

ENV-5 - Approve Evaluation Criteria, Methods and Measures

Description

Evaluation criteria, methods and measures are used to compare how alternatives meet the purpose and need. The criteria used in long range planning and corridor planning may influence those used in environmental review. In some resource agency guidance, establishing performance measures is done prior to purpose and need. In this respect there is a strong connection between purpose and need, study area, and evaluation criteria/performance measures. Land use and capital improvement planning data are also analyzed so that the criteria and measures incorporated will ensure the alternatives are consistent with these plans. The evaluation criteria, methods and measures are developed with input and data from both partners and stakeholders, including interagency consultation on project-level analysis.

There is information developed in prior key decisions that informs this step.

Purpose

To compare the ability of each alternative to address the purpose and need as well as supporting goals of the project.

Outcome

Specific criteria, methods and measures of performance for evaluating and comparing alternatives.

Partner	Role Type	Description
MPO	Advisor	Provides support as needed for consideration of evaluation methods to compare project alternatives.
FHWA/FTA	Decision Maker	Approves the evaluation criteria, methods and measures that will govern the comparison of alternatives.
State DOT	Decision Maker	Ensures the approved evaluation criteria allows full consideration of all reasonable alternatives.
Resource Agency	Advisor	Support the identification and use of evaluation criteria, methods and measures that reflect resource agencies' vision, goals and priorities and are informed by ecological planning. State and local air agencies consultation on air quality evaluation criteria, methods, and measures.
Public Transportation Operator(s)	Advisor	Provides support as needed for consideration of evaluation methods to compare project alternatives.

Policy Questions

Questions are a way to elicit information and to validate that the information has been considered. The partners should discuss the listed questions to ensure a broad array of interests is considered at a key decision. Discussions arising from these questions support collaborative decision making.

Questions Partners Discuss

Questions about purpose and roles

- Do the partners agree on the criteria and methodology?

Questions about stakeholders, including modal and operational partners

- No specific questions

Questions about the transportation process supporting the decision

- Are evaluation criteria related to financing, revenue generation, and project delivery included for evaluation of the effectiveness of P3 projects in meeting purpose and need?
- Are metrics available from performance measurement on this facility or others in the study area?
- Are the evaluation criteria and performance measures broad enough to differentiate between alternatives?
- Are there data, tools, and analysis capability to use these criteria, methodologies, and measures?
- Do the criteria and methodology capture all aspects of the purpose and need?
- Do the data, tools, and technical capability exist to conduct a NEPA level analysis of the above impacts?
- Do the evaluation criteria and measures reflect a balance of transportation, environmental, economic development, and community outcomes?
- Does the methodology limit the review of alternatives?
- Have all potential risk factors and affected parties been considered in defining the evaluation criteria and performance measures for P3 projects?
- Have evaluation criteria, methods, and measures been identified that adequately measure the potential impacts and benefits of bicycle and pedestrian improvements?
- Have evaluation criteria, methods, and measures been identified that adequately measure the potential impacts and benefits of operations strategies?
- Have evaluation criteria, methods, and measures been identified that adequately measure the potential impacts of project alternative on bicycle and pedestrian network connectivity, accessibility, equity, and safety?
- What other evaluation criteria related to project operations, travel, accessibility, equity, environmental justice, and other concerns must be considered that are relevant to some types of P3 projects?

Questions about other phases

- Has the development of the criteria considered that from the LRTP and corridor plan?

Questions about non-transportation sectors/processes

- Are evaluation criteria and measures included that will demonstrate how transportation choices impact the quality of life in the planning area?
- Are there evaluation criteria and methods specific to freight considerations?
- Are there evaluation criteria, metrics or measures from ecological planning that should inform those used in environmental review?
- Are there evaluation criteria, metrics or measures related to economic development from existing plans (land use, corridor, capital improvement, ecological and long range plans) that should inform those used in environmental review?
- Are there evaluation criteria, metrics or measures that capture visions and goals from ecological planning?
- Have all potential risk factors and affected parties been considered in defining the economic development criteria and performance measures?
- How were stakeholder interests used to create the evaluation criteria and measures?
- How will we know if have addressed or solved the transportation problems that have been identified?

Stakeholder Inputs

'Questions to Gather Stakeholder Interests' allow staff to determine which stakeholders have interests at a key decision and to collect those interests for partner consideration. 'Questions to Incorporate Stakeholder Interests' ensure the interests of stakeholders are included in the decision. For more help with stakeholder collaboration visit the Stakeholder Portal

Questions to Gather Stakeholder Interests

- How does transportation impact your quality of life? How can this be improved?
- How will we know if we have addressed or solved the transportation problems that have been identified?
- What are the characteristics or qualities of the project that will demonstrate that it is consistent with community values and protects environmental quality?
- What characteristics or qualities do you expect from a project developed by the private sector that is different from your usual expectations?

Questions to Incorporate Stakeholder Interests

- How was private sector input sought to create the evaluation criteria and measures?
- How were stakeholder interests used to create the evaluation criteria and measures?
- What are the characteristics or qualities of the project that demonstrate it advances regional and local economic development goals?
- What are the characteristics or qualities of the project that will demonstrate that it is consistent with community values and protects environmental quality?
- What do the public stakeholders consider important for a P3 project?

Data

The following is a list of data needed to support the key decision. Practitioners collect this information for decision makers to consider.

Supporting Data for the Key Decision		
From other phases of transportation decision making	Long Range Planning	Evaluation criteria, methods and measures from long range transportation planning
	Programming	No Specific Data.
	Corridor Planning	Evaluation criteria, methods and measures from corridor planning.
	Environmental Review	ENV-3: Purpose and need
From other sectors and processes	Land Use	Data from land use and land planning to evaluate land use criteria. Quality of life or "livability" information
	Transportation Conformity	Please see http://www.fhwa.dot.gov/environment/air_quality/conformity/policy_and_guidance/ for guidance on CO and PM hotspot guidance.
	Natural Environment and Implementing Eco-Logical	Specific evaluation criteria, methods and measures that have been identified for the natural environment
	Capital Improvement	Information surrounding any capital improvement plans that can be used to develop criteria to ensure alternatives are consistent with the plans.
	Safety and Security	Information surrounding any safety and security plans that can be used to develop criteria to ensure alternatives are consistent with the plans.
	Human Environment	Data from human environment to evaluate human environment criteria Specific evaluation criteria related to travel patterns, accessibility, equity, and environmental justice impacts
	Economic Development	Data from existing goals, plans and policies to inform criteria and methods Performance measures or metrics, and analytical methods to evaluate economic vitality or competitiveness
	Greenhouse Gas Emissions	Not applicable.
	Freight	Freight benefit and cost data Freight specific data sources to evaluate project alternatives
	From the transportation technical process supporting this key decision	Analysis that tests the adequacy of the evaluation criteria and measures with the stated purpose and need.
Comparison of the data required to implement the potential criteria and methodologies to the data currently available.		
Data on tools and technology available to support the method.		
Financial evaluation criteria for projects being developed through a P3		
Indicators of the potential for induced change in development: changes in distance and travel time between the project area and major trip attractors; and suitability of the project area for development		
Local land use/comprehensive development plans		
Long-range transportation plans		
Performance measurement data		
Traffic information		
Potential performance measures. For more information, please visit: Guidebook for Developing Pedestrian and Bicycle Performance Measures		
Prioritization methodology. For more information, please visit: Pedestrian and Bicycle Transportation along Existing Roads—ActiveTrans Priority Tool Guidebook		
From stakeholder collaboration	No Specific Data.	
From public private partnership	No Specific Data.	

Links to Decisions

This table identifies how a key decision is connected to other key decisions. The linkages are a two-way transfer of information. Understanding and applying these linkages means that partners will recognize how a decision will impact other specific key decisions. Recognizing that the transportation processes are linked will: (1) encourage practitioners to produce information that can be used later and (2) remind them to look at information from previous key decisions.

linkages to other phases of transportation decision making

Key Decision	What is Linked?	Purpose of Linkage
From Long Range Transportation Planning		
LRP-3 - Approve Evaluation Criteria, Methods and Measures	The evaluation criteria, methods and measures used in long range planning	To inform the environmental review process in order to ensure that decision making is consistent across phases.
From Corridor Planning		
COR-5 - Approve Evaluation Criteria, Methods and Measures	The evaluation criteria, methods and measures used in corridor planning	To inform the environmental review process in order to ensure that decision making is consistent across phases.

Examples

In-depth case studies of successful practices in collaborative decision making were used to develop the Decision Guide. Links in this table point to a specific paragraph or section of a case study that supports a key decision. It is not necessary to read through an entire case study to find the example; however, full versions are available in the Library.

PlanWorks Case Study Examples

- US 75 North Central Expressway

Other Examples

- None

Integrated Planning

Integrated Planning looks at the interaction between the transportation decision making process and other processes. Considering these inputs will ensure that important values and goals outside the transportation process are recognized and considered. For a full understanding of a specific process and how it influences transportation decisions, visit Applications.

Process	Integration Type	Integration Description
Land Use	Data	<p>If smart growth principles will be integrated, include measures/consideration of:</p> <ul style="list-style-type: none"> • Induced development and/or induced travel • Modal balance, accessibility, and demand • Congestion • System performance and safety • Economic development impacts • Social equity impacts • Environmental sustainability • Federal and State funding criteria such as "livability"
		Data from land use and land planning to evaluate land use criteria.
	Analysis	Evaluation of the adequacy of available data to implement the methodology
Transportation Conformity	Analysis	Must meet project level conformity requirements including CO and PM hot-spot analysis requirements. For conformity practices, please see: http://www.fhwa.dot.gov/environment/air_quality/conformity/practices/
Natural Environment and Implementing Eco-Logical	Analysis From IEF Step 8 - Implement Agreements, Adaptive Management & Deliver Projects	Determine what evaluation criteria, methods and measures from the ecological plan are relevant to the project.
	Data Between IEF Step 4 - Assess Effects on Conservation Objectives and ENV-5	At IEF Sub-step 4a, the relative importance of resource types are weighed. Information should be shared between ENV-5 and Sub-step 4a to inform the evaluation criteria in transportation decision making or the weighting criteria in ecological planning.
	Data and Analysis Between IEF Step 6 - Develop Crediting Strategy and ENV-5	The purpose of IEF Step 6 (Develop Crediting Strategy) is to develop a consistent strategy and metrics to measure ecological impacts, restoration benefits, and long term performance - with the goal of having the analyses throughout the life of the project be in the same language. Evaluation criteria, methods and measures used in environmental review should inform/be informed by the crediting strategy in ecological planning. Analysis may be required to determine how the two approaches are related and to ensure consistency. This connection to the IEF was also made at LRP-3 and COR-5 and should be consistent with the evaluation criteria, methods and measures used in planning.
Capital Improvement	Data	Information surrounding any capital improvement plans that can be used to develop criteria to ensure alternatives are consistent with the plans.
	Analysis	Evaluation of the adequacy of available data to implement the methods.
Safety and Security	Data	Information surrounding any safety and security plans that can be used to develop criteria to ensure alternatives are consistent with the plans.
	Analysis	Evaluation of the adequacy of available data to implement the methods.
Human Environment	Data	Data from human environment to evaluate human environment criteria
	Analysis	Evaluation of the adequacy of available data to implement the methods
Economic Development	Data	Analytical methods to measure and evaluate economic vitality or competitiveness to support NEPA level analysis.
		Performance measures or metrics currently used by local government and/or economic development related private organization to track economic vitality or competitiveness.
Greenhouse Gas Emissions	Not applicable.	Not applicable.
Freight	Data	Data to support the evaluation of alternatives with respect to freight
Bicycles and Pedestrians	Data	Data about bicycle and pedestrian infrastructure, crashes, and volumes.

Special Topics

This table provides an overview of the relationship between a key decision and individual special topics. A special topic may be an external process, a new regulation, or any emerging issue requiring collaboration. For a full understanding of a specific topic and how it influences transportation decisions, visit Applications.

Key Decision Relationship to Other Topics

Topic	Description
Public-Private Partnerships	<p>Identify Evaluation Criteria - For projects being developed through a P3, financial evaluation criteria must be included to evaluate how the project meets purpose and need. Evaluation criteria and metrics related to project operations, impacts on travel patterns, accessibility, equity, and environmental justice impacts must also be included as these issues can sometimes arise with P3 projects.</p> <p>Data Transfer - Selected evaluation criteria and measures allow comparison of P3 project benefits and risks during the selection of alternatives at ENV 6, 7, and 10.</p>
Planning and Environment Linkages	<p>Identify Evaluation Criteria - Include metrics and measures that allow the evaluation of operations strategies as potential solutions to meet the purpose and need.</p> <p>Data Transfer - Criteria and metrics for system performance, reliability, traffic operations and access.</p>
Performance Measures	<p>Selection of Specific Performance Measures - At this key decision, specific performance measures are selected using the selected factors.</p> <p>Data Transfer - Selected factors are transferred from ENV-3. The selected measures are transferred to ENV-7 and ENV-9 for the evaluation of alternatives.</p>
Streamlining a Congestion Bottleneck Project	<p>Approve Evaluation Criteria, Methodology, and Performance Measures</p> <p>Data Transfer - None</p>
Visioning and Transportation	<p>Adopt Futures - Consider the implementation priorities that may be used in the environmental review</p> <p>Approve Indicators and Commitments - Consider how the long- and near- term objectives and actions steps may impact the selection of the preferred alternative.</p> <p>Data Transfer - Relevant information on how the evaluation criteria may support community visioning to ENV 9.</p>