

# **environmental requirements of the federal-aid highway program**

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The enormous environmental pressures placed on highway programs today come from many different directions. They come from federal legislative provisions, state laws, and court decisions, which often result in modifications to earlier interpretations of federal law. They come from actions of federal and state environmental agencies, private environmental groups of many kinds, and local citizen groups. And, of course, they come from the increasing number of books and newspaper and magazine articles.

Highway agencies are being asked to deal instantly with a vast number of new subject areas, including noise, air pollution, water quality, and social and economic matters such as civil rights, relocation, and tax base. Highway agencies are expected to make in-depth studies of these factors not only on projects just beginning but also on those advanced to the construction stage. Yet, in many areas, the knowledge is meager, the state of the art is primitive, and the experience is slim.

Of course, we are not alone in this predicament. Similar pressures are being felt in other large-scale public works programs such as those for energy, airports, and water resources. Moreover, the pressures are being felt not only in the United States but in many other countries including England, Germany, Sweden, and Japan.

For us in the highway field, the question is not whether we will respond but how we can best respond. Our response must be more than a series of expedient reactions to momentary crises if we are to build a lasting foundation for the future highway program. A review of several key pieces of federal legislation related to environmental issues may be helpful in showing what directions we have already taken in building that foundation:

1. A law enacted in 1956 created a means to inform the public about planned highway projects and to receive public comment. In 1958 the public hearing requirement was expanded to apply to a greater number of projects.

2. Legislation in 1962 required that the urban transportation planning process be carried on in urban areas of more than 50,000 population, that highway plans be properly

coordinated with an area's comprehensive plans, and that local officials play a significant role in transportation system planning.

3. In 1966 a provision, commonly referred to as the 4(f) requirement, was incorporated both in the Federal-Aid Highway Act and in the Department of Transportation Act that required special effort to avoid taking lands from a park, recreational area, wildlife and waterfowl refuge, and historic site in the planning of a transportation improvement.

4. The National Environmental Policy Act of 1969 required a written evaluation of the environmental impacts of a proposed project and further required that the evaluation be circulated to interested agencies and made available to the public for comment. In addition, the National Environmental Policy Act required that a systematic multidisciplinary approach be used in the development of projects and that the study of projects include consideration of a variety of alternatives.

5. Section 136(b) of the 1970 Federal-Aid Highway Act had several far-reaching environmental provisions. The first was a mandate for the Secretary of Transportation to prepare guidelines to ensure that adverse environmental impacts are adequately considered in highway decisions and that highway decisions are made in the best overall public interest and consider the need for fast, safe, and efficient transportation, public services, and the costs of minimizing adverse economic, social, and environmental effects. Section 136(b) also required the preparation of highway noise level standards and air quality guidelines.

This sketchy review of federal legislation that bears on the highway program reveals some important directions. First, public and local officials have greater opportunity to become informed about and to give information and reactions to proposed projects. Second, highway agencies are expected to develop a capability to identify possible adverse impacts in an objective manner. In addition, the National Environmental Policy Act stressed the need for a systematic interdisciplinary approach and the need to evaluate a variety of alternative solutions.

In preparing the environmental guidelines called for by Section 136(b) of the 1970 Federal-Aid Highway Act, we resolved quite early that we would try to avoid heaping another batch of detailed procedural requirements on the states. What we wanted to do was prepare guidelines that would deal with fundamental issues and that would help the highway program to meet environmental challenges in a lasting way. This approach was entirely consistent with the language of Section 136(b), and our consultations with our legal staff confirmed this view.

The result of all this is the process guidelines. These guidelines call on each state to prepare an action plan that outlines the organizational arrangements and the procedures the state will adopt to ensure that the following 4 fundamental objectives are accomplished in the development of a highway project:

1. State highway departments must develop a real competence to identify and objectively study economic, social, and environmental effects of proposed highway projects. This means that a highway department should have an in-house capability to make such studies in more than a superficial way. Other agencies can often assist and may offer comments on such impacts, but each highway department needs to have its own independent competence in making such studies. Without such competence, highway agencies will continue to be viewed by the public as narrow and indifferent to values and problems other than those related directly to transportation. They will be in a poor position to make valid judgments about the proper weight to be given to various environmental effects in relation to related transportation impacts. In addition, they will be vulnerable in the courts where they may be unable to prove that their decisions are based on a genuine balancing of both transportation and economic, social, and environmental effects as required by several federal laws.

2. An interdisciplinary approach must be used in the development of highway projects from system planning to design. The purpose of this objective is to ensure that the knowledge and viewpoints of other disciplines identify, describe, and evaluate non-transportation impacts. Those with training in other fields should not only assist in

the study of nontransportation effects but also help bring a broader perspective to the making of highway decisions.

3. Other agencies and the public must be involved in system planning, location planning, and design. Such participation is needed to identify potential effects that may not be revealed by staff studies, to indicate the relative importance the public places on various effects, and to achieve public confidence in the decisions reached.

4. Alternative solutions must be considered. This objective requires the highway agency to examine all options available and allows the public to compare costs and benefits of taking various courses of action including no action at all.

The process guidelines call on the states to describe in the action plan how they will accomplish these 4 objectives. They are allowed a year to prepare the action plans and are given the opportunity to revise their plans if they find better ways to meet the objectives.

We have tried to develop guidelines that will provide a suitable foundation for the future highway program. We believe the guidelines can provide the needed foundation for meeting the environmental requirements of the highway program both in the present and in the future.