

CHAPTER 4.0: ENVIRONMENTAL ANALYSIS

4.1 INTRODUCTION

This chapter presents information for the No-Action, Baseline, and BART alternatives for the following environmental topical areas:

- Transportation and Transit
- Air Quality
- Biological Resources and Wetlands
- Community Services and Facilities
- Cultural and Historic Resources
- Electromagnetic Fields
- Energy
- Environmental Justice
- Geology, Soils, and Seismicity
- Hazardous Materials
- Land Use
- Noise and Vibration
- Security and System Safety
- Socioeconomics
- Utilities
- Visual Quality and Aesthetics
- Water Resources, Water Quality, and Floodplains

Each section in the chapter presents the environmental setting or affected environment for the topical area, the long-term impacts of the SVRTC alternatives on that environment, the design requirements and best management practices applicable to the alternatives, and mitigation measures to avoid or reduce impacts. Additional information such as regulatory setting, methodology, measurement data, and impact criteria is included where necessary to facilitate the reader's understanding of the subject.

Also included in this chapter is a discussion of the construction scenario for the Baseline and BART alternatives. The construction-related environmental concerns for each topical area are presented in the same order as those listed above. The construction setting and methodology is presented, short-term impacts of the alternatives are discussed, and mitigation measures are proposed.

Design requirements and best management practices include required design standards and codes; federal and state environmental laws and regulations, including permitting requirements; and practices that are already part of VTA's existing construction procedures. These design requirements and best management practices will minimize or avoid many project impacts. Mitigation measures are proposed to address impacts that are not otherwise avoided or minimized by implementation of design requirements and best management practices.

The MOS scenarios are also analyzed for each environmental topical area as sub-options under the "full-build" BART Alternative. Even though the second phase of either MOS scenario (MOS-2E or MOS-2F) would be completed within three years from the initial start-up of the first phase (MOS-1E or MOS-1F), a year 2025 planning horizon is used for evaluation purposes. This provides a consistent basis for comparison to the No-Action, Baseline, and BART alternatives.

For the most part, the MOS scenarios would have similar environmental benefits, impacts, design requirements and best management practices, and mitigation measures as the full-build BART Alternative. However, deferring project elements under the MOS scenarios would result in minor changes to ridership, traffic, air quality, biological resources, community facilities, energy, land use, socioeconomics, visual, water resources, and construction. These changes are primarily attributed to the MOS-1E scenario, which defers two stations.

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