3.25 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

What's in Section 3.25?

Implementation of any of the build alternatives would involve a commitment of a wide range of natural, physical, biological, human, and fiscal resources. The commitment of these resources would be based on the concept that residents in the regional study area and the State of Colorado would benefit from the improved quality of the transportation corridors. Benefits would include improvements to safety and accessibility, an increase in travel efficiency, and increased availability of services. The benefits of the build packages are anticipated to outweigh the irreversible and irretrievable commitment of resources.

Land that would be used in the construction of transportation improvements associated with any of the build alternatives would be considered an irreversible commitment of resources, since it is unlikely that this land would ever be converted to another use. The removal of vegetation for construction of additional highway lanes or railway lines would result in an irretrievable loss of vegetation from the regional study area, however much of this would be considered shortgrass and is mitigated within the CDOT shortgrass prairie initiative. The shortgrass prairie initiative is a proactive conservation/mitigation measure developed by the U.S. Fish and Wildlife Service, the Nature Conservancy, FHWA, and CDOT. As part of the initiative, CDOT directs funds to purchase priority habitat conservation sites to offset habitat loss caused by future transportation improvements.

Wetlands within the alignments of the build alternatives may be removed or degraded by construction and roadway activities, and though regulations and policy regarding wetlands compensation are designed to ensure no net-loss of wetlands, the original wetlands would be considered an irretrievable loss.

Direct removal or major alteration of historic structures and substantial encroachment upon historic properties required for construction of the transportation improvements would be considered an irreversible loss of historic resources. Package A would require the acquisition and removal of three historic buildings, and an additional two linear historic properties (one irrigation ditch and one railroad) would be subjected to substantial direct impacts. Package B would not result in the taking of any historic structures; however, one historic irrigation ditch would be subjected to substantial direct impacts. The Preferred Alternative would result in the loss of one historic structure. Additionally, the same two linear resources directly impacted by Package A would be subject to relatively similar impacts under the Preferred Alternative.

Parks and recreation areas would be impacted by all build packages resulting in irretrievable losses of these areas in their present state. However, these impacts can be mitigated by acquisition of land and replacement of the recreation features. An approximate total of 17.33 acres would be impacted by Package A, while 14.54 acres would be impacted by Package B. The Preferred Alternative would impact 15.66 acres of park and recreation areas.

Fossil fuels would be irretrievably expended in several ways under the build packages. Fossil fuels would be consumed during the construction of transportation improvements during grading, material movement (e.g., hauling aggregate for concrete), and other activities.

Construction materials, such as aggregate for concrete and petroleum products used in asphalt and in the operation of construction equipment, would not be retrievable. Irreversible use of resources may occur at gravel mining sites that are used by contractors. In addition, considerable labor and natural resources would be used in the fabrication and preparation of construction materials. These irretrievable losses are in exchange for the benefits provided by the build alternatives.

Irretrievable and irreversible commitments of labor, funding, energy, and materials would occur during full build out of the North I-25 project. Some improvements to North I-25 would occur in phases prior to construction of the entire Preferred Alternative and would need to be reconstructed as part of the implementation of the entire Preferred Alternative. As a result, some elements of the Preferred Alternative would need to be reconstructed as phases are completed, which would result in irretrievable losses of labor, funding, energy, and materials. However, the decision to proceed this way was made due to existing funding limitations. The elements of Phase 1, including commuter bus and express bus stations, interchange reconstruction, and tolled express lanes, are anticipated to provide a substantial benefit to corridor users and would therefore offset the irreversible impacts. For more information on phasing, see **Chapter 8** *Phased Project Implementation*.

CDOT is committed to the concept of sustainability in order to preserve, to the extent possible, vital natural resources in the State of Colorado. Specifically, a Sustainability Subcommittee within the Transportation Environmental Resource Council (including CDOT and FHWA) was created to discuss sustainability guidelines. Sustainability is defined as the wise use of our planet's resources such that the quality of life for future generations will not be compromised. CDOT has initiated a program that stresses sustainability concepts to its contractors. Contractor requirements identified in CDOT's construction specifications include recycling of pavement and steel reinforcement materials, and the use of environmentally sound materials. CDOT also encourages innovative approaches to construction and highway operations, such as the use of solar power systems for lighting and traffic signals, the use of recycled materials as asphalt compounds, and water and stormwater management systems that incorporate concepts to protect and conserve water resources. Additionally, the Sustainability Policy published by the Colorado Governor's Energy Office in July 2008 provides examples on energy efficiency and conservation of resources.

Fiscal resources, such as state and federal funds required for the implementation of the build packages, would be consumed and unavailable for other projects in the region. However, the funds invested would benefit the travelers of the roadway and transit facilities and the communities relying on the roadway and transit facilities for connectivity to other communities.