

10.0 UNAVOIDABLE ADVERSE IMPACTS

This chapter documents the adverse environmental impacts of the Preferred Alternative that cannot be avoided; the relationship between short-term use of the environment and the maintenance and enhancement of long-term productivity; and irreversible and irretrievable commitment of resources which would be involved with the Preferred Alternative. This chapter is not intended to repeat the environmental impacts discussed in the previous chapters, but rather to summarize the impacts that cannot be avoided as required under 40 CFR, Part 1502.16.

10.1 ADVERSE IMPACTS THAT CANNOT BE AVOIDED

10.1.1 RIGHT-OF-WAY ACQUISITION AND RELOCATION

Sixty-one residential dwelling units and 35 businesses will be relocated due to right-of-way acquisition needed for the Preferred Alternative. (Additional impacts could occur if a design approach other than that associated with the Preferred Alternative is implemented at the East Bush Lake Road interchange, as described in Section 5.2.3.2.) Each property owner will be compensated for acquisition and/or relocation costs according to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) (49 CFR Part 24). However, property owners and occupants would experience unavoidable inconvenience as a result of relocation.

Actual net property tax losses within each municipality will depend on the extent to which residents and commercial businesses relocate within the same city. The initial loss in property taxes may be partially or fully offset by potential increases in commercial property value within the corridor with redevelopment and improved access.

10.1.2 NOISE

As is the case under current conditions, there would be exceedences of federal noise abatement criteria and/or state noise standards at numerous locations along the project corridor with implementation of the Preferred Alternative. As discussed in Section 6.2.4 of this FEIS, noise mitigation has been determined to meet Mn/DOT's cost-effectiveness criteria at five locations along the project corridor: east of TH 100, north of 77th Street; north of I-494 between Xerxes and Penn Avenue; an apartment complex north of I-494 and west of Portland Avenue; north of I-494 between Portland Avenue and 12th Avenue; and an apartment complex north of I-494 and east of 12th Avenue. All other studied noise wall segments did not meet Mn/DOT's cost-effectiveness criteria. For the areas identified above that are designated by the City of Richfield's *Comprehensive Plan* (1997) for commercial land use in the future, noise walls will be proposed if residential land use is still in effect at the time of project construction; if the area has converted to commercial land use, noise barriers will not be proposed. Cost-effectiveness analyses will be re-evaluated during final design as each phase of the project is implemented, as described in Section 6.2.5.

10.1.3 WETLANDS

The Preferred Alternative would affect approximately 9.1 hectares (22.5 acres) of total wetland area. Complete avoidance of wetland impacts is not possible due to several factors, including the presence of wetlands on both sides of the existing roadway alignment in many areas, the need to widen the roadway to meet capacity requirements and current roadway design standards, and the need to provide storm water detention/treatment facilities in conjunction with project construction. Impacts on wetland areas would be mitigated by creating new wetlands or creating other types of replacement land. Applicable state and federal regulations require a replacement ratio of 2:1 if replacement is within the same watershed or county as the impact; replacement that is not in the same watershed or county would be required at a 2.5 to 1 ratio; and replacement from an established wetland bank would be required at a 2.25 to 1 ratio. Created or new wetlands would be used for the first 1:1 ratio, and Public Value Credit areas may be used in excess of the initial 1:1 ratio.

10.1.4 VEGETATION

The Preferred Alternative would result in impacts to wooded areas along the project corridor. While it is not possible to replace the acquired trees with mature trees, mitigation for the loss of the wooded areas would be provided by planting new trees near the areas of impact, where possible.

10.1.5 CONSTRUCTION

The Preferred Alternative would result in unavoidable temporary environmental impacts due to the necessary construction activities. Impacts associated with construction include:

- **Disruption of Traffic Flow:** The Preferred Alternative would result in traffic impacts during construction. Travelers would experience congestion, traffic delays, access changes, frequent lane shifts, rerouting and, potentially, temporary street closures. The Preferred Alternative would include several measures to mitigate these impacts including timely notice of upcoming construction activities, informational signing to advise drivers of access changes, and traffic control measures to protect both motorists and construction workers. A construction management plan will be prepared to minimize disruptions and detours, and to ensure access to all affected properties. A Mn/DOT Corridor Coordinator will oversee construction phasing and activities to minimize traffic and access impacts to the degree practicable.
- **Air Quality:** Construction activities associated with the Preferred Alternative will result in increases in dust, air-borne particulates and air emissions from construction vehicles. There will also be increased congestion and resulting air quality impacts associated with construction activities. These impacts will be temporary and will occur at varying times and locations along the project corridor. Construction contractors will be required to control dust

and other airborne particulates in accordance with Mn/DOT specifications. Mitigation of air impacts will include such measures as applying water to exposed soils, and limiting the extent and duration of exposed soils. Congestion levels will be limited to the degree feasible with the disruption of traffic flow mitigation measures identified above.

- **Noise:** Construction activities will result in temporary noise impacts. To mitigate for these impacts, Mn/DOT will require construction equipment to be properly muffled. In addition, the contractor(s) will need to comply with applicable local and state noise restrictions.
- **Water Resources and Wetlands:** During construction activities, sediment from erosion of exposed soils has the potential for entering surface water run-off and impact wetlands and surface waters in the vicinity of the project area. Appropriate mitigation measures for erosion and sedimentation impacts will be implemented during construction, including Best Management Practices (BMPs).

10.1.6 PARKLAND/RECREATIONAL AREAS

The Preferred Alternative will require the acquisition of approximately 7.2 hectares (17.8 acres) of parkland/recreation area. The Preferred Alternative will impact three park/recreation areas along the project corridor, including: Hyland-Bush-Anderson Lakes Regional Park Reserve, Beaverbrook Field and an unnamed open space corridor in Bloomington. The proposed improvements will require the full acquisition of one of these park/recreation areas – Beaverbrook Field. Mn/DOT will mitigate these park impacts as discussed in Chapter 8.

10.1.7 CULTURAL RESOURCES

The Preferred Alternative will impact two properties determined to be eligible for listing on the National Register of Historic Places – the Anna and Joseph Lorence Residence and the Elizabeth and Frederick H. Carpenter Summer Residence. Although the Preferred Alternative will not directly affect either of these properties, the proposed improvements will result in limited increases in noise levels at both properties. Design of the roadway in proximity to both of these properties will be coordinated with the State Historic Preservation Office to minimize noise and visual impacts as discussed in Chapter 9.

10.2 SHORT-TERM USE OF RESOURCES VERSUS LONG-TERM PRODUCTIVITY

Short-term adverse impacts and use of resources associated with the Preferred Alternative would include:

- The consumption of energy and use of natural and material resources required for construction activities.
- Temporary increases in dust and noise levels during construction.

- Temporary impacts on water resources due to construction activities.
- Temporary inconveniences for drivers, including traffic delays and detours during construction.
- Temporary interruption in social and business relationships due to relocation.
- Short-term economic impacts related to construction delays, customer diversions, and goods movement costs.
- Short-term reduction in tax base.
- Large capital investment.

Primary long-term gains in productivity associated with the Preferred Alternative include:

- Improved accessibility for goods movements, transits riders, automobile drivers and passengers, and bicyclists and pedestrians.
- An increase in people-carrying capacity and goods movement capacity through the HOV components of the project.
- A reduction in travel time and therefore a reduction in the cost of travel.
- A reduction in the number and severity of accidents throughout the I-494 corridor including parallel regional and local roadways.
- Enhanced structural condition and geometrics of roadways and bridges in the project corridor.
- Improvements in surface water drainage.
- Reduction in regional and corridor-wide carbon monoxide emissions due to decreased traffic congestion levels.
- Area-wide commerce improvements.

The proposed transportation improvements are based on state, regional and local comprehensive planning, which consider existing and future traffic needs within the context of present and future land use development. The short-term impacts and use of resources by the Preferred Alternative are justified, given the resulting maintenance and enhancement of long-term productivity for the state, region and local communities. The No-Build Alternative would not result in any short-term adverse impacts to the environment; however, it would also not create the transportation, economic, or other benefits identified above.

10.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The Preferred Alternative would result in the commitment of a range of natural, physical, human and fiscal resources that would be permanently dedicated to public use, and could not be reversed or retrieved. The No-Build Alternative would not change the present (and assumed future) commitments of these resources for public use.

In general, the commitment of resources which are considered irreversible and irretrievable directly relate to the trade-offs inherent to the short-term use of the environment versus the maintenance of long-term productivity. Applicable mitigation measures which will be used to address commitment and loss of resources have been discussed in previous chapters. Commitments of resources which are considered either wholly or in part as irreversible and irretrievable fall into the following categories:

Land Resources

The Preferred Alternative would require the acquisition of developed and undeveloped land, including wetland areas, for purposes of roadway construction. Within the foreseeable future, this commitment of property to roadway use is considered irreversible and irretrievable as long as the facility continues to serve the public good and thus are in use.

Social Resources

The proposed improvements will result in the demolition of residential homes, businesses and community facilities. Parklands will also have to be acquired. These actions are considered to be irreversible and irretrievable commitments. Applicable mitigation measures are addressed in other sections of this FEIS.

Construction Materials

The construction of the Preferred Alternative will result in the commitment of such materials as steel, concrete, sand, aggregate and bituminous products which are largely irreversible and irretrievable. However, none of these materials is in short supply and their use would not have an adverse affect upon continued availability of these resources. In addition, some of these materials may have salvage value and may be recycled at the end of the facility's design life.

Energy Resources

Several energy resources will be committed to the project including petroleum, natural gas, electrical and manpower expenditures for construction, operation and maintenance. These resources are generally irretrievable.

Financial Resources

The proposed reconstruction of I-494 will require considerable federal and state financial commitment. Preliminary estimates for the cost of right-of-way and construction for the Preferred Alternative are approximately \$613 million. Funds used for the design, construction and maintenance of the facility will be totally committed to this project and unavailable for other uses. While these public funds are not directly retrievable, the investment will enhance the safety of the users of I-494 and the economic vitality of the metropolitan center, the cities of Minnetonka, Eden Prairie, Edina, Bloomington, Richfield and the entire region.

The commitment of these resources is based on the concept that residents in the immediate area, region and State will benefit by the improved quality of the transportation system. These benefits, relative to the No-Build Alternative, include increased capacity (resulting in reduced congestion, delays, and air quality impacts), improved HOV capabilities, and an improved structural condition of the overall facility. They are anticipated to outweigh the commitment of resources discussed above.