project sponsors of FAST-41 covered projects.

For FAST-41 covered projects, Agencies should be creating an "expeditious process for project sponsors to confer with each cooperating and participating agency involved" (42 U.S.C. § 4370m-2(d)). Per CEQ (2012), agencies should work with project sponsors to "develop the appropriate level of information and analyses in advance of submitting an application or other request for Federal agency action." Including complete information in the initial application will save time by reducing requests for supplemental information, which in turn reduces delays (Steering Committee 2014). Under FAST-41, such pre-application processes will also save time by avoiding the submission of applications by sponsors for projects failing to meet basic threshold requirements for "covered project" status. Examples of pre-application processes include programmatic agreements; project sponsor meetings; intra-agency and interagency pre-planning meetings; and technical assistance. The Agency Success Story in Appendix A provides an example of an instance in which early coordination assisted a project.

Best Practice Category (ii): Ensuring Timely Decisions

(ii) ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics (42 U.S.C. § 4370m-1(c)(2)(B)).

Objectives:

> The Federal government is a steward of the public trust and the timeliness of its decisions can have major implications for the environment and the economy. Delays in permitting decisions may defer the benefits of proposed infrastructure, increase direct construction costs, and extend the costs of maintaining outdated infrastructure. As such, Federal agencies must strive to execute permitting and reviews with maximum efficiency and effectiveness. (Permitting Council 2017)

CEQ (2012) recommends using early coordination and public outreach to identify the important issues to focus on in the environmental reviews to avoid delaying review of the project. CEQ (2012) set the goal of conducting concurrent processes whenever appropriate. Consequently, timely and efficient permitting processes are key tools to meet statutory requirements of FAST-41. For performance metrics, the Permitting Dashboard established by 42 U.S.C. § 4370m-2(b) provides a central location for cross-Agency permitting timetable information on which to base best practice effectiveness.

The Permitting Dashboard is designed to be the "one-stop shop" for the public, project sponsors, and Agencies for FAST-41 covered projects. This website has a page for each FAST-41 covered project. Anyone can view the project's permitting timetable, including the status of the various environmental reviews and authorizations. The Permitting Dashboard project page also includes a project description, agency contact information, project sponsor contact information, and links to important project documents, such as the National Environmental Policy Act (NEPA) documents. In addition, the page has links to the project sponsor's or Agency's project-specific website for additional information. The Permitting Dashboard increases transparency by having all of a project's environmental reviews and authorizations in a single place and updated regularly. The Permitting Dashboard also increases accountability, as the Federal Permitting Improvement Steering Council—Office of the Executive Director (FPISC-OED) reviews the information and reports on the Agency's performance in providing target completion dates and meeting those dates in the permitting timetables.

Recommended Best Practices:

1. Align environmental review and authorization processes across Agencies at the outset of planning for FAST-41 covered projects to allow concurrent reviews where possible and to accurately reflect the sequence of the permitting process based on actual requirements.

Per 42 U.S.C. § 4370m-4, "each agency shall to the maximum extent practicable…carry out the obligations of the agency with respect to a covered project under any other applicable law concurrently, and in conjunction with, other environmental reviews and authorizations being conducted by other cooperating or participating agencies, including environmental reviews and authorizations required under NEPA, unless the agency determines that doing so would impair the ability of the agency to carry out the statutory obligations of the agency." NEPA regulations (40 Code of Federal Regulations [C.F.R.] § 1500.2(c)) and CEQ (2012) also encourage integrating and coordinating environmental reviews or planning processes, such that as much of the review as possible can be concurrent rather than consecutive. To reap the maximum benefits, the schedules should be synchronized early when there is the most flexibility in the schedules (Federal Highway Administration [FHWA] 2015). Agency Success Stories in Appendix A provide examples of instances in which projects aligned schedules.

2. Develop and/or utilize intra-agency performance metrics (e.g., durations for applicable authorizations, meeting target completion dates, other measures of timeliness and efficient use of resources) in accordance with the Agency's mission, and share across Agencies when developed.

"Performance metrics establish a baseline for process timeframes, highlight processes that are working well, provide Federal agency leadership with visibility on process trends, and allow them to make informed decisions regarding agency resourcing. The collection and evaluation of well-defined metrics can help drive process improvement at all levels of an agency" (Permitting Council 2017). Performance metrics are required by 42 U.S.C. § 4370m-1(c)(2)(B). The Permitting Dashboard requires the submittal of timetables and target dates for completion of environmental reviews and authorizations and makes that information available to stakeholders.

FPISC-OED will share each Agency's internal performance metrics with other Agencies. Agencies may adopt or adapt other Agencies' internal performance metrics.

Best Practice Category (iii): Improving Coordination between Federal and Non-Federal Entities

(iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies (42 U.S.C. § 4370m-1(c)(2)(B)).

Objectives:

Promote the use of tools and agreements to help ensure Federal and non-Federal governmental entities are working from the same knowledge base to identify issues, concerns, and solutions. Also, ensure all stakeholders have easy access to high-quality data and information on the status of infrastructure project permitting processes. Utilizing common terms and data standards facilitates sharing information including interoperability (Steering Committee 2014).[2]

Recommended Best Practices:

1. Encourage development and/or utilization of joint application processes or programmatic approaches among Federal, State, local, and tribal governments with similar authorities to reduce duplicative actions.

CEQ (2012) encourages coordinated and concurrent environmental reviews when the same information (i.e., studies, surveys, and analyses) is required for multiple reviews. Per 40 C.F.R. § 1506.2(b), Agencies should cooperate with State and local agencies to the "fullest extent possible to reduce duplication between NEPA and State and local requirements, unless the agencies are specifically barred from doing so by some other law." This cooperation includes joint planning processes, joint environmental research and studies, and joint environmental assessments. 40 C.F.R. § 1500.4(n) also directs agencies to use joint documents and processes. "Joint applications reduce the paperwork and regulatory burdens on the public by providing a single form that can be used by multiple agencies. In addition, joint applications can facilitate concurrent, rather than sequential, reviews by agencies because the applications can be submitted to the affected agencies at the same time" (Steering Committee 2014). Agency Success Stories in Appendix A provide examples of instances in which joint processes reduced duplicative actions.

2. Establish interagency liaison positions (i.e., through Memorandums of Understanding or Memorandums of Agreement) or points of contact to improve communication and coordination with other Federal, State, local, and tribal governments; increase expertise; and facilitate permitting processes.

The Red Book was an interagency publication designed "to function as a "how to" for synchronizing NEPA and other regulatory reviews" (FHWA 2015). It lists many benefits of liaisons for

[2] *Interoperability* means the ability to communicate and exchange data accurately, effectively, and consistently among different systems, applications, and networks such that the purpose and meaning of the data are preserved and unaltered.

infrastructure projects (FHWA 2015). Having a dedicated point of contact for infrastructure projects improves communication and coordination, which strengthens relationships and improves information sharing. Because all Agencies will have a better understanding of required information, the improved communications will result in more predictable and streamlined environmental reviews and consultations. A designated liaison can effectively coordinate with environmental and regulatory experts, which can help a project avoid or reduce environmental impacts and minimize "surprises" late in the review process. The liaisons' relationships facilitate synchronization and early coordination. Agency Success Stories in Appendix A provide examples of instances in which having designated points of contact assisted the permitting process.

3. Use regularly scheduled in-person and/or virtual meetings to ensure coordination among Federal, State, local, and tribal governments to facilitate cooperation and accountability among parties involved in general permitting processes and in environmental reviews and authorizations for covered projects.

Meetings between the project agencies and stakeholders (as allowed by regulations or statute) at key project milestones and/or project checkpoints is a best practice (FHWA 2015). Establishing regular meetings or meetings at project checkpoints allows for the various agencies to ensure a shared understanding of the project and next steps, as well as communicating any project changes. These meetings provide an opportunity to check that the different groups have sufficient information to move forward with the next steps of the process (FHWA 2015). The establishment and consistent use of common terminology across all documents for a particular project is important during this interagency coordination to ensure accuracy and shared understanding. Further, the FAST-41 statute requires that Agencies meet at least once per year with States, tribes, and local governments involved in the infrastructure permitting process (42 U.S.C. § 4370m-1(c)(2)(C)).

Information sharing is critical in coordination and collaboration (Kaiser 2011). Environmental processes are interconnected. For example, a biological survey informs Endangered Species Act consultations as well as the NEPA document. With the multiple levels of Agencies involved in complex infrastructure projects, Agencies need to coordinate within an Agency as well as across Agencies. Coordination within an Agency and between Agencies will identify interdependencies for the environmental reviews and authorizations and overlap between the different processes and analyses. The lead agency is responsible for interagency coordination of the "process, product, and other participants" (Kaiser 2011). Meetings can be a clear and effective communication method to coordinate changes and updates in the processes across multiple entities so other entities can plan for the implications of those changes and updates. The Agency Success Story in Appendix A provides an example of an instance in which regular meetings improved the permitting process.

Best Practice Category (iv): Increased Transparency

(iv) increasing transparency (42 U.S.C. § 4370m-1(c)(2)(B)).

Objectives:

Transparency of permitting review processes facilitates the accountability of Agencies; increases predictability, efficiency, and effectiveness of the permitting process; and facilitates synchronization of reviews. Also, transparency of the permitting review processes allows all stakeholders to be fully informed about infrastructure projects.

Recommended Best Practices:

1. Provide the project sponsor/applicant of a FAST-41 covered project information about the Agency's permitting review process, including all steps, either in early coordination (e.g., through the pre-application process) or once the Agency receives an application or other initiation of the applicable environmental review or authorization.

Agencies should be working together early in the process to identify potential issues and determine solutions by providing as much information as possible to all parties. Providing environmental review and authorization information early to stakeholders (as allowed by statute or regulation) allows for issue resolution prior to significant commitment of time and resources, and provides maximum flexibility to modify projects. Consequently, Agencies can increase transparency of environmental reviews and authorizations by supplying clear information regarding all steps that are required to meet the milestones in the permitting timetable to the project sponsor early in the process. This information should include (1) discussion of the project sponsor's important role and responsibility to provide complete, accurate, and timely data and information (as part of their applications and as required throughout the analyses completed for environmental reviews and authorizations) and (2) assistance to support permitting reviews and the schedules in permitting timetables. For early coordination requests, Agencies should provide responses to project sponsor or applicant requests for certain information (e.g., the availability of information and tools; key issues of concern to each agency and the public; and issues that must be addressed before an environmental review or authorization can be completed) within 60 days of the project sponsor or applicant requesting it (OMB and CEQ 2017:30). Agency Success Stories in Appendix A provide examples of instances in which providing information early in the permitting process improved the permitting process.

2. Use the Permitting Dashboard to track environmental reviews and authorizations across the Federal Government for projects subject to FAST-41, (42 U.S.C. § 4370m-2(b), providing dates to the extent allowed by applicable laws, and using dependencies only when determining dates is not feasible.

Agencies are required to post and maintain permitting timetables on the Permitting Dashboard per 42 U.S.C. § 4370m-2(b) and (c). OMB and CEQ (2017) direct agencies to provide specific dates in the permitting timetables to the maximum extent practical and to use experience from similar past projects to inform the permitting timetable. However, when an Agency "is absolutely unable to provide an estimated date for the project's complete application in the initial CPP," agencies can establish target completion dates that utilize dependencies. *Dependencies* are reflected currently as text descriptions of timeframes that are not specific dates but rather amounts of time after a preceding event, such as the submittal of a document. OMB and CEQ (2017) require dependencies to be a specific amount of time after the preceding step. For example, a permitting timetable may include a dependency such as a 60-day review period after the submittal of a document, if the exact date on which the document will be submitted is not known. The Permitting Dashboard, which includes these permitting timetables, publicly provides information on when the project milestones will occur, thereby increasing transparency.

Best Practice Category (v): Reducing Administrative Burdens

(v) reducing information collection requirements and other administrative burdens on agencies, project sponsors, and other interested parties (42 U.S.C. § 4370m-1(c)(2)(B)).

Objectives:

Agencies should utilize tools and institutional knowledge management to increase information sharing across Agencies, project sponsors, and other interested parties to reduce redundant efforts and administrative burdens. This best practice category ensures that internal and external stakeholders benefit from a reduced burden in information collection and that project decisions are coordinated over the course of a covered project's permitting process. This practice also allows for continuity of project knowledge and reduces the amount of time needed to properly inform new staff. "A coordinated or concurrent process may provide a better basis for informed decision making, or at least achieve the same result as separate or consecutive processes more quickly and with less potential for unnecessary duplication of effort" (CEQ 2012).

Recommended Best Practices:

1. Develop and/or use environmental review and authorization process templates, application forms, flow charts, and/or checklists to assist the project sponsor/applicant with providing the required information in a timely manner.

Templates save time for the entity filling out the form as well as the reviewer of the information by increasing the likelihood that all information is included in a predictable format. Flow charts clarify the process for stakeholders. Checklists assist entities in collecting appropriate and required information. Checklists can identify responsible agencies, facilitate identification of purpose and need, and assist with alternatives development. Agencies can release additional guidance to assist project sponsors and applicants. The plan for implementing Executive Order (EO) 13604 (March 22, 2012)[3] directs agencies to create and provide electronic application forms and other online tools for applicants. All of these tools will assist the various entities in providing the appropriate information required for the environmental processes, including analyses, and reducing the administrative burden by avoiding unnecessary information and multiple iterations.

2. Institute a process for transitioning FAST-41 covered project information to new environmental review staff, if needed, to ensure continuity of project-specific knowledge.

Information management is important for agencies (Department of Energy [DOE] 2004). Agencies should ensure appropriate institutional knowledge is captured, maintained, and shared (Farm Credit Administration 2006). Information should be maintained in a way that provides for the appropriate preservation and retrieval (DOE 2004), especially when transferring across agencies, departments, or field offices as well as during staff changes. Agencies should ensure their record management procedures include a list of essential records to be kept and where the information

[3] The plan for implementing EO 13604 can be found here: https://www.permits.performance.gov/about/implementing-executive-order-13604-improving-performance-federal-permitting-and-review

should be stored (Farm Credit Administration 2006) to prevent loss of information. Lost information will increase administrative burden on agencies and project sponsors. In addition, it is important that Agencies have knowledgeable staff coverage to handle FAST-41 review processes and questions when regularly assigned staff may be temporarily absent.

Best Practice Category (vi): Use of GIS and Other Tools

(vi) developing and making available to applicants appropriate geographic information systems (GIS) and other tools (42 U.S.C. § 4370m-1(c)(2)(B)).

Objectives:

Agencies should promote the development and early use of GIS and other tools to assist in identifying potential community, historical, and environmental resources in project areas. Project sponsors can make more informed and strategic siting decisions through the use of GIS and other tools about sensitive resources. The lack of early identification of impacts to sensitive resources often delays or stops projects according to the plan to implement EO 13604 (2012). Agencies should ensure the best available science and information can support fully informed and sound decision making.

Recommended Best Practices:

1. Provide stakeholders with a list of GIS information sources that are publicly available and used by Federal agencies to initially assess the potential for environmental resources in a project area (e.g., National Oceanic and Atmospheric Administration Fisheries Essential Fish Habitat Mapper, U.S. Fish and Wildlife Service National Wetlands Inventory Wetlands Mapper, U.S. Geological Survey National Hydrography Dataset, and Environmental Protection Agency Environmental Justice Screening and Mapping Tool).

Steering Committee (2014) suggested a "one-stop" portal for information for stakeholders. They noted the need to compile GIS resources among other information for this portal. Before Agencies can establish policies and integrate systems to reduce information burdens, Agencies should inventory existing information, including when the data was collected, and continue to maintain this inventory. Establishing consistent data standards that follow applicable laws allows information to be shared across agencies and allows layering of agency information submitted by project applicants (Steering Committee 2014).

2. Survey government and/or non-government users of current tools to identify potential improvements and, where feasible, improve usability and data availability for existing tools and intra-agency, interagency, and public applications.

Steering Committee (2014) recommended Agencies work with stakeholders including project sponsors on consistent data standards and formats to facilitate interoperability, exchange, and integration of data, including information submitted by project applicants. To increase usability for applicants, Agencies should request feedback on their datasets and systems. Reasonable feedback from a technical standpoint should be addressed through revisions to the tools and systems. Further, Agencies should consider working with project sponsors and other stakeholders to identify and follow appropriate common data standards in the future.

3. Establish, utilize, and support the maintenance (updating) of one central Federal database of tribal areas of interest with tribal points of contact to facilitate timely government-to-government coordination and consultation.

During the development of this report, Agencies requested a single tribal directory be developed to enable tribal consultations in a timely manner. The Advisory Council on Historic Preservation (ACHP) (2017) also prepared a report recommending a government-wide contact system for tribes. During the preparation of that report, tribes indicated that a mapping system identifying geographic areas of tribal consultation interest will empower Agencies to improve early outreach and consultation leading to better project planning decisions. Permitting Council will work to determine the best solution for implementing ACHP's recommendations. A unified process for agencies to support the development of this tribal directory with information received during project coordination, such as changes in tribal representatives, should be established.

Best Practice Category (vii): Training

(vii) creating and distributing training materials useful to Federal, State, tribal, and local permitting officials (42 U.S.C. § 4370m-1(c)(2)(B)).

Objectives:

CERPOs are to "review and develop training programs for agency staff that support and conduct environmental reviews or authorizations" (42 U.S.C § 4370m-1(c)(3)(D)). Agencies should develop and promote training and informational materials to explain Agency processes to Federal, State, and tribal governments and local permitting officials. Training improves Federal, State, and tribal governments and local permitting officials understanding of Agency processes, which enhances relationships.

Recommended Best Practices:

1. Ensure that at least one tutorial (e.g., print, video, and/or presentation materials) about the Agency's environmental review and authorization process(es) is posted online and available to Federal, State, and tribal governments and local permitting officials.

Training on environmental reviews and authorizations reduces the number of application reviews and data requests, which can be an iterative process. Understanding of the basics of permitting procedure at all levels of the government will facilitate more efficient environmental review and authorization processes, which saves both Agencies and applicants time and money. Because staff level Agency personnel are the primary interface with project sponsors, they need FAST-41 training. This FAST-41 training will include the benefits of FAST-41 for the Agencies, public, and project sponsors. The field and district staff training will also include content specific to their responsibilities and roles in facilitating successful environmental reviews and authorizations, including implementation of FAST-41. The Agency Success Story in Appendix A provides an example of an instance in which training helped stakeholders.

2. Survey Federal, State, and tribal governments and local permitting officials to identify currently available trainings to determine information gaps and potential improvements, and where feasible, create or improve existing resources.

Surveying Federal, State and tribal governments and local permitting officials is a useful method to determine the effectiveness of programs. Training programs often request feedback from trainees in order to test for comprehension and effectiveness. These surveys can also provide helpful feedback on the improvement of future programs. Given the FAST-41 directive to create "training materials useful to Federal, State, tribal, and local permitting officials" (42 U.S.C. § 4370m-1(c)(2)(B)), Agencies should survey these entities to assess needed training revisions and additions.

Best Practice Category (viii): Other Best Practices

(viii) addressing other aspects of infrastructure permitting, as determined by the Council (42 U.S.C. § 4370m-1(c)(2)(B)).

Objectives:

Ensure that Agencies have access to best practice innovations, pilot programs, and initiatives through sharing of new practices and their results as well as lessons learned from success stories provided by Agencies that will be contained in this report. Additional practices may be added as the Permitting Council identifies additional best practices to address implementation of FAST-41.

Recommended Best Practices:

1. Evaluate policies and procedures related to environmental reviews and authorizations, and identify and share information on past and planned efforts to improve the permitting process, associated assessments, and performance metrics.

As discussed in OMB and CEQ (2017), the Interagency Working Group will support policy and best practice development. One of the CERPO responsibilities is to "analyze agency environmental review and authorization processes, policies, and authorities and make recommendations to the respective agency councilmember for ways to standardize, simplify, and improve the efficiency of the processes, policies, and authorities" (42 U.S.C. § 4370m-1(c)(3)(C)). Researching and compiling information about past and current permitting improvement efforts, and associated assessments and performance metrics, will assist in coordinating Agency efforts and future programs. The Agency Success Story in Appendix A provides an example of an instance in which sharing information improved permitting processes.

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Appendix A: Agency Success Stories

Agency: Department of the Army	
BP Category: (i) enhancing early stakeholder engagement, including fully considering and, as appropriate, incorporating recommendations provided in public comments on any proposed covered project.	**BP #:** 1. Consolidate and organize information on permitting requirements and processes on existing departmental or Agency websites and, where appropriate, use social media platforms and other technologies to share information and to identify and engage interested stakeholders.

Description of the Problem Solved

While permit decisions made by the U.S. Army Corps of Engineers (USACE) Regulatory Program are delegated to the district level, applicants that are unfamiliar with the permit process may go to the USACE Headquarters (HQ) Regulatory Program website as their first stop for information on how to obtain a permit. USACE HQ frequently receives telephone calls from the public asking who they should contact to inquire about potential permitting needs. As such, information on the permit process and the locations of USACE field offices around the country need to be easily obtainable on the HQ website.

Description of How Implementing the Best Practice Resolved Issue

Information on the USACE permitting process can be found on the front page of the USACE HQ Regulatory Program website, including links that take you to a full page of information on how to obtain a permit and locate the appropriate USACE Regulatory office (meets Best Practice i(1)). The "Obtain a Permit" page has an Application Form, Application Form instructions, and links to district-specific information, including district-specific application forms and permit process information (meets Best Practice v(1)). For instance, in fiscal year (FY) 2016/2017, the USACE added information on regional and programmatic general permits that are used by USACE districts across the country. The USACE HQ Regulatory Program front page also includes a link to an online public training module called "Let us Help You Fill Out a Permit Application" and a link to a Video Library that contains public training modules on several Regulatory review process topics, including Regulatory 101 and others (meets Best Practice vii(1)). Finally, in FY 2018, the USACE plans to expand our public "Find a Regulatory Office" search tool by allowing users to enter a project location via an address or click their project location on a map, which would then produce the contact information of the appropriate USACE office, along with the appropriate USACE District's website (meets Best Practice i(1)). Currently, users can search for their USACE office by State. The expanded search tool will be especially helpful for stakeholders located in States that are covered by multiple USACE districts.

The USACE HQ Regulatory Program website can be found at: http://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/.

The "Let Us Help You Fill Out a Permit Application" online public training module can be found at: http://w3.saj.usace.army.mil/permits/RDAvatarPRV201203/index.html.

Benefits to the Permitting Process from Best Practice Implementation

The USACE continues to improve our Regulatory Program HQ and district websites to increase transparency, share information, guidance, and training resources, and ultimately, improve our service to the regulated public and stakeholders. Information on our websites are intended to help the public understand the Regulatory Program, the types of activities that require a USACE permit, how to obtain such permits, and the permit process. Permit process, guidance, and training information on our Regulatory Program HQ and district websites are also intended to assist prospective applicants with preparing their applications and identifying the information needed for an application. If an applicant is able to provide all the information needed for an application up front, this avoids the need for additional information requests, which streamlines timeframes by reducing delays. Increasing public awareness of the Regulatory Program may also reduce unauthorized activities in jurisdictional waters, which improves environmental and community outcomes by funneling proposed jurisdictional activities through the permitting process. Finally, giving stakeholders an easier way to find the appropriate USACE office on the USACE HQ website may reduce the time it takes for them to find the appropriate office, resulting in increased transparency and predictability, and reducing delays.

Agency: Federal Energy Regulatory Commission	
BP Category: (i) enhancing early stakeholder engagement, including fully considering and, as appropriate, incorporating recommendations provided in public comments on any proposed covered project.	**BP #:** 3. Utilize pre-application processes (i.e., informal or formal coordination prior to application submittal) with project sponsors of FAST-41 covered projects.
Description of the Problem Solved	
Interstate natural gas transmission and liquefied natural gas projects vary greatly in scope and complexity. Location, facility type and size, construction techniques, sensitive environmental resources, landowner concerns, and regulatory agency involvement are all factors that can affect the development of a project. However, many stakeholders choose not to get involved until well after the commercial aspects and project scope have been set, diminishing their ability to influence the project design.	
Description of How Implementing the Best Practice Resolved Issue	
The review of almost all of the 14 projects FERC currently has listed on the Permitting Dashboard was well-underway prior to the initiation of FAST-41. However, to a great extent, the process launched by FAST-41 mirrors the Commission's established transparent, collaborative procedures. As detailed in the Commission staff's report "Suggested Best Practices for Industry Outreach Programs to Stakeholders" (issued July 2015), one common best practice is early stakeholder engagement. In our experience, project sponsors have realized substantial benefits from implementing a stakeholder outreach program as part of their project development model. Many projects which FERC staff has reviewed have benefited from constructive discussions between the applicant and stakeholders about potential issues and environmental concerns and early consideration of alternative locations.	
Benefits to the Permitting Process from Best Practice Implementation	
One example is the Nexus Gas Transmission, TEAL, DTE, and Vector Project (FERC Docket Nos CP16-22-000, CP16-23-000, CP16-24-000, and CP16-102-000) to provide 1.5 billion cubic feet per day of natural gas transportation service through facilities in Pennsylvania, West Virginia, Ohio, and Michigan. The project included construction of more than 250 miles of natural gas pipeline. As a result of engaging stakeholders early and continuing this engagement throughout the review process, the project sponsors incorporated 239 route alternatives and variations into the final route to address landowner requests, avoidance of sensitive resources, or engineering constraints – resulting in about a 91 percent change from NEXUS's originally proposed route design.	

Agency: Department of Energy	
BP Category: (ii) ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics.	**BP #:** 1. Align environmental review and authorization processes across Agencies at the outset of planning for FAST-41 covered projects to allow concurrent reviews where possible and to accurately reflect the sequence of the permitting process based on actual requirements.

Description of the Problem Solved
Strategic Petroleum Reserve Valve Project (January 2017; DOE EA-2040):

The U.S. Department of Energy's (DOE's) Office of Fossil Energy U.S. Strategic Petroleum Reserve (SPR) "SPR Repair/Enhancement of Access to Remote Pipeline Valve Stations – West Hackberry Environmental Assessment (EA)" demonstrates best practices for agency collaboration and aligning environmental review and authorization processes.

Description of How Implementing the Best Practice Resolved Issue

For this EA, DOE staff coordinated with Federal, State, and local permitting agencies throughout the National Environmental Policy Act (NEPA) process, particularly the Louisiana Department of Natural Resources and the U.S. Army Corps of Engineers, which jointly issue the Federal consistency determination for work within Louisiana's coastal zone under the Coastal Zone Management Act. At the beginning of the NEPA process, DOE staff asked agencies with jurisdiction or permitting authority for their input on the project and their interest in receiving a copy of the draft EA. Also, to facilitate teamwork between the NEPA subcontractor, design engineers, and DOE staff, periodic meetings were scheduled to provide the entire team with updates on outstanding issues and the schedule.

Benefits to the Permitting Process from Best Practice Implementation

Aligning all Federal and State agencies early in the process allowed the Section 404 and Section 401 of the Clean Water Act and Section 10 of the Rivers and Harbors Act permits to be reviewed concurrently. This early coordination spurred the design engineers to work closely with the NEPA staff to become more familiar with site conditions and permitting thresholds, allowing them to revise their original plans and reduce the footprint of the access equipment needed. Because DOE understood and addressed the agencies' concerns early in the NEPA process through this concurrent review process, agencies submitted no substantive comments during the draft EA comment period. Overall, the project's cost and potential impact on biological resources was reduced.

Agency: Department of Commerce	
BP Category: (ii) ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics.	**BP #:** 1. Align environmental review and authorization processes across Agencies at the outset of planning for FAST-41 covered projects to allow concurrent reviews where possible and to accurately reflect the sequence of the permitting process based on actual requirements.

Description of the Problem Solved

Early Coordination Successes through FAST-41

Frequently, the National Oceanic and Atmospheric Administration (NOAA) is alerted to its statutory role in infrastructure projects late in the permitting process. This late engagement in a project can result in unnecessary complications and delayed project delivery.

Description of How Implementing the Best Practice Resolved Issue

Early coordination is one of the most effective ways for large-scale infrastructure projects to become streamlined and avoid the need for project modifications. Through the FAST-41 Coordinated Project Plan (CPP) process, NOAA has been able to communicate potential effects to protected resources and habitats before final designs are complete for proposed actions. By engaging earlier in the permitting process, NOAA is increasing the conservation outcomes through integrating protected resource/habitat needs into the project design, while also providing a more streamlined and predictable permitting environment for the project sponsor. In addition, the CPP process increases NOAA's awareness of project changes along the way and enables NOAA to provide technical assistance on the impacts those modifications may have on NOAA trust resources earlier in the process.

The early coordination process afforded through the CPP process has also enabled NOAA to assess staffing needs and allocate resources and capacity to ensure that the FAST-41 timelines are met. NOAA is now able to anticipate requests for consultations and authorizations, and can better plan for the incoming workload.

Benefits to the Permitting Process from Best Practice Implementation

NOAA's engagement in the CPP process creates added predictability for both the project sponsor and NOAA.

Agency: Department of Transportation	
BP Category: (ii) ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics.	**BP #:** 1. Align environmental review and authorization processes across Agencies at the outset of planning for FAST-41 covered projects to allow concurrent reviews where possible and to accurately reflect the sequence of the permitting process based on actual requirements.

Description of the Problem Solved

FHWA: Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects (Red Book)

In September 2015, the Federal Highway Administration (FHWA), the U.S. Army Corps of Engineers (USACE), and other agencies released the "Red Book," *Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects*. The 2015 edition, an update to an earlier 1988 handbook, is a guide for Federal, State, and local agencies on synchronizing the National Environmental Policy Act (NEPA) review process and other required regulatory reviews such as USACE's regulatory review, U.S. Coast Guard bridge permit reviews, Endangered Species Act consultation, etc.

Description of How Implementing the Best Practice Resolved Issue

The 2015 Red Book is useful to Federal agencies that review permit applications, and Federal, State, and local agencies that fund or develop major transportation and other infrastructure projects. It discusses the requirements of many statutes and regulations to facilitate the reader's understanding of how compliance with those requirements can be fulfilled while implementing the synchronization concept discussed in the Red Book. By providing guidance on the use of review synchronization, more effective and efficient regulatory reviews are anticipated and are expected to result in projects with reduced impacts to the environment as well as savings of time and money.

Benefits to the Permitting Process from Best Practice Implementation

Building on the success of the Red Book, FHWA included an initiative within its Every Day Counts model that focuses on integration of NEPA and permitting processes, to enable concurrent, synchronized environmental and permitting reviews that save time and cost for the agencies involved. More than 20 State Departments of Transportation (DOTs) currently use a form of synchronization process. While some processes have yet to be fully utilized, others have been incorporated into standard practice. The FHWA Every Day Counts implementation team is promoting synchronization processes through technical assistance and targeted training, including webinars, case studies, regional peer exchanges, and coordination with other DOT stakeholders.

Agency: Nuclear Regulatory Commission	
BP Category: (ii) ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics.	**BP #:** 1. Align environmental review and authorization processes across Agencies at the outset of planning for FAST-41 covered projects to allow concurrent reviews where possible and to accurately reflect the sequence of the permitting process based on actual requirements.

Description of the Problem Solved

Faced with a late breaking issue resulting from a newly listed endangered species approximately three months before the Nuclear Regulatory Commission's (NRC's) issuance of a Combined Operating License (COL) for the North Anna Power Station (NAPS) Unit 3 (a proposed nuclear reactor in Virginia requested by Dominion Energy), the NRC staff coordinated efforts with the U.S. Fish and Wildlife Service (USFWS) to identify expertise to analyze the species, develop survey and mitigation plans, and issue a supplemental biological assessment (BA) for the NAPS COL review and still meet the three month original schedule. Initial review of the impacts on this project by USFWS was that the project may have been delayed by up to a year or more. As a result of the three agencies working together on this review from the outset, and the fact that the NAPS COL was already well into its environmental and safety reviews when this issue arose; the staff from the NRC, USACE, and USFWS were able to quickly: (1) discuss relevant issues to address the newly listed endangered species appropriately, (2) develop mitigation proposals to protect the species that Dominion Energy and agency staff agreed with, and (3) the NRC was able to issue the COL on the original schedule.

Description of How Implementing the Best Practice Resolved Issue

The NRC and USFWS staff worked together to formulate a plan to complete the review in a relatively short time frame (approximately three months). This included identifying NRC and USFWS staff that had the necessary and available expertise in this area in order to coordinate efforts to produce a plan that involved innovative techniques and mitigation measures and still allowed the utility to meet its goals. The NRC staff issued a supplemental BA which included a technical assessment of impacts of the large component transport route and the Mattaponi river barge traffic on the Sensitive Joint-Vetch, an endangered plant. After issuing the supplemental BA, NRC staff worked to close consultation with the USFWS to resolve comments regarding the surveying of the endangered plant, and implementing the mitigation measures. The environmental protection plan (which is part of the combined license) included field studies and surveys that will be conducted prior to the project sponsor (Dominion Energy) commencing operations of large shipping barges that would support facility construction (the nuclear reactor authorized under the COL). The NRC staff worked with the project sponsor and USFWS and closed the Section 7 consultation in a manner that met all requirements to ensure protection of the species and on a very timely and efficient schedule.

Benefits to the Permitting Process from Best Practice Implementation

The identification of the expertise at the NRC and USFWS allowed completion of the necessary review in a very timely manner and saved approximately one year in the review. By utilizing the expertise already existing in the NRC and USFWS (including staff members that were familiar with the project), and the innovative use of mitigating strategies and surveys that would be done in the future; the USFWS and applicable legal requirements enabled a very efficient and thorough review an avoided an approximately one year schedule delay. The Federal Agencies involved in the review completed timely decision making and ensured the protection of the species.

Agency: Department of Transportation	
BP Category: (ii) ensuring timely decisions regarding environmental reviews and authorizations, including through the development of performance metrics.	**BP #:** 1. Align environmental review and authorization processes across Agencies at the outset of planning for FAST-41 covered projects to allow concurrent reviews where possible and to accurately reflect the sequence of the permitting process based on actual requirements.

Description of the Problem Solved

The Hudson Tunnel Project is intended to preserve the current functionality of the Northeast Corridor's (NEC's) Hudson River passenger rail crossing between New Jersey and Penn Station New York and strengthen the resiliency of the NEC, all while maintaining uninterrupted commuter and intercity rail service. The Federal Railroad Administration (FRA) is the Federal lead agency, with the New Jersey TRANSIT Corporation (NJ TRANSIT) as a State lead agency, in preparing an environmental impact statement (EIS) in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal environmental compliance processes. Because the project involves two states, multiple cities and townships, and one major navigable waterway, achieving delivery of the Hudson Tunnel Project involves environmental reviews at the Federal, State, and local levels. Due to the project's urgency, FRA employed numerous best practices to efficiently and quickly conduct the environmental review for the Hudson Tunnel Project.

Description of How Implementing the Best Practice Resolved Issue

FRA and NJ TRANSIT are accelerating project delivery by simultaneously conducting the Federal NEPA review with initiating the permitting process for the Section 404/Section 10 permit from the U.S. Army Corps of Engineers (USACE) and conducting the reviews required by the State and city environmental compliance regulations [New York State Environmental Review Act (SEQRA), City Environmental Quality Review (CEQR)] that will support State and local permits.

FRA, NJ TRANSIT, and project partners have worked closely with USACE to hold numerous pre-application meetings, and USACE serves as a Cooperating Agency for the EIS. The decision was made very early in the project's life by both FRA and USACE to conduct the preliminary engineering and NEPA effort such that the schedules for both the EIS and Section 404 permit can be aligned. FRA coordinates frequently (monthly or more) with USACE so that their understanding of the project scope, impact, and proposed mitigation is complete, and they can align the permit approval process with the NEPA decision, and USACE can ensure that the permit application is comprehensive and meets their requirements. USACE had chosen to hold a public review and meeting on the permit, and by working with FRA and NJ TRANSIT, the public hearings held for the EIS also served as the USACE hearings for the Section 404/10 permit. Similarly, USACE is informed by the NEPA analysis in reviewing the permit application and responding to the public concerns about the permit.

FRA, NJ TRANSIT, and other project partners are also working closely with State and local agencies during development of the Federal NEPA document in order to ensure that the NEPA analysis can satisfy the SEQRA and CEQR requirements and inform the numerous permits that will be required from these agencies once the NEPA process is complete. In this way, duplicative analyses and documentation are reduced, permitting agencies are familiarized with the project, and the concerns of permitting agencies are addressed via design adjustments and mitigation development during the NEPA review. Most notable is the close coordination with New Jersey Department of Environmental Protection, from whom multiple permits will be required. Not only have pre-application meetings taken place with this agency, but the agency participates on the Task Force that has been established for the Hudson Tunnel Project to regularly engage with resource and regulatory agencies, identify and resolve issues early in the process, and streamline the environmental review process. Also notable is the engagement with the New York City Mayor's Office of Environmental Coordination, who is coordinating required approvals on behalf of all city agencies.

Finally, to support permitting and post-NEPA activities, the FRA and NJ TRANSIT assembled a more broad stakeholder list to which all project notifications are sent; the list includes not only individuals and organizations who had been identified based on their interest in previous trans-Hudson rail improvement

projects, but also every individual from whom acquisition of subsurface easements or surface property would occur as well as the list of interested stakeholders maintained by USACE. The proactive early engagement with these groups allowed FRA and NJ TRANSIT to conduct targeted outreach that focused on issues of interest to particular stakeholders. For example, after the FRA publicly released the Preferred Alternative, NJ TRANSIT held smaller public meetings with those from whom subsurface easements would be obtained, and the project team could explain pertinent details of the Preferred Alternative, the level of impact expected, and associated mitigation. By being transparent about the environmental review and acquisition processes, providing direct access to the project's management and technical staff, and actively engaging early, the project sponsors have established a more positive relationship with this stakeholder group; resolving the concerns of such groups with analogous concerns with similar tunneling projects in other areas has been challenging in the past, significantly lengthening the project schedule. This best practice supports the idea that members of the public appreciate being proactively identified as a stakeholder early, and are more willing to work with sponsoring agencies to find a mutually satisfactory solution to assuage their concerns.

Benefits to the Permitting Process from Best Practice Implementation

FRA's approach will result in improving timeframe and predictability of the permitting process, as well as addressing and reducing the duplicative nature of the reviews associated with large, complex infrastructure projects.

Agency: Department of Energy	
BP Category: (iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.	**BP #:** 1 Encourage development and/or utilization of joint application processes or programmatic approaches among Federal, State, local, and tribal governments with similar authorities to reduce duplicative actions.

Description of the Problem Solved

San Luis Transmission Project (March 2016; DOE/EIS-0496)

The Western Area Power Administration (WAPA), a power marketing administration within the U.S. Department of Energy, and the San Luis & Delta-Mendota Water Authority, a California joint powers agency, prepared a joint environmental impact statement (EIS)/ environmental impact report (EIR) for the San Luis Transmission Project. WAPA proposed to construct, own, operate, and maintain approximately 95 miles of new transmission lines within easements ranging between 125 and 250 feet wide through Alameda, San Joaquin, Stanislaus, and Merced Counties along the foothills of the western San Joaquin Valley. WAPA also could upgrade or expand its existing substations, make the necessary arrangements to upgrade or expand existing Pacific Gas & Electric Company substations, or construct new substations to accommodate the interconnections of these new transmission lines.

Description of How Implementing the Best Practice Resolved Issue

DOE/WAPA (Federal agency) and the San Luis & Delta-Mendota Water Authority (State agency) utilized a joint EIS/EIR for the San Luis Transmission Project to coordinate public and agency reviews and avoid duplicative data collection and analysis.

Benefits to the Permitting Process from Best Practice Implementation

The use of a joint EIS/EIR allowed the agencies to decrease the overall timeframe of the EIS/EIR, compared to two separate environmental review processes. The combined 60-day public scoping period, 45-day public review period for the draft EIS/EIR, and 30-day air quality conformity determination comment period, as well as coordinated agency consultations, performed for this joint process improved communication and increased transparency and predictability. These efficiencies can be viewed on the project schedule. While not indicative of future results, in this instance, the overall process was markedly more efficient: the EIS took only 28 months from Notice of Intent to prepare an EIS to issuance of the Final EIS (compared to a median of 34 months over the previous decade), followed by a record of decision about 6 weeks later.

Agency: Department of Transportation	
BP Category: (iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.	**BP #:** 1 Encourage development and/or utilization of joint application processes or programmatic approaches among Federal, State, local, and tribal governments with similar authorities to reduce duplicative actions.

Description of the Problem Solved

FHWA: Implementing Quality Environmental Documentation (IQED)

The IQED effort that began under the Federal Highway Administration's (FHWA's) Every Day Counts initiative promotes current recommendations and best practices for simplifying and expediting the development of environmental documents. The Every Day Counts effort builds on the IQED effort by incorporating eNEPA. The eNEPA system provides a technological tool for State Departments of Transportation to share documents, track comments, schedule tasks with participating agencies, and perform concurrent reviews for their environmental impact statement and environmental assessment projects. This will reduce workload demands of agency required to collaborate, maintain schedules, and manage the project record.

Description of How Implementing the Best Practice Resolved Issue

The focus of IQED is on ensuring that its three core principles — tell the story, keep the document brief, and ensure legal sufficiency — form the foundation of the National Environmental Policy Act document, and that project purpose and need, consideration of alternatives, and impacts are appropriately documented and included.

Benefits to the Permitting Process from Best Practice Implementation

When combined together, IQED and eNEPA help agencies transition to an electronic review process that can be done concurrently with more effective interagency dialog in real time. Long-term, this results in better, more detailed information and as more projects are completed, FHWA can use this data to identify improvements in the project development process, including new opportunities to expedite project delivery.

Agency: Department of Transportation	
BP Category: (iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.	**BP #:** 1 Encourage development and/or utilization of joint application processes or programmatic approaches among Federal, State, local, and tribal governments with similar authorities to reduce duplicative actions.

Description of the Problem Solved

The Federal Aviation Administration (FAA) initiated an environmental impact statement (EIS) in April 2012 to evaluate a proposal by Space Exploration Technologies Corp. (SpaceX) to construct and operate a private launch site in Cameron County, Texas. SpaceX required a license from FAA to conduct launches of its Falcon 9 vehicle. Approval of the launch license required coordination with multiple Federal agencies: the proposed launch site was located in jurisdictional wetlands on the Gulf Coast and required a Section 404 permit from the U.S. Army Corps of Engineers (USACE). It was also next to the Lower Rio Grande Valley National Wildlife Refuge (NWR), necessitating coordination with the U.S. Fish and Wildlife Service (USFWS); and it was near the Palmito Ranch Battlefield, a National Historic Landmark (NHL), which triggered consultation with the National Park Service (NPS) and the Advisory Council on Historic Preservation (ACHP). Coordination was also required with the Texas General Land Office to update State land use to allow for beach closures during launches, and consultation was required with the Texas State Historic Preservation Officer (SHPO) and other interested parties.

Description of How Implementing the Best Practice Resolved Issue

The FAA and SpaceX engaged a number of agencies early in the process. The FAA held an agency scoping meeting and public scoping meeting to determine areas of concern and to align Federal environmental processes. The NPS and USACE participated as cooperating agencies on the EIS for their special expertise for the impact categories as well as jurisdiction over potentially impacted resources. The FAA also invited the National Aeronautics and Space Administration and the White Sands Missile Range to participate as cooperating agencies in the EIS because of their special expertise with space launches and the operation of a launch site.

The FAA held numerous meetings with NPS and USFWS to work through the impact analysis for the NWR and the NHL. The FAA worked with USFWS to prepare a biological assessment and biological conference opinion to outline special conservation measures for impacts to biological resources. The FAA prepared a Programmatic Agreement (PA) to develop a long-term approach to potential adverse effects to historic properties. Signatories on the PA included the Texas SHPO, NPS, USFWS, Texas Parks and Wildlife Department, ACHP, and SpaceX to address the potential adverse effects on historic properties. Under the PA, the FAA continues to work with the signatories on the review of cultural issues. In addition, the FAA holds annual meetings with the signatories to review ongoing mitigation activities.

Benefits to the Permitting Process from Best Practice Implementation

FAA's coordination had positive outcomes in terms of project schedule. The Final EIS was issued on June 6, 2014. This was just over two years after it was initiated. The Record of Decision was signed on July 9, 2014. USACE was able to incorporate much of the EIS information for its environmental review required for the initial Section 404 permit issued September 9, 2014.

Agency: Department of Transportation	
BP Category: (iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.	**BP #:** 1 Encourage development and/or utilization of joint application processes or programmatic approaches among Federal, State, local, and tribal governments with similar authorities to reduce duplicative actions.

Description of the Problem Solved

Programmatic Agreements (PAs) reduce project delivery time by specifying the roles and responsibilities of all parties involved. PAs also standardize coordination and compliance procedures, facilitate trust relationships between a State department of transportation and regulatory agency staff, and help limited staff and resources to be more focused and productive by promoting better project decisions and more positive outcomes. Using PAs also improves compliance efficiency by establishing consistent expectations for review times and processing options. They also encourage communication and are instrumental in building cooperative relationships. Despite these benefits, and their availability for many years, not everyone takes advantage of them. The Federal Highway Administration (FHWA) determined that expanding the use of PAs required a usable guidebook or roadmap to their development and implementation.

Description of How Implementing the Best Practice Resolved Issue

FHWA partnered with the American Association of State Highway and Transportation Officials to develop the *Roadmap for Developing and Implementing Programmatic Agreements* (2016). The Roadmap is a user-friendly web-based tool that guides practitioners through the process to develop and implement a PA. The Roadmap provides relevant examples of successes and challenges at key decision points, as well as highlights successful strategies for establishing a PA, including common phrasing, clauses, scope, and structure.

Benefits to the Permitting Process from Best Practice Implementation

All States now have at least one PA and 37 States have two or more. With more than 500 PAs in place across the country, transportation departments and partner agencies report a wide range of benefits, including cost savings, accelerated project delivery, increased certainty about the project development process and project schedule, and decreased review times for State Department of Transportation and partner agency staffs.

Agency: Department of Commerce	
BP Category: (iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.	**BP #:** 2. Establish interagency liaison positions (i.e., through Memorandums of Understanding or Memorandums of Agreement) or points of contact to improve communication and coordination with other Federal, State, local, and tribal governments; increase expertise; and facilitate permitting processes.

Description of the Problem Solved

Establishment of Interagency Liaison Positions at National Oceanic and Atmospheric Administration (NOAA)

The Federal Highway Administration (FHWA) implements numerous projects that require reviews by NOAA under the Endangered Species Act, Magnuson-Stevens Fishery Conservation and Management Act, and Marine Mammal Protection Act. In the past, inefficient coordination between the agencies led to permitting delays. In order to increase interagency project coordination and FHWA project delivery, FHWA provides resources to support a National Transportation Liaison at NOAA Fisheries headquarters through an inter-agency agreement. In addition, where needed, State Departments of Transportation (State DOTs) also support Liaison positions at the State/Regional level.

Description of How Implementing the Best Practice Resolved Issue

At the national level, the NOAA Transportation Liaison serves as FHWA's connection to the agency. The liaison contributes expertise and perspectives to inform FHWA initiatives and programs, provides feedback on draft materials, and participates in outreach activities. The NOAA National Transportation Liaison provides agency input on guidance that facilitates environmental streamlining, such as the FAST Act Q&As.

At the State/Regional level, the Transportation Liaisons facilitate the environmental and authorization review process for transportation projects. The positions create the capacity within NOAA to focus on the State DOTs' projects, ensure timely response times, and engage early in the planning process. This early coordination can inform State DOTs of environmental issues, so that environmental impacts may be avoided or minimized prior to submitting a project for environmental review and authorization.

Benefits to the Permitting Process from Best Practice Implementation

These Transportation Liaison positions create efficiencies in transportation environmental review processes and promote better conservation outcomes. It creates efficiency and predictability in the permitting process, as dedicated Liaison staff in the States/Regions are equipped with the expertise to respond to FHWA/DOT requests in a timely manner.

Agency: Department of the Army	
BP Category: (iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.	**BP #:** 2. Establish interagency liaison positions (i.e., through Memorandums of Understanding or Memorandums of Agreement) or points of contact to improve communication and coordination with other Federal, State, local, and tribal governments; increase expertise; and facilitate permitting processes.

Description of the Problem Solved

A frequent applicant, such as a State department of transportation, may interact with multiple points of contact in the U.S. Army Corps of Engineers (USACE) Regulatory Program to address permitting needs on various projects. These USACE points of contact may manage many types of applications from various applicants at any one time. Also, due to workload, time, and resource constraints, the USACE may not always be able to participate in detailed or complex pre-application reviews and coordination, or the development of programmatic tools that could benefit the permitting process.

Description of How Implementing the Best Practice Resolved Issue

To address these issues, the USACE Regulatory Program has established several agreements with prospective applicants under existing authorities that allow qualifying applicants to transfer funds to the USACE to expedite permit evaluation for certain types of projects. The USACE currently has active funding agreements with applicants pursuant to Section 214 of the Water Resources Development Act of 2000, as amended (Section 214), and title 23 U.S.C. Section 139(j) (Section 139(j)). In addition to allowing the USACE to expedite the permit process for the funding entity, these agreements may allow the USACE to hire additional personnel and participate in activities that streamline and facilitate the permit process, such as synchronizing the USACE permit review process with the National Environmental Policy Act (NEPA) review process or the development of general permits. Through these agreements, the applicant can request to fund one or more dedicated USACE points of contact that would be responsible for reviewing some or all of their projects. In fiscal year 2016, the USACE Regulatory Program had 77 active Section 214 and Section 139(j) funding agreements in 24 USACE districts that supported 58 full-time USACE employees. Approximately a third of the funding agreements were with State transportation agencies, while the remaining consisted of other types of non-Federal public entities and one natural gas company. Finally, some USACE districts have identified liaisons to serve State transportation agencies that don't have funding agreements with the USACE; while these USACE liaisons may work on reviews that are unrelated to the State transportation agency, the transportation agency and the USACE still benefit from having an established point of contact within the USACE.

Benefits to the Permitting Process from Best Practice Implementation

Funding agreements made pursuant to Section 214 and Section 139(j) allow the USACE to expedite the permit evaluation process for certain types of applicants and projects. They also provide a mechanism for establishing one or more dedicated USACE liaisons that develop expertise in the applicant's projects and processes, which translates to improved predictability, consistency, and efficiency during the permit review process. Establishing a USACE liaison to serve a recurrent applicant also allows the USACE and the applicant to improve communication and develop a better working relationship, which in turn improves the efficiency, predictability, and environmental outcomes of the environmental review process.

Agency: Department of Homeland Security	
BP Category: (iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.	**BP #:** 2. Establish interagency liaison positions (i.e., through Memorandums of Understanding or Memorandums of Agreement) or points of contact to improve communication and coordination with other Federal, State, local, and tribal governments; increase expertise; and facilitate permitting processes.
Description of the Problem Solved	
The U.S. Coast Guard (USCG) and the Federal Highway Administration (FHWA) were not coordinating in the early stages of bridge project development, leading to significant delays in the bridge permitting process.	
Description of How Implementing the Best Practice Resolved Issue	
The USCG and FHWA entered into a memorandum of agreement (MOA) for coordinating bridge permit applications. The new process outlined in the MOA requires an early determination by the Coast Guard regarding the navigation clearances required for the bridge project which can then inform National Environmental Policy Act alternatives. The agencies also created a liaison position to improve inter-agency coordination. The liaison has traveled with FHWA to over 30 States to date to message the MOA to Coast Guard district offices, FHWA regional offices and State Departments of Transportation (State DOTs).	
Benefits to the Permitting Process from Best Practice Implementation	
This early coordination and early determination of navigational clearance requirements improves transparency and predictability of the permitting process for FHWA and the State DOTs. The liaison maintains an open line of communication between the headquarters offices of FHWA and the USCG and improves communication and messaging to district, regional and State DOT offices.	

Agency: Department of the Interior	
BP Category: (iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.	**BP #:** 2. Establish interagency liaison positions (i.e., through Memorandums of Understanding or Memorandums of Agreement) or points of contact to improve communication and coordination with other Federal, State, local, and tribal governments; increase expertise; and facilitate permitting processes.

Description of the Problem Solved

In 2010, the Bureau of Land Management (BLM), in consultation with the Advisory Council on Historic Preservation (ACHP), determined that specialized, dedicated assistance from the ACHP would help BLM improve its compliance efforts under Section 106 of the National Historic Preservation Act (NHPA). In particular, a point of contact dedicated to BLM project review and program assistance at the ACHP would advance BLM's effort to update its National Programmatic Agreement (PA) for Section 106 and offer tailored training to BLM staff nationwide.

Description of How Implementing the Best Practice Resolved Issue

BLM established an agreement, renewed annually through fiscal year (FY) 2018, for an agency-funded position at the ACHP to provide specialized services tailored to the agency's Section 106 compliance needs. The ACHP's BLM Liaison is dedicated to BLM project review, policy and program improvement, and training. The liaison arrangement has allowed for better coordination and collaboration among the BLM, the ACHP, and participants in Section 106 consultations. An early accomplishment of the liaison arrangement was the execution of a new National PA for BLM's NHPA compliance in 2012. The liaison participates in bi-weekly (previously weekly) BLM staff calls on renewable energy and transmission projects to provide a consistent point of contact who can answer historic preservation compliance questions quickly and directly. While the calls primarily focus on National Environmental Policy Act (NEPA) compliance, the liaison's input has ensured that Section 106 review is a fully integrated component of BLM's planning process and that it is initiated early in the compliance process for those projects, successfully avoiding any Section 106 surprises at the end that could delay a project decision. The BLM Liaison also offers more direct ACHP involvement in complex and controversial Section 106 reviews, including trending infrastructure project types like renewable energy siting and transmission lines. Recent examples include a number of FAST-41 projects, such as Gateway West, TransWest Express, and Boardman to Hemingway. The liaison trained over 550 BLM field staff and managers during FY 2014–2016.

Benefits to the Permitting Process from Best Practice Implementation

The liaison arrangement has fostered a more consistent approach to Section 106 review across BLM by ensuring agency staff have access to ACHP-led training and a single point of contact for questions and technical assistance. Regular interaction between the ACHP and BLM has generated efficiencies in project reviews by increasing the likelihood that problems or questions in complex projects are discovered early. The nationwide perspective of the liaison also helps BLM identify potential solutions from previous projects and refine or adapt them to other circumstances. Liaison collaboration with BLM cultural resources staff has informed internal process improvements, such as guidance on coordinating Section 106 reviews and NEPA, which help avoid delays in project review. The BLM Liaison has in turn brought detailed knowledge of the BLM's work to the ACHP, leading to interagency program improvement and policy efforts like the ACHP's Energy and Historic Preservation Work Group, jointly led by BLM and ACHP from 2011 to 2013. Collaboration between the two agencies has contributed to case review outcomes that serve as models for other BLM projects and are setting successful examples for Section 106 review practice more broadly, as evidenced by the Permian Basin PA recently featured in an ACHP Section 106 Success Story (http://www.achp.gov/docs/permian-basin.pdf).

While this agreement involved two Federal agencies, liaison agreements or other means of providing dedicated staff assistance at State, tribal, and local agencies involved in permitting reviews like Section 106 consultation have similar potential to generate review efficiencies, broaden the use of best practices and creative solutions, and build agency expertise.

Agency: Department of Transportation

BP Category: (iii) improving coordination between Federal and non-Federal governmental entities, including through the development of common data standards and terminology across agencies.	**BP #:** 3. Use regularly scheduled in-person and/or virtual meetings to ensure coordination among Federal, State, local, and tribal governments to facilitate cooperation and accountability among parties involved in general permitting processes and in environmental reviews and authorizations for covered projects.

Description of the Problem Solved

Valley Metro, a grantee of the Federal Transit Administration (FTA) located in Phoenix, Arizona, engaged with stakeholders early in the project planning process for the South Central Light Rail Extension project. The public transportation agency completed the environmental review process relatively quickly, with the environmental assessment (EA) for the project completed in less than six months. This short timeframe is noteworthy due to the complexity of the project, which passed through the Rio Salado Habitat Restoration Area in the Salt River, a U.S. Army Corps of Engineers (USACE), City of Phoenix and Maricopa County Flood Control District facility (permission required pursuant to 33 U.S.C. 408) and resulted in impacts to waters of the United States, including wetlands (permits required pursuant to Section 404 of the Clean Water Act, habitat for threatened and endangered species, and two archeological sites, one of which was a Native American (Hohokam) village. Typically, a project of this complexity could take at least one year to complete the EA.

Description of How Implementing the Best Practice Resolved Issue

One of the reasons Valley Metro successfully completed the complex EA in such a short timeframe was due to early planning efforts and proactive and meaningful coordination with stakeholders. The early planning activities introduced the project to stakeholders before the EA process was initiated and elicited information from the public and stakeholders, laying the foundation for the National Environmental Policy Act processes. Outreach began in 2012 (more than 3 years before the EA was initiated) and involved more than 20 public meetings and more than 100 focused stakeholder meetings. Valley Metro created a Community Working Group, which consisted of representatives of local businesses, both large and small; residents; social services and educational institutions; chambers of commerce and faith-based organizations to provide input on major components of the preferred alternative to be carried forward in the EA.

Benefits to the Permitting Process from Best Practice Implementation

From the beginning, the planning process included consideration of the local goals and any potential social, economic and environmental impacts that could be encountered during the environmental process. Throughout the EA process, the project team was diligent about meeting with agencies with jurisdiction, as well, including the U.S. Fish and Wildlife Service, USACE, and 12 tribes, and proactively engaged FTA regarding management of the environmental review process and its associated documentation.

Agency: Department of Defense	
BP Category: (iv) increasing transparency.	**BP #:** 1. Provide the project sponsor/applicant of a FAST-41 covered project information about the Agency's permitting review process, including all steps, either in early coordination (e.g., through the pre-application process) or once the Agency receives an application or other initiation of the applicable environmental review or authorization

Description of the Problem Solved

There has been rapid expansion of energy production facilities and transmission projects that have potential to impact U.S. military testing and training operations and readiness. The facilities' tall structures (e.g., wind turbines, solar power towers, and electrical transmission towers) may obstruct flight operations. Wind turbines can degrade the quality of communication systems and impact air navigation systems. Additionally, wind turbines can interfere with military, weather, and air traffic control radars.

The Department of Defense (DoD) Siting Clearinghouse (Clearinghouse) was established to act as a single DoD voice for all DoD stakeholders (e.g. military departments and combatant commands) and provides a comprehensive mission compatibility evaluation (MCE) process to review energy projects for adverse impacts. The MCE process provides a timely and transparent process that can evaluate potential impacts and explore mitigation options. The DoD has a defined process for developers to request an evaluation of proposed projects. The review process applies to projects filed with the Secretary of Transportation, under section 44718 of title 49, U.S. Code (Federal Aviation Administration [FAA] obstruction evaluation process), and addresses all relevant construction within military training routes or special use airspace, whether on private, State, or Federal property. This provides a platform for military departments to deliver a formal response to developers on whether an energy project poses a likely impact or not. When an adverse impact is identified, DoD works with the proponent to explore potential mitigation options that would allow the project to be constructed in a manner that limits impacts to military operations. The most common mitigation strategies are done within DoD, including radar optimization or mission activities that are altered to account for degraded operational area or obstructions. Other projects have elected to modify siting plans or to curtail wind turbine operations under specific circumstances. Because compatibility challenges can be difficult to predict and analyze, it benefits both the developer and DoD to address any adverse impacts before development takes place.

In an effort to hold these discussions earlier, the Clearinghouse has a process to review projects upon request from developers, land owners, or State, Indian tribal, and local officials, and other Federal agencies. Once the developer submits a project for review, the Clearinghouse provides it to military departments for assessment. The military departments in turn provide a response as to whether or not they would like to be consulted further on a project. If the DoD review finds that a project may pose unacceptable impacts to national security, the Clearinghouse will seek to mitigate those impacts. The Clearinghouse encourages all energy proponents to seek informal reviews as early as possible to identify potential compatibility concerns.

Description of How Implementing the Best Practice Resolved Issue

Early communication provides the best opportunity for resolution of concerns, in a manner that benefits both energy developers and the military. DoD's early notification process removes much uncertainty for the developer about whether there will be compatibility issues with nearby installations. Positive communication between the developer and DoD from the beginning allows for more productive problem-solving. When the developers become aware of any incompatibility issues in the beginning, they have time to adjust their development plans accordingly.

The process, however, is still not 100% effective, as many developers do not take advantage of this early review. Recently, the Clearinghouse addressed this by working with State and local governments to allow DoD a voice in their separate siting processes. Some States have incorporated participation in DoD's reviews into their permitting decisions. For example, North Carolina law requires documentation that the developer received a determination of no hazard from the FAA or initiated an early review with the Clearinghouse at the time their permit application is submitted. The Electrical Reliability Council of Texas (ERCOT) requires entities to notify the Clearinghouse of a proposed energy project and request an early or formal review before

submitting to ERCOT for a full interconnection study.
Benefits to the Permitting Process from Best Practice Implementation
The MCE process (both formal and early review) allows DoD and energy developers to identify potential impacts and explore mitigation options, while preserving the DoD mission. This best practice allows for more effective and transparent interaction among DoD, other Federal and State Agencies, and energy developers. By establishing this best practice, the DoD has kept pace with industry, growing from 120 projects reviewed per month in 2012 to just over 350 per month in 2016. Complicated compatibility concerns with military operations and energy development vary by location, with each individual mission and type of project presenting a unique challenge. DoD's MCE process provides industry and other agencies a venue to identify and overcome those challenges.

Agency: Department of Transportation	
BP Category: (iv) increasing transparency.	**BP #:** 1. Provide the project sponsor/applicant of a FAST-41 covered project information about the Agency's permitting review process, including all steps, either in early coordination (e.g., through the pre-application process) or once the Agency receives an application or other initiation of the applicable environmental review or authorization
Description of the Problem Solved	
The Federal Highway Administration's (FHWA) Project and Program Action Information System (PAPAI) tracks the progress of National Environmental Policy Act (NEPA) documents. PAPAI is useful for monitoring the progress of a project as it steps through major milestones ranging from initiation to approval of the final decision document. PAPAI provides a user-friendly, standardized, automated means for tracking highway projects and their related actions, as well as non-project related actions. PAPAI provides reports, search capabilities, status indicators, among other capabilities.	
Description of How Implementing the Best Practice Resolved Issue	
FHWA Headquarters uses PAPAI for reports to Congress as required by legislation, Congressional inquiries, and requests for information from the Secretary and Administrator related, but not limited, to project milestones and completion timeframes. Also, PAPAI is used to populate the Federal Infrastructure Permitting Dashboard, an online public access website used to track project and permitting milestones, as required by FAST Act.	
Benefits to the Permitting Process from Best Practice Implementation	
Currently, FHWA is improving its capabilities to capture permitting data, which will help FHWA populate the Permitting Dashboard. The improvements will be beta tested by a selected group of FHWA users at the Division offices to provide feedback on usability and further improvements.	

Agency: Advisory Council on Historic Preservation	
BP Category: (vii) creating and distributing training materials useful to Federal, State, tribal, and local permitting officials.	**BP #:** 1. Ensure that at least one tutorial (e.g., print, video, and/or presentation materials) about the Agency's environmental review and authorization process(es) is posted online and available to Federal, State, and tribal governments and local permitting officials.

Description of the Problem Solved

Applicants for Federal permits and assistance often are unaware of National Historic Preservation Act (NHPA) review requirements (Section 106) and/or are unfamiliar with how they may participate in the review process and influence its efficiency.

Description of How Implementing the Best Practice Resolved Issue

The ACHP has created a training course and an online "toolkit" specifically designed for the use of applicants for Federal permits, grants, licenses, and other approvals. "Successfully Navigating Section 106 Review: An Orientation for Applicants" is a 45-minute self-paced online training course available on the ACHP's E-learning Portal (https://achp.golearnportal.org/) for a nominal fee. Anyone may register for and take this course, which provides an overview of the requirements and goals of Section 106 review, an explanation of the roles and responsibilities of Federal agencies versus applicants/project proponents, and helpful information about how to avoid common pitfalls in the review process. The course objective is to help applicants better support Federal agency compliance so the review of their projects proceeds smoothly and efficiently. The ACHP widely publicized this and other e-learning course offerings in August-September 2017, including a targeted distribution to infrastructure industry associations and cultural resources and environmental consultants. The ACHP is continuing to reach out to diverse Section 106 review participants, including State and Tribal Historic Preservation Officers, Federal Preservation Officers, representatives of infrastructure industry sectors, and environmental and historic preservation consultants at a series of meetings and conferences over summer and fall 2017 to encourage them to take advantage of these new tools.

The course coordinates with information provided in the ACHP's Applicant Toolkit, a web-based reference that organizes comprehensive information about Section 106 review around the concerns of applicants. The Toolkit includes an Applicant Checklist covering the responsibilities applicants have for supporting Federal agency historic preservation review compliance, a tool that also aligns with Best Practice V.I.

Benefits to the Permitting Process from Best Practice Implementation

Since these training tools are available to the general public, it is difficult to pinpoint their impact on specific project reviews. However, the ACHP views as a success the availability of thorough and reliable information on Section 106 for the convenience of Federal agencies responsible for NHPA compliance. These tools provide a readymade option agencies can use in informing applicants about permitting procedures and establishing expectations at the outset of an application review. The public availability of the course and Toolkit provides a further transparency benefit in ensuring all Section 106 review participants—including State Historic Preservation Officers, Indian tribes and Native Hawaiian organizations, local governments, preservation advocates, and others—have equal access to consistent information about the ACHP's interpretation of the Section 106 regulations, "Protection of Historic Properties" (36 C.F.R. Part 800).

Agency: Advisory Council on Historic Preservation	
BP Category: (viii) addressing other aspects of infrastructure permitting, as determined by the Council.	**BP #:** 1. Evaluate policies and procedures related to environmental reviews and authorizations, and identify and share information on past and planned efforts to improve the permitting process, associated assessments, and performance metrics.
Description of the Problem Solved	
Complex, controversial, and large-scale infrastructure projects have engendered concerns from both Federal agencies and Indian tribes about tribal consultation and involvement. The ACHP responded to specific concerns about tribal participation in Section 106 reviews by developing a report focused on *Improving Tribal Consultation in Infrastructure Projects*. It is a companion to a separate report issued in January 2017 by the Departments of the Interior, Justice, and the Army regarding tribal input in infrastructure decisions. That report was prepared in response to a series of consultations held on the issue during late 2016. Many participants in those sessions—as well as those submitting written comments to the agencies—raised concerns about how Section 106 of the National Historic Preservation Act has been used in recent years to govern consideration of tribal input	
Description of How Implementing the Best Practice Resolved Issue	
The ACHP's report takes comments specific to Section 106 compliance gleaned from the interagency tribal meetings and summarizes them with recommendations for improving Federal agency Section 106 consultation efforts on infrastructure project planning across the board. It also includes commitments by the ACHP for additional guidance and training to further assist Federal agencies and tribes in carrying out effective consultation for infrastructure projects based on those needs identified by tribes during the series of meetings.	
Benefits to the Permitting Process from Best Practice Implementation	
This effort has translated a specific effort into usable knowledge for all Federal agency environmental and cultural resources staff. The report emphasizes improved consultation as a path to greater efficiencies in review processes while respecting tribal sovereignty and Federal trust responsibilities. The recommendations in the report offer Federal agencies involved in infrastructure project planning greater potential for avoiding conflicts and delays in project reviews while ensuring that they fulfill statutory responsibilities for tribal consultation under the National Historic Preservation Act.	

Agency: Department of the Interior	
BP Category: (viii) addressing other aspects of infrastructure permitting, as determined by the Council.	**BP #:** 1. Evaluate policies and procedures related to environmental reviews and authorizations, and identify and share information on past and planned efforts to improve the permitting process, associated assessments, and performance metrics.
Description of the Problem Solved	
In response to a request from the U.S. Forest Service and the Bureau of Land Management to improve Endangered Species Act (ESA) Section 7 consultations for certain forest management projects, the U.S. Fish and Wildlife Service's Oregon Fish and Wildlife Office developed a Section 7 consultation streamlining process for forest management projects.	
Description of How Implementing the Best Practice Resolved Issue	
The streamlined ESA process gains efficiency by increasing early coordination with federal land management agencies and eliminating redundancies in analyses. As a recent example, three consultations that typically take more than 30 days to complete were finished in an average of 10 days.	

Agency: Department of Commerce	
BP Category: (viii) addressing other aspects of infrastructure permitting, as determined by the Council.	**BP #:** 1. Evaluate policies and procedures related to environmental reviews and authorizations, and identify and share information on past and planned efforts to improve the permitting process, associated assessments, and performance metrics.

Description of the Problem Solved

Endangered Species Act Letter of Concurrence Pilot

The high volume of informal Endangered Species Act (ESA) Section 7 consultations that National Oceanic and Atmospheric Administration (NOAA) Fisheries performs each year poses an ongoing and growing resource challenge. To address this capacity limitation, NOAA Fisheries identified a process improvement solution which is now implemented across the country.

Description of How Implementing the Best Practice Resolved Issue

In fiscal year 2017, NOAA Fisheries completed a pilot project in three of its regional offices relating to the issuance of informal ESA consultations posing minimal effects to protected resources and low litigation risk. Consultation request documents that met certain criteria were eligible for an expedited process that included a waiver of General Counsel review and use of a template to reduce staff time. After conducting an audit of the pilot's performance, NOAA Fisheries has expanded the expedited process nationwide to increase efficiency and expedite review times.

Benefits to the Permitting Process from Best Practice Implementation

With the reduction in informal ESA consultation timeframes for projects that pose minimal risk to protected resources, NOAA Fisheries can now focus its limited resources on matters that are more likely to result in greater conservation benefits.

Agency: Department of Commerce	
BP Category: (viii) addressing other aspects of infrastructure permitting, as determined by the Council.	**BP #:** 1. Evaluate policies and procedures related to environmental reviews and authorizations, and identify and share information on past and planned efforts to improve the permitting process, associated assessments, and performance metrics.

Description of the Problem Solved

Review of Agency Categorical Exclusions

In order for National Oceanic and Atmospheric Administration (NOAA) to ensure that its National Environmental Policy Act (NEPA) procedures, including Categorical Exclusions (CEs), remain appropriate and ensure full compliance with the purposes and provisions of NEPA, NOAA completed an extensive review process.

Description of How Implementing the Best Practice Resolved Issue

In fiscal year 2017, NOAA revised the agency's NEPA implementing procedures, including NOAA's list of Categorical Exclusions. This was an extensive revision process, which included a full-scale review of all agency Categorical Exclusions to determine whether the list of categories developed in 1999 still reflected agency practice. Based on this review, NOAA was able to rationalize and expand the NOAA Categorical Exclusions. Additionally, the revised NEPA procedures are significantly improved in terms of readability and usability.

Benefits to the Permitting Process from Best Practice Implementation

Revisiting and modernized NOAA's NEPA procedures has increased the number of NOAA CEs and made it more practical for practitioners.