

# CHAPTER I

## Summary

### A. Overview

#### 1. Preferred Alternative

The Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA) propose improving the I-70 corridor to meet current and future transportation needs in Missouri. The location of the proposed improvements is generally between the metropolitan areas of Kansas City and St. Louis. In 2001, MoDOT completed the “First Tier” Final EIS under the National Environmental Policy Act (NEPA) as the first step toward improving I-70. As a result of the First Tier EIS, a preferred strategy consisting of widening I-70 to three lanes in each direction was selected.

This Final Environmental Assessment (FEA) is part of the “Second Tier” of NEPA environmental review under which a total of seven “Sections of Independent Utility” (SIUs) along I-70 are being evaluated. This FEA addresses the area designated as SIU 2. SIU 2 encompasses 60 miles (100 kilometers) of I-70 in Missouri, generally between Route 131 (not including the interchange) in Odessa to Route 5 (not including the interchange) near Boonville (Figure I-1). The NEPA/Clean Water Act merged process will not be used for the SIU 2 Environmental Assessment.

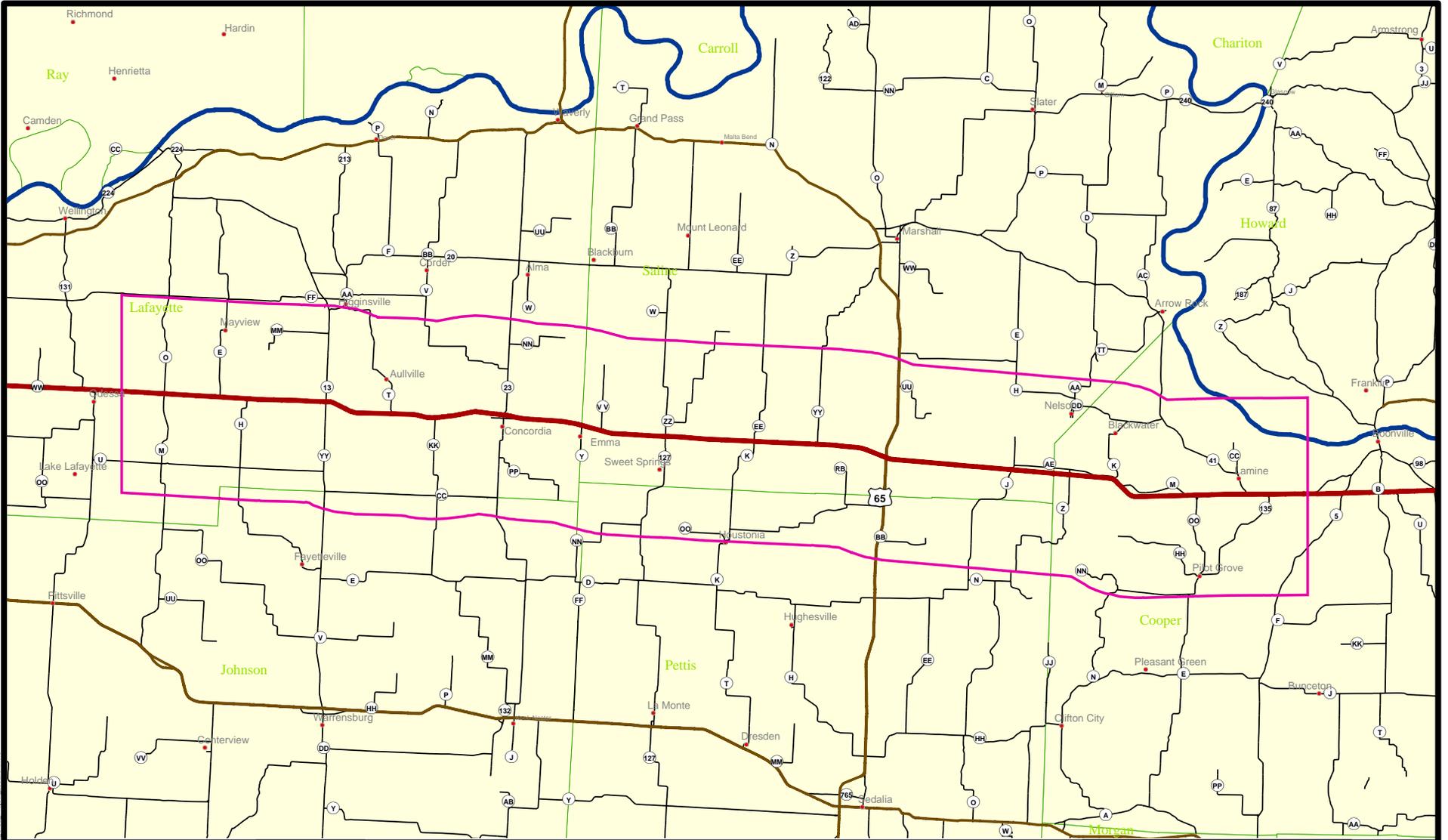
#### 2. Purpose and Need

The purpose and need for the proposed improvements within SIU 2 comprises: addressing improvements needed to conform to current highway design standards; improving safety for the traveling public; improving efficiency of the transportation system (capacity and travel time); addressing economic development and related transportation requirements (freight/goods movement and seasonal recreation traffic); and meeting national needs for a strategic highway corridor network. The primary proposed improvements within SIU 2 would include the mainline (through lanes), bridges, frontage roads and interchanges associated with I-70.

#### 3. Alternatives

The interchange alternatives addressed in the DEA were developed through a comprehensive statewide coordination process and alternative screening effort. The alternative screening process and associated memoranda involved the two primary components of the Preferred Alternative: mainline improvements and interchange improvements. The final results of the screening process (Preferred Alternative and Interchange Alternatives) resulted in a number of interchange alternatives and the No-Build Alternative. Implementation of the No-Build alternative would leave I-70 in its current configuration with the addition of Intelligent Transportation Systems (ITS) and routine maintenance being the only upgrades. Improvements associated with the Preferred Alternative are summarized below:

- The construction of three continuous lanes in each direction (mainline improvements);

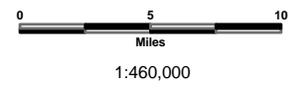


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**Section #2**  
Route 131  
to  
Route 5

- Legend**
- I-70 SIU#2 Corridor
  - Missouri River
  - Counties
  - Cities
  - State Route
  - U.S. Highway



**SIU 2**  
**PROJECT LOCATION**

**FIGURE**  
I-1

- Interchange reconstruction and upgrades;
- Improvements to the frontage road system;
- Implementing the Rest Area Master Plan;
- Reconstruction of the westbound weigh station facility in SIU 2; and
- Installation of electronic signage and other technology to assist motorists and improve traffic conditions (Intelligent Transportation Systems).

Proposed mainline improvements in SIU 2 would consist of six 12-foot (3.7-meter) travel lanes, four 12-foot (3.7 meter) shoulders and a median, generally between 120 to 130 feet (37 to 40 meters) wide, assumed as 124 feet (38 meters) wide for the DEA. These improvements address safety issues, allow for continuous mainline service during construction, allow for the addition of future lanes and/or allow for the possibility of some type of future transportation improvement.

For the mainline improvement, alternatives were evaluated in the First Tier EIS and verified during the Second Tier study process (Mainline Technical Memorandum). During the Second Tier, north versus south mainline alternatives were evaluated for the SIU 2 corridor. Based on this evaluation, it was determined that the mainline would be widened to the north from the western terminus at mile marker 39 to mile marker 69, where a transition from north to south would occur, east of Sweet Springs. The crossover transition occurs between mile marker 69.04 and mile marker 69.79. From this transition point, the remainder of the mainline would be widened to the south to the eastern terminus of SIU 2 near Boonville. Sheet A-33 in Appendix A of the DEA shows where the proposed crossover from north to south would occur and how this relates the proposed improvements to existing conditions.

As part of the Preferred Alternative in SIU 2, 13 interchanges, nine overpasses, one underpass and one under highway cattle pass would be improved. Of the 13 interchanges, the standard diamond interchange template was applied at eight locations due to the lack of constraints that would warrant alternative designs. At the remaining five interchange locations, various alternatives such as the single point urban interchange and the half folded diamond designs were developed and evaluated to avoid topographical features and avoid and minimize impacts to commercial or residential developments or environmental resources (See Section A of Chapter II of the DEA for drawings of each design). Alternative interchange designs were carried forward for analysis in the DEA at five locations. These included the I-70/Route 13 Interchange, the I-70/Route 23 Interchange, the I-70/U.S. 65 Interchange, the I-70/Route 127 Interchange and the I-70/Route 135/41 Interchange. Detailed analysis of interchange alternatives is discussed in the SIU 2 Interchange Technical Memorandum as available upon request.

In addition to the mainline improvements, a system of frontage roads would be constructed. Along some sections of SIU 2, existing frontage roads or portions of old U.S. 40 would be utilized as frontage roads. Though continuous frontage roads are a long-term goal and are included as part of the Preferred Alternative for environmental planning purposes, continuous frontage roads are not a high priority. Including continuous frontage roads as part of the Preferred Alternative provides a long-term master plan for the corridor, but MoDOT is not committed to building continuous frontage roads in the near term. MoDOT is committed, however, to construct frontage roads for the purposes of maintaining existing local service connections and maintaining existing access to adjacent properties. Each frontage road will be evaluated on an individual basis as to whether or not any existing discontinuities will be

addressed as part of the initial construction. Improvement of existing discontinuities will depend on the availability of construction funding and relative priorities.

Within SIU 2, there are approximately 128 linear miles (206 kilometers) available for frontage roads on the north and south sides of I-70. Of the 128 miles, 53 miles (85 kilometers) of frontage roads would be constructed initially along with mainline construction to maintain access to residences, businesses or other private lands. Twenty-four miles (39 kilometers) of frontage roads along SIU 2 could be constructed at a later date, 27.6 miles (43 kilometers) of existing frontage roads could be utilized or upgraded in place, 20.1 miles (32.3 kilometers) of existing roads could be used as alternative frontage roads and 3.2 miles (5.1 kilometers) of SIU 2 would lack frontage roads due to rough terrain. The two locations where the frontage road system would have discontinuities occur east of mile marker 76.9 and east of mile marker 91.4. At both of these locations, topographical features make extensions of the frontage roads either too circuitous or inappropriately expensive given their utility. Exhibits showing the improvements show the future frontage road construction in a format different from the initial frontage road construction (Appendix A, DEA).

In addition to the physical improvements, implementation of the Preferred Alternative in SIU 2 would also include the reconstruction of the westbound weigh station facility due to roadway construction. The Preferred Alternative will also include the installation of electronic signage and other technology to assist motorists and improve traffic conditions (Intelligent Transportation Systems) (ITS) and the implementation of the Rest Area Master Plan. The Rest Area Master Plan includes the consolidation of rest areas along I-70 into three improved and expanded rest areas between St. Louis and Kansas City.

As part of the Second Tier studies for I-70, an Enhancement Subcommittee was established to prepare a Corridor Enhancement Plan for I-70. Overall, these enhancements predominantly involve visual quality and aesthetic improvements that would result in beneficial impacts. However, other key components would likely include improved interaction between pedestrians, cyclists and motorists.

#### **4. Selected Alternative**

The Selected Alternative for SIU 2 was based on the overall assessment of potential social and natural environmental impacts, engineering performance and the alternative's ability to satisfy the Purpose and Need, along with public and resource agency involvement process. The general public and agencies provided comments on the selected alternative during the 30-day public review period. These comments were addressed and based on the analysis of impacts caused by the selected alternative, there appears to be no significant impact to social, cultural and environmental resources caused by the project.

#### **5. Consultation and Coordination**

Consultation and coordination related to planned improvements to I-70 began with the First Tier EIS Summary (Appendix B, DEA) during the year 2000 and continued as part of the statewide Second Tier NEPA efforts for each of the seven SIUs. During the First Tier Study, MoDOT provided numerous specific opportunities for public, local, state and federal agency input. The results of the First Tier Study are documented in the First Tier EIS.

The Second Tier public involvement program provided further and more specific opportunities for public and agency input. These efforts have involved and continue to involve interested

agencies, local units of government and the general public through various means. This effort has resulted in a wide range of comments and input into the development and evaluation of the various improvements as defined in the DEA.

The SIU 2 public involvement process started with initial strategy meetings to determine the goals and objectives of the public involvement plan. Once the goals and objectives were established, a public involvement plan was prepared. The plan included information postcards, public workshops, media outreach, newsletters and community meetings. A project web site was also developed ([www.improvei70.org](http://www.improvei70.org)) to provide public access to background information about the Improve I-70 Study and to serve as a repository for reasonable alternatives and other project related information.

The initial newsletter was mailed to approximately 469 individuals within SIU 2. Following the newsletter publication, a postcard was mailed to the SIU 2 address list to inform and remind individuals of the public workshops. Two public workshops were held in SIU 2 at Concordia and Blackwater on April 15 and 16, 2003, respectively. Approximately 160 people attended the workshops and 20 comment forms were received. Subsequent to the public workshops, the public involvement team met with community leaders in Concordia, Sweet Springs and Marshall. Additional consultation and coordination information is contained in Chapter V of the DEA.

## **6. Public and Agency Comments**

On November 11, 2004, the Draft Environmental Assessment for SIU 2 was made available to the public for a 30-day review and comment period. Numerous copies of the DEA were mailed to local, state and federal politicians and all of the individuals on the SIU 2 circulation list. In addition, copies of the DEA were made available at seven area public libraries. These libraries included: the Sweet Springs Public Library, the Trails Regional Libraries in Concordia and Odessa, the Boonslick Regional Libraries in Boonville and Sedalia, the Robertson Memorial Library in Higginsville and the Marshall Public Library. On December 2, 2004, the official public hearing SIU 2 was held at the Concordia Community Center in Concordia, Missouri. Seventy-nine individuals signed in at the public hearing. Members of the study team and MoDOT staff were on hand to speak with interested persons about the project and to answer any questions.

Ten comments were received at the hearing, three comment forms were received via electronic mail subsequent to the public hearing and five comment forms concerning SIU 2 were received at the SIU 3 public hearing. The majority of the written comments were related to the location of frontage roads relative to private property disruption, noise and access to agricultural fields. Three of the eighteen comment forms were written specifically approving of the project. Responses to agency and public comments are included in the comment summary in Chapter VI of this document.

The SIU 2 Study Team received one agency correspondence letter from the Missouri Department of Natural Resources (MDNR). A copy of this letter is located in Chapter VI of this document.

## **B. Environmental Consequences**

The environmental impacts anticipated for the No-Build and Preferred Alternatives, both beneficial and adverse, are summarized in the following table (Table I-1). Table I-1 presents a summary of the social, economic and environmental impacts associated with the No-Build and

the Preferred Alternatives. The impacts associated with implementation of the No-Build provide a basis of comparison for the alternatives considered.

Based on the results of this Environmental Assessment (EA), the impacts associated with implementation of the selected alternative apparently will not be significant. The predominant impacts associated with implementation of the selected alternative include, business and residential displacements, impacts to floodplains, wetlands, architectural and archaeological resources, impacts to lands enrolled in the wetland and conservation reserve programs and impacts to prime farmland. Although specific impacts to residences and businesses will occur, due to the dispersed rural population in SIU 2 and the lack of minority or low-income populations, no undue or disproportionate impacts will occur. In addition, due to the length of SIU 2 and the fact that SIU 2 is the longest section of independent utility between Kansas City and St. Louis, the impacts presented in this EA are not deemed to be significant and there are no apparent unresolved issues.

**Table I-1: Summary of Social, Economic, and Environmental Impacts**

Evaluation Factor	No-Build	Preferred Alternative*	Route 13 Interchange		Route 23 Interchange		Route 127 Interchange		U.S. 65 Interchange		Route 135/41 Interchange	
			Alt. A Diamond	Alt. B SPUI	Alt. A Diamond	Alt. B SPUI	Alt. A Diamond	Alt. B Partial Folded Diamond	Alt. A No-Build	Alt. B Diamond	Alt. A Diamond	Alt. B Diamond to the West
Land Use	No impacts	Minimal impact to rural agricultural uses	Minimal impact	Minimal impact	Minimal impact	Minimal impact	Minimal impact					
Prime Farmland	No impacts	490 acres	2 acres	2 acres	3 acres	2 acres	13 acres	13 acres	No Impact	No Impact	26 acres	26 acres
Social Impacts**	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts	Mobile home park near interchange	Mobile home park near interchange	No Impact	No Impact	Outer road near neighborhood	New area developed, west of existing interchange
Displacement Impacts	No impacts	21 bus. 33 res.	1 bus. 0 res.	1 bus. 0 res.	4 bus. 0 res.	3 bus. 0 res.	4 bus. 3 res.	4 bus. 4 res.	0 bus. 0 res.	0 bus. 0 res.	4 bus. 4 res.	5 bus. 6 res.
Partial Takes	No. impacts	38 bus. 26 res.	3 bus. 0 res.	3 bus. 0 res.	10 bus. 1 res.	8 bus. 1 res.	3 bus. 8 res.	3 bus. 7 res.	0 bus. 0 res.	0 bus. 1 res.	8 bus. 3 res.	2 bus. 3 res.
Economic Dev. Impacts	No impacts	50-year benefits of a multi-million dollar project and numerous jobs	50-year benefits of a multi-million dollar project and numerous jobs	50-year benefits of a multi-million dollar project and numerous jobs	50-year benefits of a multi-million dollar project and numerous jobs	50-year benefits of a multi-million dollar project and numerous jobs	50-year benefits of a multi-million dollar project and numerous jobs	50-year benefits of a multi-million dollar project and numerous jobs	Mainline improvement would benefit neighboring communities	50-year benefits of a multi-million dollar project and numerous jobs	50-year benefits of a multi-million dollar project and numerous jobs	50-year benefits of a multi-million dollar project and numerous jobs
Air Quality	No impacts	No Violation of NAAQS	No Violation of NAAQS	No Violation of NAAQS	No Violation of NAAQS	No Violation of NAAQS						
Water Quality	No impacts	Minor impacts to creek and river crossings	1 crossing	1 crossing	4 crossings	4 crossings	3 crossings	3 crossings	No Impact	No Impact	3 crossings	0 crossings
Noise Impacts (Receptors)	No impacts	8 bus. 71 res. 1 Cons. Area; 1 cmpgrd.	Minimal impact	Minimal impact from mainline only	Minimal impact	Minimal impact	Minimal impact					
Terrestrial Community	No impacts	No impacts to threatened or endangered species.	No impacts to threatened or endangered species.	No impacts to threatened or endangered species.	No impacts to threatened or endangered species.	No impacts to threatened or endangered species.						

\*Mainline and interchange improvements

\*\*Social impacts are defined as potential impacts to subdivisions, mobile home parks, neighborhoods or other areas of congregated families.

 Preferred Alternative

**Table I-1: Summary of Social, Economic, and Environmental Impacts (Continued)**

Evaluation Factor	No Build	Preferred Alternative*	Route 13 Interchange		Route 23 Interchange		Route 127 Interchange		U.S. 65 Interchange		Route 135 Interchange	
			Alt. A Diamond	Alt. B SPU	Alt. A Diamond	Alt. B SPU	Alt. A Diamond	Alt. B Partial Folded Diamond	Alt. A No-Action	Alt. B Diamond	Alt. A Diamond	Alt. B Diamond to the West
Wetlands	No impacts	26.9 acres	0 ac.	0 ac.	0 ac.	0 ac.	2.4 ac.	2.4 ac.	No impacts	0 ac.	0 ac.	0 ac.
WRP lands	No impacts	8 acres	0 ac.	0 ac.	0 ac.	0 ac.	2 ac.	2 ac.	No impacts	0 ac.	0 ac.	0 ac.
CRP lands	No impacts	28 acres	0 ac.	0 ac.	0 ac.	0 ac.	2 ac.	4 ac.	No impacts	0 ac.	1 ac.	10 ac.
Water Body and Wildlife	No impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	No impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts
Forested Areas	No impacts	294 acres	4 ac.	4 ac.	3 ac.	2 ac.	4.3 ac.	4.3 ac.	No impacts.	0 ac.	2 ac.	0 ac.
Floodplain crossed	No impacts	98 acres	1.3 ac.	1.3 ac.	0 ac.	0 ac.	3.2 ac.	3.2 ac.	No impacts.	0 ac.	0 ac.	0 ac.
Architectural Resources	No impacts	1 eligible architectural resource	0 eligible resources	0 eligible resources	0 eligible resources	0 eligible resources						
Archeological Resources (recommended for Phase II)	No impacts	14 potential resources	0 eligible resources	0 eligible resources	0 eligible resources	0 eligible resources	0 eligible resources	0 eligible resources	0 eligible resources	0 eligible resources	0 eligible resources	0 eligible resources
Hazardous Waste Sites	No impacts	33	2	2	5	4	2	2	No impacts	No impacts	7	6
Visual Quality	No impacts	Low impact	Low impact	Low impact	Low impact							
Construction	No impacts	Temporary impacts to air, noise and water, mitigated by pollution controls	Temporary impacts to air, noise and water, mitigated by pollution controls	Temporary impacts to air, noise and water, mitigated by pollution controls	Temporary impacts to air, noise and water, mitigated by pollution controls	Temporary impacts to air, noise and water, mitigated by pollution controls	Temporary impacts to air, noise and water, mitigated by pollution controls	Temporary impacts to air, noise and water, mitigated by pollution controls	Mainline temporary impacts to air, noise and water, mitigated by pollution controls	Temporary impacts to air, noise and water, mitigated by pollution controls	Temporary impacts to air, noise and water, mitigated by pollution controls	Temporary impacts to air, noise and water, mitigated by pollution controls
Cost**.	\$372,000	\$956,000	\$30,000	\$44,000	\$54,000	\$56,000	\$27,000	\$28,000	\$8,000	\$23,000	\$22,000	\$18,000
Parklands	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts

\*Mainline and interchange improvements

\*\*Costs are in thousands. Cost of the No-Build Alternative includes reconstruction of the existing facility through the Year 2030.

 Preferred Alternative