

3.15 Short-Term Uses versus Long-Term Productivity of the Environment

This section addresses the environmental consequences of both the short-term uses of environmental resources and the long-term productivity of the environment (40 C.F.R. §1502.16) related to the Proposed Acquisition. In this context, short-term uses are generally related to construction impacts, while long-term productivity is typically related to operational impacts.

The Proposed Acquisition would result in increased rail traffic along some rail lines, and changes in operational activity at some rail yards and intermodal facilities. 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. This section describes the short-term uses and associated long-term productivity for each resource if the Board authorizes the Proposed Acquisition.

Under the No-Action Alternative, CP would not acquire KCS. Therefore, rail traffic on rail lines and activity at rail yards and intermodal facilities would not change as a result of the Proposed Acquisition and the Applicants would not build the 25 planned capital improvements as a result of the Proposed Acquisition. However, rail traffic on rail lines and activity at rail yards and intermodal facilities could change in the future under the No-Action Alternative as a result of changing market conditions, such as general economic growth. In addition, CP or KCS could make capital improvements along their rail lines in the future without seeking Board authority.

3.15.1 Noise

The 25 planned capital improvements would result in noise impacts associated with short-term use of resources. The use of construction equipment for the planned capital improvements would generate temporary increases in noise at the locations where improvements are planned. Changes in rail traffic on the combined CPKC rail system would involve noise impacts to long-term productivity. Although OEA expects the Proposed Acquisition would not cause individual passing trains to become substantially louder, the increased number of trains on some rail lines would increase the day-night average noise level along those lines over the long term. The Applicants have proposed voluntary mitigation measures to minimize noise and vibration impacts and OEA is recommending additional mitigation measures, as set forth in *Chapter 4, Mitigation*.

3.15.2 Air Quality

OEA anticipates short-term impacts to air quality related to the planned capital improvements. During construction, criteria pollutants, hazardous air pollutants, greenhouse gases, and fugitive dust emissions could increase. OEA anticipates this increase would be

temporary, and it would cease immediately once the Applicants completed the planned capital improvements.

Measured at the national or global scale, OEA expects that the Proposed Acquisition would not result in an overall increase in air pollutant emissions, including GHG emissions, and could result in an overall decrease in emissions due to the expected diversion of freight from truck to rail transportation and the resulting removal of approximately 64,000 trucks per year from highways. However, because the Proposed Acquisition would divert trains from other railroads to the CPKC network, OEA expects that localized emissions of air pollutants, especially nitrogen oxides, from locomotives would increase along certain specific rail line segments. This change in local emissions would have impacts on long-term productivity because it would continue indefinitely into the future. However, the Applicants anticipate that the CPKC rail fleet would become cleaner over the coming years because the Proposed Acquisition would result in an excess of locomotives which would allow for optimal use of newer, more fuel-efficient trains, which would reduce impacts to air quality. The Applicants have also proposed voluntary mitigation measures to minimize air quality impacts, as set forth in *Chapter 4, Mitigation*.

3.15.3 Energy

Short-term energy use would consist of construction equipment and vehicles temporarily consuming diesel and gasoline fuel during the planned capital improvement construction. In the long-term, OEA expects that the Proposed Acquisition would have a beneficial impact on energy efficiency by diverting freight transportation from truck to rail, which would reduce fuel consumption by an estimated 7.97 million gallons per year compared to the No-Action Alternative.

3.15.4 Biological Resources

The planned capital improvements may require some tree clearing, grading, and placing fill material. Constructing the planned capital improvements would therefore remove and alter some vegetation and wildlife habitat. Short-term use of the land could result in temporary adverse impacts to plants, wildlife, protected species, and wildlife habitat. There may be minimal impacts to long-term productivity as a result of removing and altering some vegetation and wildlife habitat within the right-of-way. The Applicants have proposed voluntary mitigation measures to minimize impacts to biological resources, as set forth in *Chapter 4, Mitigation*.

3.15.5 Water Resources

Based on conceptual design information and OEA's conservative assumptions about how the Applicants would construct the 25 planned capital improvements, OEA estimates that the capital improvements could temporally or permanently impact up to a total of approximately 16 acres of wetlands across the 25 locations. This would impact long-term wetland productivity through permanent losses due to filling and/or development, as well as adverse impacts to wetland function. If any of the capital improvements would require a permit under Section 404 of the Clean Water Act from the Corps, then this permit could

require the Applicants to restore or replace wetlands and wetland functions over time through mitigation, which would reduce or prevent impacts to long-term productivity. OEA also anticipates approximately 1.5 acres of stream impacts under the Proposed Acquisition, as a result of crossings and fill. Long-term productivity could be impacted due to permanent changes to impacted streams. However, the impacted area is relatively small. The Applicants have proposed voluntary mitigation measures to minimize impacts to water resources, as set forth in *Chapter 4, Mitigation*.