

5.21 Short-Term Uses and Long-Term Productivity

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

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

The relationship between short-term uses of the local environment and long-term productivity 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.

5.21.2 Have there been any changes to short-term uses and long term productivity since the release of the 2008 Draft EIS?

The 2008 Draft EIS did not include an analysis of the short-term uses and long-term productivity. NEPA (Section 102, Title 42 USC §4332), the CEQ implementing regulations (40 CFR 1502.16), and the FHWA Technical Advisory T6640.8A require federally related actions with the potential to affect the quality of the human environment to provide a statement on “the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity” (42 USC §4332(C)).

5.21.3 What study area and evaluation process were used to determine the short-term uses on 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- and long-term benefits versus impacts can be made.

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

No substantial negative impacts are expected for short-term uses versus long-term productivity. Short-term use impacts from both 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 *2035 Statewide Transportation Plan* (2008).

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.

5.21.5 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 Sections 5.2 through 5.19.