5.22 Short-Term Uses versus Long-Term Productivity

This section discusses an evaluation of the tradeoffs between the short-term uses of the local environment versus the positive long-term productivity provided by the project alternatives.

Since the Supplemental Draft EIS was published in August 2014, additional analyses and content review have been performed for many of the resources discussed in this document. These updates, along with changes resulting from the comments received on the Supplemental Draft EIS, have been incorporated into this Final EIS. In this section, no content-related updates were made.

5.22.1 What is the relationship between the short-term uses of the environment and long-term productivity and why is it important to this project?

The relationship between local, short-term uses of the environment and the maintenance and enhancement of long-term productivity of resources serves as a benchmark for decision makers, who must determine if the benefits to long-term productivity outweigh negative impacts from the short-term uses of the environment.

5.22.2 What study area and evaluation process were used to determine the short-term uses and long-term productivity?

The study area for short-term uses and long-term productivity is consistent with the study area for each resource. To determine impacts of short-term uses on long-term productivity, "short-term" and "long-term" timeframes are defined. "Short-term" describes impacts that occur while a project alternative is being constructed and otherwise implemented. "Long-term" impacts are those that persist over an extended period of time after an alternative is fully implemented. With timeframes defined, subjective evaluations of short-term impacts versus long-term benefits can be made.

5.22.3 How do the project alternatives potentially affect short-term uses and long-term productivity?

No major negative impacts are expected for short-term uses versus long-term productivity. Short-term use impacts from the No-Action Alternative and the Build Alternatives (but to a greater degree for the Build Alternatives because of their larger footprint) include noise, fugitive dust, energy use, right-of-way relocations, and cost required for construction.

Short-term use impacts are offset by the benefits to long-term productivity generated by the project alternatives. This is most true of the Build Alternatives, which add travel capacity required by growing demand, and are called for in long-range plans such as the *CDOT 2040 Statewide Transportation Plan* (CDOT, 2015a).

Only the Build Alternatives provide the long-term benefits of improved mobility, accessibility, and safety. Due to improved mobility and accessibility, the time spent in congestion will decrease compared to the No-Action Alternative, resulting in approximately 13,000 hours of daily time savings (Dunham, 2013). While the No-Action Alternative improves safety by replacing the deficient viaduct structure, it does not provide the additional safety improvements planned along the entire project corridor. It will ultimately result in slower travel speeds, longer travel times, and higher congestion levels.

The ratio of short-term use versus long-term productivity favors the Build Alternatives, which deliver substantial long-term benefits—unlike the No-Action Alternative, which will require short-term uses but not produce the aforementioned long-term benefits of the Build Alternatives.

5.22.4 How are the negative effects from the project alternatives mitigated for short-term uses?

Short-term impacts will be minimized through the sum of all mitigation measures described in Chapter 5, Affected Environment, Environmental Consequences, and Mitigation; Sections 5.2 through 5.19.