

# AASHTO PRACTITIONER'S HANDBOOK

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## USING THE TRANSPORTATION PLANNING PROCESS TO SUPPORT THE NEPA PROCESS

This Handbook is intended to help transportation planners and National Environmental Policy Act (NEPA) practitioners improve linkages between the planning and NEPA processes, while also complying with recent legislative changes that require increased consideration of environmental issues in the planning process.

Issues covered in this Handbook include:

- Establishing Organizational Linkages
- Establishing a Vision for the State or Region's Transportation System
- Defining Corridor-Level Goals and/or the Purpose and Need
- Eliminating Alternatives
- Identifying the Affected Environment and Potential Environmental Impacts
- Considering Environmental Mitigation Activities

The Practitioner's Handbooks are produced by the AASHTO Center for Environmental Excellence. The Handbooks provide practical advice on a range of environmental issues that arise during the planning, development, and operation of transportation projects.

The Handbooks are primarily intended for use by project managers and others who are responsible for coordinating compliance with a wide range of regulatory requirements. With their needs in mind, each Handbook includes

- key issues to consider;
- a background briefing;
- practical tips for achieving compliance.

In addition, key regulations, guidance materials, and sample documents for each Handbook are posted on the Center's web site at <http://environment.transportation.org>.



Center for Environmental Excellence by AASHTO



American Association of State Highway and Transportation Officials

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# Overview



This Practitioner's Handbook is intended to help transportation planners and National Environmental Policy Act (NEPA) practitioners improve linkages between the planning and NEPA processes, while also complying with recent legislative changes that require increased consideration of environmental issues in the planning process.

Thoughtful consideration of environmental needs during the planning process can shorten the environmental review process. Moreover, it can lead to better program and project decisions, for both transportation and the environment, meeting the public's desire for improving both transportation and the environment.

The Background section summarizes key requirements related to the linkage of transportation planning and the NEPA process, including recent changes to federal legislation (23 U.S.C. 134 and 135) and recent changes to the statewide and metropolitan planning regulations (23 C.F.R. 450). It also summarizes key points from guidance issued by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) regarding planning-NEPA linkage.

The Practical Tips section reviews a range of possible approaches to linking the planning and NEPA processes, starting with organizational linkages and including opportunities to define broad goals; define corridor-level goals and a project-specific purpose and need; eliminate unreasonable alternatives; identify affected resources and potential impacts; and consider potential environmental mitigation activities.

## Key Issues to Consider

### *Establishing Organizational Linkages*

- How will state DOTs and MPOs work together to ensure SAFETEA-LU environmental requirements in planning are met and to take advantage of opportunities to use planning decisions and information in the NEPA process?
- How will the State and MPOs engage environmental resource and regulatory agencies and (where applicable) Federal land management agencies and Tribes in the planning process, for planning decisions and analyses that the State and/or MPO intends to incorporate into NEPA?
- Within state DOTs, are organizational changes needed to ensure that planning and environmental units are working hand in hand?

### *Defining a Transportation Vision for a State or Region*

- Does the existing long-range plan define goals for the transportation system that are specific enough to be useful in defining the purpose, need for individual transportation projects?
- Are there important policy goals that could be more clearly articulated in the plan, to serve as a better foundation for purpose and need and alternatives?
- Are there performance measures that could be used to assess progress in achieving the goals identified in the transportation plan?
- Have Federal, state, and local environmental agencies been engaged in the development of a transportation vision, policy goals, and performance measures? Has the public been adequately engaged? Where applicable, have Federal land management agencies and Tribes been engaged?

## ***Defining Corridor-Level Goals and/or the Purpose and Need***

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- Will a corridor or sub-area study be prepared, as permitted in the FHWA/FTA planning regulations? If so, what will be the scope of the study? What is the anticipated product?
- Will the corridor study be used to generate corridor-level goals that can serve as a clear foundation for writing purpose and need. Or will it be used to generate an initial purpose and need statement for a specific project?
- How will Federal, state, and local environmental agencies be engaged in the corridor study, especially in establishing goals or purpose and need? Where relevant, have Federal land management agencies and tribes been engaged? The public? How will you ensure that public, Tribal, and agency comments are addressed?
- If there has been a long time lag between the planning process and the initiation of NEPA, what will be done to re-assess goals (or purpose and need) as defined in the planning process to make sure they remain valid?
- What documentation is needed for establishing goals and objectives or defining purpose and need for use in the NEPA?

## ***Eliminating Alternatives***

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- What type of alternatives (modes, locations, design features) will be considered at the planning stage? What information will be needed to make planning-level decisions on these types of alternatives?
- If alternatives are being eliminated during the planning process, how will these decisions be documented? Did those analyses take into account the legal standards that need to be met in the NEPA process when screening alternatives? Is the factual information underlying those analyses adequate for decision-making?
- During area or corridor planning, how will environmental agencies and the public be engaged in identifying, evaluating, and potentially eliminating alternatives? Where applicable, how will Federal land management agencies be engaged?

## ***Identifying Affected Resources and Potential Impacts***

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- How will the state and/or MPO involve resource agencies, Federal land management agencies, and the public in identifying key environmental issues to be considered in statewide, metropolitan, or corridor planning?
- Which environmental issues can be effectively evaluated at the planning stage? For example, is the project located in a watershed that is under stress from rapid development activity? Are there other broad regional issues that are best addressed in a planning-level study?
- Are there several ongoing or anticipated transportation projects in the same geographic area? If so, what environmental information will be needed for all of those projects? Would it be efficient to gather that information in a single study at the planning stage, thereby reducing duplication of effort in the NEPA process?
- Are existing data sources and inventories adequate to provide a basis for considering environmental impacts at the planning level? If additional information is needed, how will it be obtained?

## ***Identifying Potential Environmental Mitigation Activities***

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- How will the state and/or MPO consult with Federal, state, and tribal agencies on potential environmental mitigation opportunities at the plan level?
- Will there be an opportunity to integrate the transportation planning process with other planning activities, such as land use or resource management plans? If so, can this integrated planning effort be used to develop a more strategic approach to environmental mitigation measures?
- What types of environmental mitigation are expected to be necessary for the projects included in the long-range plan?

- What areas, or types of areas, may be appropriate for environmental mitigation activities?
- In addition to mitigation for the natural environment, is mitigation being considered for impacts to the human environment? If so, how is this type of mitigation being developed and documented?

## Background Briefing

In early 2005, FHWA and FTA issued joint guidance encouraging stronger linkages between the transportation planning and NEPA processes. The guidance did not impose new requirements, and it emphasized that implementation was optional. But the guidance also expressed concern that “the environmental analyses produced to meet the requirements [NEPA] have often been conducted de novo, disconnected from the analyses used to develop long-range transportation plans.” The guidance stated that its purpose was to “change this culture, by supporting congressional intent that statewide and metropolitan transportation planning should be the foundation for highway and transit project decisions.”

In Section 6001 of the Safe, Accountable, Flexible, Efficient Transportation Efficiency Act: A Legacy for Users (SAFETEA-LU), which was enacted in August 2005, Congress revised the transportation planning laws (23 U.S.C. §§ 134 and 135) to require increased consideration of environment in both statewide and metropolitan planning. The key changes were (1) a requirement to consider environmental mitigation activities in state and metropolitan long-range plans and (2) a requirement to consult with resource and land management agencies, and to consider, as part of that consultation, any available conservation plans, maps, or resource inventories. In addition, Section 6002 of SAFETEA-LU (23 U.S.C. 139) specifically recognized that the purpose and need for a project can include carrying out a goal defined in a transportation plan.

In February 2007, the FHWA and FTA issued final transportation planning regulations implementing the changes in SAFETEA-LU. See 23 C.F.R. Part 450. The regulations included new provisions (not required by SAFETEA-LU) that specifically addressed the integration of transportation planning and the NEPA processes. In addition, the regulations included an Appendix A to 23 C.F.R Part 450. Appendix A contained an updated version of the February 2005 guidance on linking planning and NEPA.

Together, all of these changes have underscored the need for greater coordination of planning and environmental functions.

**FHWA/FTA Guidance on Linking Planning and NEPA.** The guidance on linking planning and NEPA, in Appendix A to the planning regulations, seeks to clarify the circumstances under which planning decisions and information can be relied on in the NEPA process. Key points in this guidance include:

- *States and MPOs are not required to change their existing planning practices.* Implementation of the guidance is optional. Each state and MPO can decide whether to modify its planning practices in order to provide a stronger basis for incorporating planning-level analyses and decisions into the NEPA process for individual projects.
- *There are several different types of analyses and decisions that can be incorporated from planning studies into the NEPA process.* The planning process can be used to support development of the purpose and need, the range of alternatives, impact analyses, and mitigation. This list is not exhaustive; it provides examples of what can be carried forward into the NEPA process.
- *FHWA and FTA will not assure, in advance, that all planning decisions can be adopted in the NEPA process for all projects.* The FHWA/FTA guidance defines factors that will be considered in deciding whether to carry planning analyses and/or decisions into the NEPA process, but emphasizes that “there are no guarantees.” The guidance also provides a framework for building a common understanding of what needs to be done in the planning process in order for planning-level analyses and decisions to be adopted in the NEPA process.
- *The decision about what level of work to perform in the planning process is a state/MPO decision; the decision about what to incorporate into a NEPA study is a Federal agency decision.* The planning process is the responsibility of a state or MPO, subject to periodic Federal review. states and MPOs have the authority to decide what work will be done in the planning process. But NEPA is a Federal process. Federal agencies responsible for NEPA compliance will decide which, if any, of the products of the planning process can or will be used in the NEPA process.

**Corridor and Subarea Studies.** In February 2007, FHWA and FTA issued new planning regulations that eliminated the requirement for a major investment study (MIS) requirement, which had been in the regulations since 1993. In place of the MIS, the 2007 regulations created a new optional procedure for linking transportation planning and NEPA studies. The new procedures are contained in 23 C.F.R. Sections 450.212 (statewide planning) and 450.318 (metropolitan planning) and provide for preparation of a “corridor or subarea study” as a tool for linking planning and NEPA. The basic features of a corridor or subarea study are defined in the regulations. These include:

- *A corridor or subarea study is prepared by a state DOT, MPO, and/or transit operator as part of the statewide or metropolitan planning process.* The corridor or subarea study itself is not a process for Federal agency decision-making, and therefore does not require NEPA review.
- *A corridor or subarea study can be used to produce a wide range of analyses or decisions for adoption in the NEPA process for an individual project.* These include:
  - Purpose and need or goals and objective statement(s);
  - General travel corridor and/or general mode(s) definition (e.g., highway, transit, or a highway/transit combination);
  - Preliminary screening of alternatives and elimination of unreasonable alternatives;
  - Basic description of the environmental setting; and/or
  - Preliminary identification of environmental impacts and environmental mitigation.
- *The regulations define criteria that a Federal agency must consider in deciding whether to adopt planning-level analyses or decisions in the NEPA process.* These include:
  - Involvement of interested state, local, tribal, and Federal agencies;
  - Public review;
  - Reasonable opportunity to comment during the statewide or metropolitan transportation planning process and development of the corridor or subarea planning study;
  - Documentation of relevant decisions in a form that is identifiable and available for review during the NEPA scoping process and can be appended to or referenced in the NEPA document, and;
  - The review of the FHWA and the FTA, as appropriate.

**New Requirements in Section 6001 of SAFETEA-LU.** Section 6001 of SAFETEA-LU made two significant changes that require a heightened consideration of environmental issues in the planning process. These are (1) the need to include a “discussion” of “environmental mitigation activities” in the state and metropolitan long-range transportation plans and (2) the need to consult with state, tribal, and local agencies, which must include a “comparison” of transportation plans with resource plans, maps, and inventories.

These new requirements are reflected in the 2007 planning regulations. All plans, STIPs, and TIPs approved after July 1, 2007 must meet all SAFETEA-LU requirements. These requirements must be met *regardless* of whether a state or MPO intends to carry forward planning-level studies or decisions into the NEPA process. In other words, the new mandates “raise the baseline” in terms of the level of environmental assessment that must take place as part of the statewide and metropolitan planning processes.

**Environmental Mitigation.** Prior to SAFETEA-LU, there was no specific requirement to consider environmental mitigation in the planning process. Under Section 6001, statewide and metropolitan long-range plans must now include a discussion of “potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan.”<sup>1</sup> This discussion must be developed “in consultation with Federal, state, and tribal wildlife, land management, and regulatory agencies.”<sup>2</sup> The 2007 planning regulations clarify this requirement in several ways:

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<sup>1</sup> 23 U.S.C. §§ 134(i)(2)(B), 135(f)(4).

<sup>2</sup> *Ibid.*

- *The regulations include a broad definition of “environmental mitigation activities.”* The definition includes avoidance, minimization, and mitigation, not just compensation; in addition, the definition includes mitigation for impacts to the human and natural environment, not just the natural environment.”<sup>3</sup>
- *A discussion of mitigation in a long-range plan is fundamentally different from a discussion of mitigation in a NEPA document.* The definition of “environmental mitigation activities” stated that mitigation strategies and activities are “intended to be regional in scope, and may not necessarily address potential project-level impacts.” In addition, the regulations state that the discussion of environmental mitigation activities “may focus on policies, programs, or strategies, rather than at the project level” in both the statewide and metropolitan planning processes.<sup>4</sup>
- *A state or MPO may establish “reasonable timeframes” for consulting with resource agencies regarding potential mitigation activities.*<sup>5</sup> This was not specified in the statute, but was included in the regulation. This means that a state or MPO can move on with the planning process after providing a reasonable timeframe for comment, even if some other agencies do not provide comments during the prescribed time period.

**Resource Agency Consultation.** Prior to SAFETEA-LU, states and MPOs were required to provide “affected public agencies” and “other interested parties” an opportunity to participate in developing long-range plans. Section 6001 established a more specific consultation requirement with regard to certain environmental and regulatory agencies.

- States must now develop their long-range plans (not STIPs) in consultation with state, tribal and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation.<sup>6</sup> The same requirements apply to MPOs, except that they are not required to consult with tribal agencies.<sup>7</sup> Consultation with Federal agencies is not required for states or MPOs, but it is advisable, especially with Federal agencies that will have to be involved during the NEPA process.
- The consultation with state, tribal, and local agencies during the development of long-range plans “...shall involve comparison of transportation plans with state and tribal conservation plans or maps, if available, and comparison of transportation plans to inventories of natural or historic resources, if available.”<sup>8</sup> State DOTs and MPOs are not required to *create* new plans, maps, or inventories, but if they are available, they must be considered in the planning process.

For MPOs, the procedures for meeting these consultation requirements will be defined in a “participation plan,” which is another requirement in Section 6001. The participation plan must be developed in consultation with “interested parties” in the metropolitan planning process. See 23 C.F.R. § 450.210.

**Other Changes in Section 6001.** In addition to the requirements described above, Section 6001 of SAFETEA-LU requires USDOT to “encourage” each MPO to “...consult with officials responsible for other types of planning activities that are affected by transportation in the area (including state and local planned growth, economic development, environmental protection, airport operations, and freight movements) or to coordinate its planning process, to the maximum extent practicable, with such planning activities.”<sup>9</sup> This requirement only applies to the *metropolitan* planning process. There is no corresponding requirement regarding the statewide planning process.

<sup>3</sup> 23 C.F.R. § 450.104 (“Environmental mitigation activities means strategies, policies, programs, actions, and activities that, over time, will serve to avoid, minimize, or compensate for [by replacing or providing substitute resources] the impacts to or disruption of elements of the human and natural environment associated with the implementation of a long-range statewide transportation plan or metropolitan transportation plan. The human and natural environment includes, for example, neighborhoods and communities, homes and businesses, cultural resources, parks and recreation areas, wetlands and water sources, forested and other natural areas, agricultural areas, endangered and threatened species, and the ambient air. The environmental mitigation strategies and activities are intended to be regional in scope, and may not necessarily address potential project-level impacts.”)

<sup>4</sup> 23 C.F.R. §§ 450.214(j), 450.322(f)(7).

<sup>5</sup> 23 C.F.R. §§ 450.214(j), 450.322(f)(7).

<sup>6</sup> 23 C.F.R. § 450.214(i).

<sup>7</sup> 23 C.F.R. § 450.322(g).

<sup>8</sup> 23 U.S.C. §§ 135(f)(2), 134(i)(2). The regulations recognize that “consultation” in this context has a different meaning from the definition of that term elsewhere in the planning regulations. See definition of “consultation” in 23 C.F.R. § 450.104.

<sup>9</sup> 23 U.S.C. § 134(g)(3).



**Section 6002 of SAFETEA-LU.** Whereas Section 6001 focuses on the transportation planning process, Section 6002 focuses on the environmental review process, with the goal of streamlining it. Section 6002 indirectly supports increased planning-NEPA linkage. It states that the purpose and need statement "...shall include a clear statement of the objectives that the proposed action is intended to achieve, which may include...achieving a transportation objective identified in an applicable statewide or metropolitan transportation plan." This provision is helpful in establishing that goals in transportation plans can, and should, provide a basis for defining the purpose and need for individual projects.

## Practical Tips

There are many ways for states and MPOs to use their planning processes to provide greater support for project-level decision-making in the environmental review process. This section of the handbook reviews a range of potential approaches, including steps that can be used to comply with the new requirements in Section 6001 of SAFETEA-LU and the transportation planning regulations. The decision about which specific approaches to follow, if any, will be made by each individual state DOT and MPO, based on their available resources and priorities. Some states are pursuing comprehensive strategies for improving planning-NEPA linkages, which encompass many or all of these approaches; others are focusing on one specific aspect of the planning-NEPA linkage.

### 1 | Establishing Organizational Linkages

Creating a stronger link between the transportation planning and NEPA processes will require stronger organizational linkages. These linkages are needed on several levels:

- Stronger linkages are needed within state DOTs, and in particular between the planning and environmental units, which in the past have often operated largely as separate functions.
- Stronger linkages are needed among state DOTs, MPOs, and transit operators. These linkages are especially important when conducting corridor or subarea studies for projects in metropolitan areas.
- Stronger linkages also are needed with Federal, state, and local environmental agencies and, where applicable, Federal land management agencies and Tribes.

Establishing new or enhanced organizational linkages is challenging, especially in view of the staffing and other resource constraints that apply to all those involved. In many cases, the best starting point is creating rapport and trust on a personal level. Mutual respect of different missions and constraints is key. It is particularly helpful to create an understanding of how improved consultation and coordination, spanning environment and planning, can contribute to each agency's mission. Despite the challenges, many states have made significant progress toward improving the organizational linkages between the planning and NEPA processes. Some of the successful strategies are:

**Developing New Procedures for Linking Planning and NEPA.** One way to promote greater linkage between the planning process and NEPA is to develop new procedures that define a single integrated project development process—starting with planning and continuing through programming, NEPA studies, and permitting. The best known of these initiatives is the Efficient Transportation Decision-Making (ETDM) process in Florida. Other states, such as North Carolina and Pennsylvania, are developing new procedures to integrate transportation planning and NEPA.



**Organizational Change.** States can promote better integration of the planning and NEPA processes by breaking down organizational barriers between the planning and environmental functions within the state DOT. These internal changes can help overcome misunderstandings, lack of communication, and other problems.

**Training.** State DOTs can hold training sessions to educate their own staff, MPOs, and resource agencies on the legal requirements and on the opportunities associated with integrating NEPA and planning. Training can help educate everyone that (1) there is now a legal requirement to consult with environmental agencies during the development of long-range plans, and (2) early consideration of environmental impacts allows for a more efficient NEPA process and better environmental outcomes. The best training will be a two-way street: in addition to educating environmental agencies about the transportation project planning and development, it also would include training for state DOTs and MPOs on resource agency procedures, planning processes and products, information resources, and responsibilities.

**Funding.** In Section 1308 of TEA-21, state DOTs were given the authority to enter funding agreements with other Federal and non-Federal agencies, under which the state DOT would fund staff positions and other needs in return for the other agency's commitment to provide expedited reviews of NEPA documents. Section 6002 of SAFETEA-LU replaced Section 1308 with a somewhat broader authorization, which specifically allows funding of "transportation planning activities that precede the initiation of the environmental review process, dedicated staffing, training of agency personnel, information gathering and mapping, and development of programmatic agreements." This change in the law provides an opportunity to use funding agreements as a means of overcoming resource agencies' reluctance to participate in pre-NEPA planning activities. Funding also can be used to create or expand GIS mapping and resource inventory databases, to support earlier and broader environmental considerations in planning.<sup>10</sup> The law continues to require a determination that the funding will promote streamlining: funds may be transferred under this provision "only to support activities that directly and meaningfully contribute to expediting and improving transportation project planning and delivery for projects in that state."<sup>11</sup>

## 2 | Establishing a Vision and Goals for the State or Region's Transportation System

An overall vision for the transportation system—on a statewide, metropolitan, or local basis—can provide a starting point for defining the purpose and need of specific transportation projects. This broad vision can be developed by state and local governments through the transportation planning process and in other ways, such as legislation. The following examples illustrate some of the ways that a well-defined transportation vision can be used to define the purpose and need for individual transportation projects.

**Setting System-Wide Performance Goals.** The planning process can (and should) establish performance goals for the transportation system within a state, a metropolitan area, or a specific corridor. These goals can address issues such as reducing congestion, improving safety, increasing transit usage, and reducing fuel consumption. If these goals are identified in the planning process, they can be considered in defining the purpose and need for individual projects. For example, if a state or metropolitan area defined quantitative targets for congestion, safety, or other factors, these targets would help to define the transportation need on facilities that fall short of those targets. In addition, they would help to define the level of improvement that must be achieved by an alternative in order to meet the identified need.

**Making Modal Choices.** The planning process can determine the roles for highway, transit, and non-motorized facilities in meeting transportation needs. This overall vision for the network can show where new highway capacity is needed, where new transit capacity is needed, and how the modes complement one another. This can help support the purpose and need for an individual project, by showing how the project fits into the multi-modal vision. If the overall vision and goals are established in the planning process, with good public involvement and interagency consultation, it is reasonable and appropriate for the purpose and need in the NEPA process to focus on a specific mode.

**Establishing Networks.** The planning process can define transportation networks consisting of connected transportation facilities that serve a common purpose. For example, some states and metropolitan areas have begun to develop high-occupancy/toll (HOT) lane networks. In addition, some states have identified statewide "strategic highway networks" connecting major population and employment centers or tourist destinations. Of course, there are many other examples, the best-known

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<sup>10</sup> States can also enter into data-sharing agreements with other agencies that maintain GIS mapping. These agreements can facilitate efforts to develop GIS mapping tools. These agreements may be separate from the funding agreements authorized under Section 6002 of SAFETEA-LU.

<sup>11</sup> 23 U.S.C. § 139(j)(1).

being the Interstate Highway System itself. If a transportation plan establishes a goal of completing a network, the purpose of an individual project can be defined in terms of implementing a portion of that network.

**Coordinating Transportation and Land Use Plans.** The planning process can define how the transportation system will support adopted land use plans and growth objectives. For example, many MPOs have adopted the practice of “visioning” or “scenario planning,” which involves the public in considering various possible combinations of transportation and land use choices. This type of process can produce a transportation plan that reflects a community’s vision for both transportation and land use. The plan may reflect a deliberate effort to concentrate future growth in a specific corridor; transportation projects can then be geared toward serving that planned growth.

**Defining a Role for Non-Motorized Travel.** The planning process can define a role for non-motorized—pedestrian and bicycle—travel in meeting transportation needs. For example, if a state or metropolitan area has adopted a plan for a system of recreational trails, the trails plan can help to establish the need to incorporate a trail into a new highway or transit project. This need for a trail can, in turn, provide the justification for any additional impacts associated with including a trail in the project.

**Establishing a Role for Tolling or Congestion Pricing in Meeting Transportation Needs.** The planning process can be used to define the role of tolls or congestion pricing in meeting transportation needs, including identification of toll networks and toll corridors or congestion pricing strategies. Tolls and congestion fees can be used to help finance transportation projects and to manage demand. Both of these issues—financing and demand-management—are appropriate for consideration in the planning process. If a state or MPO adopts a plan that relies upon tolling as a funding source and/or a demand-management tool, that planning decision can be used as the basis for incorporating tolling into the purpose and need for a specific project.<sup>12</sup> For example, if an MPO adopts a plan calling for a network of high-occupancy toll (HOT) lanes, the plan can provide a basis for defining the purpose and need for individual HOT-lane projects.

**Acceptance in the NEPA Process.** The planning-NEPA linkage guidance specifically addresses the adoption of broad planning goals as the basis for the purpose and need statement for an individual project. It says that “If systems-level or other broad objectives or choices from the transportation plan are incorporated into the purpose and need statement for a NEPA document, the FHWA and the FTA should not revisit whether these are the best objectives or choices among other options.”<sup>13</sup> This guidance emphasizes that Congress has created the transportation planning process, in statute, as the foundation for Federal transportation investment decisions. FHWA and FTA’s responsibility is to review the planning process to ensure that any broad transportation objectives derived from the transportation plan were:

- Based on transportation planning factors established by Federal law;
- Reflect a credible and articulated planning rationale;
- Founded on reliable data;
- Developed through a transportation planning processes that meets FHWA and FTA statutory and regulatory requirements (including public involvement and interagency consultation);
- Documented and included in the NEPA document.<sup>14</sup>

If FHWA and/or FTA determine that these criteria are met, a planning-level objective can be incorporated into the purpose and need statement for a specific project.

**Documentation Needed.** Broad transportation goals adopted in the planning process can be documented in the long-range plan itself or in other documents that are developed as part of the planning process. The ability to rely upon these goals in the NEPA process will be greatest if the planning document defines the goals with as much clarity as possible; explains why the goals were adopted; and summarizes any public or agency input into the development of those goals.

<sup>12</sup> 23 C.F.R. Part 450, Appendix A, Linking the Transportation Planning and NEPA Processes, 72 Fed. Reg. 7280 (Feb. 14, 2007), p. 7282–7283; Memorandum from D.J. Gribbin, Chief Counsel, FHWA, to D. Nicol, Colorado Division Administrator, FHWA, “NEPA Analysis of Toll Roads” (Oct. 15, 2004).

<sup>13</sup> 23 C.F.R. Part 450, Appendix A (72 Fed. Reg. at 7282).

<sup>14</sup> 23 C.F.R. Part 450, Appendix A (72 Fed. Reg. at 7282).

### 3 | Developing Corridor-Level Goals and/or a Purpose and Need

Appendix A to the planning regulations (the guidance on planning-NEPA linkage) states unequivocally that “the transportation planning process should shape the purpose and need and, thereby, the range of reasonable alternatives.” The guidance identifies three specific ways that the purpose and need can be shaped by the planning process:

- The transportation planning process has selected a *general travel corridor* as best addressing identified transportation problems and the rationale for the determination in the planning document is reflected in the purpose and need statement of the subsequent NEPA document;
- The transportation planning process has selected a *general mode* (e.g., highway, transit, or a highway/transit combination) that accomplishes its goals and objectives, and these documented determinations are reflected in the purpose and need statement of the subsequent NEPA document; or
- The transportation planning process determines that the project needs to be funded by *tolls or other non-traditional funding sources* in order for the long-range transportation plan to be fiscally constrained or identifies goals and objectives that can only be met by toll roads or other non-traditional funding sources, and that determination of those goals and objectives is reflected in the purpose and need statement of the subsequent NEPA document.<sup>15</sup>

The guidance also notes that the “results of analyses from management systems (e.g., congestion, pavement, bridge, and/or safety) may shape the purpose and need statement.”<sup>16</sup> It does not explain specifically how those analyses would relate to the development of a purpose and need statement.

Because the guidance is relatively new, best practices and agency expectations are not well-settled. The following general suggestions provide a framework, but specific approaches will need to be developed on a case-by-case basis.

**Corridor or Sub-Area Goals vs. Purpose and Need.** The planning process can be used to develop goals for a corridor or subarea, which are somewhat broader than the purpose and need for an individual project. For example, a state or MPO could define a goal of providing a high level of mobility and a range of transportation options in a heavily traveled corridor. These corridor-level goals could be supported by data showing the limitations of the current transportation system in that corridor. These overall goals for the corridor could then be used as the basis for defining the purpose and need for a series of individual projects in the corridor.

**General Travel Corridor.** The planning process can be used to define the “general travel corridor” within which a transportation improvement is needed. The breadth of a “general travel corridor” defined in a purpose and need statement will be defined differently for each project. In general, a more sensitive environmental area would require a broader corridor, in order to provide flexibility to consider a range of location options for avoiding or minimizing impacts to protected environmental resources.

**Resolving Modal Issues.** The planning process can be used to determine the need for a specific transportation mode. The choice of mode is a reflection of a community’s overall transportation vision. For example, a state or MPO could evaluate transportation needs in a congested urban corridor, and select a combination of investments to meet those needs – including new highway capacity, improving existing roads, and providing new transit service. The multi-modal vision for the corridor would provide a basis for defining a purpose and need for individual projects in the corridor. Each project would implement a part of the overall vision, such as the need to provide new transit service that complements a local government’s plan for transit-oriented development. In this context, the purpose and need of an individual project would focus on a specific mode—for example, providing improved transit service or filling a gap in the highway system.

**Resolving the Need for Tolling.** The planning process can be used to establish the need for tolling within a specific corridor or for a specific project. The decision to commit to tolling is often based on the need for tolling as a revenue source, which is relied upon by the state or MPO to demonstrate that its long-range transportation plan meets the “fiscal constraint” requirement.<sup>17</sup> Tolling also could be selected for a corridor as a congestion-management tool—for example, where variable pricing will be used. To establish a basis for incorporating tolling into the purpose and need, it is important for the planning process to identify

<sup>15</sup> 23 C.F.R. Part 450, Appendix A (72 Fed. Reg. at 7283).

<sup>16</sup> 23 C.F.R. Part 450 (72 Fed. Reg. at 7283).

<sup>17</sup> The fiscal constraint requirement applies to metropolitan long-range plans and TIPs, and also applies to STIPs. See 23 C.F.R. § 450.216 (STIPs); § 450.322(f) (metropolitan long-range plan); § 450.324(h).

the reasons why tolling is being adopted. If a plan simply designates a road as a toll road, but provides no explanation for that decision, the justification will need to be established during the NEPA process.

**Acceptance in the NEPA Process.** As with the systems-level goals discussed above, the acceptance of corridor-level goals or a project-specific purpose and need will require a judgment by the Federal lead agencies (FHWA and FTA). The same basic principles apply: If the policy choices made by a state or MPO are incorporated into the NEPA process, FHWA and FTA should not re-visit those choices (nor should other Federal agencies revisit those choices), but FHWA and FTA will need to ensure the planning process complied with Federal planning requirements, such as, the consideration of the planning factors, public involvement, and interagency consultation.

**Documentation Needed.** The development of a corridor-level purpose and need can be documented in a “corridor or subarea study,” in accordance with Section 450.212 (statewide planning) or 450.318 (metropolitan planning) of the planning regulations. Other types of documentation also could be used, including the long-range plan itself. Regardless of which type of document is used, the key is to document the rationale for adopting a specific goal, and to show the process that was followed (including the process for involving resource agencies and the public).

## 4 | Eliminating Alternatives

Of all the analyses and decisions that can be carried forward from planning into the NEPA process, the one that involves the greatest potential for controversy is the elimination of alternatives. Appendix A to the planning regulations clearly allows alternatives to be eliminated based on the planning process. It recognizes two possible ways to support this type of decision: (1) eliminating alternatives that do not meet the purpose and need, and (2) eliminating alternatives based on an analysis that shows they are not reasonable alternatives.

**Eliminating Alternatives Based on Purpose and Need.** By defining corridor goals and/or a purpose and need for an individual project, the planning process can limit the range of alternatives that need to be considered in the NEPA process. For example, if the purpose is to provide a transportation improvement in one “travel corridor,” an alternative that serves a different travel corridor is not reasonable and need not be considered. Similarly, if the purpose is to meet the need for a specific mode, an alternative that involves a different mode is not reasonable and can be eliminated.

**Eliminating Alternatives Based on Impacts and/or Cost.** In addition to eliminating alternatives that do not meet the purpose and need, it may be possible to narrow the range of alternatives by analyzing issues such as environmental impacts and cost. Eliminating alternatives based on these issues will generally require more data-gathering and analysis.

**Potential Need to Re-Consider Alternatives Eliminated in the Planning Process.** One common concern among practitioners is that alternatives eliminated in planning will need to be re-considered in the NEPA process. In general, alternatives will be less likely to require additional consideration during NEPA if key Federal and state environmental agencies were engaged in the planning decisions that eliminated alternatives, and if there is a clear-cut basis for determining that eliminated alternatives do not meet some fundamental aspect of the purpose and need—for example, they are incompatible with the basic travel corridor or mode of the project. The following suggestions should help minimize the need to re-consider alternatives that were eliminated during the planning stage:

- **Quality of Information.** The quality of the information available in the planning process should be consistent with the level of data typically used to support an alternatives-screening decision in the NEPA process (e.g., environmental, traffic, land-use data). In some cases, existing data sources will be sufficient, but in others, some work will be needed in order to provide a strong enough basis for eliminating an alternative based on impacts and cost.
- **Federal Regulatory Standards.** Alternatives should not be eliminated simply because they are less desirable than other alternatives. Under NEPA, alternatives can be eliminated only if they are found to be “unreasonable.” If Section 404 of the Clean Water Act applies, alternatives can be eliminated only if they are found to be “impracticable.” Under Section 4(f) of the USDOT Act, alternatives can be eliminated only if they are “imprudent.” If these standards are not considered in the planning stage, alternatives eliminated in planning may need to be reconsidered during NEPA.
- **Agency Input.** Agencies that will have approval authority over the project should be consulted during the planning stage, especially if the alternatives being eliminated would have the potential to avoid or minimize impacts on resources within the jurisdiction of those agencies. For example, if a project will impact wetlands, and a wetlands

avoidance or minimization alternative is being eliminated, it is advisable to consult with the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency before making that decision. Otherwise, there is a greater chance that the Corps will require additional analysis before making its permit decision.

**Documentation.** The level of documentation needed for eliminating alternatives will depend on the reasons given for eliminating them. If an alternative is eliminated because it clearly does not meet the purpose and need, extensive documentation is not needed. But if an alternative is eliminated based on an environmental impact that is considered to be a “fatal flaw,” there will need to be documentation establishing the nature of that impact and showing that the alternative cannot be modified to avoid the impact. This analysis can be included in a “corridor or subarea study” under Sections 450.212 or 450.318 of the planning regulations or in another planning document.

## 5 | Identifying the Affected Environment and Potential Environmental Impacts

While efforts to link planning and NEPA often focus on defining the purpose and need and eliminating alternatives, the planning process can also generate key environmental information to be incorporated into subsequent NEPA studies.

**What Types of Planning Products Can Be Used in NEPA.** The planning-NEPA linkage guidance suggests a wide range of planning products and analyses that can support the environmental analysis in a NEPA document. These include:

- Regional development and growth analyses;
- Local land use, growth management, and development plans;
- Population and employment projections, and demographic trends and forecasts;
- Geographic Information Systems (GIS) overlays showing the past, current, or predicted future conditions of the natural and built environments;
- Environmental scans that identify environmental resources and environmentally sensitive areas;
- Descriptions of airsheds and watersheds;
- Projections of future land use, natural resource conservation areas, and development; and
- Outputs of natural resource planning efforts, such as wildlife conservation plans, watershed plans, special area management plans, and multiple species habitat conservation plans.

**Scale and Level of Detail.** The environmental analyses done during the planning process are intended to support good planning, and do not normally reach the level of detail expected in a NEPA study. In some cases, the planning-level environmental data and analyses can be enhanced to provide a better foundation for NEPA. In many cases, it will be advisable or necessary to supplement the planning-level environmental analyses with additional data-gathering and analysis needed during the NEPA process. The main value of a planning-level environmental analysis is that it can be done on a broader geographic scale, such as a watershed or ecosystem. This broad regional study can provide a starting point for the project-specific impact analysis in subsequent NEPA studies.

**Indirect and Cumulative Impact Analyses.** The analysis of indirect and cumulative impacts almost always involves a regional focus, often extending well beyond the study area for a specific project. The statewide and metropolitan planning process is, in many ways, a more appropriate forum for examining many of the regional issues that are considered in an indirect and cumulative impact analyses. For example, if an agency is proposing several different transportation improvements to meet the needs of a rapidly growing area, regional analyses could be prepared during the planning process to assess the growth-inducing potential of those projects, as well as the cumulative impacts of those projects and other foreseeable actions in the same area. If these regional analyses are done, it could be incorporated (directly or by cross-reference) into the indirect and cumulative impact analyses in NEPA studies for individual projects.

**Compliance with SAFETEA-LU Requirement.** Section 6001 of SAFETEA-LU and the transportation planning regulations require every state and MPO to consult with state, tribal and local resource agencies when developing long-range plans, and require this consultation to involve (1) a “comparison of transportation plans with state and tribal conservation plans or maps, if available,” and (2) a “comparison of transportation plans to inventories of natural or historic resources, if available.” This requirement requires only consideration of plans, maps, and inventories that already exist. Compliance with this new requirement will likely involve increased consideration of environmental data as a routine part of the statewide and metropolitan



planning process. As this occurs, states and MPOs will have increased opportunities to develop environmental analyses in the planning stage that can be adopted for use in the NEPA process.

## 6 | Considering Environmental Mitigation Activities

Section 6001 of SAFETEA-LU requires both statewide and metropolitan long-range plans to discuss environmental mitigation opportunities. This mandate imposes a new compliance obligation on statewide and metropolitan transportation planners. It also provides an opportunity to shift toward a more strategic, watershed-based approach to environmental mitigation measures.

**Compliance with SAFETEA-LU Requirement.** The type of environmental discussion required in a long-range plan is fundamentally different from the mitigation discussion contained in a typical NEPA document. Section 6001 requires “a discussion of *types of potential environmental mitigation activities* and *potential areas to carry out these activities*, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan.”

- *The long-range plan must discuss “types” of mitigation activities.* It is not necessary to develop specific mitigation measures for individual projects. Instead, the plan should describe, at least in general terms, the approaches that may be used for mitigating impacts. This could include wetlands replacement, avoidance of habitat fragmentation, preservation of habitat for endangered species, and other commonly used mitigation methods.
- *The long-range plan should discuss “potential areas” for mitigation.* It is not necessary to identify specific mitigation sites. Instead, the plan should discuss the areas where mitigation may occur. This could include a discussion of specific geographic areas, such as existing conservation areas or refuges where public agencies are seeking to protect or restore additional lands. This could also include a discussion of *types of areas*—for example, by listing the characteristics that are associated with desirable mitigation sites.

**Opportunities to Encourage an “Ecosystem Approach” to Mitigation.** Traditionally, there has been a strong preference among permitting agencies for an “on-site, in-kind” approach to mitigation. In recent years, agencies have begun to shift toward a more strategic approach, which focuses on identifying the best-value mitigation sites from the standpoint of the watershed or ecosystem. In the 2006 publication, “Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects,” FHWA and several other Federal agencies have endorsed the use of this approach for transportation projects.<sup>18</sup> The planning process provides an opportunity to encourage the increased use of this ecosystem approach, which can result in more efficient and effective mitigation measures for transportation projects. This type of “ecosystem approach” provides a framework through which agencies can meet the Section 6001 requirement related to identifying “activities that may have the greatest potential to restore and maintain the environmental functions.”

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<sup>18</sup> See “Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects” (April 2006). The Eco-Logical report was signed by the U.S. Forest Service, National Park Service, Federal Highway Administration, U.S. Environmental Protection Agency, Bureau of Land Management, U.S. Fish and Wildlife Service, Department of the Army, and National Marine Fisheries Service. A link to this document is available on the Center’s web site, <http://environment.transportation.org>, in the Practitioner’s Handbooks section under the “Resource Materials” for this Handbook.

## References

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Statutes, regulations, and guidance documents cited in this Handbook, along with additional materials and sample documents, are available on the Center for Environmental Excellence by AASHTO web site: <http://environment.transportation.org>.

The Center for Environmental Excellence's Technical Experts are available to provide strategic environmental and focused environmental management technical advice. For more information on the Center Technical Assistance Program (CTAP), please visit: [http://environment.transportation.org/center/tech\\_experts/](http://environment.transportation.org/center/tech_experts/).



## ADDITIONAL RESOURCES

PRACTITIONER'S HANDBOOKS AVAILABLE FROM THE CENTER FOR ENVIRONMENTAL EXCELLENCE BY AASHTO:

- 01 Maintaining a Project File and Preparing an Administrative Record for a NEPA Study
- 02 Responding to Comments on an Environmental Impact Statement
- 03 Managing the NEPA Process for Toll Lanes and Toll Roads
- 04 Tracking Compliance with Environmental Commitments/Use of Environmental Monitors
- 05 Utilizing Community Advisory Committees for NEPA Studies
- 06 Consulting Under Section 106 of the National Historic Preservation Act
- 07 Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects
- 08 Developing and Implementing an Environmental Management System in a State Department of Transportation
- 09 Using the SAFETEA-LU Environmental Review Process (23 U.S.C. § 139)
- 10 Using the Transportation Planning Process to Support the NEPA Process

For additional Practitioner's Handbooks, please visit the Center for Environmental Excellence by AASHTO web site at: <http://environment.transportation.org>

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