

# Environmental Requirements Addressed During Corps Civil Works Project Planning: Background and Issues for Congress

-name redacted-

Analyst in Environmental Policy

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## **Summary**

Under its civil works mission, the U.S. Army Corps of Engineers (the Corps) undertakes water resource projects. The majority of Corps civil works projects involve commercial navigation, flood risk management, and ecosystem restoration.

Before Congress will authorize the construction of or appropriate funds for most Corps civil works projects, the agency must prepare various studies, reports, and evaluations of project benefits and detriments, including adverse environmental impacts. Those impacts, in turn, may obligate the Corps to demonstrate compliance with certain environmental requirements.

### **Environmental Requirements Addressed During Planning**

Some interested stakeholders have questioned the degree to which environmental requirements hamper project delivery, and debate what changes could be made to accelerate delivery. In particular, some have questioned whether compliance with federal environmental laws and regulations delays the completion of reports that Congress uses to inform legislation authorizing project construction such as Water Resources Development Acts (WRDAs).

The planning process is used to develop a recommended water resource project that Congress may authorize. Among other requirements, planning must include an evaluation of project impacts on the environment and applicable federal requirements that arise from those impacts. Depending on the project, a wide array of environmental requirements may apply. There are two types of environmental requirements that may affect a water resource project: those that obligate the Corps to evaluate certain issues during planning, and those intended to protect human health or minimize harm to a protected resource from project-specific impacts. Integrating the evaluation of environmental impacts into project planning is intended, in part, to minimize the potential for unanticipated impacts from the project and mitigate the severity of unavoidable adverse impacts.

Generally, the Corps identifies and considers environmental impacts, including any applicable requirements arising from federal environmental laws such as the Clean Water Act, within the framework of documenting compliance with the National Environmental Policy Act (NEPA). Compliance with NEPA and other “environmental” laws may obligate the Corps to consult with outside agencies to determine the degree to which a protected resource (e.g., historic site, endangered species habitat, wetlands) may be affected; to develop measures to mitigate or minimize adverse impacts; and/or to identify required approvals or permits.

### **Factors That Cause Delay**

The time that it takes the Corps to move from one phase of project development to another depends on a complex array of factors. When comparing individual Corps projects to each other, larger, more complex, and costly projects generally take longer. When looking at all civil works projects, Congress’s role in authorizing required studies and project construction, and in appropriating funds necessary for the required studies and construction, often significantly affects project delivery timing.

Given the range of environmental issues and impacts that Congress has statutorily obligated the Corps to evaluate, the body of requirements that may be deemed environmental that apply to

Corps projects can represent a significant element of project development. What is unclear is whether or which specific environmental requirements routinely delay project delivery, in general, or completion of necessary reports to Congress, in particular.

### **Scope of This Report**

This report provides information about the civil works project development process, with a focus on the planning phase of development and challenges associated with determining the extent to which project delivery is affected by environmental requirements. To provide some context, the report identifies selected issues that have arisen in the past 50 years that resulted in Congress enacting various environmental requirements that affect the Corps' project planning process and that are intended to minimize adverse impacts of Corps projects. It also provides an overview of key federal requirements that generally must be addressed before the Corps' Chief of Engineers will issue a report (i.e., a Chief's Report). The transmission of that report to Congress by the Assistant Secretary of the Army for Civil Works is typically the final step in the planning process and is intended to inform congressional authorization of project construction.

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## Introduction

U.S. “water resources” include streams, rivers, wetlands, estuaries, lakes, and coasts. Those resources support billions of dollars in commerce, provide drinking water, supply habitat for fish and wildlife, and provide recreational opportunities. The U.S. Army Corps of Engineers (the Corps) is one of several federal agencies that undertake water resource projects.<sup>1</sup> The majority of Corps civil works projects involve commercial navigation, flood risk management, and ecosystem restoration.

Congress generally authorizes Corps activities and provides policy direction in Water Resources Development Acts (WRDAs). Many studies of civil works projects prepared by the Corps are prepared in response to a project-specific authorization from Congress to study a water resources problem.<sup>2</sup> Generally, the outcome of the Corps’ study process is a Corps Chief of Engineers report to Congress (a Chief’s Report) that supports the recommendation for Congress to authorize project construction.

Project development involves multiple stages, from study initiation to planning and design and ultimately to construction and operation. Years or even decades may pass from the time the Corps is authorized to study a water resources-related problem and the Corps constructs a project to address that problem. In recent decades, few projects authorized for study have led to constructed projects. Of the projects that do proceed, various factors affect the time it takes to move from project planning to the completion of construction. Generally, the most significant factors in some way relate to the availability of federal funding and the time it takes to obtain necessary congressional authorizations.

Recently, to expedite project development, congressional attention has focused on activities that must be completed before a Chief’s Report can be submitted to Congress recommending project construction.<sup>3</sup> These activities generally comprise the planning stage of project development. Pursuant to various statutory requirements, during project planning, the Corps is obligated to complete a potentially complex array of studies, reports, and evaluations.

In an effort to expedite that project delivery, some groups have focused particular attention on the time it takes the Corps to comply with federal environmental requirements that must be addressed during planning. Given the congressional interest in this topic, this report assesses certain elements of the project planning process in an effort to identify whether or the degree to which meeting environmental requirements is a significant cause of delay in project delivery. To do so, the report provides background information on the potentially wide array of environmental requirements that may apply to a given civil works project (including why Congress established such requirements), how the Corps integrates compliance with those requirements into the project planning process, and how required elements of the planning process may affect project delivery.

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<sup>1</sup> For example, the Bureau of Reclamation also undertakes water resource projects.

<sup>2</sup> This includes projects that require the preparation of a feasibility report, pursuant to 33 U.S.C. §2282, but does not include projects referred to as “continuing authorities” projects, or CAPs.

<sup>3</sup> See the House Committee on Transportation and Infrastructure, Subcommittee on Water Resources and Environment’s hearing “A Review of the United States Army Corps of Engineer’s Reports,” June 5, 2013, <http://transportation.house.gov/hearing/review-united-states-army-corps-engineers-chief%E2%80%99s-reports>.

To provide necessary background, this report identifies selected issues that have arisen in the past 50 years that resulted in Congress enacting numerous environmental requirements that (1) directly affect the Corps' project planning process and (2) are intended to minimize adverse project-specific impacts. It also provides an overview of the Corps' environmental evaluation and compliance requirements, including how those requirements are integrated into the project planning process. More specifically, the report provides an overview of the federal requirements that obligate the Corps to evaluate the impacts of a given civil works project and the compliance requirements that generally must be addressed before the Corps will submit a Chief's Report to Congress.

The Corps project development process is complex. By focusing on environmental requirements that must be addressed during planning, this report does not identify every element of project development that may affect project delivery. More specifically, it does not provide detail regarding other factors that have been identified as particularly relevant to the timing of project delivery—federal funding availability and the timing of necessary congressional approvals. As they affect the project planning process, selected issues associated with congressional funding and approvals may be discussed, but are generally beyond the scope of this report. For information about those issues, see CRS Report R41243, *Army Corps of Engineers Water Resource Projects: Authorization and Appropriations*, and CRS Report R41961, *Army Corps Fiscal Challenges: Frequently Asked Questions*, by (name redacted) and (name redacted).

## Background

The majority of civil works projects undertaken by the Corps fall within its navigation, flood risk management, and ecosystem restoration and environmental protection missions. Historically, navigation and flood risk projects involved a potentially wide range of activities such as the construction of levees, floodgates, or dams; channel deepening (i.e., dredging) or widening; or changing floodplain uses. Some of those projects resulted in adverse impacts such as unanticipated flood damage after alterations to wetlands or floodplains, the destruction of aquatic plant or animal habitat, or impaired or altered water quality after dredging or channelizing waterways or building locks and dams.

The Corps' civil works mission was expanded to include ecosystem restoration projects, in part, to authorize the agency to address adverse effects from past civil works projects. Addressing those impacts involves actions such as restoring natural channel conditions, modifying obstructions to fish passage, or removing levees to restore wetland hydrology.

Many of the environmental requirements that apply to Corps civil works projects today were put in place at the direction of Congress to ensure that project planning reduces the potential for unanticipated adverse impacts and/or identifies measures to minimize or mitigate unavoidable impacts. In reviewing the range of federal<sup>4</sup> environmental requirements potentially applicable to civil works projects, the requirements may fall into the one of the following categories:

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<sup>4</sup> State or tribal requirements generally do not apply to civil works projects. However, states or tribes may be authorized to implement certain federal environmental laws. For example, depending on a project's impacts, the Corps may be required to comply with state water quality requirements implemented by an authorized state pursuant to the Clean Water Act.

- **Requirements to address certain environmental aspects of a proposed project during planning.** These include requirements, established by Congress, that apply explicitly to federal investment in water resources development. For example, the Corps is obligated to conduct specific studies, reports, and evaluations to ensure that the environmental impacts of a project are identified and considered; evaluate a project's economic and public safety benefits compared to its adverse environmental impacts; and identify opportunities to protect, preserve, and/or enhance the quality of the environment.
- **Requirements intended to protect human health or minimize harm to a protected resource.** These include requirements that arise from federal laws, regulations, executive orders, or Corps policy that may apply as a result of project-specific impacts. Compliance requirements will be identified during planning and will generally depend on the degree to which project impacts adversely affect air or water quality, or natural or cultural resources specifically protected by Congress (e.g., historic sites, Native American graves, endangered species or their habitat). They may also include any requirements that direct the Corps to enhance the quality of the environment.

Both sets of requirements are largely implemented by the Corps, but may require the Corps to consult with or obtain some level of review by an outside federal agency or a state or tribal agency authorized to implement a specific federal law (see **Table 1** in the section “Impact-Specific Environmental Requirements”).

As required by Congress, the Corps cannot recommend a project to Congress for construction authorization until it has evaluated and can describe “economic, environmental, and social benefits and detriments” of a recommended plan and possible alternative plans.<sup>5</sup> A key element of its evaluation of environmental detriments and benefits involves identifying a project's impacts and environmental compliance requirements associated with those impacts.

When there is debate over the degree to which environmental requirements affect project delivery, that debate often centers around the time it takes the Corps to demonstrate compliance with specific requirements. Most recently, that debate has centered around the time that it takes the Corps to complete some level of coordination with or obtain necessary approvals from other federal agencies (e.g., the Department of the Interior's U.S. Fish and Wildlife Service). The process required to obtain necessary federal reviews of civil works projects may be highly complex, among other reasons, in order to ensure compliance with protections established by Congress. As a result, they may require a high degree of resources agency involvement (e.g., in developing ecosystem restoration projects).

To understand why a potentially complex array of environmental requirements may apply to water resource projects, it is useful to understand the social and environmental concerns that led Congress to enact the various laws that may apply to both the project development process and projects themselves.

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<sup>5</sup> 33 U.S.C. §2282(a)(2).

## The Evolution of Environmental Requirements

How the Corps is currently obligated to evaluate the environmental impacts of a project, as well as document and demonstrate compliance with any requirements that may apply as a result of those impacts, has evolved over many years. Several key requirements that require the Corps to plan and implement projects as it does currently were originally enacted in the 1960s and 1970s. It was during that time that national priorities and perspectives on the federal investment in water resources development were changing; at the time, public attention was turning to the impacts that human activities were having on the human and natural environment—that is, adverse impacts on air and water quality and on cultural and natural resources such as historic sites, plant and animal species, and/or their habitats.

Beginning in the 1960s, Congress began to respond to that increased public awareness and concern by enacting various laws that affect project planning, development, approval, and funding, as well as laws intended to protect human health and the environment. Most requirements that currently apply to water resource project development that may be deemed “environmental” represent past efforts by Congress to minimize the potential for unforeseen adverse impacts and/or to mitigate or minimize any unavoidable adverse impacts.

During the 1960s, Congress also turned its attention to the effects that federally funded projects were having on the environment—including Corps water resource projects. Generally, until the mid-1960s, analysis of water resource projects focused on the potential economic benefits and costs. With increased attention to adverse impacts of civil works projects, including the costs associated with remedying those impacts (see text box below), Congress enacted various laws that broadened Corps planning requirements to include an evaluation of project impacts to environmental quality.

Of particular relevance to the Corps’ planning process today was the enactment of the following:

- **The Water Resources Planning Act of 1965** (P.L. 89-80)—created the Water Resources Council (WRC, now defunct due to lack of funding) and established “Water Resources Planning” requirements (42 U.S.C. §1962), which created a coordinated planning process related to the conservation, development, and use of water resources. The law also required the establishment of principles, standards, and procedures to be used for the formulation and evaluation of water and related land resources projects. A WRC Task Force subsequently specified that water resources agencies should identify impacts in four areas—national economic development, environmental quality, regional economic development, and social well-being.
- **The National Environmental Policy Act of 1969** (NEPA)—requires all federal agencies to consider the environmental impacts of an action and to give the public a meaningful opportunity to learn about and comment on the proposed project *before* a final decision is made to proceed with that action. The NEPA compliance process forms the framework used by the Corps to identify any project impacts to natural or cultural resources or to air or water quality, including impacts that may require the Corps to comply with other federal environmental requirements. Depending on the resource affected, the Corps is



required to coordinate its NEPA analysis in consultation with agencies with jurisdiction over any affected resources or expertise necessary to assess the significance of the impacts.<sup>6</sup>

By the late 1960s, construction of major waterworks had declined. Changing national priorities and local needs, increasing construction costs, and completed projects at most prime locations decreased the attractiveness of major water projects.<sup>7</sup>

At the same time, as a reflection of changing national priorities, congressional concern over the impacts that human activities were having on the quality of the human and natural environment was further demonstrated in wide-ranging laws enacted in the late 1960s and into the 1970s. Included among them were the National Historic Preservation Act (1966), the Endangered Species Act (1973), and the Clean Water Act (1972). By the mid-1970s, the Corps began to identify and coordinate its compliance obligations under NEPA and the Water Resources Planning Act by integrating its assessment of environmental impacts into the project planning process. That included identifying any applicable non-NEPA environmental requirements and documenting necessary compliance requirements during project planning.

### Impacts and Costs of the Central and Southern Florida (C&SF) Project

In the early 1900s, the principal impediment to development in south Florida was flooding. To realize the economic potential of the state's natural resources, major drainage projects were initiated by the state of Florida and later in partnership with the Corps. That partnership worked to control conditions hampering economic development.

Authorized by Congress in 1948, activities associated with the Central and Southern Florida (C&SF) Project were intended to control flooding, provide water for municipal, industrial, and agricultural uses, prevent saltwater intrusion, create a water supply for Everglades National Park, and protect fish and wildlife resources. The primary system includes about 1,000 miles each of levees and canals, 150 water control structures, and 16 major pump stations. To create that system, the Kissimmee River was channelized; Lake Okeechobee was diked to prevent uncontrolled overflows; part of the Everglades was drained and groundwater levels were managed to reduce flood damages to agricultural production; a drainage system was constructed in the lower East Coast to allow for urban, suburban, and agricultural development; and central portions of the Everglades were diked to store water for human needs and to make deliveries to Everglades National Park.

The emphasis on economic goals focused project design on development of the region with little understanding of or concern for the consequences to the Everglades ecosystem. As a result of CS&F projects, nearly half of the original Everglades ecosystem was converted to agricultural uses. The overall impact of the construction and operation was a substantial reduction in habitat options for wildlife, a network of canals and levees that has accelerated the spread of polluted water and exotic species and significantly reduced the water storage capacity within the remaining natural system, and an unnatural mosaic of impounded and overdrained marshes throughout the natural system.

In an effort to address these impacts and restore the south Florida ecosystem, Congress authorized the Comprehensive Everglades Restoration Plan (CERP, also known as the C&SF Restudy). The CERP provides a guide to restore, protect, and preserve the water resources of central and southern Florida, including the Everglades. Ultimately, activities related to the plan will cover 16 counties over an 18,000-square-mile area, and include more than 60 project elements. Construction is expected to take more than 30 years and \$11.9 billion.

**Source:** Project history taken from the Comprehensive Everglades Restoration Plan, available at <http://www.evergladesplan.org/>.

<sup>6</sup> For more information, see CRS Report RL33152, *The National Environmental Policy Act (NEPA): Background and Implementation*, by (name redacted).

<sup>7</sup> A discussion of the evolution of the Corps' civil works mission is included in CRS Report R41243, *Army Corps of Engineers Water Resource Projects: Authorization and Appropriations*, by (name redacted) and (name redacted).

## Changes in Water Resources Development Acts

Since 1974, congressional authorization to study or construct civil works projects has been provided to the Corps largely through Water Resources Development Acts (WRDAs). Early WRDAs were largely project authorization acts, but since the mid-1980s, WRDAs have also included significant directives to the Corps with regard to the management of environmental issues or impacts.<sup>8</sup> The following are selected<sup>9</sup> examples:

- WRDA 1986 (P.L. 99-662). Directed the Corps to improve fish habitat affected by water resources facilities, authorized changes in justification for beach nourishment projects, and authorized the Corps to determine the need for and make modifications to existing structures to improve the quality of the environment or to address project operations that degraded environmental quality.
- WRDA 1990 (P.L. 101-640). Directed the Secretary of the Army to include environmental protection as a primary Corps mission.
- WRDA 1992 (P.L. 102-580). Authorized the Corps to use the “spoils” from dredging in implementing projects for protecting, restoring, and creating aquatic and ecologically related habitats, including wetlands.
- WRDA 1996 (P.L. 104-303). Authorized the Secretary of the Army to carry out aquatic ecosystem restoration and protection projects and to add environmental protection and restoration as another project purpose.
- WRDA 2000 (P.L. 106-541). Approved the Florida Everglades restoration program, the agency’s first multiyear, multibillion-dollar effort of this type.

These legislative changes gave the Corps environmental responsibility beyond traditional water resources development. More recently, WRDA 2007 (P.L. 110-114) included “Project Streamlining” requirements that directed the Secretary of the Army to develop and implement a coordinated review process for water resource project development.

WRDA 2007 also required the Secretary of the Army to revise the *Principles and Guidelines* (P&G) for water resource implementation studies.<sup>10</sup> Until recently, the Corps used the P&G to guide its development of processes and procedures for formulating, evaluating, and implementing water resources development projects.<sup>11</sup> In March 2013, the Administration released *Principles*

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<sup>8</sup> Prior to WRDAs, Congress typically authorized Corps projects in successive Rivers and Harbor and Flood Control Acts.

<sup>9</sup> Primarily amendments identified in the *Analytical Methods and Approaches for Water Resources Project Planning*, prepared by the Panel on Methods and Techniques of Project Analysis, Committee to Assess the U.S. Army Corps of Engineers Methods of Analysis and Peer Review for Water Resources Project Planning, National Research Council, 2004, National Academies Press, p. 21.

<sup>10</sup> See Section 2031(b) in WRDA 2007, “Water Resources Principles and Guidelines.” Under Section 2031(b)(3), the Corps was directed to consult with the Secretaries of the Interior, Agriculture, Commerce, Housing and Urban Development, Transportation, Energy, and Homeland Security, the Administrator of the Environmental Protection Agency (EPA), the National Academy of Sciences, and the Council on Environmental Quality (CEQ), and to solicit and consider public and expert comments.

<sup>11</sup> The P&G were originally prepared pursuant to Section 103 of the Water Resources Planning Act (42 U.S.C. 1962a-2). The 1983 P&G issued by the WRC are reflected in two documents, *Economic and Environmental Principles for Water and Related Land Resources Implementation Studies* and the *Economic and Environmental Guidelines for Water* (continued...)

*and Requirements for Federal Investments in Water Resources* (Principles & Requirements, or P&R), as well as draft *Interagency Guidelines* for implementing the P&R.<sup>12</sup>

Section 2031 of WRDA 2007 also amended the national Water Resources Planning policy,<sup>13</sup> included originally in the Water Resources Planning Act, to specify that all water resource projects should reflect national priorities, encourage economic development, and protect the environment by

- seeking to maximize sustainable economic development;
- seeking to avoid the unwise use of floodplains and flood-prone areas and minimizing adverse impacts and vulnerabilities in any case in which a floodplain or flood-prone area must be used; and
- protecting and restoring the functions of natural systems and mitigating any unavoidable damage to natural systems.

This policy highlights the evolution of water resource project development. Once focused largely on project construction for “flood control” or “economic development,” congressionally derived policy now includes the consideration of measures that may be needed to protect the environment and/or mitigate unavoidable damage to the quality of the environment, not simply compliance with applicable requirements intended to protect the environment.

## **Overview of the Current Planning Process for Civil Works Projects**

The water resources development process that evolved since the 1960s reflects changing needs and concerns related to environmental impacts, as those needs and concerns were identified by Congress. Most of those changes added requirements or steps to the civil works project development process. The resulting process is complex.

The Corps’ civil works program is led by a civilian Assistant Secretary of the Army for Civil Works (ASA(CW)). A military Chief of Engineers oversees the Corps’ civil and military operations and reports on civil works matters to the ASA(CW). A Director of Civil Works reports to the Chief of Engineers. The Corps’ civil works responsibilities are organized under eight Major Subordinate Commands (MSCs, also referred to as Divisions), further divided into 38 Districts.

**Figure 1** outlines the steps of the project development process. It typically begins when a local, nonfederal interest identifies a water resources problem that it wants the Corps to address. If the Corps determines it appropriate, a request is made to Congress to authorize the Corps to study the issue. Project-specific study authority is typically provided in a resolution by an authorizing committee or a WRDA.<sup>14</sup> While a study authorization may allow the Corps to receive federal funding to initiate a study, those funds must be appropriated separately for the study to proceed.

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*and Related Land Resources Implementation Studies.*

<sup>12</sup> See the CEQ web page, “Updated Principles and Guidelines for Water and Land Related Resources Implementation Studies,” at <http://www.whitehouse.gov/administration/eop/ceq/initiatives/PandG>.

<sup>13</sup> See WRDA 2007 Section 2031 amendments to 42 U.S.C. §1962-3(a).

<sup>14</sup> The congressional authorizing committees are the House Committee on Transportation and Infrastructure and the Senate Committee on Environment and Public Works.

Not all authorized studies receive appropriations, or funds may be appropriated years after the study is authorized.

Once the initial study is approved and federal funds are made available, the Corps planning process begins with the preparation of the following:

- **A reconnaissance study**—an investigation into the water resources problem and assessment of the federal government’s interest in the project (i.e., whether it falls within one of the Corps’ missions), as well as the interest and ability of the nonfederal sponsor(s) to participate in the project. If nonfederal support/funding is forthcoming and the Corps recommends proceeding, a feasibility study can begin once federal funding for the feasibility study is made available.
- **A feasibility study and report**—studies, reports, and evaluations necessary to formulate and recommend solutions to the water resources problem identified in the reconnaissance study. A feasibility *study* that results in the preparation of a feasibility *report* is required to include a description of the economic, environmental, and social benefits and detriments of the recommended and alternative plans considered by the Corps.<sup>15</sup> To provide that information, among other activities, the District in which the project is proposed formulates alternative plans, investigates engineering feasibility, conducts cost-benefit analyses, and evaluates potential environmental impacts of project alternatives and compliance requirements associated with those impacts.

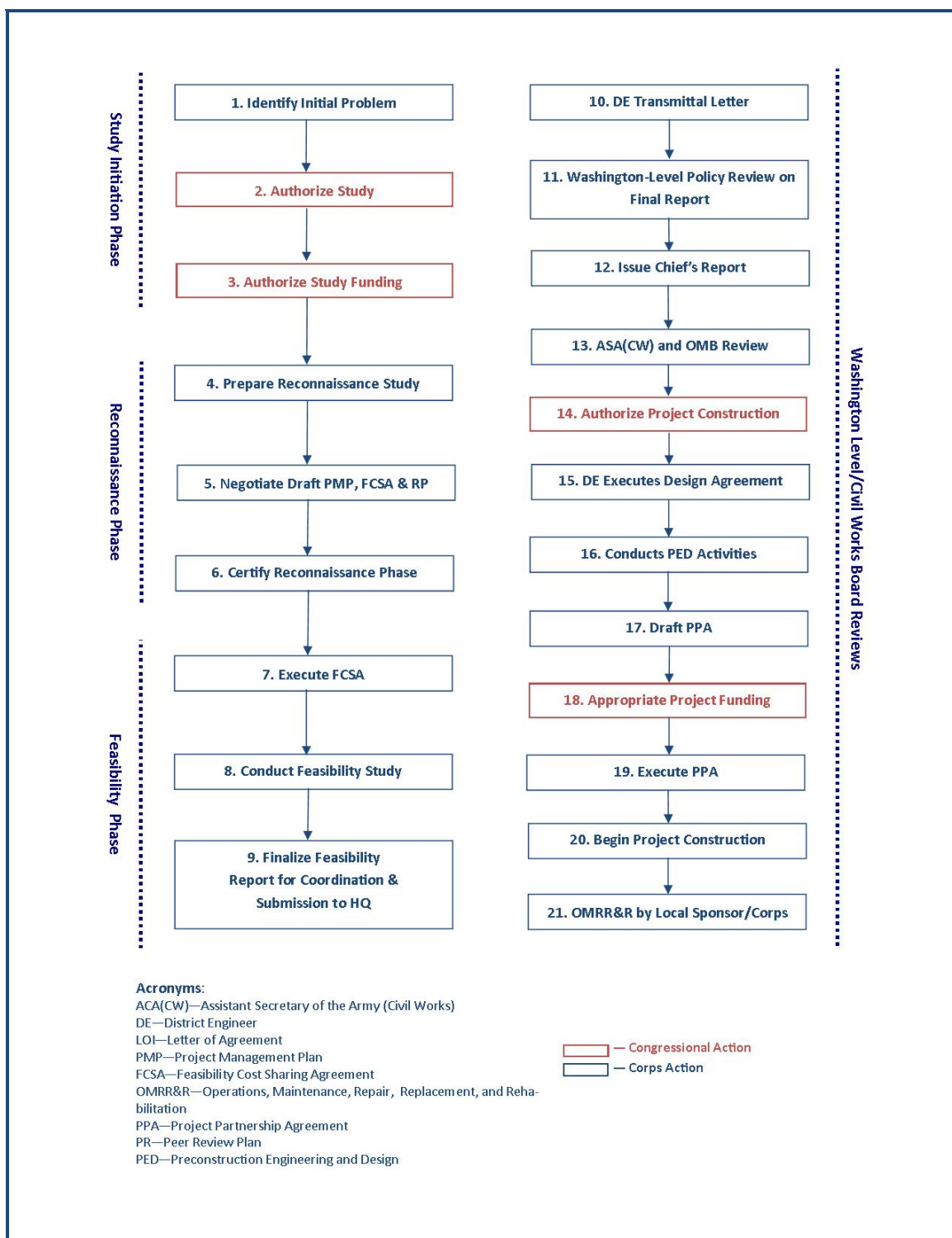
It is generally during the feasibility study process that actions necessary to comply with NEPA are completed, as well as evaluations necessary to demonstrate compliance with any other applicable environmental requirements (see discussion in the section below).

After all supporting evaluations, studies, and reports are completed, a feasibility report and associated documents are subject to review and approval at the Headquarters level. Once those reviews are complete, the Chief of Engineers uses these documents to produce a Chief’s Report, which, if the Corps chooses to move forward with the project, will support its recommendation to Congress to authorize construction. The Chief’s Report, along with all the supporting information about the project, is then submitted to the ASA(CW) and the Office of Management and Budget (OMB) for policy compliance review; an informational copy of the Chief’s Report, feasibility report, and other documents generally also are transmitted to Congress at this time.

These project planning steps are generally included among four phases of project development and 21 distinct steps that must occur from project initiation to construction. Those phases and steps, as they have been identified by the Corps, are illustrated in **Figure 1**. (Details are provided in the chart in the “Detailed Actions During the 21 Steps of Project Development” section.)

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<sup>15</sup> 33 U.S.C. §2282(a)(4).

**Figure I. 21 Steps of Civil Works Project Development**

**Source:** CRS, based on the Corps' "21 Steps to a Civil Works Project," available at <http://planning.usace.army.mil/toolbox/process/21-Steps.pdf>.

As illustrated in **Figure 1**, Congress is responsible for key milestones in the project development. For example, Congress generally

- authorizes the Corps to prepare a study of the water resources problem;
- appropriates funds for the Corps study;
- authorizes the Corps to construct a project; and
- appropriates funds to the Corps to construct the project.

Congress also provides oversight during project development, in part, when deciding whether it will continue to appropriate funds for necessary studies, reports, or evaluations that are required throughout the project development process.

Generally, few Corps studies into water resources problems lead to project construction. Historically, of every 100 reconnaissance studies undertaken, approximately 33% led to feasibility studies and approximately 16% resulted in project construction.<sup>16</sup> Further, the rate of Corps authorizations exceeds the rate of the agency's annual appropriations.<sup>17</sup> Consequently, only a subset of authorized activities is included in the President's budget request and is funded by enacted appropriations. This results in competition for funds among authorized activities during the appropriations process.

To concentrate limited resources and to move ongoing projects toward completion, budget requests by the George W. Bush and Obama Administrations have focused funding on projects near completion, and have limited requests for funding for new studies and projects. Few new Corps studies or projects have received funding in recent fiscal years; new activities or activities that have not recently received funding in Administration requests are often referred to as "new starts." With limited new starts receiving funding from Congress, the majority of studies and construction projects authorized in WRDA 2007 are currently unfunded and cannot proceed unless or until funds are appropriated. As a result, whether or when project studies or construction activities receive funding will have the greatest impact on the time it takes to deliver a project.<sup>18</sup>

## Environmental Evaluation and Compliance Requirements

During planning, the Corps is obligated to determine a project's potential economic, social, and environmental benefits and detriments. Processes and procedures that the Corps uses to ensure compliance with that directive and any other applicable planning requirements are implemented in accordance with the Corps' *Planning Guidance Notebook*.<sup>19</sup> The *Notebook* provides the overall

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<sup>16</sup> Lt. General Robert B. Flowers, Army Corps Chief of Engineers, oral statement, *Reforms to Address the Corps of Engineers Feasibility Studies*, hearing before Senate Committee on Environmental and Public Works, Subcommittee on Transportation and Infrastructure, March 15, 2001, available at [http://epw.senate.gov/stm1\\_107.htm](http://epw.senate.gov/stm1_107.htm). These proportions were cited using project data from the early 1990s. More recent statistics are not publicly available.

<sup>17</sup> For example, it has been reported that the Corps has a construction backlog of \$60 billion.

<sup>18</sup> See CRS Report R41243, *Army Corps of Engineers Water Resource Projects: Authorization and Appropriations*, by (name redacted) and (name redacted).

<sup>19</sup> The Corps currently implements the planning stage of project development in accordance with "Engineer Regulation 1105-2-100: Planning Guidance Notebook," April 2000. The "Planning Guidance Notebook" provides the overall (continued...)



internal agency direction by which civil works projects are formulated, evaluated, and selected for recommendation to Congress.

As the Corps implements the project development process, environmental requirements are integrated into the planning process in accordance with the “Environmental Evaluation and Compliance” requirements provided in the *Notebook*.<sup>20</sup> Processes and procedures necessary to meet the environmental evaluation and compliance requirements are intended to ensure Corps compliance with NEPA, the Water Resources Planning Act (as reflected previously in planning requirements established in the P&G and now in the P&R), and other applicable federal environmental laws, regulations, and executive orders, and other applicable federal planning requirements.

As noted previously, this report looks at two separate but related groups of environmental requirements: (1) those explicitly applicable to water resources development that must be addressed by the Corps during planning, and (2) those applicable as a result of project-specific impacts that are intended to protect human health or minimize harm to certain aquatic and other resources. Activities necessary to ensure compliance with the second group of requirements may take place during project design, construction, and operation. However, it is largely within the planning phase of development that the Corps completes required studies, reports, evaluations, and analyses, and conducts necessary outside agency consultations to determine how compliance with those requirements is to be met.

Integrating the Corps’ environmental evaluation and compliance requirements into the planning process is intended to ensure that actions necessary to demonstrate Corps compliance with any applicable requirements will be identified and largely addressed before Congress authorizes project construction. For any given project, environmental compliance does not end with project planning. It continues through final project design, construction, and operation. A discussion of activities that may occur during those additional phases of project development and operation is beyond the scope of this report.

## **Corps-Specific Requirements Addressed During Planning**

The Water Resources Planning Act resulted in the establishment of planning requirements applicable to all federal water resource projects, including those undertaken by the Corps. Among other study planning objectives, Congress requires federal investment in water resources development to characterize the beneficial and adverse effects of a project based, in part, on its evaluation of environmental quality (EQ) measures associated with a project.<sup>21</sup> Congress also

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direction by which the Corps’ civil works projects are formulated, evaluated, and selected for overall implementation. The April 2000 notebook includes appendixes that have been added at later dates to address various issues specific to the project planning process.

<sup>20</sup> *Planning Guidance Notebook*, Appendix C, “Environmental Evaluation and Environmental Compliance.”

<sup>21</sup> EQ measures include activities that meet the national objective that federally financed water resource programs enhance the quality of the environment, including the protection of the environment, and that opportunities for such activities be considered in the planning, design, construction, and operation and maintenance of projects. “Opportunities” for enhancement of the environment are to be sought through each phase of project development. See 42 U.S.C. §§1962-2 and 1962-3, and Water Resource Policies and Authorities: Corps of Engineers Participation in Improvements for Environmental Quality, at 33 C.F.R. Part 236.

established additional planning requirements that apply to water resource projects undertaken specifically by the Corps. These Corps-specific requirements are codified primarily in Title 33 of the *U.S. Code*. Such requirements include, but are not limited to, those that specify the following:

- **Matters to be addressed in planning**—requires that the quality of the total environment (including preservation and enhancement of the environment) and the preservation of cultural and historical values be included, among other factors, in the formulation and evaluation of the costs/benefits of water resource projects (§2281(a)).
- **Reconnaissance studies**—requires a preliminary analysis of the federal interest, costs, benefits, and environmental impacts of the project (§2282(b)).
- **Contents of feasibility reports**—requires reports to describe the economic, environmental, and social benefits and detriments of the recommended plan and alternative plans considered by the Corps (§2282(a)(1)).
- **Benefits and costs attributable to environmental measures**—directive to the Corps to, when considering costs/benefits, evaluate measures to achieve EQ *benefits*, such as fish and wildlife enhancement, at least equal to the *costs* of such measures (§2284).

Processes and procedures to meet these and other Corps-specific planning requirements are found primarily in the Corps' *Planning Guidance Notebook*, but are also included in various other Corps documents such as Engineer Regulations (ER), Engineer Circulars (EC), Engineer Pamphlets (EP), and other documents.

## Impact-Specific Environmental Requirements

As noted previously, during the planning process, the Corps must identify requirements that arise from federal laws, regulations, executive orders, or Corps policy that may apply as a result of project-specific impacts. The NEPA compliance process (hereinafter the NEPA process) generally forms the framework that the Corps uses to identify those requirements and any actions that must be taken to ensure Corps compliance with applicable requirements, before a project is authorized for construction.

NEPA is intended, in part, to ensure that federal agencies include a consideration of the environmental impacts of an action among other factors (e.g., economic or community benefits) considered *before* the agency makes a final decision on a project. The Corps identifies and demonstrates its consideration of environmental impacts, pursuant to NEPA, through the preparation of certain publicly available environmental review documents. Requirements that define the appropriate NEPA documents and required elements of those documents are found in the regulations promulgated by the Council on Environmental Quality (CEQ)<sup>22</sup> and by the Corps.<sup>23</sup> NEPA documents of relevance to Corps civil works projects will likely be the following:

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<sup>22</sup> 40 C.F.R. Parts 1500-1508; CEQ regulations implementing NEPA that are broadly applicable to all federal agencies.

<sup>23</sup> 33 C.F.R. Part 230; Corps procedures for implementing NEPA. The Corps regulations supplement the CEQ regulations to include detail specific to projects implemented by the Corps.



- Environmental Impact Statements (EIS)—prepared for every major federal action that may have a “significant” effect on the quality of the human environment.<sup>24</sup> The Corps identifies feasibility reports for the authorization and construction of major projects among those that normally require an EIS. An EIS is prepared in two stages, a draft and final EIS. If significant time passes after issuance of a final EIS (as may occur if significant time lapses between the time Congress authorizes project construction and appropriates funding for that construction), a Supplemental EIS may be required. Completion of the NEPA process is reflected in the issuance by the agency of a final record of decision (ROD).
- Environmental Assessments (EA)—prepared if a project’s degree of impact is uncertain. It will result in either a determination that an EIS is needed or that a Finding of No Significant Impact (FONSI) may be issued. Maintenance or modifications to existing Corps facilities or structures may require an EA resulting in a FONSI.

Among other information, both an EIS and, to a lesser degree of detail, an EA must include a statement of the purpose and need for an action, a description of all reasonable alternatives to meet that purpose and need, a description of the environment to be affected by those alternatives, and an analysis of the direct and indirect effects of the alternatives, including cumulative impacts.<sup>25</sup> Similar information may also be required for water resource projects under other laws or requirements. For example, during the planning process, the Corps is obligated to identify and evaluate reasonable alternatives that may meet a project’s purpose and need, and to describe the areas affected by the alternatives under consideration.

If a project requires the preparation of an EIS or EA, that generally means that it has some impacts that will require compliance with additional (non-NEPA) environmental requirements. Generally, any additional environmental requirements will include those that may apply to a project as a result of that project’s physical or aesthetic impacts to natural or cultural resources (e.g., direct impacts to fish and wildlife habitat or historic sites, or noise or visual impacts to those resources) or to air or water quality. Those requirements will likely depend on the resources affected, the severity of impacts to that resource, and the details of the applicable federal law.

A state, tribal, or federal agency may be required to provide the Corps with certain data or analysis to allow the Corps to determine the severity of a project’s impact to a protected resource or whether such a resource is in the project area (e.g., to identify sites of historic significance, the presence of Native American graves). Depending on the compliance requirements triggered, the Corps may also be required to consult with or obtain certain approvals (e.g., permits or licenses) from other state, tribal, or federal agencies.

The potential extent of outside agency involvement will also likely depend on the type of Corps project being planned. For example, any project that would involve the construction of a facility that may adversely affect endangered species habitat or result in killing threatened or endangered species would likely obligate the Corps to consult with the Department of the Interior’s U.S. Fish and Wildlife Service to identify appropriate measures that could be taken to minimize harm to the species, pursuant to the Endangered Species Act. Similarly, for ecosystem restoration projects, it

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<sup>24</sup> 42 U.S.C. §4332(2)(C).

<sup>25</sup> For information about required elements of NEPA documents, see CRS Report RL33152, *The National Environmental Policy Act (NEPA): Background and Implementation*, by (name redacted).

is likely that the Corps would consult with the U.S. Fish and Wildlife Service to determine restoration measures necessary to restore endangered species habitat.

**Table 1** identifies selected federal statutes that are frequently applicable to civil works projects, and the action subject to some control or regulation by an outside agency. Pursuant to its authority under the applicable law, the agency with jurisdiction to implement the law may be required to consult with or coordinate some element of project development with the Corps, including the issuance of some approval (e.g., a permit or license) that specifies conditions under which the protected resource may be used or affected. Outside agency consultations may also be required to determine appropriate mitigation measures that the Corps will implement to ensure protection of the resource in accordance with federal law or Corps policy.

**Table 1. Selected Federal Laws That Require Outside Agency Review**  
Actions Commonly Associated with Corps Civil Works Projects

Statute	Action Subject to Outside Agency Review, Consultation, or Coordination	Agencies with Jurisdiction <sup>a</sup>
Fish and Wildlife Coordination Act (1934, as amended)	The construction of or modification to projects that affect fish and wildlife habitats, and all types of aquatic and land vegetation upon which wildlife is dependent	Department of the Interior's (DOI's) U.S. Fish and Wildlife Service (FWS); National Oceanic Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries); and/or state fish and wildlife agencies.
National Historic Preservation Act of 1966	Federal projects that affect districts, sites, buildings, structures, and objects significant to American architecture, history, archaeology, and culture.	State or tribal historic preservation officer; and/or Advisory Council on Historic Preservation.
The Federal Water Pollution Control Act Amendments, or Clean Water Act (1972; P.L. 92-500)	The discharge of pollutants into waters of the United States, including the discharge of dredged material into wetlands or streams.	Environmental Protection Agency (EPA); and/or authorized state water quality agency.
Coastal Zone Management Act of 1972 (P.L. 92-583)	Federal actions that would affect land or water uses of the coastal zone.	State coastal zone management agency, NOAA Fisheries, EPA.
Endangered Species Act of 1973 (P.L. 93-205)	Action that would jeopardize the continued existence of listed species, or destroy or adversely modify their designated critical habitats.	FWS and NOAA Fisheries.
Marine Protection, Research, and Sanctuaries Act of 1972 (P.L. 92-532)	The dumping of waste, including dredge or fill material, into U.S. ocean waters.	EPA.
Wild and Scenic Rivers Act (1968; P.L. 90-542)	Federal construction of water resource projects that would have a direct and adverse effect on the values for which a river was designated "Wild and Scenic."	DOI's National Park Service; state agencies.

**Source:** CRS. Statutes selected were included among those identified by the Corps in its *Planning Guidance Notebook*, "Appendix C: Environmental Evaluation and Compliance," as potentially applicable to a project as a result of its impacts to ecological, cultural, and aesthetic resources, and air and water quality.

- a. This table provides a list of selected agencies from which the Corps may be required to seek some level of review, consultation, or coordination. It is not intended to be an exhaustive list.

As evidenced in the enactment of the Fish and Wildlife Coordination Act, as early as 1934 Congress recognized the potential harm to fish and wildlife associated with developing the nation's water resources and established provisions to coordinate the protection of fish and wildlife. However, most of the laws or relevant amendments to existing laws (as illustrated in **Table 1**) that affect water resources development today were enacted between 1966 and 1973. Some establish requirements that apply only to federal actions. These later requirements provide additional examples of how Congress responded to increased public concern over the impacts of human activity, in general, and federal agency actions, in particular, to the human and natural environment.

By identifying *any* environmental requirements applicable to a project in a single environmental review document, the NEPA process is used to coordinate and document compliance with potentially duplicative requirements—that is, to ensure compliance with environmental requirements established pursuant to NEPA and other project-specific requirements (e.g., the Clean Water Act or Endangered Species Act), but also to ensure compliance with Corps-specific evaluation requirements (e.g., requirements pertaining to the environment codified in Titles 33 and 43).

The Corps identifies all applicable impact-specific environmental compliance requirements within the context of evaluating project impacts pursuant to NEPA. The Corps does not have to comply with all applicable environmental requirements (obtain necessary permits) before the NEPA process is complete (i.e., a FONSI or ROD is issued). However, the draft NEPA document must include a summary of outside agency review and consultation requirements, analyses, and status of coordination associated with applicable laws and executive orders and memoranda, as well as a list of all federal permits, licenses, and other entitlements that must be obtained to implement a proposed action.<sup>26</sup> Further, the results of any outside agency coordination completed or under way, required pursuant to the applicable environmental law, must be summarized in the final NEPA document.<sup>27</sup>

## **Integrating Environmental Requirements into the Project Development Process**

For each of the 21 steps of project development identified by the Corps (see **Figure 1** above), the chart below lists activities that occur during those steps. The chart is not an exhaustive list of all studies, reviews, decisions, approvals, or activities required to be completed in each step of civil works project development. Instead, it illustrates key processes, procedures, and Corps decision points associated with completion of the Corps' environmental evaluation and compliance requirements that occur during planning, particularly as they are integrated into overall project development.

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<sup>26</sup> 40 C.F.R. §1502.26 and 33 C.F.R. §230.25(a).

<sup>27</sup> 33 C.F.R. §230.25(a).

## Detailed Actions During the 21 Steps of Project Development

<b>Project Development Steps</b>	<b>Selected Documents, Actions, and Corps Decision Points/ Documents and Actions Related to Environmental Requirements</b>
<b>Planning: Study Initiation Phase</b>	
1. Initial Problem Identification	Local interests send a letter requesting assistance to District Engineer (DE). The Corps' response must determine whether the problem—falls within the Corps' mission area; is local, or if there is existing investigations authority for the project.
2. Congress Authorizes the Corps to Study the Project	The local sponsor requests congressional authority to study the project; that authority would typically be provided in a WRDA or through a committee resolution.
3. Congress Appropriates Funds to Conduct the Study	Congress appropriates study funds through the annual appropriations process. Funding to continue the study must be obtained annually.
<b>Planning: Reconnaissance Phase</b>	
4. Conduct Reconnaissance (Recon) Study	District prepares initial Project Management Plan (PMP); and obtains preliminary stakeholder input. The federal interest in the project is determined pursuant to a "905 (b) analysis" (study is terminated if there is no federal interest or local sponsor support). <b>District commander identifies environmental studies along with engineering, economic and other technical studies to determine the probable environmental effects of project alternatives and the appropriate NEPA document to accompany the feasibility report (e.g., an EIS or EA/FONSI).</b>
5. Certify Recon Phase	District completes peer review of recon study; negotiates draft Public Information Plan, PMP, Feasibility Cost Sharing Agreement (FCSA), and peer review plan (RP). Within 6 months, but no more than 12 months, of initiating the recon phase, DE must sign Section 905(b) Analysis; and provide a sponsor Letter of Intent (LOI) to the Major Subordinate Commands (MSC) that states the sponsor is ready, willing, and able to execute the FCSA.
6. Negotiate PMP and FCSA	MSC approves the model FCSA and LOI; District approves PMP; and executes the FCSA.
<b>Planning: Feasibility Phase</b>	
7. Execute FCSA	The District identifies sources of federal/nonfederal funding.
8. Conduct Feasibility Study	Develop project goals and objectives; initiate Stakeholder Plan. <b>Hold a scoping meeting to identify issues that will be addressed in the NEPA document; if an EIS is needed, District commander must issue a notice of intent to prepare an EIS as early in the study phase as possible.</b> Update Peer Review Plan. District prepares Feasibility Scoping Meeting (FSM) documentation; documentation submitted to MSC and Corps Headquarters (HQ) for review; District addresses comments from MSC/HQ, final FSM package prepared. FSM conducted to bring the nonfederal sponsor, and resource agencies together to agree on the problems and solutions to be investigated and the scope of analyses required; conduct Alternative Formulation Briefing (AFB) may be held to confirm that the plan formulation and selection process, the tentatively selected plan, and the definition of federal and nonfederal responsibilities are consistent with applicable laws, executive orders, regulations and current policy guidance. <b>The District identifies all state and federal environmental requirements potentially applicable to the project; and prepares a draft Feasibility Report/NEPA document that documents and demonstrates Corps compliance with those requirements. Draft report is subject to 30-day Agency Technical Review (ATR). The District releases the draft NEPA document for review by</b>



Project Development Steps	Selected Documents, Actions, and Corps Decision Points/ Documents and Actions Related to Environmental Requirements
9. Complete Final Feasibility Report for Coordination & Submission for Washington Level Review /Civil Works Review Board (CWRB)	<p>project; and prepares a draft Feasibility Report/NEPA document that documents and demonstrates Corps compliance with those requirements. Draft report is subject to 30-day Agency Technical Review (ATR). The District releases the draft NEPA document for review by MSC and HQ and the public (agencies, organizations, and/or members of the public known to have an interest in the study). Complete Independent External Peer Review (IEPR), concurrent with NEPA process. District holds a public hearing on the NEPA document; addresses comments received from the public on the NEPA document at the same time it addresses comments on the IEPR or from MSC/HQ. District addresses comments from the public, IEPR and MSC/HQ. District prepares Final Feasibility Report and NEPA document. Final Feasibility Report ATR issued.</p> <p>Complete the Final Feasibility Report and NEPA document that reflects the project decision to be approved by Congress; DE signs final report (signature does not represent a final decision). After receipt and evaluation of and response to comments from state and federal agencies and the public on the draft NEPA document, the District commander prepares the EIS or EA/FONSI to be submitted to the Division commander for review. After review, Division commander issues a public notice of report issuance and transmits the report to the CWRB and provides a 30-day period for comments on both the feasibility report and EIS. The EIS accompanying the feasibility report is identified as "final" at this stage. However, the Corps requires that it be made clear to anyone requesting a copy that it is an "Interim Document under Agency Review—Subject to Revision" and will become the agency's final EIS when it is filed after CWRB review.</p>
Project Review, Approval, and Design: Washington Level/Civil Works Review Board	
10. DE Transmittal Letter	The DE transmits the final report, initiating Washington-level review. The final report package includes a summary of the feasibility study, the integrated feasibility report/NEPA document, and any other required documents and studies.
11. Washington Level Policy Review on Final Report	The MSC or DE briefs the CWRB on the final results and recommendations for any feasibility report that recommends new or additional congressional authorization. CWRB reviews final project decision, NEPA document(s); CWRB comments are addressed at District/MS level. HQ finalizes draft Chief of Engineers Report; the 30-day State and Agency review (S&A review) of the draft Chief's Report and final NEPA document begins; District address comments. District files final NEPA document; HQ prepares final Chief's Report.
12. Chief of Engineers Report Issued	The Chief of Engineers will sign his final report and transmit it, and accompanying documents (including the relevant NEPA document) to ASA(CW). An Informal Chief's Report is generally sent to congressional committee that would authorize the project.
13. Administration Review ASA(CW) & OMB	After completion of review ASA(CW) review, the report is sent to the Office of Management and Budget (OMB). After OMB provides its views, ASA(CW) will sign the record of decision (ROD) or FONSI for the NEPA document and transmit the report to Congress to authorize the project. Permits, approvals, and outside agency consultation and coordination required to comply with applicable environmental requirements will generally be completed by this point, but may not always be, depending on issues or factors specific to an individual project.
14. Congress authorizes project construction through a WRDA or other authority.	
15. District executes Design Agreement.	

Project Development Steps	Selected Documents, Actions, and Corps Decision Points/ Documents and Actions Related to Environmental Requirements
<p><b>If significant time lapses between completion of certain studies or reports and the appropriation of construction funds, the Corps may be required to reevaluate or revise and resubmitted certain reports.</b></p>	
18. Congress appropriates construction funds.	
19. PPA is executed after HQ approval.	
20. Project is constructed.	
21. Operation, maintenance, repair, replacement, and rehabilitation.	

**Source:** CRS, using information included in the Corps' *Civil Works Process Flowcharts* with corresponding *Guidance and Regulation* posted on the Corps' "Planning Community Toolbox: Project Delivery" website at <http://planning.usace.army.mil/toolbox/project.cfm?Option=Start&Step=0>; Corp Procedures for implementing NEPA at 33 C.F.R. 230, including requirements in Appendix A specific to the development of feasibility studies; and the Corps *Planning Guidance Notebook*, particularly requirements in Appendix C, "Environmental Evaluation and Compliance."

**Notes:** The chart is not an exhaustive list of all studies, reviews, decisions, approvals, or activities required to be completed in each step of civil works project development. Instead, it is intended to illustrate key processes, procedures, and Corps decision points associated with completion of the environmental evaluation and compliance requirements that occur during planning and are integrated into overall project development.

## Factors Identified as Causing Delay

The timeliness of Corps delivery has been the subject of scrutiny and oversight by Congress. As reflected in legislative proposals intended to streamline certain elements of the project development process, focus has been almost entirely on the time it takes to complete certain environmental requirements, particularly elements of the NEPA process. However, it is difficult to determine the degree to which the NEPA process delays projects. That difficulty stems largely from the unique issues that must be considered by the Corps during the development of water resource projects. Further, the NEPA evaluation is embedded in the feasibility process, which requires compliance with other congressional directives. These factors result in a NEPA implementation process that is unique to water resources development.

As the Corps implements its environmental evaluation and compliance process, it is difficult to extract and measure the degree to which certain activities may be attributable to a single environmental requirement. For example, actions necessary to comply with the Endangered Species Act may overlap with Corps-specific requirements to mitigate project-specific impacts (i.e., mitigation measures the Corps may be obligated to consider or implement apart from any explicit requirement to do so pursuant to the Endangered Species Act). Further, activities that may be necessary to demonstrate compliance with applicable environmental requirements may take place while the Corps is completing actions required by other laws or requirements (e.g., preparing analyses necessary to determine the project's economic benefits). As a result, it may be difficult to identify a specific time frame or step in project development in which only environmental compliance activities are taking place, as illustrated in the chart above.

One issue that has been the subject of particular scrutiny has been the time it takes to complete consultation or obtain approvals from other federal and state agencies. As discussed above, an agency with jurisdiction over that resource may be required to provide some level of analysis, consultation, or approval before a project can proceed. According to Corps procedures, shown in

the chart above, such activities would take place largely within the overall planning process. Anecdotal evidence indicates that individual projects may take longer than anticipated due to disagreements with federal resource agencies or state permitting agencies, but there are limited data available to determine whether such delays are systemic. Instead, issues that may lead to such delays are likely project-specific.

The time it takes the Corps to move from one step in the project delivery process to another depends on a complex array of factors. When comparing individual Corps projects to each other, the larger, more complex, and costly the project, often the longer each step will take to complete. However, the role that Congress plays in authorizing studies and project construction and the timing of appropriations have been identified as factors that have the most significant effect on the timing of project delivery.<sup>28</sup> For example, in terms of the project development process, years may pass between the following:

- **Approval to initiate a study to the appropriation of federal funds.** Funds to initiate new studies have been limited in recent years. As a result, many authorized studies never receive appropriations or take several years before initial funding.
- **Transition from the reconnaissance phase to the feasibility phase.** Authorized studies are subject to annual funding during the budget process. Overall study funding has been limited in recent years. Also, feasibility phase funding has received more scrutiny during the budget process in recent years. As a result, moving from the reconnaissance to the feasibility phase may take years or may never occur.
- **Transmission of the feasibility report to Congress to construction authorization.** Congress chooses to authorize most Corps projects in Water Resources Development Acts. While consideration of WRDA bills has been fairly regular, enactment has not been. Only two WRDAs have been enacted in the past 13 years (in 2000 and 2007). While waiting for authorization, the Corps can continue with preconstruction engineering and design (PED) activities, if it is funded to do so, but cannot move forward until the project is approved by Congress.
- **Construction authorization to the appropriation of construction funds.** Once the project receives congressional authorization, federal funds for construction may be sought in the annual Energy and Water Development Appropriations Act. Competition for inclusion in annual appropriations has curtailed the initiation of

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<sup>28</sup> On June 5, 2013, Major General Michael Walsh, Deputy Commanding General for Civil and Emergency Operations, testified before the House Committee on Transportation and Infrastructure, Subcommittee on Water Resources and Environment's hearing "A Review of the United States Army Corps of Engineer's Reports" (testimony available at <http://transportation.house.gov/hearing/review-united-states-army-corps-engineers-chief%E2%80%99s-reports>). In response to various questions from several Members of Congress, the General discussed issues that may delay project delivery, as well as efforts being implemented by the Corps to streamline project delivery. Processes or procedures related to meeting environmental compliance requirements were not included among those that delay projects or that were being changed to accelerate delivery, he testified. The limited availability of funds necessary to continue the number of projects authorized for construction was identified as the primary factor that affects the timing of project delivery. When asked specifically whether or which environmental regulatory requirements implemented by outside agencies could be eliminated to expedite project delivery, the General stated that he could not identify a single set of requirements established by Congress that he would suggest eliminating to streamline the process.

new construction projects. For example, many new civil works projects authorized in WRDA 2007 have not received construction funding as of FY2013. Instead, funding priorities have generally been on existing projects (e.g., ongoing construction or maintenance activities).

Given the range of environmental issues and impacts that Congress requires the Corps to evaluate for civil works projects, there is little debate that the body of requirements that may be deemed “environmental” that apply to Corps projects often represents a significant element of the project development process. What is unclear is whether or which specific environmental requirements routinely delay project delivery. For example, the issuance of permits by a state water quality agency pursuant to the Clean Water Act or consultations with the U.S. Fish and Wildlife Service required pursuant to the Endangered Species Act may take longer than anticipated for a given project. That does not necessarily mean that compliance with those requirements will delay project delivery, especially if compliance is demonstrated concurrently with other required elements of project development. Further, issues that may result in the compliance process taking longer than anticipated for a given project will likely be related to *that* project. It may not necessarily be related to an issue that could be avoided in the future by changing procedures or requirements applicable to all projects.

Even so, the length of time it takes to plan for and initiate construction of water resource projects has been of increasing concern to some stakeholders and a subject of congressional oversight. Because of the complex body of planning requirements, some believe reexamination of the existing requirements and processes to implement these requirements is in order. Some observers believe such examination and reform of the status quo could lead to a more streamlined and ultimately a faster review process. The challenge, however, may lie in deciding whether or which existing steps in the project planning process can be eliminated, combined, or otherwise streamlined. Background information included in this report is provided for the consideration of these issues.

## **Author Contact Information**

(name redacted)  
Analyst in Environmental Policy  
/redacted/@crs.loc.gov, 7-....



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