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4.17 Irreversible and Irretrievable Commitments of Resources

This section discusses the irreversible and irretrievable commitments of resources associated with the system alternatives, which include System Alternatives 1, 2, 3, and the Preferred Alternative. The resources could be natural, physical, human, or fiscal in nature.

4.17.1 Consequences of the Alternatives

4.17.1.1 NO ACTION ALTERNATIVE

The No Action Alternative would involve no changes to the project area due to the proposed project. Therefore, there is no commitment of additional resources formally proposed for the project. However, physical and financial resources would still be required to maintain the current infrastructure. Over time, these resources could resemble the commitments for the system alternatives because some of the infrastructure would eventually have to be replaced completely.

4.17.1.2 SYSTEM ALTERNATIVES 1, 2, 3, AND THE PREFERRED ALTERNATIVE

Implementation of any of the system alternatives, including the Preferred Alternative, would involve a similar commitment of resources. The system alternatives would involve the commitment of a range of natural, physical, human, and fiscal resources.

Additional property for road right-of-way would be necessary, and this is considered an irreversible commitment. The project corridor is in a highly developed urban area, and right-of-way acquisition would require relocations. Potential relocations are described in **Section 4.2 Right-of-Way and Displacements**. Conversely, disruption to natural areas would be minimal because of the urbanized environment. Land used temporarily during construction would also be a commitment, but only during construction.

Highway construction materials, such as cement, aggregate, fuel, and bituminous material, would be consumed. Additionally, labor and natural resources would be used in the fabrication and preparation of construction materials. Consumption of these materials would generally be irretrievable. However, these materials are not in short supply and their use would not have an adverse effect on the continued availability of such resources.

Construction would require the expenditure of both state and federal funds, which also are irretrievable.

4.17.2 Mitigation Measures

Sustainable construction and designs can mitigate irreversible and irretrievable resource depletion and improve air quality, noise, traffic, and community relations. CDOT's environmental mission statement and environmental policy are identified in the *Environmental Stewardship Guide* (CDOT, 2003d). Each of the system alternatives may affect environmental resources not regulated at the federal, state, or local level. Such impacts could include natural resources, such as fossil fuel, electricity, water, gravel, soil, and ore. In some cases, such impacts can not be quantified and cannot be avoided.

Sustainable practices will be explored during the project design phase to the extent practicable. Some of the concepts to be explored may include, but are not limited to:

- Resource conservation
- Material reuse
- Waste minimization
- Minimal use of virgin materials
- Conservation and efficient use of water and energy
- Air pollution prevention
- Use of locally available resources