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This appendix provides general responses to issues raised in comments on the Tier 1 Final Environmental Impact Statement (FEIS) for the Evansville to Indianapolis, Indiana section of I-69. These general responses are supported by more specific, point-by-point responses to comments, which have been prepared in support of this Record of Decision and are included in the FHWA project file.

I. Tiering

Agency Comments: The issue of tiering was addressed in comments from the U.S. Environmental Protection Agency (USEPA) and the U.S. Army Corps of Engineers (USACE). The USEPA stated that “the Tier 1 FEIS is well done and provides an adequate level of detail and analysis for Tier 1 decision making for this large and complex project.” The USACE stated that “we continue to believe that the tiered approach and the alternative analysis conducted for the project is consistent with the intent of the [Section] 404(b)(1) guidelines.” There were no other resource agency comments that addressed the issue of tiering. The State Historic Preservation Officer (SHPO) stated that “we agreed early on to the tiering of the reviews of impacts on significant or potentially significant properties under both the National Environmental Policy Act and Section 106 of the National Historic Preservation Act for this project. That tiering system appears to be working well, and, indeed, for a project of this magnitude, appears to be the only effective way of managing the review of a geographic area as large as that encompassed by this study”.

Public Comments: Some public commenters contended that the level of detail provided in the Tier 1 EIS was inadequate and that significant issues were deferred until Tier 2, in violation of NEPA and other statutory requirements, including Section 4(f) and Section 404. In particular, these commenters contended that additional analysis was needed for karst areas and for potential historic districts. They also asserted that the Tier 1 EIS should have considered a broader range of alternatives, including other transportation modes. Likewise, commenters questioned whether the six Tier 2 sections had independent utility. The timing of data gathering for Tier 2 was also questioned. (ELPC et al., CARR)

Response:

Appropriateness of Tiering. The issue of tiering is addressed in Section 11.2.2.1 of the FEIS, which responds to comments on the DEIS. The response given in that section explains the reasons for adopting the tiered approach and the methods used for determining the level of detail for the analysis performed at Tier 1. In summary, the tiered approach is appropriate because of the large-scale, complex nature of this project.

Level of Detail in Tier 1. The level of detail for the analysis at Tier 1 was determined in consultation with the relevant resource agencies. As a result of this consultation, the Tier 1 EIS contained detailed information on a wide range of resources across a 26-county study area. As recognized by the USEPA, the SHPO and the USACE, the level of environmental data provided at Tier 1 is sufficient to provide an informed basis for selecting a corridor. More detailed information will be needed to select a specific alignment. This additional detail will involve additional field work, as well as additional engineering.

Range of Alternatives in Tier 1. The range of alternatives considered in a tiered EIS must be determined on a case-by-case basis. In some tiered EISs, it is appropriate to consider a multi-modal range of alternatives, as was done for I-70 in Missouri and Colorado. For others, such as this project, it is appropriate to focus on alternatives involving completion of an Interstate. A key factor supporting the decision to focus on routes for an Interstate highway was the federal legislation designating I-69. For further discussion of the range of alternatives, please refer to Section III in this Appendix.

Timing of Tier 2 Activities. Tier 2 had not been initiated prior to approval of the Tier 1 Record of Decision. However, in preparation for Tier 2, INDOT undertook some data-gathering efforts. These activities included aerial photography along the corridor for Alternative 3C. It is customary for INDOT to take aerial photographs as part of an environmental study if current aerials are not available. The timing of the aerial photography is determined based on two factors: (1) the need to have up-to-date aerial photographs available at the outset of the environmental study, and (2) the need to take aerial photographs during a time of year when the foliage is off the trees but the ground is not covered with snow. Based on these factors, INDOT took aerial photographs for the anticipated I-69 Tier 2 studies in late fall 2003. These aerial photographs will provide clear, comprehensive, and up-to-date aerial photography for analysis in the Tier 2 studies, which are expected to begin promptly after this Record of Decision is released.

Independent Utility of Tier 2 Sections. FHWA procedures for conducting tiered studies recognize that the Tier 2 analysis may be conducted for segments of independent utility within the Tier 1 project. See FEIS, Vol. I, Appendix X, *FHWA Tiering Memorandum*. This guidance also provides that these Tier 2 sections should be specified in the Tier 1 DEIS. Accordingly, the Tier 1 DEIS for this project identified potential Tier 2 sections for each of the 12 alternatives considered in Tier 1. The FEIS specified the Tier 2 sections for Alternative 3C, and provided the rationale for the selection of the termini for those Tier 2 sections. For further information, see FEIS, Vol. I, Section 6.5.2, *Rationale for Selection of Tier 2 Termini*.

For additional information on karst areas, historic districts, and compliance with other statutory requirements such as Section 4(f) and Section 404, please refer to the responses to those issues below.

II. Purpose and Need

Agency Comments: Comments submitted by federal and state resource agencies on the DEIS and the FEIS did not raise any issues or concerns regarding the project’s purpose and need.

Public Comments: Some commenters supported the purpose and need for I-69. These commenters emphasized: (1) the need for an improved connection to Indianapolis from Evansville; (2) traffic safety and crash reduction; and (3) the importance of I-69 as an “economic development engine for Southwest Indiana.” (City of Evansville Common Council, Indiana Business Research Center, Woodward Commercial Realty). Other public commenters objected to the definition of the project’s Purpose and Need. In general, these commenters contended that the Purpose and Need was written to support the selection of an alternative that involves the completion of an Interstate from Evansville to Indianapolis via Bloomington. In particular, these commenters contended that: (1) the National I-69 goal should not be included in the Purpose and Need; (2) the need for improved accessibility in Southwestern Indiana is inherent in the geographic location of the area; (3) the need for improved economic development in Southwestern Indiana has not been sufficiently demonstrated and/or is greatest along the US 41/I-70 route; (4) it is unclear why economic development is not a core goal; and (5) consideration of the INDOT long-range plan biased the alternatives analysis because the plan includes a new facility connecting Evansville to Bloomington. (CARR, McANA, Inc. and Individual Commenters.)

Response:

The definition of the Purpose and Need is addressed in the FEIS in Sections 11.2.2.3 and 11.2.2.4 of Section 11.2.2, *Issues Raised in Comments on the DEIS*. As explained in that section, INDOT and FHWA developed a multi-dimensional statement of purpose and need that reflects the full range of goals that are intended to be served by this large-scale project. The Purpose and Need was developed through an open, collaborative process and took into account federal legislation, statewide plans and policies, and a comprehensive needs assessment.

Comments Supportive of Purpose and Need. FHWA and INDOT concur with the comments supportive of the Purpose and Need. The information contained in the FEIS indicates that there is a need for an improved connection between Evansville and Indianapolis; for improved safety in certain areas within Southwest Indiana; and for economic development. The alternatives analysis indicates that Alternative 3C will help to address these needs.

Purpose and Need Biased Toward New Terrain Route. The Purpose and Need was carefully developed based upon (1) a review of appropriate state and federal policies; (2) a comprehensive needs analysis; (3) and extensive public and agency consultation. This public and agency consultation included two rounds of public comments. The goals

established in this process allowed for the consideration of a wide range of alternatives, and did not automatically eliminate any particular route for connecting Evansville and Indianapolis.

National I-69 Needs. The inclusion of the National I-69 goal in the Purpose and Need reflects the national policies established by Congress in legislation and implemented by FHWA and eight States in their planning for the entire National I-69 corridor. As explained in the FEIS, FHWA has determined that all environmental studies for projects on the I-69 corridor should include National I-69 objectives as part of the Purpose and Need, in addition to State and local objectives. For additional information, refer to FEIS, Volume IV, *Comments and Responses*, Section 2.2.1.

Accessibility Needs. The FEIS demonstrated that the accessibility in Southwestern Indiana is lower than in other regions of the State based on multiple measures of accessibility. The FEIS also acknowledges that the lower level of accessibility in Southwestern Indiana is “due in part to the characteristics of the region.” (FEIS, Vol. IV, p. 34). However, the FEIS also points out that INDOT has a responsibility to address the low level of accessibility in this region and notes that Alternative 3C will provide significant improvements in the number of people with access to key destinations, such as educational facilities, medical facilities, the state capital, and employment opportunities. See FEIS, Vol. IV, Section 2.3.1, *Comments and Responses*.

Economic Development Needs. The FEIS uses a wide range of measures to evaluate the economic conditions in Southwest Indiana. These measures show that there is a need for economic development throughout the entire region, not just along the US 41/I-70 corridor. The purpose of this project is to support economic development for the entire region, not just in particular counties. (See FEIS, Vol. IV, p. 63.)

Economic Development as Core Goal. As a transportation agency, INDOT's mission is to address the transportation needs of the people of Indiana. By addressing those needs, transportation projects can indirectly support efforts to achieve economic development goals. However, the basic reason for proposing a transportation project is to achieve specific improvements in the transportation system. Accordingly, the core goals for this project are all transportation goals. These core goals are the primary factors used in determining the range of alternatives and selecting an alternative. Economic development goals also were included in the purpose and need, in order to ensure that the indirect economic benefits were considered in the evaluation of alternatives. This approach allows for economic development goals to be considered, while also recognizing that the fundamental purpose of this project is to address transportation needs. For further explanation of the role of core goals in this study, see FEIS, Vol. I, Section 2.5, *Project Goals and Performance Measures*.

Consideration of INDOT Long Range Plan. The Purpose and Need was based, in part, on the plans and policies contained in INDOT's long-range plan. Consideration of a long-range plan in developing a Purpose and Need statement is consistent with FHWA policy and guidance. See FHWA, “‘Purpose and Need’ in Environmental Documents”

(September 18, 1990). In this case, INDOT has a policy that calls for the development of statewide mobility corridors. These corridors are intended to connect the major population centers of the state. In Southwestern Indiana, one of the designated mobility corridors is a connection from Evansville to Bloomington. This goal was considered in developing the Purpose and Need. As explained in the FEIS, the Purpose and Need allowed for selection of alternatives that did not result in completion of the Evansville-to-Bloomington mobility corridor. However, if the alternative selected for I-69 did not connect Evansville to Bloomington, the need would still exist (as identified in INDOT's Statewide Plan) to connect Evansville and Bloomington with a Statewide Mobility Corridor. The cost and environmental impact of such a highway, which would be a multi-lane road with at least partial access control, would be over and above the cost and impact of I-69.

III. Range of Alternatives

Agency Comments: Resource agency comments did not extensively address the range of alternatives considered. In its comment letter, the USEPA expressed its appreciation that “hybrids were developed and fairly evaluated in detail using the same parameters that were applied to the other twelve alternatives.” The USACE stated that “we continue to believe that the tiered approach and the alternative analysis conducted for the project is consistent with the intent of the 404(b)(1) guidelines.”

Public Comments: Some public commenters questioned the range of alternatives considered in the EIS. These commenters contended that the EIS should have considered alternatives that did not involve the completion of a single Interstate connection between Evansville and Indianapolis, including (1) constructing Alternative 1 in combination with other improvements to the road network; (2) constructing Alternative 1 in combination with economic development incentives; (3) using existing Interstate highways, inside and outside Indiana, to meet the National I-69 need; and (4) improving rail service in lieu of building a new highway. (ELPC et al., CARR, Knob and Valley Audubon Society, and Individual Commenters)

Response:

Section 11.2.2.1 *Use of Tiering*, of the FEIS, which responds to comments on the DEIS, explains the rationale the range of alternatives considered. As stated in that section, the completion of I-69 between Evansville and Indianapolis is one of the purposes of this project; alternatives that fail to achieve that objective are not reasonable alternatives for purposes of compliance with NEPA. For this reason, alternatives that do not meet this objective – such as rail improvements, economic development incentives – are not reasonable alternatives.

Alternative 1 With Improvements to Other Roads. Public commenters suggested the possibility of combining Alternative 1 with upgrades to existing roads between Evansville and Bloomington. Upgrading existing roads could involve measures such as

minor curve straightening, shoulder widening, and construction of passing lanes. While useful in their own right, these minor improvements would not significantly address the other core goals of the project, in particular the need to improve accessibility in Southwest Indiana. If these “upgrades” actually involved major road improvements or system expansion, they could begin to yield significant benefits, but their costs and impacts would increase proportionately – and those impacts and costs would be combined with the impacts and costs of Alternative 1. In particular, the wetlands impacts of such an alternative (involving Alternative 1 plus major road improvements between Evansville and Indianapolis) would approach or exceed the wetlands impacts of Alternative 3C. In short, an alternative that combines Alternative 1 with improvements to other roads would either fail to meet the project’s purpose and need (because the road upgrades are too minor) or would have impacts and cost approaching or exceeding those of the Build alternatives (because the road upgrades would involve significant impacts and costs, which would be combined with the impacts and cost of Alternative 1).

Alternative 1 With Economic Development Incentives. The public commenters also have suggested combining Alternative 1 with economic development incentives. Such an alternative would do very little to achieve the core goal of increasing accessibility in Southwest Indiana, and thus it would not be a reasonable alternative.

I-69 Using Existing Interstates In Other States. The purpose of this project is, in part, to complete a portion of the National I-69 corridor. As designated by Congress, the National I-69 corridor is not simply an Interstate linking Port Huron, Michigan with Laredo, Texas. Rather, this corridor links major commercial and population centers in eight States with one another and with trading partners in Canada and Mexico. Within Indiana, the corridor specifically includes a connection between Evansville and Indianapolis. Alternatives that do not provide an Interstate connection between Evansville and Indianapolis would not complete this section of the National I-69 corridor and therefore would not meet a core goal of the project.

Rail Alternatives. As stated above, the project involves the completion of an Interstate corridor, which serves passenger and freight traffic. Alternatives involving upgrades to the rail network may be valuable in their own right, but would not meet the Purpose and Need for this project.

IV. Evaluation of Alternatives

Agency Comments: In its comment letter, the USEPA stated that “[w]e acknowledge that Alternative 3C performs better than Alternative 1 in fulfilling the project’s core goals, notably the goal of improving personal accessibility for Southwestern Indiana.” The USACE stated that “we continue to believe that the tiered approach and the alternative analysis conducted for the project is consistent with the intent of the 404(b)(1) guidelines.”

Public Comments: Some public commenters expressed objections to various aspects of the evaluation of alternatives. These commenters contended that: (1) the No Build Alternative was improperly defined and biased the analysis in favor of the preferred alternative; (2) there is no significant difference between Alternative 3C and Alternative 1 in terms of their ability to meet the Purpose and Need; (3) the benefit-cost analysis in the FEIS was flawed; and (4) environmental data from previous studies (specifically data on karst features) was ignored and/or not used. (ELPC et al., CARR, Individual Commenters.)

Response:

Definition of No Build. The definition of the No Build alternative is explained in Section 3.3.2.5, *The No Build Alternative*, of the FEIS Vol. I. As explained in that section, the No Build alternative consists of all existing facilities plus certain “committed” projects that are included in the INDOT long-range plan and are considered reasonably certain to be built or for which INDOT has a firm, long-term policy to build. In response to the same comments on the DEIS, sensitivity analyses were included in the FEIS. These sensitivity analyses specifically evaluated the effect on the traffic forecasts of the assumptions made regarding future improvements to SR 37 and I-70. The results of those analyses are documented in Vol. II, Appendix FF, *Analysis of Smart Mobility’s Review of I-69 Evansville to Indianapolis Tier 1 Environmental Impact Statement*. In that document, see Chapter 7, “Different Assumptions About Committed Projects.” As shown in that analysis, the basic conclusions of the traffic analysis would not be affected by changing the assumptions about future improvements to other major facilities in the project area, such as SR 37 and I-70. For further information, refer to Section 11.2.2.9, *Status of I-70 and SR 37 Upgrades in No Build Network*, in the FEIS, Vol. I.

Differences in Performance Between Alternatives 1 and 3C. In response to comments received from USEPA and others on the DEIS, FHWA and INDOT conducted additional analyses to assess the relative performance of the alternatives, particularly the relative performance of Alternative 1 and Alternative 3C. The results of this additional analysis are presented in the FEIS. The results of this analysis demonstrated that seemingly small percentage differences among alternatives represent large differences in absolute terms. For example, the difference in Evansville-to-Indianapolis travel time between Alternative 1 and Alternative 3C is 15 minutes. This difference is viewed as small by some commenters. Yet, as pointed out in the FEIS, this trip will be made by approximately 11,000 vehicles per day; when multiplied over that number of trips, the travel time savings translates into tens of millions of dollars each year for trips between Evansville and Indianapolis alone. See FEIS, Vol. IV, p. 112. For additional information, refer to FEIS, Vol. I, Section 6.3.1, *Post-DEIS Reconsideration of Alternative 1 – US 41/I-70*, and Vol. II, Appendix FF, *Analysis of Smart Mobility’s Review of I-69 Evansville to Indianapolis Tier 1 Draft Environmental Impact Statement*. It should be noted that, based on these additional analyses, the USEPA acknowledged in its comments on the FEIS that “Alternative 3C performs better than Alternative 1 in fulfilling the project’s core goals, notably the goal of improving personal accessibility for Southwestern Indiana.”

Benefit-Cost Analysis. As explained in the FEIS, a benefit-cost analysis is not required in an EIS under NEPA. However, in response to comments on the DEIS, a limited benefit-cost analysis was conducted for informational purposes and was included in an appendix to the FEIS. See FEIS, Vol. II, Appendix FF, *Analysis of Smart Mobility's Review of I-69 Evansville to Indianapolis Tier 1 Draft Environmental Impact Statement*. The commenters on the FEIS raise various objections to the methodology used in this analysis. These objections are addressed in a specific, point-by-point response to comments, which has been prepared in support of this Record of Decision and is included in the project file (see Technical Memorandum: *Smart Mobility Response*). In brief, the benefit-cost analysis contained in the FEIS is based on conservative assumptions. Sensitivity analyses conducted since the FEIS confirm that the results presented in the FEIS remain valid – i.e., the benefit/cost ratio for Alternative 3C is consistently greater than that of Alternative 1.

Data from Previous Environmental Studies. A 1996 Draft EIS for an Evansville-to-Bloomington highway contained environmental information which is more detailed than that which exists for some impacts in the FEIS in this study. This data from the 1996 study contained detailed impact information (for a variety of resources) for portions of Alternatives 3A, 3B, 3C, 4A, 4B, 4C, 5A, and 5B. However, it contained information for only portions of these routes, and did not contain any information pertaining to any part of Alternatives 1, 2A, 2B, or 2C. This FEIS is a tiered study, whose basic impact analysis methodology is to analyze *all* alternatives at a *sufficient* level of detail to make a selection *between alternatives*. The data from the 1996 DEIS could not be used for the following reasons: (1) it does not exist for any portion of several alternatives; (2) it does not exist for the entirety of *any* alternative – this is an Evansville to Indianapolis project, and the data exists for a proposed highway which went only to Bloomington; and (3) the data from the 1996 study is about 10 years old, and may or may not represent current conditions. All data used in the FEIS for this study were analyzed at a sufficient level of detail, using the best information available for the entirety of all alternatives, to make an informed decision among alternatives. The level of detail was evaluated (for all resources) by appropriate state and federal review agencies. They found that the level of detail for all impacts analysis (including karst impacts, the subject of a specific comment) to be appropriate. See below, Section X, *Ecosystem Impacts -Karst*.

V. Land Use Impacts – Induced Development

Agency Comments: The USEPA noted that “there is a high likelihood for accelerated growth and substantial new development throughout the corridor and beyond” and recommended that the Tier 2 studies “contain a detailed and thorough secondary land use impacts analysis for each Tier 2 segment.” The USEPA noted that the analysis of induced development “will be especially important for segments that go through or near counties that contain karst geology/terrain” and “will help to determine the appropriate level of mitigation that should be identified and committed to in each of the six Tier 2 EISs/RODs.”

Public Comments: Some public commenters raised issues related to land use and induced development. These include: (1) indirect land use impacts are likely to be greater than predicted by the models used in the FEIS; (2) the FEIS does not adequately address the potential to cause sprawl in environmentally sensitive areas; and (3) INDOT should be required to work with existing land use plans, rather than require that new plans be devised. (CARR, Individual Commenters)

Response:

Modeling of Indirect Land Use Impacts. The land use and economic growth forecasts in the FEIS were both projected from the same models. The modeling methodology was described in the FEIS, Vol. I, Section 3.4.1, *Methodology*, and is shown in Figure 3-7, *Induced Land Use Change – Feedback Loop in Travel Model*. These models projected future growth in population and employment, and then used those projections to estimate future land use impacts caused by that growth. If the economic benefits of the project are higher than estimated in the FEIS, then the indirect land use impacts also would be greater. Similarly, if the economic benefits are lower than estimated in the FEIS, then the indirect land use impacts also would be lower.

Indirect Impacts in Environmentally Sensitive Areas. The FEIS presented the total estimated indirect effects of each alternative on forests, wetlands, and farmland. See FEIS, Vol. I, Section 5.26, *Cumulative Impacts*. More detailed information was presented in Appendix Q, *Direct and Indirect Impacts for Farmland, Forests, and Wetlands*, which presented specific estimates of the indirect impacts expected for each land use type (farmland, forest, and wetland) within each of the six economic regions in Southwest Indiana. For each economic region, the results were further sub-divided to reflect anticipated growth in the vicinity of each interchange along each alternative. The results of this analysis are summarized and cross-referenced in the analysis of land use impacts. See FEIS, Vol. I, Section 5.2, *Land Use Impacts*, which also discusses the consistency of each alternative with local land use plans. More site-specific analysis of the anticipated indirect impacts of the Alternative 3C will occur in Tier 2. This analysis will be particularly important in karst areas, as noted by the USEPA in its comment letter on the FEIS.

“Requiring” Changes in Local Land Use Plans. The I-69 Community Planning Pilot Program will not require local communities to change their existing land use plans, nor will it require land use plans to be developed. Rather, the program will provide financial and technical assistance to local governments to support the development or updating of land use plans. No local government will be required to participate in this program. In addition, local governments will remain fully responsible for all land use decisions. In its comments on the FEIS, the USEPA stated that “[w]e commend FHWA/INDOT for their proactive and innovative environmental protection measure of offering technical and financial assistance for community land use planning.”

VI. Social Impacts – Maintaining Access; Assessed Valuation

Agency Comments: The Indianapolis MPO stated that Alternative 3C could have significant impacts on the local arterial street network and would require modifications to ensure that local arterial and circulation systems remain viable. The MPO noted that Alternative 3C “will utilize a well established existing expressway corridor that passes through an urbanized and urbanizing area of the MPA” and also noted that land uses in the corridor “are generally more compatible with a major transportation facility.” The MPO also noted that this corridor has “developed in the presence of an existing expressway and has developed in some cases, more densely than recommended by the Comprehensive Plan with additional multi-family developments.” In addition, the Monroe County Highway Department submitted detailed comments identifying specific access issues that will need to be addressed further during Tier 2 and design.

Public Comments: Many public commenters expressed objections to the project based on social impacts. These comments primarily addressed the following issues: (1) loss of east-west access across the highway where Alternative 3C will use existing SR 37; (2) elimination of “about \$100 million in assessed value” in Perry Township; and (3) overestimation of number of interchanges, resulting in “false sense of access to local communities that could be cut off” by the highway. (McANA, Perry Township Trustee, State Senator Borst, and Individual Commenters).

Response:

East-West Access Issues. During Tier 1, potential interchange locations were evaluated for all of the build alternatives. In addition, the importance of maintaining access across the highway has been recognized by evaluating potential overpasses or underpasses at various locations. The locations of all potential interchanges, overpasses, and underpasses are shown in the Environmental Atlas (DEIS, Vol. III, and FEIS, Vol. III). FHWA and INDOT recognize that the affected communities continue to have concerns regarding the number and location of access points. FHWA and INDOT are committed to work closely with local communities, including local transportation officials, to ensure that access concerns are fully addressed during Tier 2 and in subsequent stages of project implementation.

Loss of Assessed Value in Perry Township. The construction of the project will require the acquisition of both residential and businesses property. The acquisition of these lands will result in their removal from the tax base of local jurisdictions. The right-of-way estimate in the FEIS is that \$41.7 million of assessed valuation would be acquired for the Alternative 3C. The total assessed valuation in Perry Township is \$2.517 billion, according to the assessed values certified by the State of Indiana, Department of Local Government Finance as of January 1, 2001 (latest available data). Thus, the right-of-way needed for Alternative 3C in Perry Township is equal to approximately 1.7% of the assessed value of land in that township. In addition to the direct impact resulting from the acquisition of property for highway right-of-way, the project also has the potential to

affect the value of nearby properties. The actual effect of the project on the value of a property could be positive or negative. As stated in the FEIS, the project may cause some property values to increase while others may decrease. The actual net impacts of the project on the value of nearby property is a matter of speculation. However, anecdotal data from other projects indicate that large scale transportation projects sometimes have a positive impact on property values. For further information, see *Technical Memorandum: Impacts to the Tax Base of Perry Township* in project file.

Number of Interchanges. The interchange locations identified in the FEIS are specifically described as “potential interchange locations.” (FEIS Vol. I, p. 5-4). In Section 5.3 *Social Impacts*, the FEIS listed the criteria considered in determining these potential interchange locations. These criteria included: (1) functional classifications of intersecting roadways; (2) traffic volumes on intersecting roadways; (3) service to communities that otherwise might be isolated; (4) distance between interchanges; (5) ability to relocate/consolidate state highways which are close to each other; (6) number of interchanges serving particular communities; and (7) the presence of sensitive resources such as karst, and thus the desire to minimize potential indirect impacts in these areas. (FEIS, Vol. I, p. 5-4). The FEIS also noted that “[d]uring the Tier 2 NEPA studies and design analysis, some interchange locations could be discarded. New locations could also be added.” (FEIS, Vol. I, p. 5-4). Additional interchanges would result in greater access to the Interstate but also greater direct and indirect impacts; a reduction in the number of interchanges would reduce access to the Interstate but also would reduce impacts.

VII. Environmental Justice

Agency Comments: In its comments on the DEIS, the USEPA stated that “[f]or the Tier 1 level of analysis, USEPA concurs that the initial environmental justice review shows that none of the alternatives would have a disproportionately high and adverse effect on minority and low-income populations in the study area.” The USEPA proposed that a more detailed analysis of environmental justice issues be conducted in Tier 2, and suggested that the FEIS should provide the methodology that will be followed in Tier 2. In its comments on the FEIS, USEPA provided no further comments on environmental justice issues.

Public Comments: Some commenters contended that the tiered process “impermissibly defers compliance” with the environmental justice executive order until Tier 2. They also assert that Alternative 3C will adversely affect minority populations located in Vincennes and Sullivan by avoiding those communities. (ELPC et al., and Individual Commenters).

Response:

Timing of Compliance. The DEIS and FEIS evaluated the impacts of all the build alternatives on minority and low-income populations, at a level of detail appropriate for Tier 1 analysis. In addition, the FEIS included an overview of the methodology to be

used for evaluating environmental justice impacts in more detail in Tier 2. The USEPA has recognized that this approach is in compliance with the environmental justice executive order.

Impacts of Avoidance. The FEIS analyzes the potential economic impacts of the build alternatives and concludes that all six economic regions within Southwest Indiana will experience net economic benefits as a result of this project. Also, it is important to note that the construction of a highway project within or near a community has adverse impacts as well as benefits. The communities cited (Vincennes and Sullivan) are located along US 41 and thus will not experience any direct impacts from Alternative 3C.

VIII. Air Quality

Agency Comments: The USEPA provided the following air quality comments: (1) the FEIS “contains a good discussion of the 8-hour ozone standard” and noted that if any of the Tier 2 documents are finalized after the 8-hour standards become effective, those documents “should include information on the 8-hour ozone monitored values” for the counties being considered for those sections; (2) a conformity determination for a Tier 2 section, if applicable, must be completed before the Tier 2 ROD is issued for that section; and (3) the Tier 2 NEPA documents may need to include monitoring and conformity information for very fine particulate matter (PM 2.5) depending on the timing of the issuance of the RODs for those sections. In its FEIS comments, the Indianapolis MPO noted that Alternative 3C is included in its conforming regional transportation plan.

Public Comments: Some public commenters objected to the air quality conformity findings for the project. These commenters primarily raised the following issues: (1) they questioned the modeling used in making conformity findings, particularly with regard to NOx emissions; (2) they contend that additional analysis is needed of the new 8-hour ozone standard and PM 2.5 standard; (3) they contend more localized analysis of air quality impacts should have been done in Tier 1; (4) they contend that a review of all regulated pollutants, including hazardous air pollutants, must be done; and (5) they contend that the EIS does not discuss how changes in total vehicle miles traveled (VMT) impact air quality throughout Southwest Indiana. (Count US!, ELPC et al.)

Response:

Compliance with Conformity Requirements in Tier 2. Alternative 3C is currently included in the transportation plans for Indianapolis, Bloomington, and Evansville. Conformity determinations have been made for the transportation plans in Indianapolis and Evansville, which are both currently designated as maintenance areas for ozone; conformity determinations were not needed for the Bloomington area, because it is currently in compliance with air quality standards. Air quality issues will continue to be addressed during Tier 2. An additional conformity determination for a Tier 2 section, if needed, will be made before the Tier 2 ROD is signed for that section.

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Modeling Issues. The process for making conformity findings involves extensive technical review by the air quality regulatory agencies. A detailed analysis of the modeling issues is included in a memorandum dated September 26, 2003, which is included in the project file. Since the publication of the FEIS, the USEPA and the Indiana Department of Environmental Management have reviewed air quality analysis and the plan update. The USEPA and IDEM concluded that the analysis demonstrates conformity to the emissions budgets for both MPOs. With the concurrence of those agencies, FHWA and FTA made their conformity determination for the Evansville plan update on January 29, 2004 and made their conformity determination for the Indianapolis plan update on January 6, 2004. For copies of these FHWA findings, see Appendix D of this Record of Decision.

8-Hour Ozone and PM 2.5 Standards. As the USEPA recognized in its FEIS comment letter, these standards have not yet come into effect, but may take effect at some point during the Tier 2 studies. Any conformity determinations made during Tier 2 or afterward will be based on the air quality standards applicable at that time, as recommended by the USEPA. For further discussion of these standards, refer to FEIS, Vol. I., Section 5.9.3.3, *Air Quality Modeling*.

Localized Analysis. The air quality analysis at Tier 1 addressed regional air quality issues, as appropriate for Tier 1 decision-making. This analysis focused on the Marion and Vanderburgh Counties, because these are the only areas in the Study Area that are currently subject to the federal air quality conformity requirements for regional pollutants. In Tier 2, local (micro-scale) air quality analysis will be performed to identify any carbon monoxide (CO) “hotspots.” The USEPA concurred in this approach in its comments on the DEIS, and did not address it further in its comments on the FEIS.

Mobile Source Air Toxics (MSATS)

The issue of whether to address mobile source air toxics (MSATS) in a NEPA document has been addressed in memoranda from FHWA headquarters dated February 4, 2002 and April 3, 2003. Both memoranda were directed from the FHWA Director of the Office of Natural and Human Environment to the FHWA Nevada Division Office and addressed the issue of whether a supplemental environmental impact statement (SEIS) was needed to address potential MSAT impacts of the US 95 project in Las Vegas, Nevada.¹ In the February 4, 2002 memorandum, FHWA headquarters concluded that “[b]ased on the uncertainties with the existing and reasonably obtainable scientific information as summarized above, we believe a supplemental EIS addressing air toxics and PM_{2.5} will not provide a meaningful analysis for reevaluating the decisions made for this project.” In the April 3, 2003 memorandum, FHWA headquarters reiterated “FHWA does not believe it is possible to accurately analyze MSAT impacts at the project level, given the present state of the science.” Based on these determinations by FHWA’s air quality

¹ FHWA's decision not to prepare a SEIS for the US 95 project was challenged in court, and was upheld by the court in an opinion issued on March 12, 2004. (U.S. District Court for the District of Nevada, *Davis v. Mineta*, No. CV-S-02-0578-PMP-RJJ, 3/12/04).

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experts, FHWA does not include an analysis of air toxics in NEPA documents. The air quality analysis in the FEIS for this project is consistent with FHWA's standard practice, as reflected in the February 4, 2002 and April 3, 2003 memoranda. Additional points from the April 3, 2003 memoranda include:

- CEQ regulations (40 C.F.R. § 1502.22) have provisions for treating incomplete or unavailable information, such as the state of knowledge regarding the environmental health effects of air toxins. FHWA continues to conduct research regarding such effects, as provided in CEQ Regulations 1502.22(b). However, given the present state of knowledge, FHWA believes “that the costs to obtain such information would be excessive, and more importantly, our attempt would lack scientific credibility and be largely conjectural.”
- Available research is not conclusive as to the correlation between road proximity and health risks.
- The treatment of human exposure to air toxics is considerably different than for other pollutants the transportation community has traditionally assessed or mitigated. Standards for ozone, carbon monoxide, and a number of other pollutants are based on exposures measured usually in hours. Risk factors – not standards – for air toxins would be measured against lifetime exposures (e.g., 70 years).
- Cancer rates associated with exposure to air toxics decreased by about 50 percent between 1990 and 1997. New emission standards for heavy-duty vehicles along with low-sulfur fuel standards are projected to reduce further the emission of air toxics in the future.

In sum, the state of the practice in the analysis of airborne toxins does not allow for a meaningful analysis in a NEPA context. The air quality analysis contained in the FEIS for the I-69 Evansville-to-Indianapolis project is consistent with the policy reflected in the February 4, 2002 and April 3, 2003 memoranda concerning mobile source air toxics.

Relationship Between Vehicle Miles Traveled (VMT) and Air Quality

The increase in vehicle miles traveled (VMT) associated with I-69 is not expected to measurably affect regional air quality in Southwest Indiana. Within congested urban areas, the effects of increasing highway capacity on air quality are mixed. These effects are summarized in a report issued in 2004 by the American Highway Users Alliance, “Unclogging America’s Arteries: Effective Relief for Highway Bottlenecks (1999-2004),” which noted the following (Introduction, p. 10)

- “Under most conditions, vehicles caught in stop-and-go traffic emit far more pollutants – carbon monoxide, volatile organic compounds and nitrogen oxides – than they do when operating without frequent braking and acceleration.”

- Even though emissions of nitrogen oxides (NO_x) increase above 45 mph, offsetting reductions in volatile organic compounds (VOC) produce the result that “overall smog levels are expected to improve, especially compared with making no improvements at all.”
- “Vehicles stuck in traffic also increase emissions of carbon dioxide, a greenhouse gas. They emit CO₂ as fuel is consumed. The longer they are delayed in traffic, the more fuel vehicles consume and, thus, the more CO₂ they emit.”

The models used in air quality analysis for the Indianapolis and Evansville MPOs were developed for and released by the USEPA, and are utilized nationwide for the purposes of air quality conformity analysis. This reflects state-of-the-practice research into the relationship between vehicle operating characteristics and mobile source emissions. The model analyses determined that building Alternative 3C will not result in exceeding emissions budgets for any mobile source pollutants.

The analyses focused on the Marion and Vanderburgh Counties, because these are the only areas in the Study Area that are currently subject to the federal air quality conformity requirements for regional pollutants. The USEPA comment letter on the FEIS notes that additional conformity determinations may be required in Tier 2, and that these determinations may need to include additional counties.

IX. Historic Resource Impacts

Agency Comments: The Indiana State Historic Preservation Officer (SHPO) stated in their letter that “in regard to archaeological sites, we are generally satisfied with the status of the current review process...” With regard to historic properties, the SHPO stated that “we are satisfied with the results of the review process.” The SHPO letter also stated that “the tiering system appears to be working well, and, indeed, for a project of this magnitude, appears to be the only effective way of managing the review of a geographic area as large as that encompassed by this study.” The Monroe County Historic Preservation Review Board commented that “the FEIS has begun to satisfactorily address many of the concerns the Board raised in its comment letter . . . to the Draft EIS. The FEIS appears to present impact assessments of the archaeological and historic resources that are more realistic and complete than what was presented in the Draft FEIS [sic].” The letter also noted that “many resources exist in the area that have not been identified because surveys of the alignment to identify archeological sites and historic structures are incomplete.” The letter provided specific recommendations regarding additional analyses to be conducted and stated that the Board would like to be actively engaged in the Section 106 process in Tier 2.

Public Comments: Some public commenters objected to the evaluation of potential historic properties. Issues raised by these commenters included: (1) the tiered approach – which involves completing historic resource evaluations in Tier 2 – will prevent historic

properties from being properly considered in the Tier 1 alternatives analysis; (2) the analysis of a potential Old Order Amish district was based on incorrect assumptions about the location of Old Order Amish families; and (3) the FEIS insufficiently evaluated impacts to remnants of the Wabash and Erie Canal and incorrectly characterizes the SHPO's position regarding the eligibility of the Wabash and Erie Canal in the Patoka area. (ELPC et al, and Individual Commenters).

Response:

Tiered Approach to Section 106 Consultation

The approach to Section 106 consultation for this project was developed in consultation with the SHPO and is documented in the Section 106 Compliance Plan for the project, which is included in Appendix P of the FEIS. Under this approach, the identification and evaluation of historic properties, as well as the evaluation of effects, will be completed through a phased approach. Phasing of these analyses is specifically allowed under Section 106 when "alternatives under consideration consist of corridors or large land areas." See 36 C.F.R. § 800.4(b)(2) and 800.5(a)(3).

Consistent with the phased approach, the Section 106 process during Tier 1 involved the identification of all properties that are found to be "potentially eligible." This investigation involved extensive research and analysis, which is documented in historic and archaeological resource reports included in the FEIS. See FEIS, Vol. II, Appendix MM, *Archaeology Analysis*, and Appendix NN, *Historic Properties Analysis*. Based on this information, FHWA and INDOT have shifted the corridors in some areas to avoid potentially eligible sites (Virginia Iron Works) and have broadened the corridor in other areas to maximize avoidance opportunities for large areas where eligibility and boundaries are uncertain (the Amish area). In addition, the information developed in Tier 1 has been used to compare the alternatives in terms of their potential impacts on historic and archaeological resources and to develop conceptual mitigation measures. During Tier 2, more detailed studies will be conducted to make final eligibility and boundary determinations for all historic and archaeological sites in the area of potential effects for Alternative 3C.

Amish Area

The commenters have provided information indicating that Old Order Amish are present throughout the Study Area. Based on this information, the commenters contend that an Old Order Amish historic district extends into the corridor for Alternative 3C.

The information provided by the commenters does not contradict the findings presented in the FEIS. As stated in the FEIS, "there are Amish settlements throughout the study area." The potential historic districts shown in the FEIS are *not* presented as a depiction of the only areas of Amish settlement (or the only areas of Old Order Amish settlement). Rather, these areas are presented as areas that must be further evaluated as potential historic districts because of the *concentration of physical features* that convey the area's

history as a location of Amish and/or Old Order Amish communities. In particular, with regard to the Amish Area as a whole, the FEIS found a low potential for designation as a historic district because the area may not contain a sufficient concentration of historic structures and landscape features. By contrast, the area identified as the “Old Order Amish Area” was found to have greater potential to be a historic district because it “has more cohesion of landscape features than does the larger Amish area discussed above.” (FEIS, Vol. I, p. 5-110). In particular, the FEIS noted that “[f]ieldwork revealed a unique setting with gravel or in some cases dirt roadways, few utility poles, windmills, horses pulling agricultural equipment, small fields and pastures, and laundry flapping on clotheslines.” (FEIS, Vol. I, p. 5-110). These physical features, not the presence of Old Order Amish families as such, provided the basis for identifying the general location of the potential Old Order Amish district. The fact that Old Order Amish families live outside this specific area – and, indeed, live throughout the Study Area – was acknowledged in the FEIS and was taken into account in reaching the conclusions presented.

In addition, the FEIS specifically recognized the possibility that subsequent investigations could result in the identification of an Amish historic district that extended into the corridor of Alternative 3C. In light of this possibility, the corridor for the Alternative 3C was widened specifically to allow for shifting the highway’s alignment westward and away from the area of Amish settlement (while remaining east of the town of Washington). (FEIS, Vol. I, p. 8-34) The FHWA and INDOT also considered the possibility of shifting the alignment to the west of the town of Washington. FHWA and INDOT concluded in the FEIS that route variations located to the west of Washington would not be prudent, because they involve greater wetlands and floodplains impacts. (FEIS, Vol. I, p. 8-34.) Thus, the FEIS specifically addressed the possibility of an Amish historic district that extends into the corridor for 3C and preserved the flexibility to shift the alignment if needed in Tier 2.

Wabash and Erie Canal in Patoka Bottoms

The FEIS does not misrepresent the SHPO’s August 27, 2003 letter regarding potential historic resources in the Patoka Bottoms area. In discussing this area, the FEIS quotes in full the relevant passage of the August 27 letter, in which the SHPO stated that “we believe that there are resources in Patoka Bottoms, namely bridges and a section of CR 300W, as well as the segment of the Wabash and Erie Canal, that are eligible for listing in the National Register but their significance does not extend to the larger Bottoms area.” (FEIS, Vol. I, p. 5-115).

Prior to release of the FEIS, the FHWA and INDOT consulted further with the SHPO staff regarding this area. Based on that consultation, FHWA and INDOT concluded in the FEIS that the Wabash and Erie Canal section in the Patoka Bottoms area “does not possess sufficient integrity and does not meet National Register criteria to be considered a district.” (FEIS, Vol. I, p. 5-115). This statement was included in the section of the FEIS that addressed historic resources and reflected FHWA and INDOT’s judgment that

the segment of the Wabash and Erie Canal in the Patoka area lacked sufficient integrity to be eligible as a historic resource.

Following the receipt of comments on the FEIS, project staff consulted further with the SHPO staff (on February 3, 2004) regarding the potential historic resources in the Patoka Bottoms area. The SHPO staff clarified that the section of the Wabash and Erie Canal in the Patoka Bottoms area may be eligible as an archeological resource, but is not eligible as an above-ground historic resource because of the lack of any extant above-ground resources.

This position was confirmed in a letter dated February 20, 2004. In that letter, the Indiana SHPO clarified its position regarding the eligibility of a section of the Wabash and Erie Canal in the Patoka Bottoms area. The letter stated that “the eligibility of the canal section is more uncertain [than canal segments elsewhere in the state that have been found eligible] because the site is overgrown with vegetation and no extant above-ground resources are apparent.” The letter goes on to say that “in the absence of on-site archaeological investigations, we cannot rule out the possibility that the Wabash and Erie Canal segment may be eligible for archaeological significance. Therefore, we recommend it be considered fully in Tier 2 as a potentially eligible archaeological resource.” The findings stated in the FEIS are consistent with the SHPO’s position as clarified in the February 20, 2004 letter. See Appendix C-1 of this Record of Decision, entitled *Technical Memorandum: Wabash and Erie Canal*.

X. Ecosystem Impacts – Karst

Agency Comments: The USEPA noted that “there is a high likelihood for accelerated growth and substantial new development throughout the corridor and beyond” and recommended that the Tier 2 studies “contain a detailed and thorough secondary [indirect] land use impacts analysis for each Tier 2 segment.” The USEPA noted that the analysis of induced development “will be especially important for segments that go through or near counties that contain karst geology/terrain” and “will help to determine the appropriate level of mitigation that should be identified and committed to in each of the six Tier 2 EISs/RODs.” In addition, in a letter dated March 23, 2004, the USEPA stated that “[d]ue to the large size of the Tier 1 study area and the complexity of this project, we agree . . . that the use of karst data from the Indiana State Geological Survey provides an acceptable level of detail for the identification of karst features to determine relative impacts to karst features between the various corridor alternatives in the Tier 1 study.” USEPA recommended that the Tier 1 Record of Decision commit that Tier 2 studies will use the information contained in a 1994 study of karst features in the Bloomington area, and requested that the Record of Decision discuss whether the 1994 study “contains any information that would have identified a likely potential for unacceptable karst resource impacts in the portion of the Tier 1 study area that the [1994] study covers.”

Public Comments: Public commenters raised a range of concerns regarding the analysis of impacts in karst areas. These included: (1) the FEIS should have described a Monroe County ordinance that requires permitting for construction projects in karst areas; (2) the mapping used in the FEIS under-stated the extent of karst features in Southwest Indiana; (3) the FEIS does not adequately address the project’s potential to induce private development in karst areas; (4) the FEIS should have included existing karst data developed in previous studies; and (5) the cost estimates in the FEIS did not adequately consider the increased cost associated with construction in karst areas. (Munson et al., ELPC et. al., COUNT US! and Individual Commenters).

Response:

Adequacy of Karst Mapping for Tier 1 Analysis. As explained in the FEIS, Vol. I, Section 11.2.2.2, *Completeness and Accuracy of Geographic Information System (GIS)* and Section 11.2.2.2, *Karst/Cave Layers of GIS*, the karst data contained in the GIS database for the project was compiled by the Indiana Geological Survey (IGS). The IGS is a State agency responsible, among other things, for maintaining maps of geological features, including caves and related features, within Indiana. The IGS is under contract to INDOT to provide maps, data, and metadata for the Southwest Indiana GIS with regard to karst features in south-central Indiana. The sinkhole areas and sinking-stream basins were originally mapped by Richard Powell, who is a recognized authority on karst in Indiana. The springs and cave openings were derived from a database compiled by the Indiana Cave Survey (ICS). The digital maps that were provided by IGS are among the best publicly available maps showing selected karst related features across that entire study area. They were created in a systematic manner using a consistent methodology, so that each county within the region was mapped in a similar fashion. The map showing the number of cave openings per square kilometer is based upon a predecessor coverage named “CAVES” which includes about 95% of known cave entrances. As indicated in the metadata, the maps of karst-related features were intended to be used solely as an overview of karst on a broad regional scale. The limitations of the map layer are described in the published metadata. In a memorandum dated March 4, 2004, the Director of the IGS stated that:

it is my professional opinion that the maps provided by the IGS, compiled in an objective and systematic manner across the entire region, were the best available for the intended purpose of a preliminary Tier 1 evaluation of alternative routes on a regional scale.

The memorandum from the Director of the IGS is located in the *Technical Report: Karst Impact Analysis* in the FHWA project file. In addition, in a letter dated March 23, 2004, the USEPA stated that “[d]ue to the large size of the Tier 1 study area and the complexity of this project, we agree . . . that the use of karst data from the Indiana State Geological Survey provides an acceptable level of detail for the identification of karst features to determine relative impacts to karst features between the various corridor alternatives in the Tier 1 study.”

Use of Karst Data from Previous Studies. The karst data cited by the commenters is a technical report that was prepared in 1994 by a consultant of INDOT and was included as an appendix in the 1996 Draft Environmental Impact Statement (DEIS) for the Southwest Indiana Highway, a proposed highway connecting Evansville to Bloomington. Appendix G in the 1996 DEIS consisted of the main body of the 1994 report. The portion of the report that was reproduced in Appendix G included a table listing the karst features identified “study areas”, with specific coordinates for the location of each karst feature. It also included text and figures describing the karst features in these study areas. Oversized maps that were included as exhibits to the original 1994 report were not included in Appendix G in the 1996 DEIS because they represented working field notes and because of their large size. However, the information in those maps was summarized in Table 1 in Appendix G in the 1996 DEIS. In addition, the existence of those maps was disclosed in the table of contents of the 1994 report, which also was included in Appendix G of the 1996 DEIS. Therefore, the information in the maps, as well as the existence of the maps, has been a matter of public record since the publication of the 1996 DEIS.

While the 1994 data is highly detailed, it only covers a few small, localized areas to the west of Bloomington. Using that highly detailed data where it is available, while using less detailed data for the rest of the 26-county Study Area, would have resulted in a misleading comparison of alternatives in this study. Therefore, in order to ensure a fair comparison of alternatives, the karst impacts analysis was based solely on data sources that were available for the Study Area as a whole. For karst, this meant using the sinkhole/sinking stream basin and cave density layers from the Indiana Geological Survey (IGS). These maps were the best available information that covered the entire Study Area to compare these alternatives. The same approach was used for all categories of environmental resources in this study. This approach was determined in consultation with the resource agencies. The USEPA commented favorably on the quality of the mapping used in this study in its comment letter on the DEIS, noting that “[w]e particularly note the high quality Geographic Information System (GIS) data base and resulting Environmental Atlas that was developed for the 26-county study area for this project. The GIS database will be a valuable resource to utilize for future projects in Southwest Indiana.” For additional discussion of the use of data from previous studies, see Section IV of this Appendix, *Evaluation of Alternatives and Technical Report: Karst Impact Analysis* in the FHWA project file.

Impacts of Induced Development on Karst. The FEIS describes the potential impacts of urbanization on karst terrain, noting that “[u]rbanization increases the risk of sinkhole collapse because of (1) land use changes, stream bed diversions, and impoundments that increase the downward movement of water into bedrock openings beneath the soil, and (2) greater frequency and magnitude of water table fluctuations caused by urban groundwater withdrawal and injection.” See FEIS, Vol. I, Section 5.23.3, *Karst Impacts*, p. 5-239. The FEIS also recognizes that a highway has the potential to induce development, particularly at interchanges, and notes that Alternative 3C “does not include any proposed interchanges [in the high-density karst terrain of Southwest Monroe County] and thus, would minimize the potential for induced growth.” (FEIS, p. 5-239 to

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5-240). In addition, in response to USEPA's request in its comments on the DEIS, the FEIS included a comprehensive review of all counties in Southwest Indiana, which identified the counties that have land use plans and described the key elements of those plans. See FEIS, Vol. I, Section 5.2.3.1, *Review of Land Use Plans*. Lastly, the FEIS included a commitment to adopt the I-69 Community Planning Program as a mitigation measure, which will provide \$2 million in funding to support planning efforts that protect environmentally sensitive areas against the impacts of development. See FEIS, Vol. I, Section 7.2, *Major Initiatives*, p. 7-5). Thus, the FEIS did consider the potential impacts of highway-induced development on karst areas and included appropriate measures to minimize those impacts through interchange location decisions and support for local land use planning efforts. Each Tier 2 section will include a thorough indirect and cumulative effects analysis which is consistent with the desires expressed by USEPA.

Potential for Unacceptable Karst Impacts. With the assistance of consultants responsible for the analysis of impacts on karst areas, FHWA and INDOT have reviewed the 1994 karst report, which was included as Appendix G to the 1996 DEIS for the Southwest Indiana Highway Project. That study revealed the presence of numerous karst features in the area west of Bloomington. The route for Alternative 3C avoided many of the karst features identified in that report. To the extent that Alternative 3C will have impacts on those karst features, those impacts will be mitigated in accordance with the Indiana Karst MOU. See FEIS, Vol. II, Appendix U. Experience with construction in other high-density karst areas in Indiana (and subsequent post-construction monitoring) indicates that compliance with the Karst MOU results in effective mitigation of karst impacts. Monitoring was conducted to determine the effectiveness of mitigation measures utilized in a project that added travel lanes and a median to State Route 37 from Bedford to Mitchell, Indiana. The construction occurred in the Mitchell Plain. Various types of filters were utilized to treat highway runoff. Likewise retention basins were excavated to intercept and retain highway spills. The performance of these structures was monitored to determine the effectiveness of the treatments. The results of the runoff testing indicated that the rock filters had efficiencies as high as 94% for suspended solids, and 84% for total recoverable metals. The peat filter at one sinkhole had removal efficiencies as high as 94% for total recoverable metals, 92% for suspended solids and 60% for dissolved metals. See Construction Digest, April 22, 1996, "*Karst Friendly*" *Runoff Treatment Systems Reduce Construction, Post Construction Impacts in Indiana*. Since the SR 37 project was constructed, INDOT's erosion and sedimentation measures have been comprehensively updated to incorporate the most current best management practices for control of sediment during construction. These updated measures will be used for this project. In addition, the more detailed studies to be conducted in Tier 2 will provide an opportunity for further avoidance, minimization, and mitigation of impacts on karst features. Based on all of these circumstances, FHWA and INDOT are satisfied that Alternative 3C (including the committed mitigation measures) does not have a "likely potential for unacceptable karst resource impacts."

Karst Analysis in Tier 2. As requested by USEPA, the Tier 2 studies will include a detailed and thorough analysis of secondary (indirect) impacts for each Tier 2 section. In addition, the Tier 2 studies will make use of the information contained in the 1994 study

of karst features in the Bloomington area, to the extent it is applicable. (The 1994 study is the study that was attached as Appendix G to the 1996 DEIS for the Southwest Indiana Highway Project).

Applicability of Monroe County Karst Ordinance. The FEIS included a discussion of the Monroe County karst ordinance. See FEIS, Vol. 1, Section 5.23.3, *Karst Impacts*. Indiana Code § 8-23-2-4.1(4) delegates to INDOT, the authority for the “construction, reconstruction, improvement, maintenance and repair of state highways.” INDOT’s authority is state-wide and statewide needs as determined by the state agency may not be hindered by local regulations. Thus, INDOT’s jurisdiction to build and determine the location of highways is not subject to local ordinances, including zoning. INDOT is not required to seek permission of a local entity or to comply with their local zoning ordinances. However, INDOT will comply with the Karst MOU (see Appendix U) which was signed by INDOT, IDNR, IDEM, and USFWS. This MOU delineates guidelines for construction of transportation projects in karst regions in Indiana. See FEIS, Vol. I, Section 5.23.3, *Karst Impacts*, for a more detailed discussion of karst impacts and FEIS, Vol. II, Appendix U, *Karst Memorandum of Understanding*. A memorandum from INDOT Chief Legal Counsel dated March 4, 2004, regarding the applicability of local ordinances to INDOT is located in the project file.

Construction Cost in Karst Areas. The cost estimates were developed in a systematic manner as described in the FEIS, Vol. II, Appendix HH, *Cost Estimation for I-69 Evansville to Indianapolis Alternatives*. Variation in cost based on geographic regions was considered. The average cost per mile from I-64 to US 231(non-karst area) is between \$6.88 and \$7.42 million. From US 231 to SR 37 (karst area, which has more rolling terrain), the average cost per mile is between \$15.88 and \$16.16 million. The difference in cost estimates between these geographic areas primarily reflects the additional earthwork costs in the areas with more rolling terrain. In keeping with standard INDOT practice, the cost estimates did not include a specific line item for construction in karst areas. Such costs would be primarily associated with the need for additional drainage features to protect groundwater. Based on experience with construction in karst terrain, INDOT estimates that the cost of karst-related drainage facilities in high-density karst areas would be approximately 5% or less of construction costs within those areas. This amount falls within the range of the per-mile cost estimates used in the FEIS for construction costs in karst areas. More detailed information on this issue has been included in a technical memorandum in the project file. See *Technical Report: Karst Impact Analysis* in the project file.

Approximately 30 miles (or approximately 21% of the 142 miles of roadway) of Alternative 3C crosses karst terrain. Approximately 9% of the 142 miles crosses areas with the greatest karst surface features in the project corridor. This portion of Alternative 3C consists of 4.08 miles of new terrain and 8.82 miles on the existing SR 37 within the Mitchell Karst Plain. The remaining portion of Alternative 3C that passes through karst terrain passes through the Crawford Upland Physiographic Region, which does not have the same high density of karst features as the Mitchell Karst Plain. The added cost for construction in areas of heavy karst features would be less than 1.5% of the total project

cost. The estimated \$15.88 to \$16.16 million average per mile cost is sufficient to absorb this additional cost.

XI. Groundwater Impacts – Aquifers in Perry Township

Agency Comments: Federal and state resource agencies did not raise any issues or concerns about potential impacts on aquifers in Perry Township. The Indianapolis MPO also noted that this route passes through a protected wellfield and “could increase the likelihood of further impacts” to the wellfield.

Public Comments: Some public commenters expressed concern about potential impacts on the “Perry Wellfield,” an aquifer in the Perry Township area of Marion County. The commenters contended that the potential impacts of Alternative 3C on groundwater in Perry Township were not considered in the DEIS. These commenters contend that because of the impacts within wellhead protection areas, as well as other impacts in Perry Township, Alternative 1 should be selected instead of Alternative 3C. (McANA, Individual Commenters)

Response:

The DEIS, Vol. I, Section 5.24, *Water Quality Impacts*, quantified by alternative, impacted public water supplies, public well and wellheads (see Table 5.24-1 on page 5-202). Likewise it included a discussion of potential impacts to ground water by roadway runoff. Vol. III of the DEIS, *Environmental Atlas*, showed the location of public water supply wells, and wellhead protection areas, including several which provide water to Perry Township from the White River and Tributaries Outwash Aquifer System.

In response to comments received on the DEIS, the FEIS included an updated discussion of potential impacts on groundwater. See FEIS, Vol. I, Section 5.24.3.7, *Drinking Water Impacts*. As stated in the FEIS, aquifers underlie huge portions of the State of Indiana, including a vast majority of the Study Area. In fact, almost all of the Interstate system in Marion County is built on top of aquifers. Additionally, existing SR 37 – with its current high traffic volumes – overlays the White River and Tributaries Outwash Aquifer System, which is currently used for the production of public drinking water supplies. Alternatives 2C, 3B, 3C, 4C, and 5B utilize portions of this section of SR 37 . Other portions of this aquifer system are crossed by Alternatives 1, 2A, 2B, 3A, 4A, and 4B. In addition to the White River and Tributaries Outwash Aquifer System which is crossed by all of the alternatives, numerous other aquifer systems are also crossed by each of the alternatives. In many cases, public water supplies are drawn from Indiana’s aquifers. Some of these areas have been designated by IDEM as “wellhead protection areas” (WHPA). A WHPA exists in Perry Township, which includes a portion of SR 37 (approximately 7.5 miles of SR 37 currently crosses this WHPA). Similarly, five WHPAs exist along US 41 between Evansville and Terre Haute, along Alternative 1. In either case, the existence of WHPA does not preclude highway construction in these areas. For further information, see FEIS, Vol. I, Section 5.24.3.7, *Drinking Water Impacts*.

XII. Permitting – Section 404 Issues

Agency Comments: In its comments on the FEIS, the USEPA expressed its appreciation that FHWA and INDOT had addressed USEPA’s comments on the DEIS by including a Section 404(b)(1) Consistency Analysis in the FEIS and by coordinating meetings with resource agencies to discuss the Section 404(b)(1) permitting requirements. The USEPA also noted that it has authorities and responsibilities in reviewing and commenting on Section 404 permit applications, and expressed its commitment to work with FHWA, INDOT, and the USACE in addressing Section 404 permitting requirements during Tier 2. In its FEIS comment letter, the USACE also addressed the issue of Section 404 permitting. The USACE stated that “We provided comments on the PAMP [Preferred Alternative and Mitigation Package] in our letter dated September 25, 2003. In that letter, we informed FHWA and INDOT that the tiered approach and the alternative analysis conducted for the project is consistent with the intent of the Section 404 (b)(1) guidelines.” The USACE further added that “Based on the information submitted in the Final EIS, we continue to believe that the tiered approach and the alternative analysis conducted for the project is consistent with the intent of the 404 (b)(1) guidelines.” The USACE also indicated that “a final USACE determination as to compliance with the 404 (b)(1) guidelines for any work requiring Section 404 permits cannot be made until final information is developed and provided under Tier 2 and presented in a formal request for a permit.” In conclusion, the USACE stated that “we have reviewed the documentation prepared to date and determined that it is appropriate as part of early coordination for the anticipated Section 404 permitting for this project.” The USACE requested that the Record of Decision include a clarification of two statements in the FEIS to make it clear that the USACE has not formally made or concurred in a determination of consistency with the Section 404 (b)(1) Guidelines.

Public Comments: Some public commenters raised objections to the consideration of Section 404 permitting issues in the FEIS. These commenters contended that (1) Alternative 1 is a “practicable” alternative and therefore must be considered in Section 404 permitting; (2) additional effort should have been made to reduce wetlands impacts for Alternative 1, as was done for Alternative 3C; (3) the tiering process will preclude consideration of alternative alignments during Tier 2, including Alternative 1; and (4) the finding of least environmentally damaging practicable alternative(LEDPA) must be made by the USACE, not by FHWA. The commenters also note that the USACE must independently determine the purpose and need for a project. (ELPC et. al.)

Response:

As indicated by their comments, the agencies responsible for granting the Section 404 permits are satisfied that the process being followed for this project is consistent with both NEPA and Section 404. Under this process, FHWA and INDOT have engaged and continue to engage in early coordination with the USACE regarding permit applications that will be filed during or after Tier 2 for the project. The basic purpose of this early

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coordination is to establish a common understanding of the process to be followed and the requirements that will need to be met when actual permit applications are filed. The clarifications requested by the USACE has been included in Appendix E, *Errata*, of this Record of Decision.

The public commenters object on various grounds to the Section 404 permitting process. Their objections are addressed individually below:

Practicability of Alternative 1. The reasons for finding Alternative 1 to be impracticable are thoroughly presented in the FEIS. See FEIS, Vol. I, Section 5.25, *Permits*, and FEIS, Vol. II, Appendix DD, *Section 404(b)(1) Consistency Analysis*. The FHWA and INDOT have not received any objection to this finding from the USACE or USEPA.

Minimization Efforts for Alternative 1 vs. Alternative 3C. In comments on the DEIS, resource agencies requested actions to reduce wetlands impacts. The USEPA letter specifically mentioned efforts to reduce wetlands impacts in four “high quality natural areas with wetlands or other aquatic features”: Flat Creek, Prides Creek, West Fork of the White River, and Patoka Bottoms. Between the DEIS and FEIS, FHWA and INDOT evaluated all of the alternatives – including Alternative 1 – in order to ensure that comparable minimization efforts were made for all alternatives. Based on that analysis, minimization opportunities were identified on some alternatives but not others. Alternative 1 was evaluated, but no additional opportunities to reduce wetlands impacts were identified.

Potential to Preclude Avoidance Alternatives. The environmental review process carried out during Tier 1 has provided extensive opportunities for the USACE (and other resource agencies) to consider the full range of potential corridors for completing I-69 between Evansville and Indianapolis. The USACE has been involved in this process from the beginning, and has provided detailed comments. In particular, the USACE has indicated that the tiered approach and the alternatives analysis conducted for the project is consistent with the intent of Section 404(b)(1) Guidelines – the guidelines that require the consideration of avoidance alternatives in Section 404 permitting. At the same time the USACE also has stated clearly that it has not made formal determinations at this time. Thus, the tiered approach does not preclude the USACE from considering the full range of corridor alternatives in its Section 404 permitting decision. Further coordination with resource agencies involved with Section 404 permitting will occur during Tier 2.

LEDPA Finding to be Made by USACE. The Tier 1 FEIS included an analysis of consistency with the Section 404(b)(1) Guidelines, in response to a direct request from the USACE. See FEIS, Vol. II, Appendix DD, *Section 404(b)(1) Consistency Analysis*. This analysis was developed as part of the ongoing effort to ensure that Tier 1 decision-making is consistent with the legal standards that ultimately will be applied by the USACE when making its permit decisions. However, this analysis is just that – an analysis conducted by a prospective permit applicant. The actual finding of consistency with the Section 404(b)(1) requirements can be made only by the USACE, and will be made only at the time an actual permit application is filed. Nothing contained in the EIS

or this Record of Decision displaces or forecloses in any way the USACE's ultimate authority to make its own findings as part of the Section 404 permit process. As the USACE stated in its comment letter on the FEIS, "we would like to clarify that a final Corps determination as to compliance with the 404(b)(1) guidelines for any work requiring Section 404 permits cannot be made until final information is developed and provided under Tier 2 and presented in a formal request for a permit." This clarification can be found in Appendix E, *Errata*, of this Record of Decision.

USACE to Make Independent Determination of Purpose and Need. The USACE has an independent obligation to comply with NEPA as part of its Section 404 permitting process. Under current law, the USACE must independently determine the purpose and need for a project as part of its NEPA compliance. However, it should be noted that the Council on Environmental Quality (CEQ) in a letter, dated May 12, 2003, CEQ was quoted as saying "The Lead Agency has the authority for and responsibility to define the 'purpose and need' for purposes of NEPA analysis." The letter goes on to say "In the case of a proposal intended to address transportation needs, joint lead or cooperating agencies should afford substantial deference to the Department of Transportation agency's articulation of purpose and need." In addition, the USACE has participated actively throughout the Tier 1 process and has not raised any objections regarding the purpose and need as defined in the Tier 1 EIS.

XIII. Mitigation

Agency Comments: USEPA stated in their comment letter on the FEIS that "We commend FHWA/INDOT's efforts to provide a strong conceptual mitigation package at this stage." In addition, USEPA stated that "timely implementation is crucial" and expressed concern that there may not be adequate funding to implement all currently proposed mitigation measures. USEPA "strongly recommend[ed] that the Tier 1 Record of Decision incorporate firm commitments for all of the proposed and committed mitigation measures and initiatives identified in the Tier 1 FEIS." USEPA also strongly recommended that the Tier 1 Record of Decision commit to additional environmental measures, such as bridging floodplains. The NRCS comment letter addressed the issue of farmland mitigation. The Natural Resources Conservation Service (NRCS) stated that "[b]y far . . . the most effective thing that INDOT can do to mitigate the loss of farmland caused by the construction is to protect other farmland that is subject to development pressures. This could be land within the corridor of the new I-69 or it could be land in other parts of the state that are subject to development." The NRCS strongly urged FHWA and INDOT to continue working with NRCS concerning the feasibility of participating in the Farm and Ranchland Protection Program. The IDNR expressed its appreciation for "the inclusion of a section regarding wildlife impacts and mitigation measures for the impacts on wildlife movements, as suggested in our October 10, 2003 review letter."

Public Comments: Public comments raised several issues related to mitigation. The Indiana Farm Bureau stated that farmland should not be sacrificed to mitigate for other

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resources, such as forest, wetlands, and endangered species habitat. The Indiana Society of American Foresters supported the commitment to mitigate for forest impacts at a 3:1 ratio, but recommended that all forest mitigation involve the creation of new forests. Some public commenters questioned the timing of INDOT's decision to purchase land as forest mitigation prior to completion of the Tier 1 process. Another comment was that most if not all, mitigation decisions were relegated to Tier 2. (ISAF, Count US!, Indiana Farm Bureau, and Individual Commenters).

Response:

Commitment to Mitigation Measures in Tier 1 Record of Decision. This Tier 1 Record of Decision includes a firm commitment to implement all of the mitigation measures proposed in Chapter 7 of the FEIS (see Section 2.2). Some of the measures involve a commitment to a specific design feature (e.g., bridging the Patoka floodplain) or mitigation activity (e.g., mitigating for forest lands at a 3:1 ratio). Other measures involve a commitment to conduct further analysis in Tier 2 (e.g., the Section 106 MOA requires that consideration be given to preparing "historic preservation plans" during Tier 2).

Consideration of Additional Mitigation Measures in Tier 2. As recommended by the USEPA, additional mitigation measures will be considered during Tier 2. Decisions regarding any additional mitigation measures will be made in consultation with resource agencies, MPOs, local officials, and CACs based on the more detailed analysis of environmental impacts that will take place in the Tier 2 studies. In response to USEPA's request, the FEIS specifically noted that the Tier 2 studies will include additional consideration of bridging floodplains. See FEIS, Vol. I, Section 7.3.8, *Floodplain Impacts*.

Timely Implementation of Mitigation Measures. FHWA and INDOT agree that the timely implementation of mitigation measures is important. Accordingly, preliminary planning efforts to identify potential forest and wetland mitigation lands have begun during Tier 1. See FEIS, Vol. II, Appendix NN, *Tier 1 Forest and Wetlands Mitigation and Enhancement Plan*. Specific mitigation sites will be identified during and following Tier 2 in consultation with resource agencies. Efforts will be made to begin acquiring mitigation lands as soon as practicable.

Mitigation of Farmland Impacts. While there is no regulatory requirement to mitigate for farmland impacts, the FEIS does include several proposed farmland mitigation measures. As stated in the FEIS, these measures will include the I-69 Community Planning Program, which will provide financial and technical support for land use planning efforts by local communities. Such planning efforts could help to protect valuable farmland while allowing for economic development. In addition, as stated in the FEIS, coordination will continue with the NRCS in Tier 2 to determine the feasibility of participating in the Farm and Ranchland Protection Program. See FEIS, Vol. I, Section 7.3.10, *Farmland Impacts*.

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Use of Farmland as Mitigation for Impacts to Other Resources. FHWA and INDOT will seek to avoid the use of prime farmland as mitigation for impacts to other resources, such as wetlands, forests, and endangered species. Also, as discussed below, mitigation for impacts to forests will include the protection of existing forested tracts.

Creation of New Forest Land as Mitigation. The commitment to mitigate for impacts to forest lands at a ratio of 3:1 will involve the creation of new forest land as well as the protection of existing forests that are currently in private ownership. The creation of new forested land is valuable. However, it also is valuable to protect existing forested tracts against future development. For example, following the release of the FEIS, INDOT agreed to purchase approximately 1500 acres of forested land in Morgan County that was in imminent threat of development. For further discussion of this acquisition, see below.

Purchase of IPL Lands as Forest Mitigation. As noted above, INDOT agreed to purchase approximately 1500 acres of land owned by Indiana Power & Light (IPL) in Morgan County. The land to be purchased is located adjacent to the Morgan-Monroe State Forest and was in the process of being sold and likely would have been developed. It will now be protected in perpetuity as part of a much larger forested area managed by the Indiana Department of Natural Resources. If not purchased by INDOT at the time it was available, this land would have been sold. The purchase of this parcel is expected to be completed in mid-April 2004 entirely with state transportation funds, and therefore does not require FHWA approval. It is anticipated that the cost of this purchase will later be credited toward the State's share of project costs, as allowed under FHWA right-of-way regulations.

Funding of Mitigation. Funding of the mitigation for Alternative 3C is estimated in the FEIS to be approximately \$77 million. For a project of this magnitude, this is a reasonable amount of funding for mitigation. Appendix HH, *Cost Estimation for I-69, Evansville to Indianapolis Alternatives*, of the FEIS provides a cost breakdown of the project (including estimated mitigation costs.) The INDOT 2025 Statewide Long-Range Transportation Plan contains the I-69 improvement in its listing of capacity expansion projects. This Plan is based upon a twenty-five year funding forecast and assumes that the construction of I-69 would occur over a span of many years. FHWA finds that the current INDOT Long Range Plan is fiscally reasonable.

XIV. Section 4(f)

Agency Comments: The U.S. Department of the Interior (USDO), which has a statutorily defined role in reviewing Section 4(f) evaluations, reviewed the FEIS but did not submit a comment letter. The City of Bloomington Department of Parks and Recreation submitted a comment letter requesting that the Wapehani Mountain Bike Park be evaluated as a potential Section 4(f) resource.

Public Comments: Public commenters raised several issues related to Section 4(f). These included: (1) the FEIS fails to consider the Wapehani Mountain Bike Park as a

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Section 4(f) resource; (2) the FEIS fails to consider a privately owned bike trail in Bloomington as a Section 4(f) resource; (3) the FEIS incorrectly concludes that Combs Unit of Martin State Forest is not a Section 4(f) resource; (4) the analysis of a potential Old Order Amish district was based on incorrect assumptions about the location of Old Order Amish families; (5) the FEIS incorrectly characterizes the SHPO's position regarding the eligibility of the Wabash and Erie Canal in the Patoka area; and (6) the Patoka refuge would be constructively used because of the impacts of the highway on wildlife movements in the refuge. (Count US!, ELPC et. al., and Individual Commenters).

Response:

Wapehani Mountain Bike Park. The Wapehani Mountain Bike Park is a 43-acre publicly owned park located in southwestern Bloomington, adjacent to the right-of-way for SR 37. This park is a Section 4(f) resource, because it is a publicly owned park. As currently planned, the Alternative 3C would remain within the existing SR 37 right-of-way in this area and therefore would not directly use land from this park. In addition, the proximity of the Alternative 3C would not substantially impair the protected features, activities, or attributes of the park. The park was established in 1990, at a time when SR 37 was already a major multi-lane highway. The proximity impacts associated with a highway (noise and visual) were accepted at the time the park was established. For further discussion of this resource, please refer to Appendix C-2 of this Record of Decision.

Monon Rail Preservation Corporation Corridor. The Monon Rail Preservation Corporation owns a section of the old CSX railroad in Monroe County. This section begins at Hunter Switch just east of Curry Pike and continues northwest approximately 4 – 5 miles ending at SR 46 in Ellettsville, Indiana. The tracks on this section are maintained by the Indiana Rail Road Company and the tracks are on occasion used by a train. Section 4(f) does not apply to this corridor because (1) this section of the old CSX railroad is still functioning as a railroad corridor, and thus cannot be considered a recreational area, and (2) even assuming that a railroad in active use could be considered a recreational resource, Section 4(f) would not apply to this section of the railroad because Section 4(f) applies to recreational areas only if they are publicly owned, and this section of the railroad is owned by a private entity, the Monon Rail Preservation Corporation. For further discussion of this resource, please refer to Appendix C-3 of this Record of Decision.

Combs Unit of Martin State Forest. As explained in the FEIS, the Combs Unit of Martin State Forest is publicly owned land that is managed for multiple uses. Some of the uses allowed in this area are recreational uses. However, under the FHWA Section 4(f) Policy Paper, publicly owned multiple-use lands (such as forests) are protected under Section 4(f) only if they function “primarily for Section 4(f) purposes.” Under this standard, the Combs Unit is not a Section 4(f) resource. In addition, the corridor for Alternative 3C was shifted to avoid the Combs Unit. Therefore, even if this area were protected by Section 4(f), there would be no use of the resource by the Alternative 3C. No permanent or temporary rights-of-way will be acquired from this property, nor is the corridor for

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Alternative 3C within the acquirement boundary of the state forest. For further discussion of the Combs Unit, see FEIS, Vol. I, Section 8.2.2, *Evaluation of Section 4(f) Resources*, p. 8-23.

Amish Area. As discussed above in Section IX of this Appendix, a large area of Amish settlement has been identified in the vicinity of Washington. Based on Tier 1 analyses, it appears that the boundaries of the potential historic district (if a district exists) would be located outside the corridor for the Alternative 3C. However, the Section 4(f) evaluation in the FEIS specifically recognizes the possibility that subsequent investigations could result in the identification of an Amish historic district that extended into the corridor of Alternative 3C. See FEIS, Vol. I, Section 8.3.1, *Historic Resources*, p. 8-29 through 8-34. In light of this possibility, the corridor for the Alternative 3C was widened specifically to allow for shifting the highway's alignment westward and away from the area of Amish settlement (while remaining east of the town of Washington). See FEIS, p. 8-34. The FEIS also considered the possibility of shifting the alignment to the west of the town of Washington. The FEIS concluded that route variations located to the west of Washington would not be prudent, because they involve greater wetlands and floodplains impacts. See FEIS, p. 8-34. In short, the FEIS specifically considered the possibility of an Amish historic district that extends into the preferred corridor and preserved the flexibility to shift the alignment if needed in Tier 2.

Wabash and Erie Canal in Patoka Bottoms. The FEIS does not misrepresent the SHPO's August 27, 2003 letter regarding potential historic resources in the Patoka Bottoms area. In discussing this area, the FEIS quotes in full the relevant passage of the August 27 letter, in which the SHPO stated that "we believe that there are resources in Patoka Bottoms, namely bridges and a section of CR 300W, as well as the segment of the Wabash and Erie Canal, that are eligible for listing in the National Register but their significance does not extend to the larger Bottoms area." (FEIS, Vol. I, p. 5-115). Prior to release of the FEIS, the FHWA and INDOT consulted further with the SHPO staff regarding this area. Based on that consultation, FHWA and INDOT concluded in the FEIS that Wabash and Erie Canal section in the Patoka Bottoms area "does not possess sufficient integrity and does not meet National Register criteria to be considered a district." (FEIS, p. 5-115). This statement was included in the section of the FEIS that addressed historic resource and referred to the canal segment's potential eligibility as a historic resource. Following the receipt of comments on the FEIS, project staff consulted further with the SHPO staff (on February 3, 2004). The SHPO staff clarified that the section of the Wabash and Erie Canal in the Patoka Bottoms area may be eligible as an archeological resource, but is not eligible as an above-ground historic resource because of the lack of extant above-ground resources. This position was confirmed in a letter from the SHPO to FHWA dated February 20, 2004. For further discussion of the Wabash and Erie Canal, see Section 4.2.1 of this Record of Decision, Section XI of this Appendix, and Appendix C-1. Further supporting documentation is included in the FHWA project file. (*Technical Memorandum: Wabash and Erie Canal*).

Potential for Constructive Use of Patoka Refuge. Alternative 3C is located within a transportation corridor that was reserved for I-69 at the time the Patoka National Wildlife

Refuge was established. The impacts of the highway were assumed at the time the refuge was created. Therefore, construction of the highway within this reserved corridor does not constitute a constructive use for purposes of Section 4(f). See FEIS, Vol. I, Section 8.2.2, *Evaluation of Section 4(f) Properties*, p. 8-6 and 8-9. It also should be noted that, while not required to do so by Section 4(f), FHWA and INDOT have committed to several specific measures to minimize and mitigate the impacts of the project on wildlife movements within the Patoka Refuge, including a commitment to (1) bridge the Patoka River floodplain and (2) work with the USFWS to acquire one or more parcels of privately owned land within the Refuge acquisition boundary and transfer ownership to the USFWS for permanent protection as part of the Refuge.

XV. Public Involvement and Agency Coordination

A. Comment Period and Public Notice of FEIS

Agency Comments: The governmental agencies that commented on the FEIS did not raise any issues or concerns regarding the length of the review period for the FEIS.

Public Comments: Commenters raised several issues regarding the public involvement process. These include: (1) the review period on the FEIS is too short and should be extended; (2) the necessary legal notice of the FEIS was not provided in a timely manner; (3) the process should be expedited and the Record of Decision issued as soon as possible; (4) proper legal notice in the newspaper prior to the review period is required by Indiana's open door law. (Association of Monroe County taxpayers, CARR, ELPC et al, Count US!, Protect our Woods, McANA and Individual Commenters).

Response:

Adequacy of Review Period on FEIS. Under FHWA regulations, there is no requirement to provide a comment period on an FEIS. Rather, the regulations simply provide that there must be at least 30 days between publication of the Notice of Availability of the FEIS in the Federal Register and issuance of the Record of Decision. In this case, the Notice of Availability was published in the Federal Register on December 24, 2003. Under the regulations, it would have been permissible for the Record of Decision to be issued as early as January 24, 2004. However, while not required by the regulations, FHWA and INDOT voluntarily established a 47-day review period, which extended from December 18, 2003 (the date the FEIS was released) through February 2, 2004. In a letter to FHWA Administrator Mary Peters, dated January 26, 2004, several groups and individuals requested an extension of the review period for an additional 60 days. The FHWA Division Office responded to that request in a letter dated February 2, 2004. In that letter, the FHWA stated that the 47-day review period was considered sufficient and would not be extended. However, the FHWA also noted that "all comments received prior to signing the ROD will be reviewed to determine if they contain any new issues not previously addressed in the FEIS." In fact, several additional comments on the FEIS were received between the end of the review period and the time of the Record of Decision,

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including a lengthy and detailed comment submitted on March 18, 2004, six weeks after the end of the review period. *All comments received prior to the issuance of this Record of Decision have in fact been considered and all substantive comments are addressed in the Record of Decision and in supporting documentation included in the project file.* The Record of Decision was signed on March 24, 2004, a total of 91 days after publication of the Notice of Availability of the FEIS in the Federal Register. Thus, the period between the release of the FEIS and the issuance of the Record of Decision is over three times greater than the minimum established in FHWA regulations.

Adequacy of Notice of Release of FEIS. In a letter to FHWA dated January 29, 2004, several groups objected to the adequacy of the legal notice issued by INDOT for the release of the FEIS. These groups also raised the same objection in their FEIS comments. In a letter dated February 19, 2004, FHWA informed these groups that a response to their concerns about the legal notice would be provided in the Record of Decision. The following response is provided:

The FEIS was released on December 18, 2003. The release of the FEIS was announced by INDOT in a press release that was distributed to a wide range of media outlets throughout Indiana. The press release received high-profile, wide-ranging media coverage in daily and weekly newspapers as well as television stations. Virtually all articles covering the release of the FEIS noted the 47-day comment period. In addition, copies of the FEIS were mailed to all agencies, groups, and individuals who submitted substantive comments on the DEIS. Altogether, 804 copies of the FEIS were mailed (534 CDs and 270 hard copies). The FEIS also was posted on the project web site, which prominently displayed the comment deadline and instructions for submitting comments. This web site experienced over 20,000 hits during this review period. Further media coverage occurred over the weeks following December 18, 2003. These articles mentioned the availability of the FEIS and the 47-day comment period. These activities, in total, provided widespread and effective public notice of the availability of the FEIS and the deadline for filing comments. Supporting data are included in a Technical Memorandum *Media Coverage Regarding FEIS Release* which is in the project file.

Following the release of the FEIS, INDOT published a legal notice of availability of the FEIS in 27 local newspapers in the study area. This notice also was mailed to approximately 1,500 people. See the INDOT March 5, 2004 memorandum regarding publication of the legal notice announcing the release of the FEIS; this memorandum is included in the project file. The purpose of this legal notice was simply to satisfy the FHWA regulations requiring publication of a newspaper notice announcing the availability of an FEIS. The regulations do not specify the timing of this notice, nor do they require the date of the notice to be used as the starting point for determining any review period. In the context of this project, publication of the legal notice was a formality. As discussed above, effective and widespread public notice had already been provided weeks earlier through saturation media coverage of the release of the FEIS. Supporting data are included in the project file. The media coverage regarding the release of the FEIS is included in Technical Memorandum: *Media Coverage Regarding FEIS Release*, which is in the project file.

Need to Expedite Process. Many commenters urged FHWA and INDOT to expedite the completion of the NEPA process, by issuing the Record of Decision 30 days after issuance of the FEIS rather than allowing a longer review period. As explained above, FHWA and INDOT voluntarily established a 47-day period in order to ensure a full opportunity for public review and comment. FHWA believes that establishing the 47-day review period (while also considering any late-filed comments submitted prior to issuance of the Record of Decision) appropriately balances the competing views and interests expressed by the stakeholders involved in this process.

Public Notice Under Indiana Open Door Law. The notice requirements in the Indiana Open Door Law, Indiana Code § 5-14-1.5, apply only to the meetings of governing bodies of public agencies. This law does not apply to the public meetings and public hearings held as part of the NEPA process. The applicable public notice requirements are established in FHWA's NEPA regulations, which are contained in 23 C.F.R. § 771. A memorandum from INDOT Chief Legal Counsel dated March 5, 2004, clarifying the applicability of the Indiana Open Door Law to the comments is located in the project file.

B. Responses to Public and Agency Comments on DEIS

Agency Comments: The USEPA expressed appreciation that its comments on the DEIS were addressed in the FEIS. The USEPA's letter went on to list nine specific areas in which steps were taken in the FEIS to address USEPA's comments on the DEIS. IDNR indicated its appreciation of the inclusion of a section regarding wildlife impacts and mitigation measures for the impacts on wildlife movements as suggested in their October 10, 2003 review letter. Likewise the Monroe County Historic Preservation Board noted that the FEIS has begun to satisfactorily address many of the concerns the Board raised earlier.

Public Comments: Commenters raised several issues regarding the responses to comments on the DEIS: (1) greater weight should have been given to the large number of comments supporting Alternative 1; (2) the distinction between "substantive" and "non-substantive" comments was arbitrary and resulted in substantive comments being ignored; (3) the method used for addressing substantive comments was inappropriate; and (4) political influences affected the comments submitted by IDNR on the DEIS. (McANA, ELPC et al, Count US! and Individual Commenters).

Level of Public Support for Alternative 1. Some commenters contended that the vast majority of the public comments on the DEIS supported either Alternative 1 or the No Build Alternative. FHWA and INDOT have not counted the comments to ascertain the exact number of comments that supported or opposed particular alternatives. However, it is important to note that the public comments submitted in the NEPA process do not necessarily reflect the views of the public as a whole. For example, on this project, a Bloomington newspaper published the results of a telephone survey of 600 households in 12 counties in the study area. This survey was commissioned by the *Bloomington*

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Herald-Times, and the results were published in the October 6, 2002 edition of the paper (during the comment period on the DEIS). The survey was conducted and tabulated by two Pennsylvania market research firms. The survey's margin of error was 3 to 4%. Key findings of the survey included:

- 49% of the public favored a route via Bloomington, whereas 35% favored a route via U.S. 41 and I-70;
- 52% wanted the highway to pass through or very near the county where they lived, while 29% preferred it to be located elsewhere.

Distinction Between “Substantive” and “Non-Substantive” Comments. The FHWA regulations state that an FEIS “shall also discuss substantive comments received on the draft EIS and responses thereto” (23 C.F.R. § 771.125(a)(1)) The regulations do not provide a definition of a “substantive” comment. In general, comments are considered substantive if they raise specific issues or concerns regarding the project or the study process. Comments that only express a general preference for or against a particular alternative are not considered substantive and therefore are not specifically addressed in the FEIS. However, all comments on the DEIS – both substantive and non-substantive – were considered and were included (on a CD) as part of the FEIS.

Method for Addressing Substantive Comments. The printed FEIS, Vol. IV lists every substantive issue raised in comments on the DEIS. For each substantive issue, one or more excerpts were given, which represent the full range of comments on that issue. Often, the same issue was raised by hundreds of commenters, and reproducing all such comments would serve to confuse the reader and would make it much more difficult to review the Comments and Responses. All comment letters, e-mails, hot line calls, and oral comments from the public hearing from which substantive comments were excerpted and included in paper form in Vol. IV of the FEIS. In addition, all other comments received on the DEIS were included in a CD, also part of Volume IV of the FEIS. Including all comments in printed form would have caused the printed FEIS to approximately quadruple in size, and weigh approximately 100 pounds. Documenting all comments received on a CD allows the reader to review the entire document in an effective manner.

IDNR Letters. The Indiana Department of Natural Resources (IDNR) submitted a comment letter dated June 25, 2002, following a bus tour conducted by FHWA and INDOT for resource agencies. That comment letter was signed by the Director of the Division of Water within IDNR. The June 25 letter was rescinded in a letter dated July 15, 2002, and was replaced by a new comment letter dated July 16, 2002. Subsequently, according to published reports, an IDNR spokesman stated that “[the June 25] letter was not reviewed by senior management staff at the DNR and was sent without their knowledge. . . . When they found out about it they asked to review the letter and the letter included some inappropriate value judgments that were beyond the DNR’s scope of responsibility. . . . [The July 16 letter] contains all matters of substance of the previous letter, it just left out the value judgments that a couple of our staff members had

included.” (Evansville Courier & Press, February 4, 2004) FHWA accepts the July 16 letter as the authoritative statement of the agency’s position.

C. Public Access to Information

Agency Comments: Agency comments did not raise any issues or concerns regarding public access to information about the study.

Public Comments: Public commenters raised four issues regarding public access to information about the study: (1) landowners should have been notified if their property may eventually be taken; (2) landowners should have been notified that INDOT would conduct aerial surveys of their property; (3) the Geographic Information Systems (GIS) layers and other technical data should have been released earlier in the study; and (4) additional public meetings should have been held in the Indianapolis area. (McANA, ELPC et al, Count US! and Individual Commenters).

Response:

Landowner Notification Regarding Right-of-Way Needed. The alternatives analysis in Tier 1 involved the comparison of twelve alternatives. Each alternative consisted of a corridor approximately 2,000 feet in width. In total, these corridors encompassed approximately 180 to 190 square miles of land area. The combined length of the corridors (not including the areas where two or more overlapped) was 502 miles. The public outreach efforts during Tier 1 were appropriate to the scale of this study. These efforts included numerous public meetings, newsletters, a project web site, and other methods. See FEIS, Vol. I, Section 11.3, *Public and Community Outreach*. In order to provide landowners with the best available mapping about the location of each corridor in relation to their property, FHWA and INDOT included a comprehensive Environmental Atlas in the DEIS and FEIS. See DEIS, Vol. III, and FEIS, Vol. III. The Environmental Atlas included mapping with the corridors overlaid on aerial photographs of the project area. This mapping also was available on the project web site, and project staff routinely responded to requests from landowners for specific information about the location of the corridors in relation to their property. During Tier 2, when a specific design is selected, individual landowners will be notified when access is needed to private property to conduct environmental studies. Should access to a property not be required, then the property owner will be contacted during design if their property is within the proposed temporary or permanent rights-of-way. The exact right-of-way needs for the project will not be determined until final design, which occurs following Tier 2.

Landowner Notification Regarding Aerial Surveys. The aerial photography used in Tier 1 was primarily taken in 1998-99. In order to provide up-to-date aerial photography for the anticipated Tier 2 studies, INDOT conducted new aerial surveys in late 2003 and early 2004. These surveys were conducted for the purpose of ensuring that current aerial photography is available at the outset of the Tier 2 studies. When the surveys were conducted, it was necessary to place markers on private property in some locations

(where it was not possible to place the markers on publicly owned land). Before placing markers on private land, INDOT contractors provided notice in advance to the owners of that land. A memorandum explaining this procedure has been included in the project file.

Release of Geographic Information System (GIS) Layers. GIS shapefiles of the route alternatives were not provided prior to publication of the FEIS because they were still in draft form and were still subject to change. Once the working alignment of the alternatives were fixed, and the FEIS was published, GIS shapefiles for the alternatives were made available upon request. Specifically, in December 2003, INDOT released the GIS “layers” (i.e., electronic maps) for all 12 alternatives depicted in the FEIS.

Number and Location of Public Meetings and Hearings. Over the course of this Tier 1 study, FHWA and INDOT held 12 public meetings and three formal public hearings. These meetings and hearings were held at numerous locations throughout the study area: Bloomington, Evansville, Jasper, Indianapolis, Linton, Martinsville, Oakland City, Sullivan, Terre Haute, Vincennes, and Washington. See FEIS, Vol. I, Section 11.3, *Public and Agency Outreach*. The total attendance at these meetings was approximately 3,300 people. In addition to these public meetings and hearings, FHWA and INDOT held a total of 182 community outreach meetings. Many of these outreach meetings were held in the Indianapolis area. In total, this outreach effort reflected a balanced approach to making information available about the project to all interested stakeholders throughout the 26-county Study Area.

XVI. Objectivity and FHWA Oversight of NEPA Process

Agency Comments: No agency comments raised concerns regarding INDOT’s involvement and FHWA’s oversight of the NEPA process.

Public Comments: One commenter criticized the actions of FHWA and INDOT as lead agencies, contending that INDOT officials acted as “cheerleaders” for the project and that “FHWA’s oversight has been essentially non-existent.” Other commenters provided similar comments. (CARR, Individual Commenters)

Response:

FHWA has been extensively and directly involved throughout the preparation of this EIS. This involvement is documented in a memorandum in the project file dated March 11, 2004. Through this involvement, FHWA has fulfilled its obligation under NEPA to provide overall direction to the NEPA process and independently and objectively evaluate the documentation prepared in that process.

As the project sponsor, INDOT has assisted FHWA in the preparation of the EIS. Throughout the process, INDOT leadership and staff have assisted FHWA in carrying out a fair and objective evaluation of all alternatives. The FHWA oversight of this study is

summarized in a memorandum dated March 11, 2004, which is included in the project file.

XVII. Availability of Funding to Construct I-69

Agency Comments: The USEPA expressed concern in its comment letter that mitigation measures may not be implemented if insufficient funds are available. To address this concern, the USEPA requested that this Record of Decision include a firm commitment to adopt the mitigation measures summarized in the FEIS.

Public Comments: Some commenters questioned the ability of INDOT to fund the construction of I-69 and contended that construction of this project would deprive other parts of the state of needed transportation funding. (COUNT US!, Individual Commenters)

Response:

I-69 is included in INDOT's Long Range Transportation Plan. The Plan calls for \$33.2 billion in investments to meet INDOT's transportation needs from 2000-2025. I-69 will cost approximately \$1.78 billion to build, of which twenty percent or \$356 million would be state funds. The total project cost accounts for five to six percent of INDOT's long-range transportation investment requirements. The funding needs of other major projects and system preservation activities (the majority of INDOT's expenditures), are also included in INDOT's Long Range Transportation Plan. INDOT's approach to forecasting future funding levels has been to use historical trends and project them into the future. FHWA has determined that the approach for INDOT's projection of future funding levels assumed in the their Statewide Long-Range Plan are fiscally reasonable. Further supporting documentation is included in the FHWA project file.