

Summary

S.1 Introduction

S.1.1 Proceeding Background

On October 29, 2021, Canadian Pacific Railway Limited, Canadian Pacific Railway Company, and their U.S. rail carrier subsidiaries Soo Line Railroad Company; Central Maine & Quebec Railway U.S. Inc.; Dakota, Minnesota & Eastern Railroad Corporation; and Delaware & Hudson Railway Company, Inc. (collectively, CP) and Kansas City Southern, The Kansas City Southern Railway Company, Gateway Eastern Railway Company, and The Texas Mexican Railway Company (collectively, KCS) filed an application with the Surface Transportation Board (Board) under 49 U.S.C. §§ 11323-25 seeking the Board’s approval of CP’s acquisition of KCS (Proposed Acquisition). If the Board authorizes the Proposed Acquisition, CP and KCS (collectively, Applicants) would combine to form an integrated system to be known as Canadian Pacific Kansas City (CPKC). **Figure 1.3-1** in *Chapter 1, Purpose and Need* provides a map of the proposed combined system showing current ownership.

The Board is reviewing the Proposed Acquisition through two parallel but distinct processes:

- The transportation-related process that examines the competitive, transportation, and economic implications of the Proposed Acquisition on the national rail system, and
- The environmental review process that is being conducted by the Board’s Office of Environmental Analysis (OEA).

The statute setting forth the procedures for Board review of acquisitions at 49 U.S.C. § 11325 and the Board’s implementing regulations at 49 C.F.R. § 1180.4 (2000) require that the Board complete both processes within approximately 15 months after the application is accepted for a “major” transaction such as this, and OEA must complete the environmental review process before the Board decides whether to authorize the Proposed Acquisition. The Board accepted the Applicants’ application on November 23, 2021. On March 16, 2022, however, the Board issued a decision suspending the procedural schedule and directing the Applicants to explain an apparent inconsistency between data submitted in the application and information that the Applicants provided to OEA as part of the environmental review process. By decision issued on April 27, 2022, the Board directed the Applicants to amend their application and revise supporting workpapers to address the data inconsistency. The Applicants submitted their amended application and revised workpapers on May 13, 2022, and on May 27, 2022, the Board issued a revised procedural schedule for the proceeding.

Because the Proposed Acquisition has the potential to result in significant environmental impacts, OEA determined that the preparation of an Environmental Impact Statement (EIS) is appropriate to meet the Board’s obligations under the National Environmental Policy Act

(NEPA) (42 U.S.C. §§ 4321-4370m-12) and related laws, including Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108). With this Draft EIS, OEA seeks to inform federal, state, and local agencies, elected officials, tribes, affected local communities, and the general public about the expected environmental effects of the Proposed Acquisition. To that end, the Draft EIS describes the affected environment; evaluates and compares the direct, indirect, and cumulative environmental effects of the Proposed Acquisition; and identifies mitigation measures that could eliminate or lessen the expected environmental impacts. After the close of the public comment period on the Draft EIS, OEA will prepare a Final EIS that will respond to all comments received on the Draft EIS, including comments related to the Section 106 process, and set forth OEA’s final recommendations, including recommended environmental mitigation measures. The Board will then issue a final decision, based on the entire record on the transportation merits and the environmental record, including the Draft EIS, the Final EIS, and all public and agency comments received. In its final decision, the Board will decide whether the Proposed Acquisition should be authorized and, if so, what mitigation, including environmental mitigation, to impose.

S.1.2 Purpose and Need

The Proposed Acquisition involves an application for Board authority for CP to acquire KCS. The Proposed Acquisition is not a federal government-proposed or sponsored project. Therefore, the project’s purpose and need is informed by both the Applicants’ goals and the Board’s enabling statute—the Interstate Commerce Act as amended by the ICC Termination Act, Pub. L. No. 104-188, 109 Stat. 803 (1996). See *Alaska Survival v. STB*, 705 F.3d 1073, 1084-85 (9th Cir. 2013). Under the Interstate Commerce Act, as amended, the Board “shall approve and authorize a transaction” such as this when, after considering several factors, “it finds the transaction is consistent with the public interest.” 49 U.S.C. §§ 11324 (b) & (c).

According to the Applicants, the purpose of the Proposed Acquisition is to combine America’s two smallest but fastest-growing Class I railroads (CP and KCS) to build a more efficient and competitive rail network. The Applicants state that the Proposed Acquisition would further the need for expanded and more capable and efficient transportation infrastructure while simultaneously advancing the interests of current and future customers in more reliable and economical rail transportation options serving important North-South trade flows. The Applicants also state that the Proposed Acquisition would generate environmental benefits by reducing truck transportation on highways in North America by more than 64,000 trucks annually, resulting in less congestion, less maintenance, and improved safety on those roads; as well as less noise pollution in the places where those trucks would have driven; and lowered air emissions, including greenhouse gas (GHG) emissions.

S.1.3 Proposed Action and Alternatives

The proposed federal action in this proceeding is the Applicants’ Proposed Acquisition of KCS by CP. The combination of these two railroads would be an “end-to-end” merger because the CP and KCS railroad networks do not overlap. The Applicants expect that the Proposed Acquisition would create new efficiencies in the rail network that would result in

rail traffic being diverted from other rail lines onto the combined CPKC network and the diversion of freight from trucks to rail transportation. Because of these expected diversions, the Applicants project that the Proposed Acquisition would result in changes in rail traffic on portions of the combined CPKC network. The largest expected change would occur on the CP mainline between Sabula, Iowa, and Kansas City, Missouri, where the Applicants project that rail traffic would increase by approximately 14.4 trains per day, on average. Other rail lines would experience smaller increases in rail traffic, no change in rail traffic, or a decrease in rail traffic.

OEA applied the thresholds set forth in the Board's environmental regulations at 49 C.F.R. § 1105.7(e) to identify rail lines where the projected increase in rail traffic warranted environmental review. The general thresholds for assessing environmental impacts from increased rail traffic on rail lines are an increase in rail traffic of at least 100 percent (measured in gross ton miles annually) or an increase of at least 8 trains per day. For rail lines located in areas that are in nonattainment under the Clean Air Act (42 U.S.C. §§ 7401-7671q), the threshold for air quality analysis is an increase in rail traffic of at least 50 percent (measured in gross ton miles annually) or an increase of at least 3 trains per day. 49 C.F.R. § 1105.7(e)(5)(ii). OEA identified rail lines in Illinois, Iowa, Missouri, Kansas, Oklahoma, Arkansas, Louisiana, and Texas that would experience increases in rail traffic that would exceed these analysis thresholds as a result of the Proposed Acquisition. **Figure 2-1** in *Chapter 2, Proposed Action and Alternatives* provides a map showing where rail traffic would increase as a result of the Proposed Acquisition and the Draft EIS discusses the potential environmental impacts of that increase.

In addition to increased rail traffic on rail lines, the Proposed Acquisition would result in changes in operational activities at rail yards and intermodal facilities that would meet or exceed environmental review thresholds. The threshold for environmental review of rail yards and intermodal facilities is an increase in rail yard activity of at least 100 percent (measured by carload activity) or an average increase in truck traffic of more than 10 percent of the average daily traffic or 50 vehicles a day on any affected road segment. 49 C.F.R. § 1105.7(e)(5)(i). For rail yards and intermodal facilities in nonattainment areas, the threshold for air quality analysis is an increase in rail yard activity of at least 20 percent (measured by carload activity) or an average increase in truck traffic of more than 10 percent of the average daily traffic or 50 vehicles a day on a given road segment. 49 C.F.R. § 1105.7(e)(5)(ii). **Figure 2-2** in *Chapter 2, Proposed Action and Alternatives* provides a map showing the locations of rail yards and intermodal facilities where the environmental review thresholds would be met or exceeded and this Draft EIS discusses potential environmental impacts from increased activities at those facilities.

If the Board authorizes the Proposed Acquisition, the Applicants plan to make capital improvements within the existing rail right-of-way (ROW) to support the projected increases in rail traffic. The capital improvements would include extending 13 existing passing sidings, adding 10 new passing sidings, adding a double track in Blue Valley near Kansas City, Missouri, and a facility working track adjacent to the International Freight Gateway intermodal terminal near Kansas City. **Figure 2-3** in *Chapter 2, Proposed Action and Alternatives* provides a map showing the locations of the 25 planned capital improvements and this Draft EIS discusses potential environmental impacts that could result from those

improvements. The Applicants have stated that they would add the capital improvements as needed based on increasing traffic and that design-level engineering for each capital improvement would occur only when each capital improvement is needed. The Applicants do not propose to construct any new rail lines subject to Board licensing or to abandon any rail lines as part of the Proposed Acquisition.

The alternative to the Proposed Acquisition is the No-Action Alternative. The No-Action Alternative would occur if the Board were to deny authority for the Proposed Acquisition. Under the No-Action Alternative, CP would not acquire KCS and the projected changes in rail traffic, rail yard activity, and intermodal facility activity would not occur as a result of the Proposed Acquisition. However, rail traffic on rail lines and activities at rail yards and intermodal facilities could still change to support regular railroad operations or as a result of changing market conditions, such as general economic growth. Under the No-Action Alternative, the Applicants would not construct the 25 planned capital improvements as a result of the Proposed Acquisition. However, CP and KCS could construct sidings, extend existing sidings, or add additional track within the rail ROW in the future without seeking Board authority as needed to support or improve rail operations on their respective rail networks. In general, under the No-Action Alternative, none of the anticipated adverse or beneficial environmental impacts of the Proposed Acquisition would occur.

S.2 Environmental Review Process

S.2.1 Scoping

The first step in the EIS process is scoping. To help determine the scope of the EIS, OEA involved the public; local, state, and federal agencies; tribes; and other interested organizations. On November 12, 2021, OEA published a Notice of Intent (NOI) to Prepare an EIS and Notice of Scoping Meetings in the Federal Register. OEA sent letters to local, state, federal, and tribal officials and agencies, as well as other potentially interested organizations. The letters announced OEA's intent to prepare an EIS, described the Proposed Acquisition, and set forth the dates, times, and log-in details for six online public scoping meetings. OEA also posted Google banner advertisements (banner ads) online focusing on areas with identified Environmental Justice (EJ) populations in the project area. The banner ads announced the project and encouraged viewers to click on the ad to visit the Board-sponsored project website for more information. The Board-sponsored project website provided information on the Proposed Acquisition including maps, the NOI, and dates and times for the public scoping meetings. In addition, OEA issued a press release to local media, including television stations, radio stations, and newspapers, along the proposed CPKC system. The press release announced OEA's intent to prepare an EIS and advertised the purpose, dates, and times for the public scoping meetings.

S.2.2 Tribal Consultation

During scoping and the preparation of this Draft EIS, OEA consulted with federally recognized tribes. OEA identified 68 federally recognized tribes that may have current or historic interest in areas where the Proposed Acquisition could result in environmental

impacts. OEA invited those tribes to participate in the consultation process under Section 106 of NHPA, government-to-government consultation, or both. OEA sent tailored letters to tribal leaders, Tribal Historic Preservation Officers, and cultural resource officials, along with a response form to identify points of contact and indicate a preference for participation in the government-to-government consultation process and/or the Section 106 process. Consultation activities, including online meetings, telephone calls, emails, and letters, occurred throughout the development of this Draft EIS.

S.2.3 Agency Consultation

OEA consulted with appropriate federal, state, and local agencies during the preparation of this Draft EIS. At the federal level, OEA held online meetings with the U.S. Fish and Wildlife Service (USFWS) field and regional offices, U.S. Army Corps of Engineers (Corps) district offices, and U.S. Environmental Protection Agency (EPA) regional offices. OEA invited state agencies with interests in the Proposed Acquisition and related impacts—such as transportation, wildlife, natural resources, and environmental justice—to online meetings in December 2021, and separately, held online meetings with State Historic Preservation Offices (SHPOs) in each affected state. To consult with local government agencies, OEA sent letters to city and county agencies in jurisdictions that could experience environmental impacts as a result of the Proposed Acquisition. OEA also consulted with individual local governments upon request. Additional consultation activities, including online meetings, telephone calls, emails, and mailed letters, occurred throughout the development of this Draft EIS.

S.2.4 Section 106 Consultation

In addition to conducting an environmental review of the Proposed Acquisition under NEPA, OEA assessed the potential effects of the Proposed Acquisition on historic properties that are listed in or are eligible for listing in the National Register of Historic Places (National Register), as required by Section 106 of NHPA. Pursuant to 36 C.F.R. § 800.4(a)(1) and in consultation with SHPOs, tribes, and other consulting parties, OEA defined an Area of Potential Effects (APE) that includes the locations of the 25 planned capital improvements and areas from which the capital improvements would be visible, in order to assess potential visual effects. OEA identified the properties within the APE that are listed in or eligible for listing in the National Register and assessed the potential effects of the Proposed Acquisition on those properties. OEA has provided the results of OEA's identification and assessment of effects efforts to Section 106 consulting parties and has appended those results to this Draft EIS in **Appendix J** for public review.

S.2.5 Final EIS

Following issuance of this Draft EIS and a 45-day public and agency comment period, OEA will prepare and issue a Final EIS. The Final EIS will respond to the comments on the Draft EIS, present OEA's final conclusions regarding the potential environmental impacts of the Proposed Acquisition, and set forth OEA's final recommendations to the Board, including recommended environmental mitigation measures. After OEA publishes the Final EIS, the

Board will issue its final decision on whether to authorize the Proposed Acquisition. In making its final decision, the Board will consider the entire record, including the record on the transportation merits, the Draft EIS, Final EIS, and all public and agency comments. If the Board decides to authorize the Proposed Acquisition, the Board may impose conditions on the Applicants as part of that decision, including environmental mitigation conditions.

S.2.6 Responsive Applications

On February 28, 2022, Canadian National Railway and Illinois Central Railroad Company (collectively, CN) filed a responsive application (RA) for consideration by the Board. RAs are proposals that parties other than the Applicants may file to request modifications or conditions to the primary application seeking acquisition authority from the Board. After the Board directed the Applicants to amend their application and revise supporting workpapers on April 27, 2022, the Board provided time for other parties to amend their filings, including any RAs, based on the Applicants' amended application and revised workpapers. On June 9, 2022, CN filed an amended RA. By decision served on July 1, 2022, the Board accepted CN's RA for consideration.

In its amended RA, CN requests that the Board require, as a condition of any decision granting authority for CP to acquire KCS, the Applicants to divest, or sell, certain KCS rail lines to CN. Specifically, CN requests that the Board order the Applicants to divest the KCS rail lines that extend between Kansas City, Missouri, and Roodhouse, Illinois; between Roodhouse and Springfield, Illinois; and between Roodhouse and East St. Louis. In total, CN is seeking to acquire ownership of approximately 355 miles of KCS rail lines in Missouri and Illinois through the proposed divestiture. CN's RA also seeks ownership interests in KCS's International Freight Gateway terminal south of Kansas City, as well as trackage rights over certain rail lines owned by KCS and Union Pacific Railroad Company.

According to CN, the proposed divestiture of the KCS rail lines to CN would increase rail traffic on those rail lines by preserving and enhancing competition in the regional rail transportation industry. For some of the rail lines proposed for divestiture, CN projects that the increase in rail traffic would reach or exceed the thresholds triggering an environmental review under the Board's environmental regulations at 49 C.F.R. §§ 1105.6(b)(4) and 1105.7(e)(5). Therefore, OEA will conduct an environmental review of CN's RA that is separate from, but conducted concurrently with, OEA's ongoing environmental review of the Proposed Acquisition. More information regarding the environmental review for CN's RA can be found on the Board's website at www.stb.gov by conducting a search for Docket No. FD 36500 (Sub-No. 1).

Norfolk Southern Railway Company (NSR) submitted an RA on February 28, 2022 and an amended RA on June 9, 2022 seeking trackage rights (i.e., the right to operate) over certain KCS rail lines in Texas and Louisiana. By decision served on July 1, 2022, the Board accepted NSR's RA for consideration. NSR's trackage rights proposal is categorically excluded from environmental and historic review under 49 C.F.R. §§ 1105.6(c)(3) and 1105.8(b)(3). More information regarding the environmental review for NSR's RA can be found on the Board's website at www.stb.gov by conducting a search for Docket No. FD 36500 (Sub-No. 5).

S.3 Summary of Major Conclusions in the Draft EIS

In preparing the Draft EIS, OEA conducted an extensive analysis of the environmental impacts that could result from the Applicants' Proposed Acquisition of KCS by CP. As discussed below, based on consultation with federal, state, and local agencies; consultation with tribes; input provided by organizations and the public; and its own independent environmental analysis, OEA has concluded that, apart from train noise, which could result in adverse impacts at some locations, the potential adverse impacts of the Proposed Acquisition would be negligible, minor, and/or temporary.

S.3.1 Freight and Passenger Rail Safety

OEA expects that the Proposed Acquisition would result in only minor adverse impacts on freight rail safety. As discussed in *Section 3.1, Freight and Passenger Rail Safety*, the probability of an accident, such as a derailment or collision, occurring on a particular rail line depends, in part, on the number of trains that move on that rail line. Therefore, the projected increase in rail traffic that would occur as a result of the Proposed Acquisition would increase the predicted risk of an incident (such as a derailment or other accident) occurring on certain rail lines in the combined CPKC system. Across all the rail lines in the combined CPKC system, OEA projects that the greatest increase in the number of incidents would occur on the rail line segment between Muscatine, Iowa, and Ottumwa, Iowa. On that segment, OEA projects that the number of incidents would increase by approximately 0.32 incidents per year from approximately 0.11 incidents per year under the No-Action Alternative to approximately 0.43 incidents per year under the Proposed Acquisition. Other rail lines in the combined CPKC system would experience smaller increases in the number of incidents.

OEA expects that most incidents would be minor and would not result in any injuries or fatalities. Further, because the Proposed Acquisition would result in increases in rail traffic by diverting freight from other rail lines and from truck to rail transportation, OEA expects that any potential increase in rail accidents on rail lines in the combined CPKC system would be partially or entirely offset by a decrease in the number of accidents on other rail lines and on highways. Moreover, as set forth in *Chapter 4, Mitigation*, the Applicants have proposed voluntary mitigation that would minimize the potential for incidents to occur during rail operations and would minimize the potential impacts of any incidents that do occur.

The Proposed Acquisition would result in negligible impacts on passenger rail safety. OEA identified nine rail line segments that are currently used for passenger rail on which the Proposed Acquisition would increase freight rail traffic. The probability of a collision occurring on any of those nine rail line segments is currently very low and would remain very low if the Board authorizes the Proposed Acquisition. Under the Proposed Acquisition, OEA predicts that a total of 0.019 collisions would occur each year across all nine rail segments, which is equivalent to one collision every approximately 53 years.

Similarly, OEA expects that the number of hazardous material releases along rail lines and at rail yards would remain low if the Board authorizes the Proposed Acquisition. Across all

of the rail line segments on which the transportation of hazardous materials would increase, OEA projects that a total of 12.88 releases would occur per year under the Proposed Acquisition, compared to 10.36 releases under the No-Action Alternative. Across all rail yards in the study area, OEA projects that a total of 24.99 releases would occur each year under the Proposed Acquisition, compared to 23.50 releases per year under the No-Action Alternative. OEA expects that the majority of releases that would occur would be minor and would not have the potential to result in environmental impacts, injuries or fatalities. Further, OEA expects that any potential increase in the number of releases along rail line segments on the combined CPKC network would be partially offset by a reduction in the number of releases along other rail lines owned and operated by other railroad companies. In addition, to the extent that the transportation of hazardous materials could be diverted from truck to rail as a result of the Proposed Acquisition, the total number of releases could decrease because rail transportation is generally safer than truck transportation.

As set forth in *Chapter 4, Mitigation*, the Applicants have proposed voluntary mitigation that would minimize the potential for incidents to occur during rail operations and would minimize the potential impacts of any incidents that do occur. Pursuant to 49 C.F.R. Part 1106 and the Federal Railroad Administration (FRA) regulations at 49 C.F.R. Part 244, the Applicants also prepared a proposed Safety Integration Plan (SIP). The proposed SIP describes the Applicants' proposed process and timeline for merging the operations of CP and KCS, as well as the safety implications of merging these operations.

During the preparation of the SIP, the Applicants met with FRA to review drafts of the proposed SIP and related materials, respond to questions, and accept recommendations. Pursuant to 49 C.F.R. §§ 1106.4(b)(1) and 244.17, on December 28, 2021, the Applicants submitted their proposed SIP to the Board and, by letter dated February 28, 2022, FRA submitted comments to the Board stating that FRA is satisfied that the proposed SIP provides a reasonable assurance of safety for the proposed transaction, consistent with governing regulations. OEA also has reviewed the proposed SIP, which is appended to this Draft EIS as **Appendix G** to allow for public review and comment on it and on FRA's comments. In the Final EIS, OEA will address any written comments on the SIP submitted during the Draft EIS comment period. If the Board authorizes the Proposed Acquisition and adopts the SIP, the Board will require compliance with the SIP as a condition to its authorization. 49 C.F.R. § 1106.4(b)(4). The Applicants then would coordinate with FRA in implementing the approved SIP, including any amendments thereto. *Id.* FRA would provide the Board with updates as appropriate during the acquisition implementation period and advise the Board when, in FRA's view, the integration of the Applicants' operations has been fully and safely completed. *Id.*

S.3.2 Grade Crossing Safety

OEA expects that the Proposed Acquisition would result in only minor adverse impacts on safety at highway/rail at-grade crossings (grade crossings). As discussed in *Section 3.2, Grade Crossing Safety*, across all 1,134 evaluated grade crossings in the study area, the total predicted number of train-vehicle crashes would be 24.9 crashes per year under the Proposed Acquisition, compared to 19.1 crashes per year under the No-Action Alternative, which is a difference of 5.8 crashes per year. Across all 1,134 grade crossings in the study

area, the total predicted number of train-pedestrian crashes would be 2.2 crashes per year under the Proposed Acquisition, compared to 1.7 crashes per year under the No-Action Alternative, which is a difference of 0.5 crashes per year. The largest impact on safety would occur at the grade crossing across Miller Road in Hungerford, Texas. For that grade crossing, OEA projects that the Proposed Acquisition would result in only approximately 0.0277 additional crashes per year compared to the No-Action Alternative. This means that the Proposed Acquisition would result in only one additional crash every approximately 36 years compared to the No-Action Alternative at that grade crossing. Other grade crossings in the study area would experience smaller increases in accident frequency or no increase in accident frequency. As set forth in *Chapter 4, Mitigation*, the Applicants have proposed voluntary mitigation that would mitigate impacts on safety and delay at grade crossings.

S.3.3 Grade Crossing Delay

As discussed in *Section 3.3, Grade Crossing Delay*, the Proposed Acquisition would also result in only minor adverse impacts on grade crossing delay. Across the 277 grade crossings with an average annual daily traffic (AADT) of 2,500 or more vehicles per day, the Proposed Acquisition would result in an average increase in delay of only approximately 0.7 additional seconds per vehicle compared to the No-Action Alternative. The greatest average increase in delay for any grade crossing would be 7.3 seconds per vehicle, which would occur at the grade crossing across Ripley Street in Davenport, Iowa. Other grade crossings in the study area would experience smaller increases in average delay, no increase in average delay, or a decrease in average delay compared to the No-Action Alternative. OEA projects that increased delay at grade crossings would result in a decrease in the level of service (LOS) at only five grade crossings.¹ For all five of these crossings, the LOS would decrease from LOS A to LOS B. Because LOS B corresponds to stable traffic flow, OEA concludes that the Proposed Acquisition would result in minor adverse delay impacts at these grade crossings but would not warrant mitigation.

For the 28 grade crossings on roadways in the study area that are designated as emergency routes in the FRA grade crossing database, OEA concluded that grade crossing delay caused by the Proposed Acquisition would have a minor impact on the provision of emergency services. On average, the grade crossing delay along emergency routes would be 3.9 seconds per vehicle (corresponding to LOS A) under the Proposed Acquisition, compared to 2.9 seconds per vehicle (also corresponding to LOS A) under the No-Action Alternative. The Proposed Acquisition would also not result in adverse impacts on grade crossings near rail yards where rail yard activity would increase.

The Proposed Acquisition would result in delay impacts at 18 grade crossings where the Applicants intend to add a new passing siding or extend an existing siding. Among these, seven have the potential to completely isolate residences, businesses, or other buildings if the Applicants do not develop alternate access routes during final engineering and design. As set forth in *Chapter 4, Mitigation*, the Applicants have voluntarily proposed mitigation that would minimize impacts on grade crossing delay, including a commitment to abide by

¹ LOS is a qualitative measure of motor vehicle traffic flow, indicated by letters from A to F, where A represents free flow conditions and F indicates extreme congestion.

federal rules that prohibit railroads from blocking public grade crossings for more than 10 minutes unless it cannot be avoided (VM-Grade Crossing-02) and a commitment to investigate the potential for creating alternative access for properties where access would be blocked for more than 10 minutes more than once per week (VM-Grade Crossing-04).

S.3.4 Truck to Rail Diversion

The Proposed Acquisition could affect traffic on roadways by diverting freight from truck to rail, which would reduce the number of trucks traveling on highways, and by increasing operational activities at certain intermodal facilities, which would increase the number of trucks traveling on the local roads that provide access to those intermodal facilities. OEA concludes that the Proposed Acquisition would not result in any adverse impacts to traffic and roadway systems as a result of truck-to-rail diversions.

S.3.5 Traffic at Intermodal Facilities

Based on the existing capacity of local roads serving intermodal facilities where activity could increase as a result of the Proposed Acquisition, OEA has concluded that increased truck traffic on those roads would not result in any adverse impacts.

S.3.6 Noise and Vibration

Noise from passing trains includes both noise from locomotive horns and wayside noise, such as locomotive engine noise, exhaust noise, and noise from steel train wheels rolling on steel rails. OEA recognizes that such rail-related noise can annoy people who live, work, or recreate near an active rail line, and many commenters expressed concern during scoping that the Proposed Acquisition could result in adverse noise impacts. People are particularly sensitive to noise in certain locations, including residences, schools, hospitals, nursing homes, and places of worship, which are collectively known as noise-sensitive receptors (receptors). OEA notes that receptors located near existing CP and KCS rail lines already experience intermittent train noise and have for many years. OEA does not expect that the Proposed Acquisition would cause individual trains on those rail lines to become substantially louder or to become audible in places where they are not currently. However, the projected increase in rail traffic from the Proposed Acquisition would make rail-related noise more frequent, which would result in a higher day-night average noise level (Ldn) at many receptors.

Based on past practice and the Board's environmental regulations at 49 C.F.R. § 1105.7(e)(6), an adverse noise impact would occur when a receptor would experience an increase in noise level of 3 A-weighted decibels (dBA) or more as result of increased rail traffic and reach an Ldn of 65 dBA or higher.² As discussed in detail in *Section 3.6, Noise and Vibration*, OEA used a computer model to identify a total of 6,307 receptors that would experience an adverse noise impact if the Board authorizes the Proposed Acquisition. Those

² Although the regulations at 49 C.F.R. § 1105.7(e)(6) indicate that either an increase of 3 dBA or an increase to an Ldn of 65 dBA would be an adverse impact, research indicates that both of these conditions must be met or exceeded to cause an adverse noise impact from rail operations to occur (Surface Transportation Board 1998a, Coate 1999).

receptors are spread out across 27 counties and parishes in 5 different states along the existing CP and KCS mainlines. As set forth in *Chapter 4, Mitigation*, the Applicants have voluntarily proposed mitigation measures to help address potential noise impacts, including a commitment to fund the improvements necessary to maintain existing Quiet Zone designations in communities where the Proposed Acquisition might otherwise cause the designation to be lost (VM-Noise-01). OEA is also recommending additional mitigation measures to address noise impacts that would require the Applicants to maintain rail and rail beds (MM-Noise-01), comply with FRA regulations establishing decibel limits for train operations (MM-Noise-02), consider lubricating curves where doing so would reduce noise (MM-Noise-03), employ other safe and efficient operating procedures that could effectively reduce noise from train operations (MM-Noise-04), and promptly respond to communities interested in establishing Quiet Zones (MM-Noise-05). Even if the Board imposes these mitigation measures, however, OEA expects that the Proposed Acquisition would result in unavoidable adverse noise impacts.

During scoping, commenters expressed concern that ground-borne vibration from passing trains could cause damage to structures near rail lines in the combined CPKC system, including homes and other buildings. As discussed in *Section 3.6, Noise and Vibration*, vibration from passing trains is rarely strong enough to cause any damage to buildings or other structures. OEA does not expect that the Proposed Acquisition would cause vibration from individual trains to become stronger than it currently is along CP and KCS rail lines. However, the increased rail traffic resulting from the Proposed Acquisition would make this vibration more frequent. Outside of the rail ROW, people may be able to feel vibration from passing trains and that vibration could cause annoyance, but damage to buildings or other structures would not occur.

S.3.7 Air Quality and Climate Change

As discussed in detail in *Section 3.7, Air Quality and Climate Change*, 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.

Although OEA expects that the Proposed Acquisition would not result in an increase in overall air emissions and could result in an overall decrease in emissions, the Proposed Acquisition would change the local distribution of emissions by diverting trains from other rail lines and OEA expects that localized emissions of air pollutants from locomotives would increase along some rail line segments within the CPKC system. In particular, OEA's analysis shows that the projected increase in rail traffic would result in nitrogen oxides (NO_x) emissions in excess of the EPA's *de minimis* thresholds in three nonattainment areas for ozone. OEA expects that EPA and relevant state agencies would account for the increased NO_x emissions from rail operations related to the Proposed Acquisition in future emissions inventories for the three affected nonattainment areas. The estimated increase in NO_x emissions would be less than one percent of the applicable emissions budget for mobile sources in each nonattainment area and therefore should not adversely affect enforcement of applicable State Implementation Plans for the nonattainment areas.

Aside from NO_x emissions, emissions of all other criteria air pollutants and hazardous air pollutants would be well below *de minimis* thresholds, and air emissions resulting from the Proposed Acquisition would be minimized by the Applicants' voluntary mitigation measures for air quality and climate change set forth in *Chapter 4, Mitigation*.

S.3.8 Energy

OEA assessed impacts of the Proposed Acquisition on energy consumption and the transportation of energy resources. Overall, OEA expects that the Proposed Acquisition would not increase the movement of energy resources in North America but would divert some energy resources from truck transportation to rail transportation and from other rail lines to the combined CPKC system. The primary energy commodities that would move on the combined CPKC system include liquified petroleum gas³ from Alberta, Canada, and other production areas, chemical products from the chemical plants along the Gulf Coast, and bitumen and crude oil from Alberta. According to information provided by the Applicants, the Proposed Acquisition would potentially support a shift away from the transportation of flammable crude oil, which is classified as a hazardous material, toward non-hazardous DRUbit, from which the flammable diluent has been removed. With respect to energy efficiency, the Proposed Acquisition would result in a net reduction in fuel use of approximately 7.97 million gallons per year, primarily due to truck-to-rail diversions. Accordingly, OEA concludes that the Proposed Acquisition would not adversely affect the transportation of energy commodities or energy efficiency.

S.3.9 Cultural Resources

Pursuant to NEPA and Section 106 of NHPA, OEA assessed the potential impacts of the Proposed Acquisition on cultural resources, including historic buildings, other historic structures, and archaeological sites. As discussed in detail in *Section 3.9, Cultural Resources*, OEA defined the APE to include the locations of the 25 planned capital improvements and areas from which the capital improvements would be visible, to account for potential visual effects.

OEA conducted reconnaissance surveys within the APE to identify above-ground resources, such as buildings and structures, and Phase I archaeological testing to identify archaeological sites within the rail ROW at the capital improvement locations. OEA identified 18 historic properties that are eligible for listing on the National Register, including 16 above-ground resources and 2 below-ground (archaeological) resources.

Because the addition of new passing sidings, the extension of existing sidings, and the addition of a second track would be consistent with the existing character and use of the rail lines where the capital improvements would be added, OEA has concluded that the Proposed Acquisition would not adversely affect any National Register-eligible above-ground resources. Although OEA identified two National Register-eligible archaeological sites within the APE for one planned new passing siding located at MP 247 near Baron,

³ Liquified petroleum gas or LPG should not be confused with liquified natural gas (LNG). LPG has been transported by rail for many years. Under transportation regulations promulgated by the Pipeline and Hazardous Materials Safety Administration and FRA, transportation of LNG by rail is currently prohibited in the United States.

Oklahoma, the Applicants have clarified that they intend to design the planned capital improvements so as to confine the permanent footprint and all construction activities to the existing disturbed area (railroad berm and ballast) in locations adjacent to any National Register-eligible archaeological sites that OEA identified. Therefore, OEA has determined that the Proposed Acquisition would have *No Adverse Effect* to historic properties listed in or eligible for listing in the National Register. Further, OEA is recommending mitigation requiring the Applicants to develop and implement a plan for archaeological monitoring during construction and addressing any unanticipated discoveries of archaeological sites or associated artifacts during construction (MM-Cultural-01).

Pursuant to Section 106, OEA requests public comments on the results of OEA's identification efforts and conclusions regarding the eligibility of historic properties for the National Register and the potential effects on National Register-eligible properties from the Proposed Acquisition as presented in this Draft EIS. OEA is especially interested in receiving comments from any tribes, local governments, historical societies, and other stakeholders with interest in or expertise related to the areas and historic properties within the APE.

S.3.10 Hazardous Materials Release Sites

OEA assessed potential impacts related to planned capital improvements, such as extending existing passing sidings or adding new sidings, on soil or groundwater that have been contaminated by past releases (such as, spills or leaks) of hazardous materials. OEA identified hazardous material sites in the study areas for five of the 25 planned capital improvements and concluded that four capital improvements have the potential to impact hazardous material release sites. The Applicants' voluntary mitigation measures and OEA's additional recommended mitigation measures set forth in *Chapter 4, Mitigation* would avoid or minimize potential impacts related to hazardous materials release sites at the locations of the planned capital improvements.

S.3.11 Biological Resources

Pursuant to NEPA and Section 7 of the Endangered Species Act (16 U.S.C. § 1536), OEA assessed the potential impacts of the Proposed Acquisition on biological resources, including federally listed threatened and endangered species. Although the Proposed Acquisition would result in increased rail traffic on certain rail lines in the combined CPKC system, OEA concludes that this projected increase in rail traffic would not adversely affect plants, fish, or habitat. The rail lines on which rail traffic would increase have been in operation for many years, and any wildlife living near the rail lines will have become habituated to the presence of the rail line, the occasional presence of passing trains, and intermittent rail-related noise. The number of animal strikes by trains could potentially increase as a result of the Proposed Acquisition but would remain insignificant relative to other causes of injury and mortality.

OEA conducted fieldwork at each of the planned capital improvement locations where construction activities could disturb habitat. At several of the planned capital improvement locations, OEA identified suitable habitat for the Indiana bat (*Myotis sodalis*), which is a

federally listed endangered species, and the northern long-eared bat (*Myotis septentrionalis*), which is a threatened species that is proposed for listing as endangered. At the Cave Springs, Oklahoma planned capital improvement location, OEA identified suitable foraging habitat for the Ozark big-eared bat (*Corynorhinus townsendii ingens*), which is a federally listed endangered species. As set forth in *Chapter 4, Mitigation*, The Applicants have voluntarily committed to avoid activities that could affect bat habitat, such as tree removal and the removal of bridges and culverts, during the active bat season, which extends from April 1 to October 31 (VM-Biological-03, VM-Biological-04, VM-Biological-05, VM-Biological-06). Considering these commitments, OEA, in consultation with USFWS, has concluded that the Proposed Acquisition *may affect*, but is *not likely to adversely affect* the Indiana bat, northern long-eared bat, and Ozark big-eared bat and would have negligible impacts on other biological resources.

S.3.12 Water Resources

As discussed in *Section 3.12, Water Resources*, OEA assessed the potential impact of the Proposed Acquisition on water resources, including surface waters, wetlands, groundwater, and floodplains. Although commenters expressed concern that the projected increase in rail traffic resulting from the Proposed Acquisition would increase the risk of spills of hazardous materials into waterways, the probability of an incident occurring that could result in a release of hazardous materials into waterways or onto the ground where it affect groundwater is and would remain very low.

OEA conducted fieldwork at each of the planned capital improvements where construction activities could affect waterbodies or wetlands. Based on this fieldwork and conservative assumptions about how construction could proceed, OEA has concluded that the planned individual capital improvements could temporarily or permanently impact between 0.00 and 0.53 acres of surface waters and between 0.00 and 6.43 acres of wetlands, depending on the location. These impacts would be avoided or minimized by the implementation of the Applicants' voluntary mitigation measures and OEA's additional recommended mitigation measures as set forth in *Chapter 4, Mitigation*. OEA also concludes that the Proposed Acquisition would have negligible impacts on ground water and water quality.

S.3.13 Environmental Justice

For each of the different types of impacts described above, OEA considered whether the Proposed Acquisition could potentially result in any significant impacts that would be disproportionately borne by EJ populations, including minority populations, low-income populations, or American Indian tribes. As discussed in *Section 3.13, Environmental Justice*, OEA has concluded that the Proposed Acquisition would not result in any environmental impacts that would be high and adverse with the exception of noise impacts associated with the projected increase in rail traffic on certain rail line segments. Although OEA determined that noise would affect certain EJ populations, noise impacts would not be disproportionately borne by those EJ populations. Indeed, based on OEA's analysis of the demographic data for census block groups and communities along the combined CPKC network, most receptors that would experience adverse noise impacts are located in non-EJ populations. To minimize noise impacts on EJ populations, OEA is recommending

mitigation requiring the Applicants to conduct proactive and targeted outreach to minority and low-income populations that would experience adverse noise impacts as a result of the Proposed Acquisition to provide information about the process for establishing Quiet Zones (MM-EJ-01). The Applicants have also voluntarily proposed mitigation measures related to EJ.

S.3.14 Cumulative Impacts

OEA evaluated whether the Proposed Acquisition could potentially result in any impacts that, when considered along with the impacts of other reasonably foreseeable actions and projects in the project area, could contribute to cumulative adverse and significant effects on the environment. As discussed in *Section 3.14, Cumulative Impacts*, OEA identified several reasonably foreseeable projects and actions that could increase passenger rail traffic on certain rail lines in the combined CPKC network at about the same time as the Proposed Acquisition. Due to the low number of additional passenger trains that these projects could add, cumulative impacts on passenger rail safety, air quality, grade crossing safety, and grade crossing delay would be negligible.

Two proposed electrical transmission line projects could potentially overlap geographically with one or more of the planned capital improvements within the rail ROW. If this were to occur, then cumulative impacts on biological resources and water resources could result, but OEA expects that these cumulative impacts would be minor and would be minimized by the Applicants' voluntary mitigation measures and OEA's additional recommended mitigation measures set forth in *Chapter 4, Mitigation*.

S.4 Draft EIS Public Comment Period

OEA is providing a 45-day comment period on this Draft EIS during which interested parties and the public may review the Draft EIS and provide comments. OEA is notifying interested parties and the public of the availability of the Draft EIS through a combination of email, banner ads, and post cards with a link to the Draft EIS mailed to interested parties and media outlets. The entire Draft EIS is available on the Board's website (www.stb.gov) by clicking on the "View all Decisions" button and searching by Service date (August 5, 2022) or Docket Number (FD 36500). The Draft EIS will be listed as an Environmental Document under the "Decision Type" category. The Draft EIS is also available on the project-specific website (www.CP-KCSMergerEIS.com).

OEA is holding four in-person public meetings on the Draft EIS during which interested parties may review the Draft DEIS, make oral comments in a formal setting and/or submit written comments. OEA will begin each meeting with an open house followed by a brief overview of the Proposed Acquisition and environmental review process, followed by a public comment session. During the formal comment session, each interested individual will be given three minutes to convey their oral comments. A court reporter will be present to record these oral comments. If time permits, the court reporter will be available at the conclusion of the formal segment of the meeting to record oral comments from individuals not interested in addressing the meeting participants as a whole. Meeting transcripts will be

available on the Board-sponsored project website. Meetings will be held at the following dates, times, and locations:

- September 12, 2022, 6 to 8 p.m. (Central Daylight Time [CDT]) in Itasca, Illinois
 - The Westin Chicago Northwest, 400 Park Boulevard, Itasca, Illinois, 60143
- September 13, 2022, 6 to 8 p.m. (CDT) in Davenport, Iowa
 - The River Center, 136 E. 3rd Street, Davenport, Iowa, 52801
- September 14, 2022, 6 to 8 p.m. (CDT) in Excelsior Springs, Missouri
 - The Montgomery Event Venue, 425 S. Thompson Avenue, Excelsior Springs, Missouri, 64024
- September 15, 2022, 6 to 8 p.m. (CDT) in Vidor Texas
 - The Oaks Event Center, 2110 South Main Street, Vidor Texas, 77662

In addition, OEA will hold three online public meetings. Individuals interested in commenting are encouraged to pre-register on the Board-sponsored project website. OEA will begin the online public meeting with a brief overview of the Proposed Acquisition and environmental review process. Following the overview, OEA will receive oral comments in the order speakers have pre-registered. The online public meetings will be a facilitated formal comment session during which individuals who have pre-registered will be given three minutes to convey their oral comments. If time permits, the facilitator will allow other interested individuals who did not pre-register to provide oral comments. Interested individuals can participate in the meeting by phone, computer, or both. The meeting transcripts will be available on the project website after the meetings. To register for the online public meeting, visit www.CP-KCSMergerEIS.com. The online public meetings will be held at the following date and times:

- September 7, 2022, 6 to 8 p.m. (CDT)
- September 8, 2022, 12 to 2 p.m. (CDT)
- September 19, 2022, 6 to 8 p.m. (CDT)

A court reporter will be present to record oral comments during the online public meetings. If time permits, the court reporter will be available at the conclusion of the formal segment of the online meeting to record oral comments from individuals not interested in addressing the meeting participants as a whole. All meeting transcripts will be available on the project website after the meetings.

In addition to holding public meetings, OEA is requesting written comments on the Draft EIS. The public and any interested parties are encouraged to submit written comments on all aspects of this Draft EIS, including the Section 106 process. OEA will consider all timely comments in preparing the Final EIS, which will include responses to all substantive comments, OEA's final conclusions on potential impacts, and OEA's final recommended environmental mitigation measures. The deadline for comments is September 26, 2022. When submitting comments on this Draft EIS, the Board encourages commenters to be as specific as possible and substantiate concerns and recommendations.

Comment forms will be provided at the in-person public meetings. Completed forms will be accepted at the meetings or the forms can be submitted later by mail. Any interested party

may submit written comments on this Draft EIS regardless of whether they participate in any of the public meetings and provide oral comments. Comment forms or written letters may be mailed to the following contact and address:

Joshua Wayland
Office of Environmental Analysis, Surface Transportation Board
Environmental Filing, Docket No. FD 36500
c/o VHB
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

Comments may also be submitted electronically through the environmental comment form on the Board's website at <https://www.stb.gov/proceedings-actions/e-filing/environmental-comments/> or on the Board-sponsored website at www.CP-KCSMergerEIS.com. It is not necessary to mail written comments that have been filed electronically. Please refer to Docket No. FD 36500 when submitting comments.

Written comments on this Draft EIS must be postmarked by September 26, 2022. Electronically filed comments must be received by September 26, 2022. All comments received—written, e-filed, or transcribed—will carry equal weight in helping to complete the EIS process and guide the Board in making a decision in this proceeding. Further information about the project can be obtained by calling OEA's toll-free number at 1-888-319-2337. Assistance for the hearing impaired is available through the Federal Information Relay Service at 1-800-877-8339.

Following the close of the comment period on the Draft EIS on September 26, 2022, OEA will issue a Final EIS that will consider and respond to all substantive comments received on the Draft EIS and set forth OEA's final recommendations on environmental mitigation. The Board will then issue a final decision based on the Draft and Final EISs and all public and agency filings and comments in the public record for this proceeding. The final decision will address the transportation merits of the proposed project and the entire environmental record. If the Board decides to authorize the Proposed Acquisition, the Board may impose conditions on the Applicants as part of that decision, including environmental mitigation conditions.

This Draft EIS is available for viewing or download on the Board's website at www.stb.gov or on the Board-sponsored project website at www.CP-KCSMergerEIS.com. **Table S.1-1**, provided at the end of this Summary, summarizes and compares potential impacts for each resource as well as cumulative impacts.

Table S.1-1. Impact Summary Table

Resource and Impact	No-Action Alternative	Proposed Acquisition
Freight Rail Safety		
Accident/incident rates per million-train-miles (2027 forecast; systemwide) ¹	CP: 1.44 KCS: 3.35	1.44
Accident/incident rates per million-train-miles (2027 forecast; mainline) ²	CP: 0.74 KCS: 1.25	0.74
Impact Conclusion: Under the Proposed Acquisition, the number of accidents/incidents would remain low on all affected rail line segments, and would decrease on some segments. Under the No-Action Alternative, the Applicants expect that both the CP and the KCS networks would experience organic growth in rail traffic. The incident rates on KCS and CP respectively would continue to decline if safety trends continue.		
¹ Systemwide analysis includes accidents/incidents along rail segments and within rail yards and intermodal facilities.		
² Mainline analysis was based on rail segments only, and the numbers shown here are averages among segments of varying lengths.		
Hazardous Materials Transportation		
Mainline releases per year	10.36	12.88
Rail yards releases per year	23.50	24.99
Impact Conclusion: Increases in hazardous material carloads under the Proposed Acquisition would cause slight changes in the number of annual releases. However, the risk of a release occurring on any specific rail line segment would continue to be low regardless of whether or not the Board authorizes the Proposed Acquisition.		
Passenger Rail Safety		
Total predicted collisions per 100 years	0.9839	1.904
Impact Conclusion: The probability of a collision between a freight train and a passenger train occurring on any of the affected rail line segments would be very low under either the Proposed Acquisition or the No-Action Alternative.		
Grade Crossing Safety		
Total predicted number of vehicle crashes per year	19.1	24.9
Total predicted number of pedestrian crashes per year	1.7	2.2
Impact Conclusion: Across all 1,134 roadway/rail at-grade crossings (grade crossings) in the study area, OEA projects that approximately 24.9 crashes involving trains and motor vehicles would occur under the Proposed Acquisition per year, compared to 19.1 crashes per year under the No-Action		

Table S.1-1. Impact Summary Table

Resource and Impact	No-Action Alternative	Proposed Acquisition
<p>Alternative. The projected increase of approximately 5.8 additional vehicle crashes per year would be offset by a decreased number of crashes at grade crossings on rail lines outside of the combined CPKC network due to the diversion of rail traffic from those rail lines to CPKC. Across all 1,134 grade crossings in the study area, the total predicted number of train-pedestrian crashes would be 2.2 crashes per year under the Proposed Acquisition, compared to 1.7 crashes per year under the No-Action Alternative, which is a difference of 0.5 crashes per year.</p>		
Grade Crossing Delay		
Number of grade crossings experiencing increased delay	N/A	5
Affected crossings by Level Of Service (LOS)	LOS A: 260 LOS B: 13 LOS C: 2 LOS D: 1 LOS F: 1	LOS A: 255 LOS B: 18 LOS C: 2 LOS D: 1 LOS E: 1
<p>Impact Conclusion for LOS: Five grade crossings would experience a decrease in the LOS from LOS A to LOS B. Because LOS B corresponds to stable flow, OEA concludes that the Proposed Acquisition would result in minor adverse delay impacts at these grade crossings. Delay at grade crossings would increase under the No-Action Alternative as a result of increased rail and road traffic due to organic growth.</p>		
<p>Impact Conclusion for Emergency Vehicle Delay: Under the Proposed Acquisition study area, 28 grade crossings are on designated emergency routes. All designated emergency routes have available alternate routes with an average distance of 2.1 miles. Emergency vehicle delay would increase under the No-Action Alternative as a result of increased rail and road traffic due to organic growth.</p>		
<p>Impact Conclusion for Planned Capital Improvements: The Proposed Acquisition would result in delay impacts at 18 grade crossings where the Applicants intend to add a new passing siding or extend an existing siding. Among these, seven have the potential to completely isolate residences, businesses, or other buildings if the Applicants do not develop alternate access routes during final engineering and design. Under the No Action Alternative the Applicants would not build the planned capital improvements. CP and KCS could also make capital improvements along their respective rail lines in the future without seeking Board authority if needed to support rail operations.</p>		
Truck-to-Rail Diversions		
Projected change in truck traffic on U.S. highways annually	N/A	- 64,018
<p>Impact Conclusion: The Proposed Acquisition would result in the diversion of trucks from highways, which could provide some benefits to the highway system. Under the No-Action Alternative, the Proposed Acquisition would not cause the diversion of freight from truck transportation to rail transportation.</p>		

Table S.1-1. Impact Summary Table

Resource and Impact	No-Action Alternative	Proposed Acquisition
Intermodal Facility Traffic		
Capacity of roadways near intermodal facilities	Increased truck traffic would cause three roadway segments near intermodal facilities in the study area to exceed roadway capacity. The v/c ratio ¹ would increase from less than 1.0 to more than 1.0.	No additional roadway segments near intermodal facilities would exceed roadway capacity beyond the three segments which exceed 1.0 under the No-Action Alternative. The v/c ratio on roadways near intermodal facilities would increase by less than 0.0045 over the No-Action Alternative due to the Proposed Acquisition.
Impact Conclusion: Under the Proposed Acquisition, there would be negligible potential increase in number of trucks on roadways near the six intermodal facilities. Under the No-Action Alternative, truck traffic would increase due to economic growth.		
¹ The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand (FHWA 2013). A v/c ratio over 1.0 represents a roadway where the calculated volumes exceed the assigned capacity.		
Noise and Vibration		
Number of receptors adversely affected	N/A	6,307
Impact Conclusion: The Proposed Acquisition would adversely affect receptors where noise levels would exceed 65 dBA (Ldn) and would increase by 3 dBA or more. There would be a total of 6,307 receptors adversely affected.		
Air Quality and Climate Change		
Impact Conclusion: Because the Proposed Acquisition would likely result in the diversion of freight from truck transportation to rail transportation and from other rail lines, OEA expects that the Proposed Acquisition would not increase air emissions (including greenhouse gas emissions), and could result in a decrease in emissions, when measured at the system-wide or national scale. OEA’s analysis shows that the projected increase in rail traffic would result in NO _x emissions in excess of the EPA’s <i>de minimis</i> thresholds in three nonattainment areas for ozone. However, the estimated NO _x emissions from rail operations related to the Proposed Acquisition would be less than 1 percent of the total applicable emissions budget for mobile sources in each ozone nonattainment area. OEA expects that emissions related to projected increases in rail traffic on rail lines and projected increases in activities at rail yards and intermodal facilities may be offset by decreased emissions elsewhere.		
Energy		
Impact Conclusion: The Proposed Acquisition would not adversely affect the transportation of energy commodities or energy efficiency. The fuel savings related to truck-to-rail diversions (8.1 million gallons) would outweigh the increase in fuel usage at intermodal facilities (110,785 gallons) as		

Table S.1-1. Impact Summary Table

Resource and Impact	No-Action Alternative	Proposed Acquisition
<p>well as fuel consumed during wait times at grade crossings (12,118 gallons). OEA did not include rail-to-rail diversions in the overall fuel consumption analysis because the increase in fuel consumption on the CPKC rail lines would likely be offset by a decrease in fuel consumption on the rail lines of competing railroads.</p>		
<p>Cultural Resources</p>		
<p>Archaeological site impacts</p>	<p>None; however, in the absence of the Proposed Acquisition, CP or KCS could make capital improvements along their rail lines in the future without seeking Board authority.</p>	<p>Although two National Register-eligible archaeological sites, 34AD283 and 34AD286, are located within the APE at one capital improvement location, the Applicants have clarified that the planned siding would be located within the current limits of the rail line footprint (railroad ballast and berm) in the areas adjacent to 34AD283 and 34AD286 and that no construction activities would take place within the limits of the sites.</p>
<p>Historic resources physical impacts</p>	<p>None; however, in the absence of the Proposed Acquisition, CP or KCS could make capital improvements along their rail lines in the future without seeking Board authority.</p>	<p>The Proposed Acquisition would affect 9 eligible rail line segments due to the addition of the planned capital improvements; however, these effects would not be adverse.</p>
<p>Historic resources adverse visual impacts</p>	<p>None; however, in the absence of the Proposed Acquisition, CP or KCS could make capital improvements along their rail lines in the future without seeking Board authority.</p>	<p>The Proposed Acquisition would affect 9 eligible rail line segments and 7 above-ground historic resources due to the additional of the planned capital improvements; however, these effects would not be adverse.</p>
<p>Impact Conclusion: The Proposed Acquisition would not adversely affect any archaeological or historic resources.</p>		

Table S.1-1. Impact Summary Table

Resource and Impact	No-Action Alternative	Proposed Acquisition
Hazardous Material Release Sites		
Capital improvement locations with potential hazardous material site impacts	None	4
Impact Conclusion: Based on conceptual designs, the Camanche (Iowa), Ottumwa (Iowa), Blue Valley (Missouri), and Asbury (Missouri) capital improvement locations have the potential to encounter residual hazardous materials during ground disturbing activities.		
Biological Resources		
Endangered Species Act – Listed Species	None; however, in the absence of the Proposed Acquisition, CP or KCS could make capital improvements along their rail lines in the future without seeking Board authority.	OEA consulted with USFWS; USFWS concurred that impacts to the Indiana bat, northern long-eared, and Ozark big-eared bats are determined to be “may affect, not likely to adversely affect.” The Missouri, Illinois-Iowa, and Arkansas USFWS offices subsequently concurred with OEA’s determination. To date, the Oklahoma USFWS office has not concurred with OEA’s determination.
Impact Conclusion: The Proposed Acquisition <i>may affect, but is not likely adversely affect</i> the federally endangered Indiana bat, the federally proposed endangered northern long-eared bat, and the federally endangered Ozark big-eared bat. Impacts on other biological resources would be negligible.		
Water Resources		
Surface Water and Wetlands	None; however, in the absence of the Proposed Acquisition, CP or KCS could make capital improvements along their rail lines in the future without seeking Board authority.	Potential to impact a total of approximately 1.5 acres of streams and 15.94 acres wetlands due to fill, new track ballast, replacing or adding culverts, and extending or adding bridge piers.
Impact Conclusion: The Proposed Acquisition would have minimal impacts to wetlands and streams due to site work and construction, including the placement of fill material or conveyance structures.		

Table S.1-1. Impact Summary Table

Resource and Impact	No-Action Alternative	Proposed Acquisition
Environmental Justice (EJ)		
Disproportionately high adverse impact on minority population	No	No
Disproportionately high adverse impact on low-income population	No	No
Percentage of adversely affected receptors in EJ populations census block groups	N/A	28%
Percentage of adversely affected receptors in non-EJ populations census block groups	N/A	72%
Impact Conclusion: The Proposed Acquisition does not have the potential to result in disproportionately high and adverse human health or environmental impacts on minority or low-income populations.		
Cumulative Impacts		
Passenger Rail Safety	No	Cumulative impacts on the probability of rail collisions would increase slightly on segments where the Illinois Department of Transportation proposes new intercity passenger rail service and where Amtrak plans additional service between River Junction and St. Paul, MN; however, the probability of rail collisions involving passenger and freight trains is very low.
Grade Crossing Safety and Delay	No	Cumulative impacts would result from an increase in the number of crashes at certain grade crossings, and cumulative impacts would result in a slight increase in grade crossing delay at certain grade crossings. However, OEA expects that the amount of delay at crossings on other railroads in the U.S. and on roadways could decrease as the result of the diversion of trucks to rail and

Table S.1-1. Impact Summary Table

Resource and Impact	No-Action Alternative	Proposed Acquisition
		the diversion of rail traffic from other railroads to the combined CPKC network.
Air Quality	No	Cumulative impacts would result in a slight increase of emissions from the four proposed Amtrak trains; however, it would be less than 1 percent of the emissions budget for the Chicago Ozone Nonattainment Area.
Noise	No	No
Environmental Justice	No	No
Biological Resources	No	Two proposed electrical transmission line projects could potentially overlap geographically with one or more of the planned capital improvements within the rail ROW. If this were to occur, then cumulative impacts on biological resources could result, but OEA expects that these cumulative impacts would be minor.
Water Resources	No	Cumulative impacts on wetlands could result from the SGGR Transmission Line Project at the MP 71 (Turkey River) capital improvement in Iowa. The impacts would be temporary because the SGGR project is a buried electric cable.
<p>Impact Conclusion: Cumulative impacts are possible for rail safety, grade crossing safety, grade crossing delay, air quality, and water resources. There would be no cumulative impacts under the No-Action Alternative.</p>		