

NEPA - National Environment Policy Act of 1969

On January 1, 1970 the National Environmental Policy Act of 1969 (NEPA) was signed into Law. NEPA requires the examination and avoidance of potential impacts to the natural and human environment when considering approval of proposed transportation projects. The Federal Highway Administration (FHWA) NEPA project development process is an approach to balanced transportation decision making that takes into account the potential impacts on the human and natural environment and the public's need for safe and efficient transportation. Accordingly, it is FHWA policy that:

- *To the fullest extent possible, all environmental investigations, reviews, and consultations be coordinated as a single process, and compliance with all applicable environmental requirements be reflected in the environmental document required by this regulation.*
- *Alternative courses of action be evaluated and decisions be made in the best overall public interest based upon a balanced consideration of the need for safe and efficient transportation; of the social, economic, and environmental impacts of the proposed transportation improvement; and of national, state, and local environmental protection goals.*
- *Public involvement and a systematic interdisciplinary approach be essential parts of the development process for proposed actions.*
- *Measures necessary to mitigate adverse impacts be incorporated into the action.*

NEPA and Transportation Decision Making

The principles or essential elements of NEPA decision making include:

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

FHWA adopted the policy of managing the NEPA project development and decision making process as an "umbrella" under which all applicable environmental laws, executive orders, and regulations are considered and addressed prior to the final project decision and approval. The FHWA NEPA process allows transportation officials to make project decisions that balance engineering and transportation needs with social, economic, and natural environmental factors. During the process, a wide range of partners including the public, businesses, interest groups, and agencies at all levels of government, provide input into project and environmental decisions. The following sequential project development components comprise the FHWA NEPA process:

1. *Purpose and Need Development*
2. *Alternatives Development and Evaluation*
3. *Determine Environmental Impacts*
4. *Mitigate Environmental Impacts*
5. *Agency Coordination and Public Involvement*
6. *Documentation*

1. Elements of Purpose and Need

The purpose and need of a project is essential in establishing a basis for the development of the range of reasonable alternatives required and assists with the identification and eventual selection of a preferred alternative. The following items are typically described in the purpose and need statement, as applicable, for a proposed action:

- *Project Status* — Briefly describe the proposed action's history and its relationship to adopted local and statewide transportation plans.
- *Mobility* — Discuss the capacity of the present facility and its ability to meet present and projected traffic demands.
- *System Linkage* — Discuss how the proposed action fits into the transportation system.
- *Transportation Demand* — Discuss the traffic projections for the project area.
- *Legislation* — Explain if there is a Federal, state, or local governmental mandate for the action.
- *Social Demands or Economic Development* — Describe how the action will foster new employment and benefit schools, land use plans, recreation facilities, etc.
- *Modal Interrelationships* — Explain how the proposed action will interface with and serve to complement other multi-modal plans, objectives, etc., including mass transit, pedestrian and bicycle accommodations.
- *Safety* — Explain if the proposed action is necessary to correct an existing or potential safety hazard(s).
- *Roadway Deficiencies* — Explain if and how the proposed action is necessary to correct existing roadway deficiencies.

2. Elements of Alternatives Development and Evaluation

The identification, consideration, and analysis of alternatives are key to the NEPA process and goal of objective decision making. Consideration of alternatives leads to a solution that satisfies the transportation need and protects environmental and community resources, and requires agencies to:

- Rigorously explore and objectively evaluate all reasonable alternatives and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
- Include the alternative of No Action.
- Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft environmental document.
- Include appropriate mitigation measures not already included in the proposed action or alternatives.

As a rule, if an alternative does not satisfy the purpose and need for the action, it should not be included in the analysis as an apparent and reasonable alternative. Beyond the requirement to evaluate all reasonable alternatives, there are other requirements for analyzing alternatives. These requirements fall under Section 4(f), the Executive Orders on Wetlands and Floodplains, and the Section 404(b)(1) guidelines. The use of land from a Section 4(f) protected property (publicly owned park, recreation area, or wildlife and waterfowl refuge, or any significant historic site) may not be approved unless a determination is made that there is no feasible and prudent alternative for such use.

Many factors exist that could render an alternative "not prudent," including cost and environmental impacts. If an alternative does not meet the action's purpose or need, then the alternative is not prudent, provided the purpose and need section can substantiate that unique problems will be caused by not developing the proposed action.

If a proposed action is to be located in a wetland or significantly encroaches upon a floodplain, a finding must be made that there is no practicable alternative to the wetland take or floodplain encroachment.

In order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated in each environmental impact statement (EIS) or finding of no significant impact (FONSI) shall:

- *Connect logical termini and be of sufficient length to address environmental matters on a broad scope;*
- *Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and*
- *Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.*

3 & 4. Elements of Determining and Mitigating Environmental Impacts

The direct, indirect, and cumulative environmental impacts and effects of the proposed action must be addressed and considered in satisfying the requirements of the NEPA process. Impacts and effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the effect will be beneficial. The determination of significance with respect to impacts and effects is a function of both *context* and *intensity*.

Context: This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

Intensity: This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity.

To determine significance, the severity of the impact must be examined in terms of the type, quality and sensitivity of the resource involved; the location of the proposed project; the duration of the effect (short- or long-term) and other considerations of context. NEPA significance is a primary factor in determining the type of environmental document and process to use for a particular project.

The mitigation of impacts must be considered whether or not the impacts are significant. Agencies are required to identify and include in the action all relevant and reasonable mitigation measures that could improve the action.

In this regard, mitigation is typically defined as:

- *Avoiding the impact altogether by not taking a certain action or parts of an action.*
- *Minimizing impacts by limiting the degree or magnitude of the action and its implementation.*
- *Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.*
- *Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.*
- *Compensating for the impact by replacing or providing substitute resources or environments.*

Avoid --> Minimize --> Mitigate

This ordered approach to mitigation is known as "sequencing" and involves understanding the affected environment and assessing transportation effects throughout project development. Effective mitigation starts at the beginning of the NEPA process, not at the end. Mitigation must be included as an integral part of the alternatives development and analysis process.

5. Elements of Agency Coordination and Public Involvement

As lead Federal agency in the NEPA process, FHWA is responsible for scoping, inviting cooperating agencies, developing consensus among a wide range of stakeholders with diverse interests, resolving conflict, and ensuring that quality transportation decisions are fully explained in the environmental document. These responsibilities force the FHWA to balance transportation needs, costs, environmental resources, safety, and public input in order to arrive at objective and responsible transportation decisions. Project development procedures must provide for:

- *Public involvement activities and public hearings throughout the entire NEPA process.*
- *Early and continuing opportunities during project development for the public to be involved in the identification of social, economic, and environmental impacts.*
- *One or more public hearings to be held at a convenient time and place for any Federal-aid project which requires significant amounts of right-of-way, substantially changes the layout or functions of connecting roadways or of the facility being improved, has a substantial adverse impact on abutting property, otherwise has a significant social, economic, environmental or other effect.*

6. Documentation

Transportation projects vary in complexity, and the potential to affect the natural and human environment. To account for the variability of project impacts, three basic "classes of action" are allowed and determine how compliance with NEPA is carried out and documented:

- An Environmental Impact Statement (EIS) is prepared for projects where it is known that the action will have a significant effect on the environment.
- An Environmental Assessment (EA) is prepared for actions in which the significance of the environmental impact is not clearly established. Should environmental analysis and interagency review during the EA process find a project to have no significant impacts on the quality of the environment, a Finding of No Significant Impact (FONSI) is issued.
- Categorical Exclusions (CEs) are issued for actions that do not individually or cumulatively have a significant effect on the environment.

Further information on NEPA and the Federal Project Development Process can be obtained at:
<http://www.environment.fhwa.dot.gov/projdev/index.asp>