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Commitment of Resources

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This chapter discusses natural and human-made resources that would be irretrievably committed during construction or operation of the Proposed Action, becoming unavailable for future use. An irreversible and irretrievable commitment of resources results in the permanent loss of a resource for future uses (or alternative purposes) as the resources cannot be replaced or recovered. Typically, for a major development project such as the Proposed Action, irreversibly and irretrievably committed resources include land, energy, construction materials, and human effort (i.e., time and labor). Some of these resources generally are irreversible and irretrievable for the life of the project, such as land and building materials (even if they may eventually become available again). Other resources are irretrievable beyond the project's lifespan, such as energy and human effort. This chapter also compares the short-term uses of the environment (that is, effects during construction) with long-term benefits over the operational lifetime of the Proposed Action.

21.1 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Natural and human-made resources would be expended in the construction and operation of the Proposed Action. These natural resources include the use of land, mature trees, and energy. Human-made resources include the effort required to develop, construct, and operate the Proposed Action; building materials; financial funding; and motor vehicle use. These resources are considered irretrievably committed for the life of the project or beyond.

The use of land is the most basic of irretrievably committed resources, as the development of the Proposed Action requires the commitment of land for new physical elements such as trackwork, stations, substations, and a light maintenance/storage facility. However, the Proposed Action would be using land already used for urban development and transportation right-of-way and thus would not be further committing land resources to these uses.

The Proposed Action would result in irreversible clearing and grading of vegetation within the Proposed Action alignment and other directly affected areas as well as modification to topography. The loss of vegetation is considered an irreversible commitment of resources, although replacement vegetation would be included in the Proposed Action. Soil or rock removed during tunneling or used to modify the grade of the Proposed Action alignment or other directly affected areas would be irretrievably committed for the lifetime of the Proposed Action.

The actual building materials used in the construction of the Proposed Action (steel, concrete, glass, etc.) and energy, in the form of gas and electricity, consumed during the construction and operation of the Proposed Action, would also be irretrievably committed to the Proposed Action for the life of the project or beyond.

None of these irreversible or irretrievable commitments of resources are considered significant.

21.2 SHORT-TERM EFFECTS/LONG-TERM BENEFITS

In some locations within the study area, short-term construction-related effects of Proposed Action, as discussed in Chapter 19, “Construction Effects” would include temporary parking loss, easements for staging areas and construction access, temporary lane or road closures, and temporary property access restrictions. Additionally, short-term visual effects, localized airborne dust and emissions, elevated noise and vibration levels, utility interruptions, and temporary disturbances to habitat, wetlands, and soils also are anticipated in some locations during the construction of the Proposed Action. However, the short-term use of human, socioeconomic, cultural, and natural resources would contribute to the long-term benefits that the Proposed Action is intended to provide, as described in this DEIS.