

CHAPTER IV

Environmental Consequences

Chapter IV of the Draft First Tier EIS provided a description of the beneficial and adverse social, economic and environmental impacts of the Reasonable Strategies, the Preferred Strategy and the conceptual corridors of the Preferred Strategy. This chapter allowed the reviewer to compare the environmental and socio-economic impacts of the strategies and the conceptual corridors within the preferred strategy.

In review of the comments received from the Draft First Tier EIS and the public hearings, no new specific information describing the environmental consequences was made evident that necessitates new evaluations of the environmental consequences of the Reasonable Strategies or the Preferred Strategy with its conceptual corridors through the urban areas. The mile-wide conceptual corridors remain unchanged as discussed in the Draft First Tier EIS. The two special natural areas of Overton Bottoms and Mineola Hill also remain unchanged. Consequently, the Draft First Tier EIS is referenced by this Final First Tier EIS.

A. Summary of Environmental Consequences

The Draft First Tier EIS summarizes the environmental consequences of the Reasonable Strategies. There is also a summary of the environmental consequences in the Summary chapter of this Final First Tier EIS.

B. Clarification of Draft First Tier EIS

The following issues or questions were raised during the review of the Draft First Tier EIS that warrant clarification or further elaboration:

- **Methodologies for Secondary and Cumulative Impact Analysis** – Table IV-1 presents a summary of the methodologies utilized in the analysis of the secondary and cumulative impacts.

Table IV-1: Summary of Secondary and Cumulative Analysis Methods

Analysis Stage	Secondary and Cumulative Impacts Weighting
Initial Strategies	Minimal consideration at this stage.
Reasonable Strategies	High-level consideration of additive, synergistic, and indirect effects over time and space.
Conceptual Corridor	Consideration of ecological, social, and statistical importance of potential impacts.
Selected Preferred Strategy	Review of existing planning materials and development patterns.

- **Secondary and Cumulative Impacts** - In addition to new interchanges potentially opening up new land for development, the addition of frontage roads along the corridor

may encourage sprawl-like development patterns. This is particularly true in developing urban and suburban areas (also known as exurbs). Further, in some cases within the I-70 corridor, frontage roads may require additional right of way within a freeway corridor, potentially taking valuable farmland.

However, the conceptual engineering for this phase of study has been developed using the draft MoDOT Access Management Classification System and Standards. This policy encourages the construction of frontage roads along the length of a freeway for safety and incident management purposes. It is anticipated that in the next phase of study, frontage roads would be provided in all build alternatives. Although MoDOT's draft access management policy encourages frontage roads along the length of the freeway, the conceptual engineering was done in such a way as to minimize the amount of additional right-of-way needed for the width of the freeway corridor.

Frontage roads are valuable beyond the access management need for incident control and management. Frontage roads provide local access independent of the freeway, particularly for farmers and local businesses. Particularly in the suburban areas, development is likely to occur with or without the presence of frontage roads. The key to avoiding *a priori* sprawl in conjunction with the construction of frontage roads is proactive planning – working with local governments to limit access through careful land use planning. Coordination with MoDOT might include:

- Involving MoDOT in cooperative review of subdivision plats
 - Adopting land use polices that encourage higher density development
 - Developing local transportation plans to encourage access via a collector distributor street network
 - Developing farmland conservation strategies
 - Create and adopt local access management policies
- **Air Quality** – During the next phase of the environmental evaluation process, a carbon monoxide analysis will be prepared.
 - **Displacements** - A further review of displacements in the rural areas, at interchanges and along the mainline, was undertaken to assist in determining the Sections of Independent Utility for the second tier studies. The Sections of Independent Utility are listed in the Summary chapter of this Final First Tier EIS.
 - **Summary of Reasonable Strategies Impacts** – Table IV-2 summarizes the likely range of impacts of the reasonable strategies to provide a sense of relative impact potential in order-of-magnitude terms. Issues include forests, wetlands/water resources and farmland.

Table IV-2: Reasonable Strategies Impacts

Natural Environment Impact Issue	Widen I-70 Strategy	Parallel Route Strategies
Forests	230 Acres	1,700 to 2,800 Acres
Wetlands/Water Resources	80 Acres	400 to 430 Acres
Farmland	1,300 Acres	3,000 to 3,700 Acres

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