Chapter 23: Commitment of Resources

23.1 INTRODUCTION

In accordance with relevant regulations and procedures for implementing National Environmental Policy Act (NEPA), the Council on Environmental Quality's implementing regulations (40 CFR Parts 1500-1508), and the Federal Railroad Administration (FRA) Procedures for Considering Environmental Impacts, this Environmental Impact Statement (EIS) includes an analysis of any irreversible or irretrievable commitment of resources that would occur if the Preferred Alternative is constructed, and of the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity.

Since the Draft EIS (DEIS), FRA and NJ TRANSIT revised this chapter to include an expanded discussion of the No Action Alternative in consideration of long-term productivity.

23.2 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

An irreversible or irretrievable commitment of resources results from the use of a resource that cannot be replaced or recovered, and results in the permanent loss of the resource for any future or alternate use.

Construction of the Preferred Alternative would require the irreversible and irretrievable commitment of building materials, including construction materials such as concrete, steel, and aggregate. The Preferred Alternative would also consume energy in the form of fossil fuels and electricity during the construction and operation of the new tunnel, approach tracks, fan plants, and rehabilitation of the North River Tunnel. These materials are available and their use for the Preferred Alternative would not have adverse impacts on their continued availability for other purposes. In addition to materials, funding and human labor would be required to design, build, and operate the Preferred Alternative.

The previous chapters of this EIS describe the measures to be implemented to avoid, minimize, and mitigate adverse impacts to resources. As discussed in Chapter 14, "Greenhouse Gas Emissions and Resilience," this includes the use of sustainable approaches to conserve and reuse resources whenever possible.

23.3 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Short-term effects on the environment typically result from construction impacts. Long-term effects relate to the maintenance and enhancement of long-term productivity, including consistency of a project with local and regional economic, social, planning, and sustainability objectives. This section compares the short-term uses of the environment with the Preferred Alternative's long-term productivity.

23.3.1 SHORT-TERM USES

Construction of the Preferred Alternative would have greater short-term effects on the environment than the No Action Alternative; however, these effects would be temporary, and any construction-related environmental impacts would be avoided, minimized, and mitigated wherever practicable.

23.3.2 LONG-TERM PRODUCTIVITY

Because it would not result in the needed comprehensive rehabilitation of the existing North River Tunnel, the No Action Alternative would likely result in negative effects to long-term productivity due to the deterioration of passenger rail as a viable transport mode in the New York metropolitan area and the Northeast region of the United States. In the No Action Alternative, the existing maintenance regimen in the tunnel will continue. This includes Amtrak's North River Tunnel Interim Reliability Improvements Program, initiated in 2020 to accelerate immediate maintenance and repair in the tunnel prior to its full rehabilitation. Amtrak expects that targeted interventions developed through this program can temporarily mitigate many of the maintenance issues in the North River Tunnel that result in train delays, but they cannot deliver the comprehensive rehabilitation of the North River Tunnel contemplated as part of the Hudson Tunnel Project and necessary for the long-term preservation and safe use of the tunnel. However, this maintenance program cannot address the damage to the ballast and bench walls in the tunnel, which require full removal of the ballast, tracks, ties, and bench walls—work that cannot be accomplished without a full shutdown of the tunnel's two tubes over a period of almost two years for each tube. Therefore, despite the ongoing maintenance that will continue in the No Action Alternative, damage to the North River Tunnel caused by Superstorm Sandy will continue to degrade systems in the tunnel. This deterioration combined with the tunnel's age and intensity of use will likely lead to increasing instability of rail operations in the tunnel, and may lead to its eventual closure before the analysis year of this Project is reached. For purposes of analysis in this EIS, FRA and the New Jersey Transit Corporation (NJ TRANSIT) have assumed that the North River Tunnel would remain functional and in operation at least through the EIS analysis year of 2033. In contrast, the Preferred Alternative would strengthen the Northeast Corridor's (NEC) resiliency to provide reliable service by rehabilitating the existing Hudson River crossing and providing redundant capability at this critical location. This would preserve the NEC's existing capacity and functionality and reduce commuter and intercity rail delays caused by unanticipated events or routine maintenance. Therefore, the Preferred Alternative would result in benefits to long-term productivity.

23.3.3 SHORT-TERM USES VERSUS LONG-TERM PRODUCTIVITY

Based on the information presented above, the localized short-term impacts that would result from construction of the Preferred Alternative would be temporary, and would facilitate the preservation and resiliency of critical passenger rail service along the NEC. ✷