Introduction

The purpose if this report is to document the process that has led to the screening of alternative route concepts down to a shortlist of routes recommended for further study. At the end of the report, the recommended routes are listed. The report addresses both the factors that have been considered in the analytical process and the reasons for the routes that have been selected for further study.

The report is organized under six headings.

- Part I describes the overall study process for this Tier 1 Environmental Impact Statement in order to provide some context for this report.

- Part II summarizes the factors considered in the screening process. These factors include the ability of the alternatives to achieve the project's transportation, economic development, and National I-69 objectives, as well as cost and geographic diversity.

- Part III describes the alternative route concepts that have been studied in the screening process. This section includes maps of each of the route concepts.

- Part IV summarizes the results of the analysis of the route concepts. This section summarizes the data for each performance measure. More detailed information is available in the Appendix and in technical reports that have been developed in the preparation of this document.

- Part V recommends five route concepts for further study, along with the reasoning behind the recommendations.

- Part VI describes the next steps in the study process, which involve the detailed environmental analysis of the five selected route concepts.

I. Process Overview

This study is an environmental impact statement (EIS) for the Evansville-to-Indianapolis section of I-69 in Indiana. It is being conducted pursuant to the National Environmental Policy Act (NEPA) and the NEPA regulations issued by the Council on Environmental Quality (CEQ), 40 CFR Part 1500, and the Federal Highway Administration (FHWA), 23 CFR Part 771.

The CEQ and FHWA regulations require an EIS for only the largest highway projects. However, even in comparison to other projects that require an EIS, the Evansville-to-Indianapolis section of the proposed I-69 is unusual. There are several factors that set this study apart:

- The study area for an EIS usually lies within a single metropolitan area or rural transportation corridor. In this case, the study area includes 26 counties – approximately one quarter of the State of Indiana. Within the study area, there are major cities, mid-size cities, small towns, and rural communities.

- The purpose and need in an EIS usually consists of a relatively clear, limited set of objectives, such as providing additional capacity in a congested corridor. In this case, the project is intended to serve

numerous objectives across a broad geographic area. The diversity of the project's objectives – as reflected in more than 40 different performance measures – makes it difficult to draw clear-cut conclusions about whether an alternative "meets" the purpose and need. As will be shown below, each alternative serves *some* objectives well. Any decision about an alternative's ability to achieve the project's objectives *as a whole* will necessarily involve a degree of judgment.

- The route alternatives studied in an EIS typically are concentrated within a relatively limited geographic area. Often, just a few miles (or less) separate the alternatives from one another. In this case, the alternatives are spread across a much broader area. While they all connect the same termini, they serve different population centers and pass through different counties. For example, some alternatives serve Vincennes, and others do not; some serve Bloomington and others do not, some serve Bedford and others do not. The fact that different routes serve different communities further complicates the task of comparing alternatives.

- The range of alternatives in an EIS usually involves an analysis of alternative transportation modes – for example, transit vs. highway. However, in this case, the modal choice decision has already been made: this project is now part of a national transportation corridor that Congress has designated as I-69. For that reason, this EIS will focus on the evaluation of alternatives that involve the completion of an Interstate highway.

To accommodate this project's special characteristics, FHWA and INDOT have decided to use a "tiered" environmental process. The concept of tiering is authorized under CEQ and FHWA regulations, and is intended to be used for particularly large and complex projects. The basic idea behind tiering is that very large projects can be examined more effectively by breaking the analysis into two distinct stages, known as tiers.

We are currently preparing the Tier 1 EIS, which focuses on "big-picture" issues – most importantly, whether to complete I-69 and, if so, which corridor should be served by this highway in Southwest Indiana. We expect the Tier 1 process to conclude in late 2002. If a build alternative is selected at the end of Tier 1, we will then proceed with Tier 2 studies, which involve specific alignment decisions and the development of detailed environmental mitigation plans. The Tier 2 studies will be prepared for smaller, stand-alone projects within the selected corridor.

Within the ongoing Tier 1 EIS, the analysis of alternatives involves three levels, which are depicted in Figure 1 below. The three levels in Tier 1 include:

- **Level 1: Identifying alternatives (completed)** In Level 1, the study team developed 14 potential route concepts, which were announced in December 2000. Several of the 14 route concepts involved two "options" for connecting to Indianapolis. Altogether, taking into account the options, the team developed a total of 19 route concepts.

- **Level 2: Screening alternatives (just completed)** In Level 2, the study team analyzed how well each of the 19 route concepts would achieve the project's objectives as defined in the purpose and need statement. The study team also developed preliminary cost estimates

- **Level 3: Detailed analysis of alternatives (2001-2002)** In Level 3, the study team will conduct detailed environmental studies of the five routes that were carried forward at the end of Level 2. The analysis will include effects on land use, air quality, construction, historical and archaeological

preservation, endangered or threatened species, wetlands, wildlife, agricultural land, water quality and relocations. In addition to analyzing impacts on the physical environment, other impacts that will be considered include social, economic, secondary, noise and visual effects. Issues of performance and cost will continue to be considered in this stage of the study.

We are currently approaching the completion of Level 2. This report describes the set of alternatives that FHWA and INDOT intend to carry forward into Level 3. The report is being released for review and comment by resource agencies and the public, and it will be the focus of an upcoming round of public meetings. FHWA and INDOT will consider input received from resource agencies before making a final decision about which alternatives will be carried forward into Level 3.

Figure 1: Tier 1 vs. Tier 2

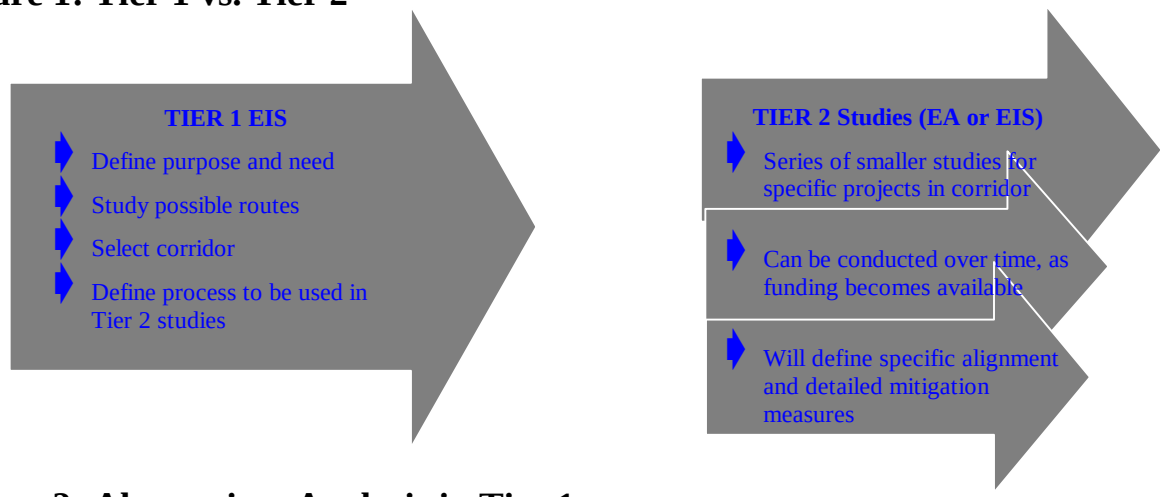
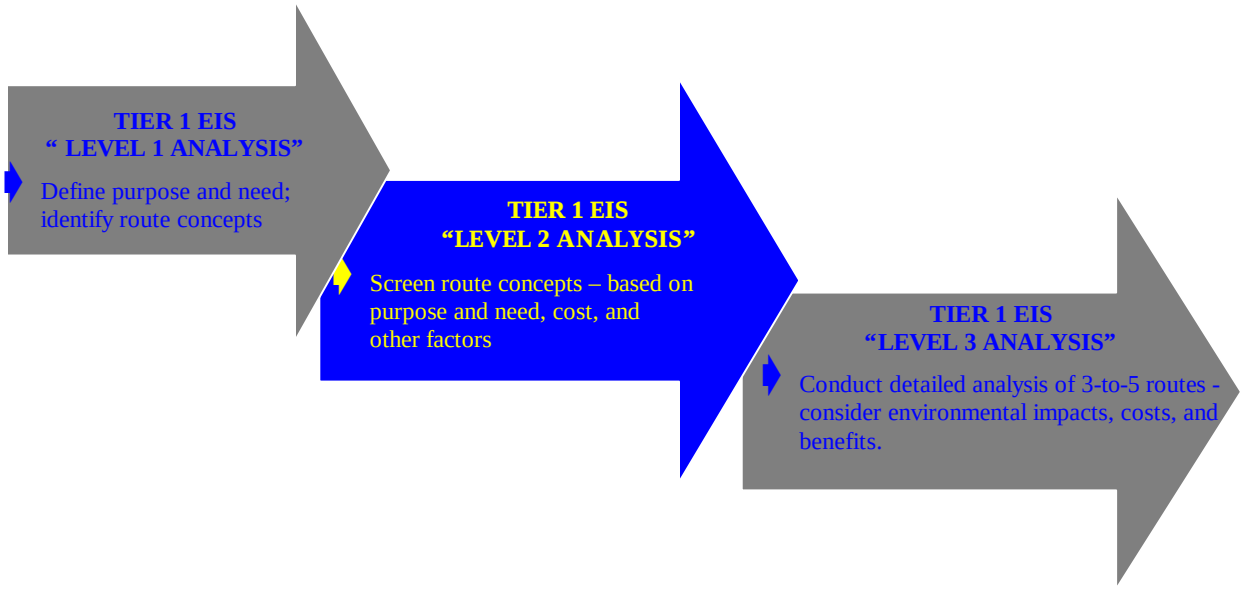


Figure 2: Alternatives Analysis in Tier 1



II. Considerations in the Level-2 Screening Process

The purpose of the Level-2 Screening Process is to narrow the broad field of route concepts from fourteen (plus variants) to no more than five. This shortlist will then undergo environmental studies at a degree of detail appropriate for a first-tier environmental impact statement. For ease of reference, these environmental studies are collectively referred to as "Level 3".

Due to the wide range of alternative route concepts covering an area roughly one-fourth the size of the State, the primary focus of the Level-2 analysis is on a broad range of planning factors that relate primarily to the needs for and purposes of the highway.

These planning factors (also referred to as "performance measures") have been documented in the draft Purpose and Need Statement. Each factor relates to one of three broad areas. These are: (1) transportation, (2) economic development, and (3) national I-69 goals. See Table 1.

The performance measures have been forecasted out to the year 2025 using Indiana's Statewide Travel Model and a variety of computer programs designed to analyze the output of the model.[1]

These performance measures are quantitative. They provide useful tools for evaluating and comparing alternatives. Even so, the screening process itself is essentially qualitative. The evaluation of each alternative requires a judgment not only about the weight to be given to the individual performance measures, but also about how to balance performance measures as a whole against other factors. Two other factors, in particular, have been considered in this screening process:

- **Cost** A project the magnitude of I-69 will be expensive, regardless of the route. However, the routes vary widely in cost: the difference between the highest and lowest construction cost estimates is more than $ 1 billion. Accordingly, cost has been considered in the evaluation of alternatives. Both capital costs and ongoing operation and maintenance (O&M) costs are analyzed.

- **Geographic Diversity** The geographic location of an alternative will determine, in many areas, the types of environmental impacts and the extent of those impacts. For example, alternatives located in a karst region will have certain impact on the natural environment that would be avoided by alternatives located outside a karst region; similarly, an alternative that upgrades substantial sections of an existing highway will have certain impacts on communities (displacements, loss of access, etc.) that will be avoided by alternatives constructed largely on new location. Thus, geographic diversity has been considered as a means of ensuring that the alternatives carried forward provide a wide range of options for minimizing impacts on the environment and on existing communities.

In brief, the Level-2 screening process takes into account the performance measures defined in the Purpose and Need statement, as well as geographic diversity and cost.

[1] The Indiana Statewide Model is described in Technical Report 3.3.3: Model Development and Validation. A general description of the analytical process can be found in INDOT's Major Corridor Investment Benefit Analysis System.