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Report to the Chairman, Subcommittee on Transportation, Committee on Appropriations, House of Representatives

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HIGHWAY PLANNING

Agencies Are Attempting to Expedite Environmental Reviews, but Barriers Remain

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GAO

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Resources, Community, and
Economic Development Division

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The Honorable Bob Carr
Chairman, Subcommittee on Transportation
Committee on Appropriations
House of Representatives

Dear Mr. Chairman:

Environmental and permit reviews for federal-aid highway projects are complex processes requiring coordination from as many as 30 federal, state, and local highway, environmental, and planning agencies, as well as public input and review. On most projects, the agencies have taken from 2 to 8 years to complete the environmental review and permitting processes, a prerequisite for initiating highway construction. In some cases, the agencies have been unable to resolve environmental controversies because of differences in the agencies' missions and policies.

Concerned with the increasing costs of highway projects resulting from delays in environmental reviews and permits, you requested that we study the National Environmental Policy Act (NEPA) and permit review processes for highway projects that require a permit under section 404 of the Clean Water Act of 1977 (section 404). You specifically requested that we (1) report on any federal and state efforts to streamline environmental reviews, (2) assess whether these efforts will expedite the reviews, and (3) determine the amount of Highway Trust Fund money that is spent for mitigating adverse affects on the environment. This report provides information on new initiatives that federal and state agencies are using to expedite environmental reviews and includes recommendations that could help further expedite those reviews. In addition, the report includes available information that the Federal Highway Administration (FHWA) and state highway agencies (the states) have generated on the costs of environmental mitigation.

Results in Brief

Highway and environmental review agencies have developed processes to streamline environmental and permitting reviews for highway projects that have an impact on wetlands. These processes (1) integrate NEPA and section 404 reviews, making them concurrent rather than sequential; (2) emphasize early interagency coordination and consensus-based decision-making; and (3) include procedures to resolve interagency disputes. Currently, the agencies have completed only one project review

using one of the new processes. When the new processes are fully implemented, the agencies expect to expedite all project reviews, which typically have taken over 5 years to complete.

Although the agencies expect that the new processes will reduce the time required for environmental review, barriers exist that could limit the success of these processes. First, the integrated processes do not include an evaluation component that would verify whether the processes have expedited environmental reviews. Second, the environmental review agencies may not have sufficient staff to fully participate in coordination meetings, which could make it difficult for the agencies to reach a timely consensus on a project's impacts on the environment. Finally, the integrated processes do not clarify how the participating agencies should assess a project's cumulative impacts on the environment, thus failing to address a traditional source of project delays.

FHWA has not defined what constitutes an environmental cost and, with the exception of data on the costs of mitigating highway noise, does not routinely track how much the states spend to mitigate the highway projects' impacts on the environment. Although we found data on some environmental costs, such as hazardous waste removal, none of the 11 states we contacted could provide complete information on their total costs for mitigating adverse environmental impacts. Without such data, we could not determine the total amount of Highway Trust Fund money that the states have spent on mitigating environmental impacts.

Background

Before a federal-aid highway project can be constructed, FHWA and the states are responsible for ensuring that the project complies with the requirements of NEPA. NEPA requires the highway agencies to identify and assess the environmental consequences of proposed and alternative actions. If FHWA and the states undertake actions that will have a significant impact on the environment, NEPA requires them to prepare an environmental impact statement (EIS).[1] In preparing an EIS, the state must balance the environmental impacts and the benefits of the alternatives and select a preferred alternative. Although NEPA requires the state to consider all environmental impacts, the act does not require the state to choose the alternative with the least impact.

[1]For federal-aid highway projects, the states typically prepare the EIS and other environmental documents, and FHWA reviews them to ensure that they meet federal requirements.

The Clean Water Act of 1977 requires the states to consider the impact that construction projects will have on wetlands or other waters of the United States. Section 404 of the act requires the agencies to obtain a permit from the U.S. Army Corps of Engineers (the Corps), or from a state environmental agency that has assumed section 404 responsibilities, before discharging dredged or fill material into wetlands.[2] Section 404 requires that the states consider alternatives and demonstrate that the preferred alternative will cause the least environmental damage on the affected wetland area. If a state cannot meet this requirement, the Corps will not issue the permit, and the state will have to modify its preferred alternative or reassess other alternatives. (App. I provides further details on the NEPA and section 404 requirements.)

Agencies Have Implemented Processes to Streamline Environmental and Permitting Reviews

On most highway projects, FHWA and the states have taken from 2 to 8 years to complete the NEPA and section 404 reviews. Recognizing the need to streamline these reviews, FHWA, the Environmental Protection Agency (EPA), and the Corps agreed in 1992 to develop processes to integrate these reviews. Under the streamlined processes, the highway and environmental review agencies assess the project's impacts on wetlands at the beginning of the NEPA review and at a level of detail traditionally done much later—at the time that a state applies for a permit under section 404. In addition, the streamlined processes require that before completing the NEPA review, the agencies agree on the highway project's purpose and scope, the alternatives selected for review, and the preferred alternative. The highway and environmental review agencies expect that these new processes will reduce the traditional sources of rework and delay that often occurred during the permitting stage.

FHWA and the States Can Take Several Years to Complete the NEPA and Section 404 Reviews

Because FHWA does not collect data on the time required to complete the NEPA and section 404 reviews, we collected this information by conducting a comprehensive survey of seven FHWA divisions and 13 states.[3] On the basis of our survey, we found that for 76 highway projects, FHWA and the states needed about 4.4 years on average to complete the NEPA reviews. For the 32 projects requiring a section 404 permit, FHWA and the states took an average of 5.6 years to complete both the NEPA and section 404 reviews. We also found a wide variance in the length of the review period among

[2]As of March 1994, the Michigan Department of Natural Resources and the New Jersey Department of Environmental Protection and Energy are the only state environmental agencies that had assumed section 404 responsibilities.

[3]For details on the survey methodology, see appendix V.

projects. The time required to complete the NEPA reviews ranged from less than 2 years to over 12 years. In addition, the time required to complete both the NEPA and section 404 reviews ranged from less than 2 years to over 11 years. (Tables II.1 and II.2 in app. II illustrate this wide range of environmental review time.)

Although FHWA had not collected data on the time required to complete these reviews, officials stated that in their experience, it takes a long time to complete the NEPA and section 404 reviews. According to FHWA and Corps officials, FHWA, EPA, the Corps, and the Fish and Wildlife Service (FWS) have been trying since 1988 to streamline the NEPA and section 404 reviews. In 1988, these agencies, along with the National Oceanic and Atmospheric Administration, published a document entitled Applying the Section 404 Permit Process to Federal-Aid Highway Projects, which provided agencies with guidance on improving interagency coordination and integrating the NEPA and section 404 reviews. This document was also the basis of FHWA's, EPA's, and the Corps' renewed efforts, initiated in May 1992, to expedite the reviews.

Integrated Processes Address Traditional Sources of Delay

Under the traditional processes, FHWA and the states, applying the NEPA requirements, selected the preferred alternative to a highway project before addressing section 404 requirements. During the NEPA reviews, the states would develop information about all potential environmental impacts that could result from several alternatives to a highway project. The information on wetlands would often be limited to determining the approximate number of acres of wetlands that would be affected by the alternatives under review. Later, to meet section 404 permit requirements, the states would develop more detailed information, such as the type (marsh, swamp, or forest) and function (wildlife habitat, flood control, or water purification) of the wetlands affected by the preferred alternative. In some cases, however, the Corps would deny permits, contending that the states had not adequately considered the impacts on wetlands when selecting the preferred alternatives during the NEPA reviews. As a result, the states would have to reassess other alternatives.

This situation occurred in 1989 when the Corps denied the Connecticut Department of Transportation's permit application to build a new expressway. On this project, the state began the NEPA review in 1973 and completed it in 1985. It chose as its preferred alternative a proposal to relocate a segment of an existing highway by constructing a new 12-mile expressway. In the 1987 permit application, the state proposed to fill 77

acres of wetlands to accommodate the new expressway. The Corps denied the permit application because (1) another practicable alternative—widening the existing highway—had less impact on the wetlands, (2) the proposed project would cause significant degradation to waters of the United States, and (3) the state did not have an adequate plan for mitigating the impacts on the wetlands. On the basis of the permit denial, the state decided to start the NEPA review over and prepare a new EIS for the project.

Another traditional source of delay was that the highway agencies could continue with NEPA and section 404 reviews without adequately addressing the concerns of the environmental review agencies. As a result, the concerns of EPA, FWS, and the Corps could remain unresolved for years, creating adversarial relationships and delaying projects.

This situation is illustrated by the state of Michigan's 5-year effort to obtain environmental clearance for an 8-mile highway near Detroit. On this project, the state continued the NEPA review for 4 years without resolving the environmental agencies' concerns. (See fig. III.1 in app. III.) Eventually, the state, with FHWA's approval, selected the alternative that FWS had cited throughout the NEPA review as environmentally unacceptable. Accordingly, when the state applied for a section 404 permit, the Michigan Department of Natural Resources denied the application. The agencies spent about another year developing an acceptable mitigation plan before the state obtained the permit and began construction.

The integrated processes currently being implemented in the three FHWA regions we reviewed seek to avoid the type of rework that occurred in both Connecticut and Michigan.[4] The integrated processes require the highway and environmental review agencies—typically the states, FHWA, EPA, FWS, and the Corps—to hold periodic meetings during which they identify and assess impacts on wetlands before selecting a preferred alternative to a highway project.[5] As a result, the agencies should detail impacts on wetlands at the beginning of the draft EIS stage, rather than at the end of or after the NEPA review, and mitigate the traditional rework and delays caused by sequential reviews. As appendix IV illustrates, under the

[4]In May 1992, FHWA required all nine of its regions to develop procedures to integrate the NEPA and section 404 requirements. In addition, in 1992 the Corps' New England Division began revising its own integrated process, known as the Highway Methodology, which FHWA's Region I adopted.

[5]Under the integrated processes, the highway and environmental review agencies coordinate extensively to review projects. The term "agencies" refers to federal and state highway agencies and federal environmental review agencies.

integrated processes the agencies expect to obtain a section 404 permit at about the same time they complete the NEPA review.

The integrated processes also require the agencies to make decisions by consensus during the concurrent processes and to employ mechanisms to resolve disputes, when needed. Specifically, the agencies must reach consensus at key project phases before they can proceed to a subsequent phase. Known as "concurrence points," these steps are intended to facilitate agreements among the agencies and preclude the routine revisiting of decisions that were agreed to at the earlier phases of a project. For example, FHWA Region V's integrated process requires the participating agencies to agree on the project's purpose and scope before selecting project alternatives to review. If the agencies cannot reach agreement at a concurrence point, dispute-resolution mechanisms are used. FHWA Region III's dispute-resolution procedures allow the participating agencies 30 days to reach an agreement. If agreement cannot be reached among the agencies' representatives, the dispute is elevated to regional supervisors for a final resolution.

Although agency officials generally agreed that the integrated processes will help expedite reviews, their experience to date has been limited. Only one project, located in Pennsylvania, has completed an integrated review. According to both FHWA and Pennsylvania officials, by using Region III's integrated process, the highway and environmental review agencies were able to successfully identify and assess the impacts on wetlands early in the NEPA review, obtain consensus among the agencies at key decision points, and complete the reviews in 14 months. Officials are optimistic that similar results can be achieved on future projects.

Barriers May Limit Effectiveness of the Integrated Processes

Although the highway and environmental review agencies expect the integrated processes to streamline environmental reviews, we identified barriers that could limit the processes' success. First, the agencies do not have a system to measure and evaluate the processes' success or to assist them in making further improvements to the processes. Second, because EPA and FWS may not have sufficient resources, they may have difficulty meeting the increased requirements for interagency coordination and study. Finally, the processes do not include guidance that clarifies the requirements for assessing the projects' cumulative environmental impacts. If unaddressed, these barriers could limit both expected time savings and the agencies' ability to further improve the processes.

Agencies Lack a System to Evaluate the Success of the Integrated Processes

Although the agencies have developed the integrated processes to expedite the NEPA and section 404 reviews, they have not developed a system to evaluate their success. Specifically, the agencies have not developed baseline data on the time needed to complete reviews under the traditional processes, nor have they developed plans to track projects' time frames under the integrated processes.

During our review, we found no central repository of information on highway projects and their environmental reviews. No single federal agency collects this information. The statistics discussed in this report on the amount of time required to complete the NEPA and section 404 requirements were generated with the assistance of three federal agencies and 13 states. Without baseline data on how much time the NEPA and section 404 reviews have taken, agency officials will not be able to evaluate whether the integrated processes will successfully reduce the time spent on environmental reviews.

Similar data limitations will be encountered with the new integrated processes because the participating agencies have not established a mechanism to track the time required for the environmental and permitting reviews. The highway and environmental review agencies have completed only one project under the integrated processes, which was completed in 14 months. Although the agencies are using the integrated processes to review 46 other projects, they have no plans to track the time required for these reviews. FHWA officials said they are more concerned with implementing the processes than with documenting the time savings. However, unless they track other projects using the processes, the agencies will have no means to determine whether the 14-month review is typical. In addition, unless the agencies have detailed information on other projects, they will have difficulty in identifying both the continuing sources of delay and measures to further improve the processes.

Resource Constraints Could Limit Success of the Integrated Processes

Under the integrated processes, the environmental review agencies become full participants during the NEPA and section 404 reviews. Their involvement includes attending numerous meetings, generally held at individual state offices; conducting reviews; performing studies; providing technical advice and expertise; and concurring on key project decisions. As a result, the integrated processes require these agencies to expend more resources than under the traditional processes. However, officials from five of the six states we contacted did not believe that EPA and FWS

have adequate resources to fulfill their increased responsibilities under the integrated processes.

For example, since June 1991 up to 22 representatives from eight agencies have attended monthly coordination meetings on a Connecticut highway project. During the meetings, the participants mapped out alternative highway alignments, identified environmental impacts, and selected alternatives to study. However, because of EPA's staff shortages, the agency could not send a NEPA compliance representative to many of the coordination meetings. As a result, Connecticut officials stated that the participating agencies have not been able to obtain EPA's agreement on the project. State officials said that EPA's resource constraints have contributed to the project being about a year behind schedule.

Officials from EPA and FWS acknowledged that resource constraints could limit the success of the integrated processes. Officials from three EPA regions stated that they do not have adequate resources to fully participate in the required coordination meetings or to review and comment on all environmental documents in a timely manner. For example, the NEPA coordinator in EPA's Region V stated that he has only one full-time staff member available to review highway projects for a six-state region. In addition, he said that his section does not have the travel money needed to send EPA staff to all required meetings. Officials at FWS headquarters also told us that the agency does not have sufficient resources to fully participate in the integrated processes.

Regional officials from EPA and the Corps have proposed that EPA, FWS, and the Corps share the responsibility for attending meetings. Under this approach, the agencies would alternate the responsibility for attending meetings, at which the designated attendee would present all three agencies' concerns about a project's impacts on the environment. However, in commenting on a draft of this report, Corps officials stated that they are still legally responsible for issuing section 404 permits and are not certain if they can allow other federal agencies to represent their interests.

Uncertainty About Cumulative Impacts Could Continue to Delay Projects

NEPA and section 404 require the agencies to examine the cumulative environmental impacts of actions taken on projects. These cumulative impacts occur beyond the immediate project area or at some time in the future. Currently, federal agencies do not have a standard methodology for assessing projects' cumulative impacts. The lack of a standard

methodology has traditionally delayed highway projects as the states and environmental agencies worked at resolving various issues, such as the geographical area that the environmental review should cover and the type of mitigation needed to address future environmental impacts. As a result, the states anticipate that despite the integrated processes' emphasis on streamlining the reviews, the lack of guidance clarifying the requirements for assessing cumulative impacts will continue to delay projects.

The economic development that a highway project often induces—new businesses and homes and other land development—indirectly produces environmental impacts beyond the immediate highway corridor. For example, the land development that occurs after a highway is built could reduce the amount of wetlands in the area, thereby affecting the wetlands system's ability to filter out pollutants and potentially affecting the area's water quality. To determine the cumulative impacts of actions such as land development, a state would need to determine how the highway project, combined with the expected development, would affect the area's environmental resources.

According to FHWA, cumulative impacts are important issues that affect FHWA's and the states' decisions on projects' scope, location, and mitigation measures. According to an April 1992 FHWA position paper on cumulative impact assessments, the environmental review agencies have been recommending cumulative impact assessments on almost all new projects. In addition, the paper states that the agencies are becoming particularly vocal about the potential for such impacts on areawide water and wetlands resources.

For example, during the Haggerty Road Connector Project, FHWA, the state, and the environmental review agencies tried for about 4 years to resolve disputes about assessing the project's cumulative impacts on wetlands. After 4 years without resolution of the issue, EPA and FWS agreed to drop their permit concerns on the condition that the state create a number of man-made wetlands and monitor their viability.

Several state officials we contacted stated that the lack of a standard methodology for assessing cumulative impacts has delayed and will continue to delay projects, despite efforts to streamline the NEPA and section 404 reviews. State officials recommended that FHWA, EPA, and the Corps develop a methodology that specifies the level of detail needed for assessing cumulative impacts, including a clear definition of the geographical area that should be studied. In addition, previous GAO studies

have found that the agencies did not have criteria for preparing cumulative impact assessments and recommended that the agencies develop such criteria.[6]

FHWA's current efforts to develop guidance center on supporting the research led by the Council on Environmental Quality (CEQ) to develop general guidance that can be used by other federal agencies. CEQ started this effort to develop the needed guidance because agencies were having problems trying to assess cumulative impacts and because a GAO report recommended that CEQ get involved in developing the guidance. The project manager expects the guidance to be completed during the summer of 1994.

The guidance will define the general criteria that the agencies should consider, such as what geographical area to study, how to define the baseline with which to compare expected future impacts, and how many years into the future agencies should project impacts. According to the project manager, the methodology could be applicable to a wide variety of federal agencies' construction projects, such as airports, dams, and highways. For highway projects, the project manager stated that FHWA, using the CEQ's general methodology, could develop a highway-specific methodology for preparing assessments of cumulative environmental impacts.

Federal and State Agencies Do Not Maintain Comprehensive Data on Environmental Costs

FHWA and the American Association of State Highway and Transportation Officials (AASHTO) do not collect or track data on all of the environmental costs associated with highway projects. FHWA has collected information on the costs related to noise barriers, and AASHTO has collected data on the costs of mitigating impacts on wetlands. However, inconsistencies in how the states report information to these agencies lessen the data's overall reliability. In addition, none of the 11 states we contacted routinely tracks data on all environmental costs.

FHWA routinely tracks cost information only on the project-specific costs that the states incur to build noise barriers along highway corridors. According to FHWA, the states spent about $635 million (in 1989 dollars) between 1972 and 1989 to construct noise barriers. However, FHWA cautioned that the data (1) represent the states' best estimates of those costs and (2) contain inconsistencies and anomalies because the states

[6]Wetlands: The Corps of Engineers' Administration of the Section 404 Program (GAO/RCED-88-110, July 28, 1988) and Wetlands Protection: The Scope of the Section 404 Program Remains Uncertain (GAO/RCED-93-26, Apr. 6, 1993).

defined and estimated the costs using different criteria. In addition, the data are incomplete because some states were unable to estimate the costs for certain categories of noise barriers.

In 1988, AASHTO began collecting data on the costs of mitigating highway projects' impacts on wetlands. Through an annual survey, the organization asks member states to estimate how much they have spent or expect to spend on creating, enhancing, restoring, and preserving wetlands. From 1988 through 1992, 37 states reported that they had spent or expect to spend approximately $79 million in federal and state funds on mitigating impacts on wetlands. However, the states did not report consistent or complete data. For example, some states included the costs of purchasing land for mitigation, while others did not.

Furthermore, the states we contacted could not easily reconstruct the total environmental costs of completed projects because they did not account for these costs separately from the overall costs of projects. Some states were able to provide limited data on the costs of mitigating impacts on wetlands, hazardous waste removals, and noise barrier construction, but none had complete data on all environmental costs. For example, the New Jersey Department of Transportation reported to us in July 1993 that since 1985, it had spent about $32 million in federal and state funds for mitigating impacts on wetlands. These expenditures included the costs of acquiring land for replacing wetlands.

According to officials from FHWA and the Illinois Department of Transportation, the states could set up a system to account for the costs of mitigating environmental impacts. The officials said that the states would have to clearly define and categorize all environmental costs; develop detailed project designs that identify the unit costs associated with environmental cost categories; and set up new accounting codes to track these items. According to FHWA officials, the most difficult aspect would be defining what constitutes an environmental cost. Furthermore, the states differ on whether the benefits would justify the additional reporting costs.

Conclusions

By incorporating section 404 analyses into NEPA reviews, the agencies should reduce some of the uncertainty about permit issues. However, it is premature to attest to the success of the new processes, since they have been used to complete only one project. We have established a baseline for the time traditionally taken to complete environmental reviews. An evaluation component for the integrated processes is now needed. By

comparing review time frames under the traditional and integrated processes, the agencies can determine how successful they have been in expediting reviews. This information could also help them identify any continuing sources of delay.

The integrated processes require EPA and FWS to become full partners in making key decisions on projects. If these agencies are not able to consistently attend the required meetings or participate in the project reviews, the expected benefits could be negated. FHWA can also address one known barrier to expediting environmental reviews by developing guidance on assessing cumulative environmental impacts. Unless FHWA develops a standard methodology that clarifies the requirements for preparing cumulative impact assessments, uncertainty on such issues will continue to delay projects.

Currently, neither FHWA nor the states routinely track expenditures for environmental mitigation. Without such information, no one can determine the portion of Highway Trust Fund money that is spent on mitigating environmental impacts. However, it is not clear whether the costs to establish a system to track environmental expenditures would exceed the benefits.

Recommendations

To help ensure the successful implementation of efforts to integrate the NEPA and section 404 requirements, we recommend that the Secretary of Transportation direct the Administrator, Federal Highway Administration, to work with the states and the environmental review agencies to

- establish an evaluation component for the integrated processes that (1) tracks the time taken for projects using integrated reviews, (2) assesses improvements to the processes using GAO's baseline data, (3) develops methods for addressing staffing limitations and
- develop highway-specific guidance on assessing projects' cumulative impacts and incorporate it into highway project planning.

Matter for Congressional Consideration

In order for the Congress to know the amount of Highway Trust Fund money spent on environmental mitigation, it may wish to require the Federal Highway Administration and the Environmental Protection Agency to work together to define environmental costs and develop accounting systems to track such costs. The Congress could consider requiring the Federal Highway Administration and the states to collect

these data on a pilot basis to first determine the costs and benefits of obtaining this information nationwide.

Agency Comments

As agreed with your office, we did not obtain written agency comments on a draft of this report. However, we met with the Chief of FHWA's Environmental Operations Division, officials from EPA's Office of Federal Activities, the Chief of the Corps' Regulatory Branch, and officials in FWS' Habitat Conservation Division to discuss the report. In general, the officials agreed with our facts, findings, conclusions, and recommendations. Where appropriate, we incorporated their comments into the body of the report.

In addition, the Chief of FHWA's Environmental Operations Division stated that the environmental review agencies must understand FHWA's role as a transportation agency and that FHWA must understand the importance of the environment. In his opinion, this understanding is needed to ensure that all of the agencies are committed to fully implementing the integrated processes. The Chief also said that the recommendation to develop guidance on assessing cumulative impacts should be addressed to the environmental review agencies. In his opinion, these agencies need to first clarify how they want FHWA and the states to meet cumulative impact assessment requirements before FHWA can develop any guidance. In our opinion, FHWA should take the lead in developing this guidance for highway projects because it is the agency that (1) sponsors the projects and has the most to lose if projects are delayed by uncertainty about cumulative impacts and (2) is required to prepare the cumulative impact assessments.

We conducted our review between April 1993 and May 1994, in accordance with generally accepted government auditing standards. Appendix V provides a detailed description of our scope and methodology.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 7 days from the date of this letter. At that time, we will send copies to interested congressional committees; the Secretary of Transportation; the Administrator, Federal Highway Administration; the Administrator, Environmental Protection Agency; the Secretary of Defense; the Secretary of the Army; the Secretary of the Interior; and the Director, U.S. Fish and Wildlife Service. We will make copies available to others upon request.

This work was performed under the direction of Kenneth M. Mead, Director, Transportation Issues, who can be reached on (202) 512-2834. Other major contributors to this report are listed in appendix VI.

Sincerely yours,

Keith O. Fultz
Assistant Comptroller General

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Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
CEQ	Council on Environmental Quality
EIS	environmental impact statement
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FWS	Fish and Wildlife Service
GAO	General Accounting Office
MDNR	Michigan Department of Natural Resources
NEPA	National Environmental Policy Act

Additional Information on the Requirements of NEPA and Section 404

When the Federal Highway Administraion (FHWA) and the states undertake actions that will have a significant impact on resources such as wetlands, air quality, historic sites, or endangered species, the National Environmental Policy Act (NEPA) requires them to prepare an environmental impact statement (EIS). In preparing an EIS, the state identifies (1) the need for a project, (2) alternatives that meet the project's need, (3) the environmental impacts of the alternatives, and (4) measures to minimize such impacts. Under NEPA, FHWA also prepares environmental documents that address many federal, state, and local environmental laws. FHWA uses the NEPA reviews to bring all of the environmental and other considerations into a single analysis, developing a document that not only identifies environmental impacts, but also helps the agency make better transportation decisions.

The NEPA reviews begin when FHWA publishes a Notice of Intent that announces its intent to prepare an EIS and invites interested parties to participate in the NEPA review. The state then prepares a draft EIS, which identifies the environmental impacts of alternative actions and provides reasons for eliminating some alternatives from detailed study. After obtaining the agencies' and public comments on the draft EIS, the state prepares a final EIS, which identifies a preferred alternative and describes measures to mitigate the environmental impacts of the selected action. After approving the final EIS, FHWA prepares a Record of Decision, which presents the basis for selecting the preferred action.

If a construction project will have an impact on wetlands or other waters of the United States, the Clean Water Act of 1977 requires the states to assess and mitigate these impacts. To meet section 404 requirements, the state studies the preferred alternative's impacts on wetlands, develops measures to mitigate such impacts, and applies for a section 404 permit.[1] If the Corps approves the application, the state can proceed with the design and construction of the project. Throughout the NEPA and section 404 reviews, FHWA, the states, and agencies such as the Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (FWS), and the U.S. Army Corps of Engineers (the Corps) coordinate to ensure that the EIS adequately assesses the environmental impacts and that the preferred alternative meets section 404 permit requirements.

[1]If projects do not significantly affect wetlands, applicants can apply for general permits, which do not require a detailed review by the Corps.

Variances in Environmental Review Time Frames

Table II.1: Time Variability From Notice of Intent to Record of Decision

Years to review	Projects requiring a NEPA review	Percent of projects
0-2	7	9.21
2-4	29	38.16
4-6	25	32.89
6-8	11	14.47
8-10	2	2.63
10-12	1	1.32
Over 12	1	1.32
Total	**76**	**100.00**

Table II.2: Time Variability From Notice of Intent to Permit Issuance

Years to review	Projects requiring a NEPA and section 404 review	Percent of projects
0-2	2	6.25
2-4	6	18.75
4-6	10	31.25
6-8	10	31.25
8-10	2	6.25
10-12	2	6.25
Over 12	0	0.00
Total	**32**	**100.00**

Source: GAO's survey of review time frames.

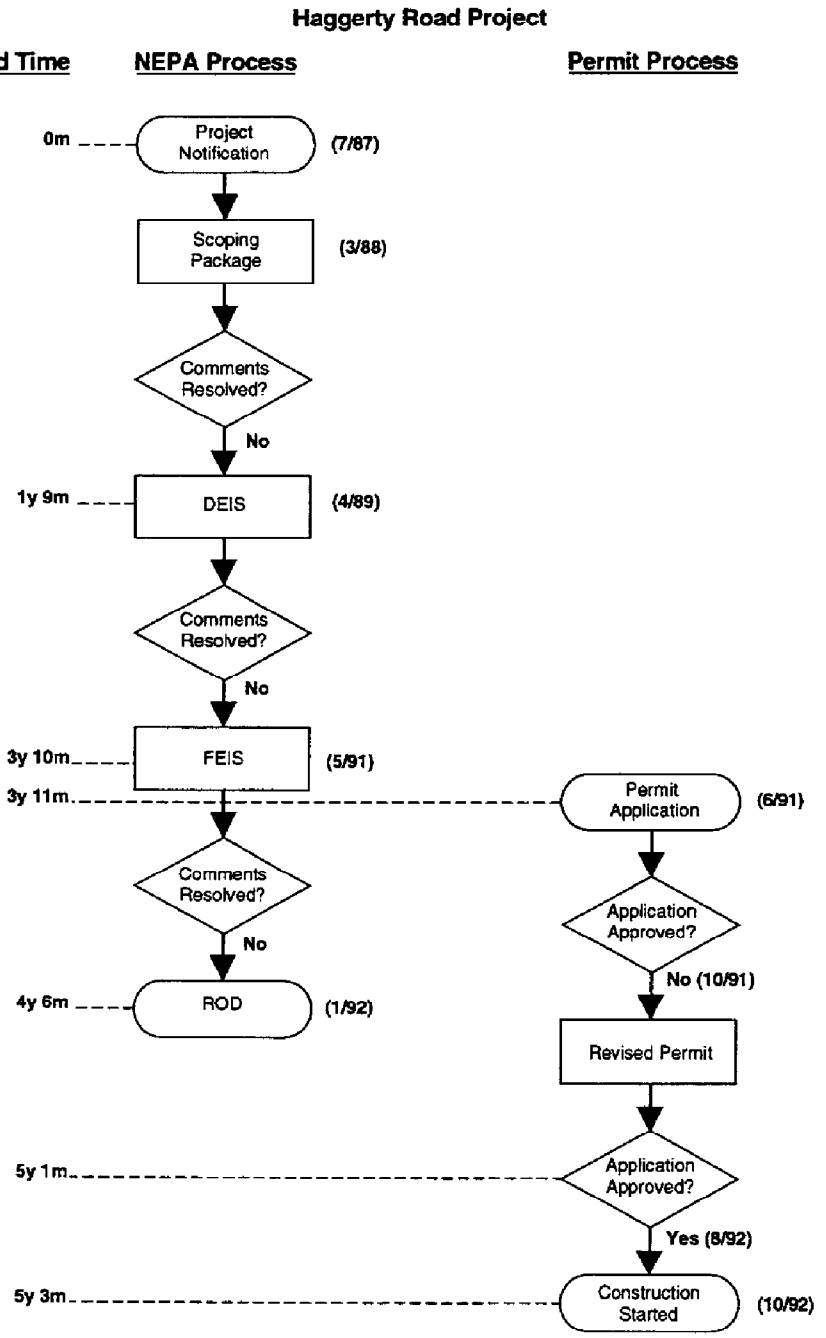
Details of the Haggerty Road Project

In 1987 the Michigan Department of Transportation proposed to construct a highway that became known as the Haggerty Road Connector Project. On this project, the state and FHWA, over the course of 4 years, defined the project's purpose and scope, selected and analyzed several alternatives through draft and final EISs, and selected a preferred alternative. During this same period, the Environmental Protection Agency (EPA) and the Fish and Wildlife Service (FWS) commented on the project's scope and alternatives, consistently expressing concerns that the project would cause significant environmental damage to wetlands in the proposed project's area. However, the Michigan Department of Transportation continued with the NEPA and section 404 reviews without resolving comments and concerns from the environmental review agencies. (See fig. III.1.)

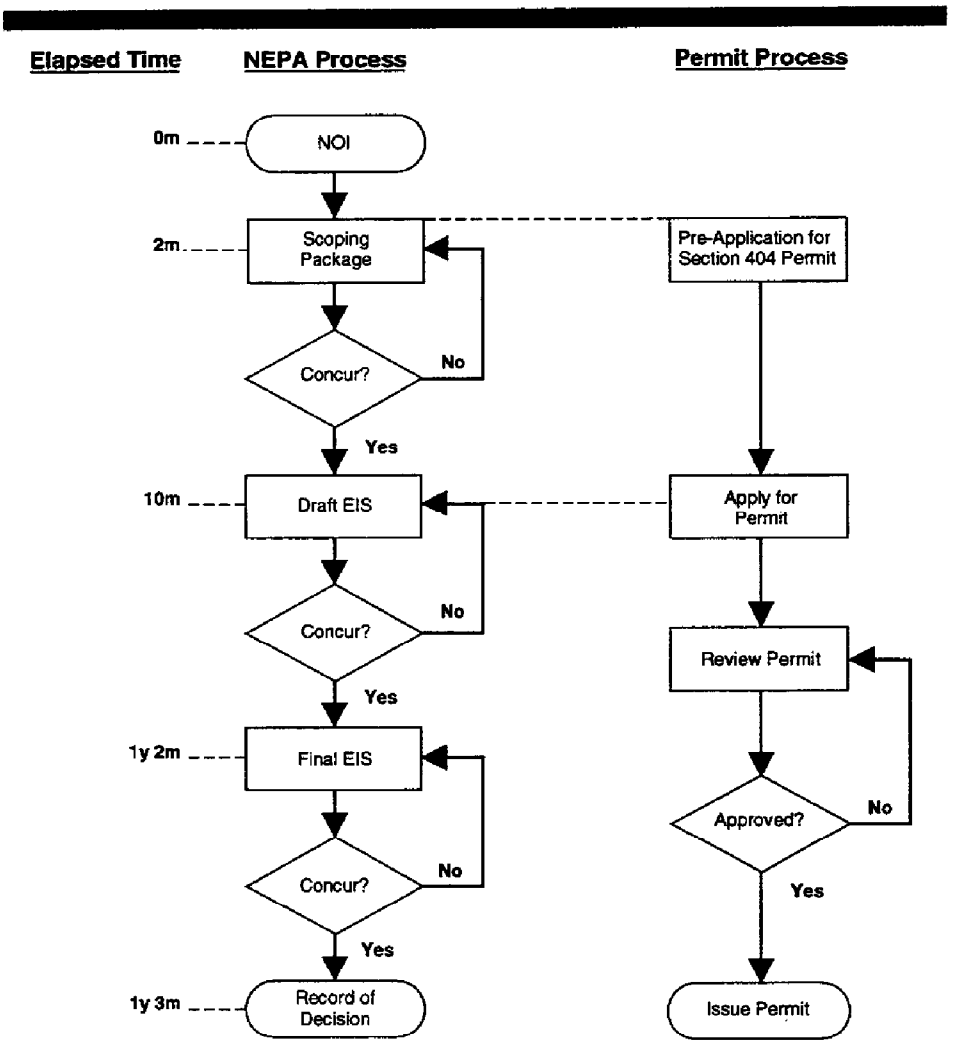
The federal environmental agencies stated that the alternatives reviewed at the time would induce future development and destroy additional wetlands in the surrounding area. Accordingly, EPA and FWS requested that the state expand the 8-mile study area to 14 miles and assess how future development in the expanded project's scope would affect the wetlands. The environmental review agencies also suggested that the state require the local municipalities to develop wetland protection plans and, where necessary, restrict future development along the highway corridor. EPA and FWS indicated that they would recommend denial of the permit if the state did not comply.

FHWA objected, stating that neither it nor the state had the legal authority to require the local governments to establish zoning restrictions for protecting the existing wetlands. After 4 years without resolution of the issue, EPA and FWS agreed to drop their permit concerns on the condition that the state create new wetlands and monitor the success of a series of man-made wetlands.

Figure III.1: Traditional Review Processes



The Integrated Review Processes



Scope and Methodology

Streamlining Processes

To determine the current status of the agencies' efforts to streamline the environmental review and permitting processes for highway projects having an impact on wetlands, we contacted officials at FHWA, EPA, the Corps, FWS, and the states that are responsible for completing the NEPA and section 404 permitting reviews. We interviewed the officials responsible for developing current initiatives as well as staff responsible for the day-to-day implementation of these processes. We also reviewed the agencies' documentation describing these processes. We reviewed FHWA Region III's and the Corps' integrated processes because they had been in operation the longest. We reviewed FHWA Region V's process to obtain additional geographical coverage.

Costs of Mitigating Environmental Impacts

To identify the amount of Highway Trust Fund money used for mitigating environmental impacts, we contacted officials at FHWA and 11 states. We contacted specific states on the basis of (1) information from FHWA and the American Association of State Highway Officials and (2) their geographic location. We reviewed FHWA's documentation on the costs of noise mitigation as well as the states' limited information on the costs of mitigating other environmental impacts.

Description of GAO's Survey

Project Selection

FHWA does not have comprehensive data on how long it takes to complete reviews under NEPA and section 404 of the Clean Water Act. To obtain these data, we collected information on the key dates of the environmental review and permitting processes, which according to FHWA would provide a sound basis for determining how long the reviews typically take (see fig. V.1 for a copy of the survey sent to state and FHWA offices). In developing the survey, we obtained input from EPA, the Corps, and FHWA. We then sent the survey to 13 state departments of transportation and 7 FHWA divisions to obtain information on 91 projects.

To determine which projects to include in the survey, we obtained from EPA a list of all highway projects that had a final environmental impact statement between January 1, 1988, and October 1, 1993. We sent this list to the Corps and the Michigan Department of Natural Resources (MDNR) (the only state that had assumed section 404 permit responsibilities) to

identify those projects which also had an individual section 404 permit. The Corps and MDNR identified 34 projects, located in 19 states and Puerto Rico, that had an individual section 404 permit. From the EPA data base, we also identified 57 other projects in these same locations that had a final environmental impact statement but no requirement for an individual section 404 permit.

We then sent out the survey, requesting information on the key dates of the environmental review and permitting processes on the two types of projects: (1) projects with a final environmental impact statement between January 1, 1988, and October 1, 1993, and an approved individual section 404 permit and (2) projects with a final environmental impact statement between January 1, 1988, and October 1993, but no requirement for an individual section 404 permit.

Survey Responses

From FHWA and the states we received data on 90 of the 91 projects, a 99-percent response rate. However, we had to drop 14 projects from our analysis because either the projects had not completed the environmental or permitting processes or we could not obtain complete project information. For example, we dropped 11 projects because they had not completed the environmental or permitting processes. As a result, our analysis covers 76 projects, 32 with a final environmental impact statement and approved individual section 404 permit and 44 with no requirement for an individual section 404 permit.

Measures to Supplement Survey Responses

On 22 of the projects, FHWA and the states were unable to provide the date on which FHWA had issued a Notice of Intent for the projects. However, we obtained the missing dates for 19 of the projects by researching past issues of the Federal Register. In addition, on seven projects, FHWA and the states were unable to provide information on the date a permit was approved. For these projects, we relied on information that the Corps provided.

Figure V.1: GAO's Survey on the NEPA Review Process

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Survey on the National Environmental Policy Act (NEPA) Review Process

INTRODUCTION

The United States General Accounting Office (GAO) is an agency that assists Congress in reviewing federal programs. In response to a congressional request, GAO is studying the National Environmental Policy Act (NEPA) review process. As part of this request, GAO is reviewing the NEPA and Section 404 review processes for highway projects impacting wetlands.

The purpose of this questionnaire is to collect project specific information on key dates of the environmental review process (e.g., Notice of Intent, Draft Environmental Impact Statement etc.). This effort, which we are coordinating with the Federal Highway Administration (FHWA), will assist us in developing a baseline condition which shows how long it takes to conduct environmental reviews.

We are requesting information on the following types of projects:

1) projects with a Final Environmental Impact Statement (FEIS) between January 1, 1988 and October 1, 1993 and an approved ***individual Section 404 permit***; and

2) projects with a FEIS between January 1, 1988 and October 1993, but ***no requirement for an individual Section 404 permit.***

A separate page is enclosed for each highway project we identified. Since we have a limited number of projects, it is important that you complete the information for all projects. Accordingly, the person(s) in your agency who is most knowledgeable about the projects should complete the questionnaire. Please identify a contact person since we may need to follow up to clarify information on specific projects.

To ensure that your information is represented in our analysis, please return the data collection instrument as soon as possible and by March 18, 1994 at the latest. Please fax, telephone or mail the information to:

Catherine Colwell
U.S. General Accounting Office
200 W. Adams, Suite 700
Chicago, IL 60606
1-800-333-4524
1-312-220-7726 (fax)

If you have any questions, please call Catherine Colwell or David Lichtenfeld at the phone number listed above. Your assistance is greatly appreciated.

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Section I: Projects With An Individual 404 Permit

Please answer all questions in terms of the ***project identified on the label below.***

** PUT ID LABEL HERE **

1. In the table below there is a listing of events and documents associated with the environmental review process ***for projects with an individual 404 permit.*** In this table, please write in the date (Month/Day/Year) that each of these events or documents were completed and signed.

	Write in Month, Day and Year				
Event and/or Documents	Month (1)	Day (2)	Year (3)	Don't know (4)	Not Applicable, Event/Document not completed and signed (5)
1. Notice of Intent					
2. Draft Environmental Impact Statement					
3. Re-evaluation of Draft Environmental Impact					
4. Supplemental Draft Environmental Impact					
5. Final Environmental Impact Statement					
6. Re-evaluation of a Final Impact Statement					
7. Supplemental Final Environmental Impact Statement					
8. Record of Decision					
9. First, individual Section 404 permit application submitted					
10. Permit Issued					

SECTION II: CONCLUDING INFORMATION

2. If you have any additional comments or information you would like to provide, please do so in the space provided below. You may attach additional sheets if necessary.

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_____

Please provide the following information about a contact person for this questionnaire. This information will assist us if clarification of answers is necessary.

Name:_____

Title:_____

Address:_____

City/Zip:_____

Telephone:_____

Thank you for your cooperation and assistance! This completes the information for this project.

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Section I: Projects With No Requirement For An Individual 404 Permit

Please answer all questions in terms of the ***project identified on the label below.***

** PUT ID LABEL HERE **

1. In the table below there is a listing of events and documents associated with the environmental review process ***for projects with no requirement for an individual 404 permit***. In this table, please write in the date (Month/Day/Year) that each of these events or documents were completed and signed.

	Write in Month, Day and Year				
Event and/or Documents	Month (1)	Day (2)	Year (3)	Don't know (4)	Not Applicable, Event/Document not completed and signed (5)
1. Notice of Intent					
2. Draft Environmental Impact Statement					
3. Re-evaluation of Draft Environmental Impact					
4. Supplemental Draft Environmental Impact					
5. Final Environmental Impact Statement					
6. Re-evaluation of a Final Impact Statement					
7. Supplemental Final Environmental Impact Statement					
8. Record of Decision					

SECTION II: CONCLUDING INFORMATION

2. If you have any additional comments or information you would like to provide, please do so in the space provided below. You may attach additional sheets if necessary.

_____

_____

_____

_____

_____

_____

Please provide the following information about a contact person for this questionnaire. This information will assist us if clarification of answers is necessary.

Name:_____

Title:_____

Address:_____

City/Zip:_____

Telephone:_____

Thank you for your cooperation and assistance! This completes the information this project.

Major Contributors to This Report

Chicago Regional Office

Joseph A. Christoff, Assistant Director
David I. Lichtenfeld, Evaluator-in-Charge
Catherine A. Colwell, Evaluator
Frank Zbylski, Senior Operations Research Analyst

Resources, Community, and Economic Development Division, Washington D.C.

Barry T. Hill, Associate Director
Kelly S. Ervin, Social Science Analyst

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