



TIER 1 DRAFT ENVIRONMENTAL IMPACT STATEMENT

7.21 Irreversible and Irretrievable Commitment of Resources

7.21 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

7.21.1 Introduction

This section provides a brief description of the potential commitment of resources that would result from implementation of any of the Tier 1 Draft Environmental Impact Statement (Tier 1 Draft EIS) Action Alternatives.

7.21.2 Definition of Resource

An Action Alternative may cause irreversible and irretrievable commitments of resources; this kind of impact may have short-term effects or long-term benefits to a variety of resources. Of particular concern would be those resources that may be considered scarce or rare—such as high-quality wetlands/habitats, historic resources, or something that may be considered irreplaceable—and those effects that could not be reduced or mitigated.

7.21.3 Commitment of Resources

Implementation of the Action Alternatives would result in effects on resources that are considered scarce and rare, and once used, are irretrievable. This Tier 1 Draft EIS evaluates a variety of resources at a broad level of detail. Based on the analysis conducted for this Tier 1 Draft EIS, the Federal Railroad Administration presents a qualitative assessment of the types of impacts that would result in irreversible and irretrievable commitments of resources.

Energy is a resource that is irretrievable and could become scarce and rare. While energy sources such as oil and gas are not currently considered rare, once used, they cannot readily be replaced. Improved passenger rail service and options may reduce the number of single-occupancy vehicle trips, thereby reducing energy usage related to transportation within the NEC FUTURE Study Area over the long term. During construction activities, energy usage and consumption may increase for a short time. Improvements in technology may also contribute to overall reductions in energy usage and consumption for both the long and short terms.

Natural resources—such as ecologically sensitive areas, threatened and endangered species, water resources and agricultural soils—would be affected by any of the Action Alternatives. Given the broad level of detail in this Tier 1 Draft EIS analysis, specific attributes of these resources that would make them particularly scarce or unique are unknown at this time. Degradation of natural habitats and resources would be irreversible. However, in some cases mitigation can be used to minimize the overall effects to these resources. Long-term effects on these resources would result from converting undeveloped land (which includes natural areas) to developed (including a transportation use), and the increases in impervious surfaces that would result in increased stormwater runoff. Short-term effects on these resources would be related to construction activities and would not likely result in irreversible commitments of natural resources.

Cultural and historic resources would be affected by any of the Action Alternatives. Destruction of cultural and historic resources would be an irretrievable commitment of resources. Long-term effects to these resources would result from earthmoving activities and removal of existing structures. Once disturbed, these resources cannot be replaced. However, in some cases portions of these resources would be preserved on- or off-site. Short-term construction-related effects on these resources may

result in temporary closure of a site—if open to the public—and temporary changes to the visual setting. These effects would be temporary and would not result in an irretrievable commitment of these resources.

Construction of the Action Alternatives would result in the commitment of resources through the use of fossil fuel, labor, and construction materials. Additional fuel and natural resources would be used in fabricating and preparing the construction materials. These materials are generally not in short supply, and their use would not have an adverse impact on the continued availability of the materials. Construction would also require the expenditure of local, state, and/or federal funds, which would not be available for use on other projects.

7.21.4 Subsequent Tier 2 Analysis

Potential effects and mitigation would be studied further and clarified in subsequent project-level analysis, design, and environmental review, which would provide a better understanding of effects and whether those effects would result in the irreversible and irretrievable commitments of resources.