

## 3.16 Irreversible and Irretrievable Commitment of Resources

This section addresses irreversible or irretrievable commitment of resources (40 C.F.R. § 1502.16), which is defined as impacts on or losses of resources that cannot be recovered or reversed. An irreversible commitment of resources typically applies to impacts related to the use of nonrenewable resources, such as fossil fuels, or resources that are renewable only over long periods of time, such as soils, and the subsequent loss of future options related to their use. An irretrievable commitment of resources generally applies to a loss of production, harvest, or use of natural resources, in which the production lost is not retrievable, but the action is not irreversible. The use of farmland for non-agricultural purposes, for example, would constitute an irretrievable commitment of resources.

The Proposed Acquisition would result in increased rail traffic at some locations and changes in operational activity at some rail yards and intermodal facilities. Operating locomotives on rail lines and trucks and other equipment at rail yards involves the use of fuels made from nonrenewable resources. However, because changes in rail traffic and operational activities at rail yards would be caused by the diversion of rail traffic from other rail lines and from trucks, those changes would not result in new irreversible or irretrievable commitments of resources. If the Board authorizes the Proposed Acquisition, the Applicants also plan to add 25 capital improvements, including new passing sidings, siding extensions, double track, and facility working track within the rail right-of-way. The planned capital improvements would require the irretrievable commitment of resources, including materials for construction and fuel used during construction.

### 3.16.1 Energy

Construction activities associated with the planned capital improvements would consume diesel and gasoline fuel to power construction equipment and vehicles. Using fuel for construction would occur over a limited time span. However, once the Applicants have completed the Proposed Acquisition and associated planned capital improvements, operating trains on the integrated CPKC rail system would continuously require diesel fuel. Both construction activities and rail operation would therefore require the irreversible commitment of a nonrenewable resource, fossil fuels.

However, overall, OEA anticipates that the Proposed Acquisition would have a beneficial impact on energy efficiency. A substantial amount of freight transportation along the rail network route would be diverted from truck to rail and the remainder of the increased traffic would be diverted from other rail lines. The diversion of freight from truck transportation to rail would reduce consumption of diesel fuel by 7.97 million gallons per year, compared to the No-Action Alternative, which would partially or entirely offset the irreversible use of fossil fuels related to the Proposed Acquisition.

### 3.16.2 Biological Resources

The planned capital improvements would predominantly occur within previously disturbed areas of the ROW. However, some tree clearing, grading, and placing fill material would be necessary outside of these previously disturbed areas, to accommodate some of the planned capital improvements. Constructing the planned capital improvements would irreversibly remove and alter some vegetation and wildlife habitat, including habitat for the endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*). The loss of vegetation and habitat through permanent conversion into structures associated with the rail network would represent an irreversible commitment of biological resources. Wildlife collisions with construction equipment and vegetation temporarily impacted by the planned capital improvements that does not recover would also constitute irreversible commitments of biological resources.

The Proposed Acquisition may cause impacts to wildlife as a result of increased noise, vibration, and human presence during construction activities, which could impede behaviors like breeding and foraging, or cause animals to disperse. This would lead to an irretrievable commitment of biological resources. Increases in rail traffic associated with the Proposed Acquisition could lead to both irretrievable and irreversible commitments of biological resources. Increased train traffic could result in increased wildlife mortality related to collisions. The increase in noise and vibrations associated with increased train traffic could also lead to disturbance of nearby wildlife, causing distress, dispersal, and disruption of biological processes.

Some irreversible and irretrievable commitments of biological resources are inevitable, given the conditions outlined above. To minimize these impacts, OEA is recommending the mitigation measures set forth in *Chapter 4, Mitigation*.

### 3.16.3 Water Resources

OEA has determined that across all of the planned capital improvements, impacts would total approximately 16 acres of wetlands and 1.5 acres of streams. The wetland impacts are related to filling in wetlands to accommodate improvements. The loss of wetlands through permanent conversion into roadbed, ballast, ties, and rail would result in the irreversible commitment of these wetlands, as well as associated fishes, plant communities, and protected species. The anticipated stream impacts are related to fill and crossings (such as, impacts from bridge abutments and culverts). Filling or altering streams to accommodate the planned capital improvements would also constitute an irreversible commitment of resources.