

SEA's Summary of Major Conclusions

The Section of Environmental Analysis (SEA) has conducted an extensive review of the potential beneficial and adverse environmental impacts that could result from the proposed acquisition of the Elgin, Joliet & Eastern Railway (EJ&E) by Applicants Canadian National Railway Company and Grand Trunk Corporation (CN). Based on the information available to date, consultation with Federal, state, and local agencies, a wide variety of organizations, citizens of Illinois and Indiana, and its own independent environmental analysis, SEA has reached the following conclusions:

- 1) The Proposed Action would result in environmental benefits to communities located along the five CN rail lines leading into and out of Chicago. Communities along the EJ&E rail line would experience adverse impacts. The potential benefits from the reduction in train operations near the communities along the five CN rail lines inside the EJ&E arc include decreased vehicle traffic delay, reduced noise, reduced air emissions, and fewer shipments of hazardous materials by rail. Communities located along the EJ&E rail line would experience an increase in train traffic, which could result in increased vehicle traffic delay, increased noise, increased air emissions, and an increase in the shipment of hazardous materials by rail.
- 2) The pre-existing conditions—that is, the heavy vehicular traffic and the number of passenger and freight trains that currently traverse the communities along the EJ&E rail line—are far from ideal. These communities currently experience substantial vehicular traffic delays during peak travel times, existing freight and passenger rail operations, train noise, and safety risks due to the high volume of cars, trucks, and freight and passenger trains. The Proposed Action would likely exacerbate these pre-existing conditions.
- 3) SEA has identified potentially adverse traffic delay impacts and impacts to emergency service providers in several communities on the EJ&E rail line where rail traffic would increase. But it should be noted that instead of coming to the Board for authority to acquire the line under 49 U.S.C. 11324 of the Interstate Commerce Act, the Applicants could have increased freight traffic on the EJ&E rail line through a negotiated haulage agreement with the EJ&E. Under a freight haulage agreement on an existing rail line, the Applicants would not be required to seek prior approval from the Board, and there would have been no NEPA review.
- 4) A large part of the EIS process has been devoted to developing mitigation measures to reasonably address the potential adverse environmental impacts associated with the Proposed Action. In the Final EIS, SEA is recommending mitigation for 13 emergency service responders in Illinois and Indiana. SEA is also recommending mitigation on eight substantially affected highway/rail at-grade crossings, including two grade separations: one at Ogden Avenue near Aurora, Illinois, and one at Lincoln Highway in Lynwood, Illinois. In addition, SEA identified both Woodruff Avenue and Washington Street in Joliet, Illinois, as substantially affected and would have recommended mitigation that could have included a grade separation, given the level of potential adverse impacts from the Proposed Action. However, the City of Joliet and the Applicants have negotiated a mutually acceptable agreement that includes tailored mitigation that the Applicants would provide for the City and is more far-reaching, in some respects, than mitigation the Board unilaterally could impose. Because the Applicants and Joliet have been able to come to terms that both the Applicants and the City find satisfactory, SEA does not recommend

- mitigation for either Woodruff Avenue or Washington Street beyond requiring compliance with the parties' Negotiated Agreement.
- 5) Given all of the pre-existing traffic congestion at Ogden Avenue and Lincoln Highway, SEA believes that the Applicants should not bear the full costs for design and construction of the two recommended grade separations. However, since the Proposed Action would have a substantial adverse effect on vehicular traffic delays, and in some areas regional and local mobility and grade crossing safety, SEA concludes that the Applicants' share of the grade separations' cost should be more than the traditional railroad share for similar projects. To determine a reasonable and appropriate approach for the Applicants' cost participation, SEA applied two different approaches. First, SEA applied a regional approach that considered all of the highway/rail at-grade crossings affected by the Proposed Action on both the EJ&E rail line and the CN rail line segments. Second, SEA focused locally on just the potential impact of the Proposed Action on vehicle traffic delay at Ogden Avenue and Lincoln Highway. SEA believes that the regional analysis forms a more reasonable and appropriate basis for assigning a percentage of the proposed grade separation cost to the Applicants in this case, because it would not hold the Applicants responsible for remedying as much of the pre-existing conditions at the two crossings and would reflect the benefits of the Proposed Action to communities along the CN lines. SEA's regional analysis, described in full in Chapter 4 of this EIS, shows that the Applicants' contribution to the cost of the two recommended grade separations should be 15 percent, and SEA is recommending that this cost share percentage be imposed.
 - 6) In response to comments on the Draft EIS raising concerns about the effects of the Proposed Action on Metra's STAR Line and future Northern Indiana Commuter Transportation District (NICTD) expansion plans, SEA performed additional detailed analysis for this Final EIS. Based on this analysis, SEA concludes that the Proposed Action would not have a substantial adverse effect on the potential implementation of Metra's STAR Line service on the EJ&E rail line and that the Proposed Action could potentially benefit future NICTD expansion plans.
 - 7) Based on its independent environmental analysis and consideration of reasonable and feasible mitigation strategies, SEA believes the Applicants have proposed effective voluntary mitigation for potential noise and vibration impacts. This voluntary mitigation includes constructing noise control devices such as noise barriers, installing vegetation or berms, or installing enhanced warning devices to allow communities to achieve quiet zone requirements. The Final EIS also includes additional noise mitigation, including assisting Barrington, Illinois to maintain their existing quiet zone and mitigation for Fermi Lab in Batavia, Illinois.
 - 8) Even though the Proposed Action would increase the transport of hazardous materials on the EJ&E rail line, SEA concludes that the likelihood of a hazardous materials spill would be extremely low. SEA further concludes that both the existing regulations and the Applicants' current system of spill prevention and emergency spill response, should a spill occur, are both effective and provide a better plan than other containment measures raised in comments (such as impermeable membranes).
 - 9) In response to comments on the Draft EIS related to school and pedestrian safety, SEA did additional analysis and provides examples of approaches to ensure safety that potentially affected communities could consider to protect the safety of children and others. With regard to community quality of life issues, SEA concludes that air emissions, noise, vibration, and traffic delays from the increase in train traffic on the

EJ&E rail line would annoy residents located near the EJ&E rail line. But these potential adverse effects are not expected to be great enough to induce a large number of residents to change their behavior or move, and impacts would be limited to the vicinity of the EJ&E rail line. And while the Proposed Action could have some adverse impact on property values, SEA's analysis shows that the impacts typically would be far less than the amounts claimed by some commenters.

- 10) As a result of its public and agency outreach, SEA established a Natural Resources/Water Resources Stakeholder Group and recommends that the Applicants designate a local resource agency liaison to work closely with this stakeholder group to ensure that adaptive management strategies are developed to protect the area's threatened and endangered species habitat and sensitive ecological resources, such as Cuba Marsh, near Barrington, Illinois, and the Lake Renwick heron rookery. In addition, the Final EIS contains mitigation for Pratt's Wayne Woods Forest Preserve near Wayne, Illinois.
- 11) Based on extensive informal consultation with the U.S. Fish and Wildlife Service, SEA concludes that the Proposed Action may affect, but is not likely to adversely affect, listed threatened or endangered species.
- 12) SEA concludes that the Proposed Action would not affect any property eligible or listed on the National Register of Historic Places within the transaction-related area of potential affects.
- 13) SEA determines that the Applicants' preferred alternatives for each of the proposed rail connections, including the Revised Matteson Connection and Revised Double Track-Leithton Connection, are also the environmentally preferred alternatives, because the Applicants' modifications would improve existing rail infrastructure and reduce delay at adjacent highway/rail at-grade crossings.
- 14) Based on its independent environmental analysis and review of all public and agency comments, SEA recommends that the Board require the Applicants to implement the environmental mitigation measures set forth in both the Executive Summary and Chapter 4 of this Final EIS, which includes all of the Applicants' voluntary mitigation, as conditions in any final decision approving the Proposed Action. SEA's final recommended mitigation also requires the Applicants to comply with the terms of the Negotiated Agreements with Joliet, Illinois, and with Crest Hill, Illinois, and mitigation for the transaction-related construction activities.
- 15) SEA is recommending a five-year environmental reporting and monitoring period that would require the Applicants to file quarterly reports on their progress in implementing the Board's final mitigation and allow the Board to take appropriate action if there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions.
- 16) Finally, SEA continues to encourage communities and the Applicants to reach Negotiated Agreements at any time (including during the reporting period should the Proposed Action be approved). Mutually acceptable Negotiated Agreements can be more far reaching than site-specific Board recommended mitigation and are tailored to the specific needs of the community.

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Executive Summary

Introduction

The Surface Transportation Board, Section of Environmental Analysis (SEA), prepared this Final Environmental Impact Statement (Final EIS) to identify and evaluate the potential beneficial and adverse environmental impacts of the Canadian National Railway Company and Grand Trunk Corporation (collectively, CN or the Applicants) proposal to acquire control of the EJ&E West Company, a wholly owned non-carrier subsidiary of Elgin, Joliet and Eastern Railway Company (EJ&E). During its environmental review process, SEA considered a range of environmental issues potentially affecting a large number of communities on a system-wide, regional, and local level. This approach allowed SEA to identify and assess potential environmental benefits and adverse impacts, and develop reasonable mitigation measures that would address potentially adverse impacts should the Proposed Action be approved. Throughout the environmental review process, SEA sought public input from agencies, elected officials, organizations, businesses, individuals, and other stakeholders.

This case involves the acquisition of the EJ&E rail line, which has provided railroad transportation service to the Chicago region for 120 years. Communities along the EJ&E rail line have benefited from the freight and passenger transportation services created by the EJ&E. These services enabled or enhanced the ability of these communities to become centers for commerce and services, and function as a shipping point for farm commodities. The EJ&E rail line encouraged the development of economic activity that required rail transportation such as farming of grain and general manufacturing. The EJ&E rail line also enabled homes and businesses to purchase coal for home heating moved by rail from southern and central Illinois coal fields. Train volumes on the EJ&E rail line have fluctuated during its history in response to technological and economic changes, but there has always been some rail traffic on the line. Regular passenger service was provided in the early 1900s on most of the EJ&E rail line but was discontinued as electrified interurban railways replaced its steam-hauled trains. During World War II, the EJ&E rail line generated as many as fifty trains per day to support Chicago's steel and heavy manufacturing industries. The EJ&E rail line continued to thrive throughout most of the 1950s and 1960s. While traffic levels declined during the 1970s, it rebounded in the early 1990s when the rail lines that pass through the center of Chicago became more congested and the EJ&E rail line became an alternative route for freight moving through Chicago, such as coal and containerized import/export freight. Throughout its history, the EJ&E rail line has been an integral part of the rail system and economic infrastructure of Chicago, supporting the needs of the many railroads that move traffic through the city and, numerous local rail-dependent shippers.

Under the Proposed Action, the Applicants would use EJ&E's rail line to connect all five of CN's rail lines in the Chicago, Illinois, metropolitan area. The EJ&E rail line, located in northeastern Illinois and northwestern Indiana, extends in an arc around Chicago, Illinois. Figure ES- 1, Project Vicinity, shows the existing CN and EJ&E rail systems in the Greater Chicago, Illinois, area.

CN would shift much of the rail traffic currently moving over CN's rail lines in Chicago to the EJ&E rail line. Rail traffic on CN rail lines inside the EJ&E arc would generally decrease, and the number of trains operating on the EJ&E rail line outside Chicago would increase. The proposed transaction would also involve construction of several short rail connections and five segments of siding extensions, or second mainline track (double track), totaling approximately 19 miles, predominantly within existing rights-of-way (ROW).



Chicago, Illinois, is unique in that it is the only city in the United States where six Class I railroad systems (those having annual carrier operating revenues of \$250 million or more) meet to exchange freight. In Chicago, the railroads exchange freight between the East, West, and Gulf coasts and between the United States and Canada. In addition to the six Class I railroads with rail lines in Chicago, a seventh Class I railroad functions by means of trackage rights. This allows Kansas City Southern (KCS) to operate its trains over another railroad's tracks. Thus, all seven of the North American Class I freight railroads converge in Chicago.

More than 600 freight trains operate within Chicago each day, transporting approximately 37,500 rail cars carrying 2.5 million tons of freight.

The major rail lines meet in the Chicago Terminal District, a 2,800-mile network of rail lines within the Chicago metropolitan area. The district comprises 70 yards and more than 1,950 at-grade crossings. The at-grade crossings include both rail/rail crossings, where rail lines intersect, and highway/rail crossings, where a rail line and a road meet at the same level.

Numerous smaller regional and switching railroads operating in Chicago connect Class I railroads and provide short-haul capacity within the Chicago Terminal District. The Class I railroads also use the rail lines of these switching railroads, by means of trackage rights, to connect from one rail line to another within the Chicago metropolitan area. One-third of all rail freight in the United States moves to, from, or through Chicago. More than 600 freight trains operate within the Chicago Terminal District each day, transporting an average of 37,500 rail freight cars carrying about 2.5 million tons of freight.

Trains providing passenger service in the Chicago metropolitan area and from Chicago to other cities also operate on the rail network within Chicago. Currently, Amtrak operates about 78 trains per day in the Chicago metropolitan area. Metra, the commuter rail division of the Regional Transportation Authority of Northeast Illinois (RTA), provides commuter service on its own rail lines and also has trackage rights on freight railroads. Metra operates 720 trains per day and the Northern Indiana Commuter Transportation District (NICTD) operates 41 trains per day.

Metra's rail lines are intertwined with Class I freight rail lines through a series of parallel tracks, trackage rights granted to Metra on freight rail lines, and dozens of rail/rail at-grade crossings. Freight trains use many of the same tracks and critical junctions as the Metra trains. During each weekday rush hour, freight movements are substantially curtailed while Metra and Amtrak passenger trains take priority. The large volume of freight and passenger trains moving on these rail lines (more than 1,400 trains per day), and the use of the same rail lines by multiple rail companies result in delays as trains wait to cross other rail segments. Delays also occur as Class I railroads wait to use switching rail lines and yards within the Chicago Terminal District. Because of rail traffic congestion, a CN freight train can take more than 24 hours to travel through an area about 30 miles in length, from near O'Hare International Airport to near Blue Island, Illinois.

This Final EIS should be read in conjunction with the Draft EIS, which provides more detailed information on the Proposed Action and alternatives for agency decision-makers and the public. The Draft EIS describes the project's Purpose and Need; the Proposed Action and alternatives; the existing environment, the potential environmental benefits and adverse impacts associated with the Proposed Action, and the Applicants' voluntary mitigation measures, along with SEA's suggested mitigation conditions. The Final EIS responds to public comments on the Draft EIS; identifies corrections and changes to information presented in the Draft EIS; discusses SEA's conclusions regarding environmental effects; and includes its final environmental mitigation recommendations to the Surface Transportation Board (the Board). Furthermore, the Final EIS reflects additional work on all of the rail operations and resource issues raised during the Draft EIS comment period. Both the Draft EIS and the Final EIS are available on the Board's website (<http://www.stb.dot.gov>).

Following the issuance of the Final EIS, the Board will decide whether to approve, approve with conditions, or deny CN's request to acquire the EJ&E. To reach its decision, the Board will consider the Draft and Final EIS, including CN's voluntary mitigation measures. SEA's recommended mitigation measures, the public and agency comments received on the Draft EIS, and any other relevant environmental information. The Board has stated that it will issue a final decision on the CN Application as soon as possible after the issuance of the Final EIS.

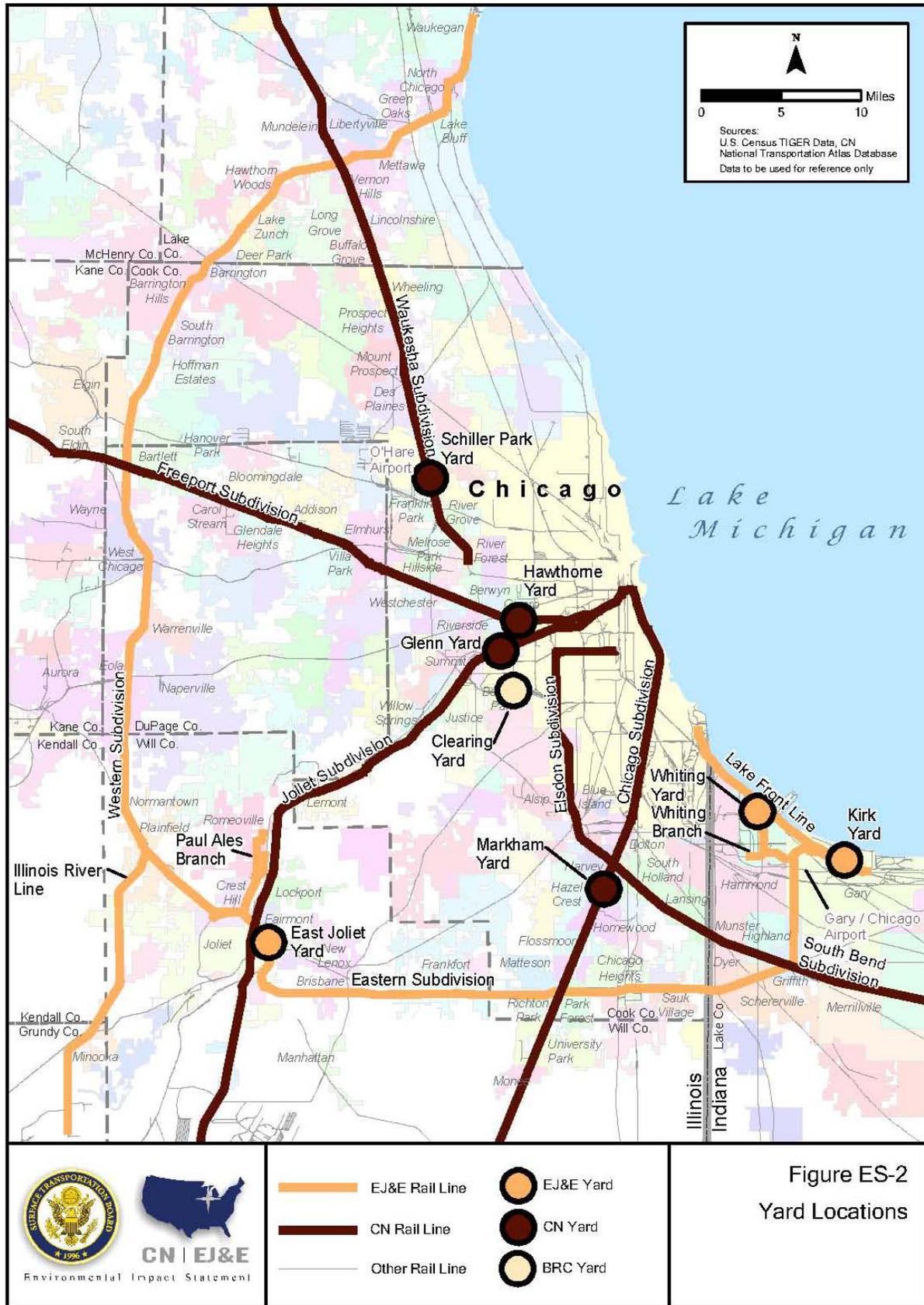
Purpose and Need for the Proposed Transaction

The Applicants give three primary purposes for seeking to acquire control of the EJ&E rail line:

- To improve the Applicants' operations in and beyond the Chicago metropolitan area by providing a continuous rail route around Chicago, under CN's ownership, that would connect its five rail lines radiating from Chicago
- To make EJ&E's Kirk Yard, as well as smaller facilities at East Joliet, Illinois, and Whiting, Indiana, available to the Applicants, enabling them to consolidate rail car classification work, thereby reducing the use of the Belt Railway Company of Chicago (BRC) Clearing Yard
- To allow the CN system to benefit from an important supply line that EJ&E provides for North American steel, chemical, and petrochemical industries, as well as utility companies, enabling the Applicants to develop more extensive relationships with these industries and the companies that serve them

The Applicants maintain that the availability of a continuous CN route around Chicago, and its connection to the five CN rail lines radiating from Chicago, would greatly improve the fluidity of intermodal (and other) CN traffic that must move into, from, or through Chicago. The Applicants maintain that the Proposed Action, if approved, would result in more efficient rail traffic flow by shifting much of CN's rail traffic in the Chicago Terminal District to the EJ&E rail line, which would reduce CN's use of congested switching rail lines to connect its rail lines. The Applicants state that shifting a large portion of the CN rail traffic to the EJ&E rail line would decrease the traffic density in Chicago's urban core.

The Applicants state that trains traveling within Chicago currently experience delays because of the congested rail lines and the reliance on the Belt Railway Company of Chicago (BRC) Clearing Yard for switching traffic between rail subdivisions. Most of the Class I freight railroads in Chicago use the BRC Clearing Yard for train classification. According to the Applicants, acquisition of Kirk Yard and other EJ&E yards located along the EJ&E rail line and near the edge of the congested Chicago Terminal District would permit CN to use these yards to classify and switch trains passing through the Chicago metropolitan area. Approval of the Proposed Action by the Board would allow trains that stop in the Chicago metropolitan area for crew changes, locomotive inspections, and delivery of goods to industries use the EJ&E rail line, and Kirk and East Joliet yards. The Applicants expect this to reduce the number of CN trains that, though bound for other destinations, would otherwise need to travel into Chicago. The proposed transaction would reduce classification work at CN's Glenn, Hawthorne, and Markham yards and at the BRC Clearing Yard. See Figure ES- 2 for yard locations in the Chicago metropolitan area.



According to the Applicants, approval of the proposed transaction would enable CN to improve its service to many companies in the Chicago metropolitan area and to companies shipping products through Chicago by reducing congestion and expediting shipments on CN rail lines. The Applicants maintain that shippers would benefit from shortened transit times through the Chicago Terminal District.

Description of the Proposed Action

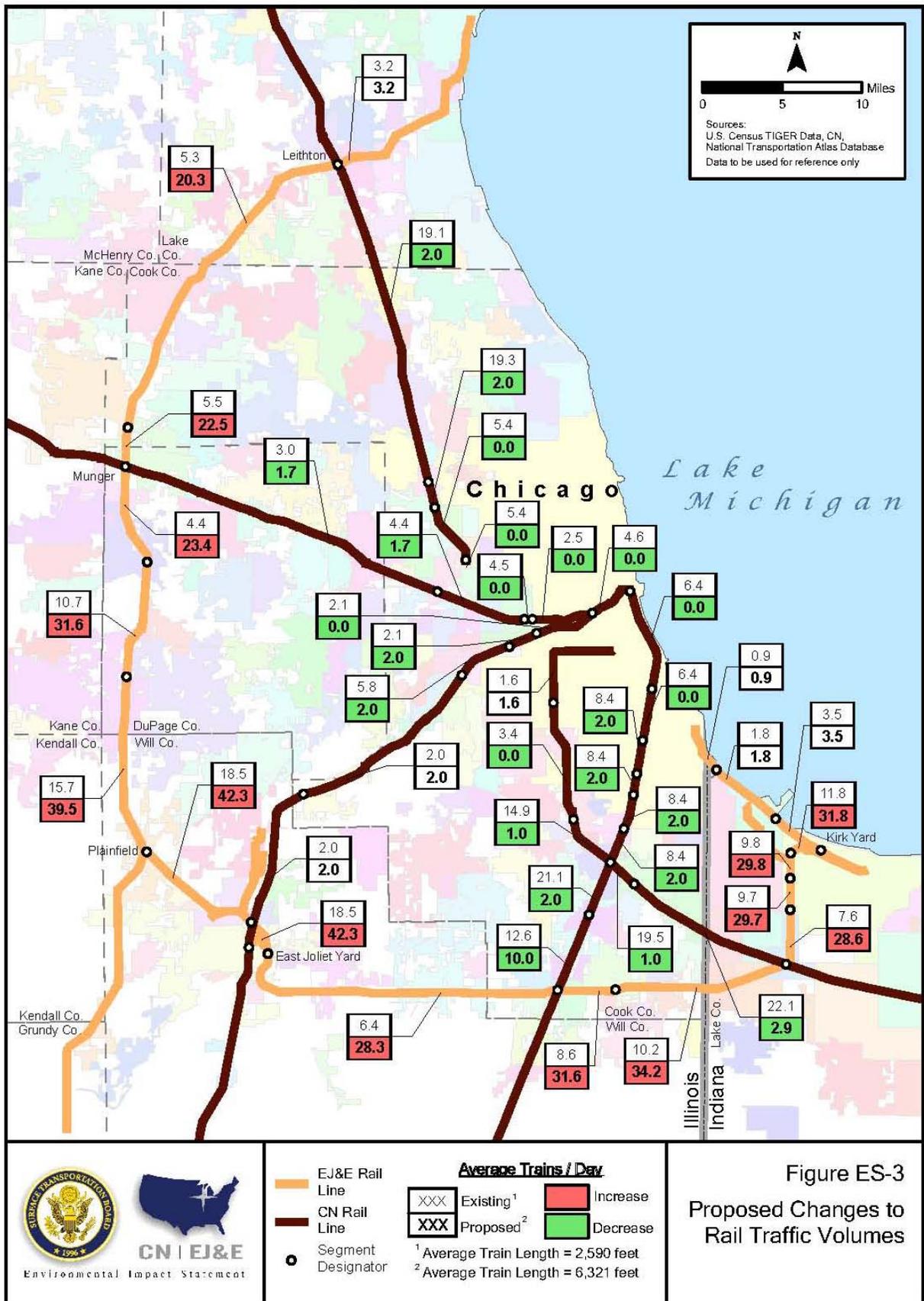
The Applicants are seeking the Board's authorization, under 49 USC 11323- 11325, to acquire control of EJ&E's land, rail line, and related assets. Under the Proposed Action, CN would redirect its trains from the five CN subdivisions in Chicago to the EJ&E rail line, greatly increasing the volume of freight rail traffic along the EJ&E rail line, which would result in a corresponding decrease in the volume of freight rail traffic along the CN subdivisions. Figure ES- 3 below, shows the proposed changes in rail traffic volumes.

Connected Actions

The Proposed Action would also result in: 1) the construction of new rail connecting tracks at Munger (near Wayne, Illinois), Joliet, Illinois, and Matteson, Illinois, and at Griffith, Indiana, Ivanhoe (in Gary, Indiana), and Kirk Yard in Gary, Indiana; 2) the construction of five segments totaling 19 miles of double track to augment the existing single track, at or near Leithton, Illinois (near Mundelein, Illinois); Diamond Lake Road to Gilmer Road near Mundelein, Illinois; East Siding to Walker, Illinois, (two segments) near Aurora, Illinois, Naperville, Illinois, and Plainfield, Illinois; and East Joliet to Frankfort, Illinois; and 3) an increased use of Kirk Yard and East Joliet Yard for rail car classification and train assembly and disassembly. Although the proposed construction activities and changes in yard operations do not require prior Board approval, SEA analyzed the potential environmental impacts of these related actions because they would not occur but for the Proposed Action and are connected actions. Figure ES- 4 shows the locations of the proposed new double track construction, the connecting tracks between existing rail lines, and the location of the Kirk Yard and East Joliet Yard.

SEA conducted an independent investigation to examine the Applicants' proposed connecting tracks between existing railroad lines to determine if alternative locations or configurations would meet the purpose of and need for the Proposed Action while minimizing adverse environmental effects. For each connection, SEA considered the Applicants' proposed connection, a No-Build Alternative, and alternative configurations developed by SEA, where appropriate.

Railroads may add trackage and change operations within their existing rights-of-way at any time without Board approval. Under the Proposed Action, construction of 19 miles of double track and changes in yard operations would predominantly occur within the existing EJ&E rail line right-of-way. No feasible alternatives to the double track or yard operations were identified by SEA. Therefore, SEA did not analyze alternatives to the construction of double track or changes to yard operations.





Alternatives to the Proposed Action

SEA evaluated three alternatives: the Proposed Action, the No-Action, and the Proposed Action with conditions, including environmental mitigation measures. SEA initially considered another four alternatives, but eliminated them from detailed study because they did not meet the Applicants' purpose and need.

No-Action Alternative

The Council on Environmental Quality's (CEQ) regulations implementing the National Environmental Policy Act (NEPA) of 1969, as amended (40 CFR 1502.14(d)) require consideration of a No-Action alternative. The No-Action alternative provides a basis for understanding the impacts of the Proposed Action. Under the No-Action Alternative, the Applicants would not acquire control of the EJ&E land, rail line, and related assets, and SEA assessed rail operations on the EJ&E rail line at existing levels. The Applicants would continue to make connecting train movements through the Chicago Terminal District in the same manner as the movements now occur, would not construct the proposed improvements to the proposed connections or the double track, and would not make changes to existing yard operations.

Proposed Action with Conditions

The Proposed Action with Conditions is the alternative under which the Board would approve the proposed CN acquisition of the EJ&E with specific conditions and mitigation requirements, including environmental mitigation conditions. The Proposed Action with Conditions Alternative could also include potential modifications resulting from proposals by other parties requesting modifications or alterations to the Proposed Action and negotiated agreements between the Applicant and communities or other governmental units that address potential environmental impacts or other issues.

Alternatives Eliminated from Detailed Analysis

SEA considered four additional alternatives, but found them to be unreasonable because they would not meet the Applicants' purpose of and need for the Proposed Action. These alternatives were: 1) expanded trackage rights to CN; 2) implementation of the Chicago Region Environmental and Transportation Efficiency (CREATE) Program in lieu of CN's acquisition of the EJ&E rail line; 3) acquisition of a different rail line within the Chicago metropolitan area; and 4) construction of a bypass outside of the EJ&E rail line in Northern Illinois. In general, SEA found these alternatives to be unreasonable because they would not give CN full ownership and use of a continuous rail route around Chicago, the Applicants could not gain access to EJ&E rail yards, the alternative(s) would be more expensive, or they would have more of an adverse effect on the environment than the Proposed Action would have.

Overview of Environmental Activities since the Draft EIS

As part of its ongoing environmental review, and in response to public and agency comments on the Draft EIS, SEA prepared revised information to clarify, update, and correct some of the information contained in the Draft EIS. SEA made substantive corrections or additions to data and incorporated changes received from the Applicants. In addition, SEA conducted additional analysis and evaluated new information furnished or suggested by agencies and the public during the public comment period, as described below. The results of SEA's additional evaluations are fully presented in Chapter 2 of the Final EIS.

Revised Matteson Connection

SEA conducted additional evaluations and assessed the potential effects resulting from planned changes in rail operations, and the associated construction due to revisions to the Proposed Matteson Connection alternative. The proposed connection at Matteson, as presented by the Applicants in their October 2007 Application, limited the maximum operating speed along the EJ&E double track rail line to 25 mph. Following issuance of the Draft EIS, the Applicants revised the Proposed Matteson Connection to accommodate a maximum operating speed of 40 mph on the main track. Increasing main track speeds for through-trains from 25 to 40 mph would reduce vehicle delays at nearby highway/rail at-grade crossings such as Cicero Road, Main Street, and Western Avenue.

SEA evaluated the Revised Matteson Connection for potential environmental effects. The results of SEA's evaluation are presented in Chapter 2 of the Final EIS. SEA concludes that the Revised Matteson Connection is the environmentally preferred alternative.

Revised Double Track-Leithton Connection

For the Final EIS, SEA conducted additional evaluations and assessed the potential effects resulting from planned changes in rail alignment and from the associated construction due to the Revised Double Track-Leithton Connection. The Revised Double Track-Leithton Connection involves the construction of a new double track connection and the removal of an existing single track connection between the EJ&E rail line and the CN Waukesha Subdivision line. The Applicants revised the initial design of the proposed connection to allow higher train speeds. As a result of the higher train speeds, potential vehicular delays at highway/rail at-grade crossings would be reduced (including Allanson Road, Diamond Lake Road, and IL 60/83). Therefore, SEA concludes that this alternative would be environmentally preferable.

The results of SEA's re-evaluation of the Revised Double Track-Leithton Connection are presented in Chapter 2 of the Final EIS.

Commuter Rail Services

In response to comments on the Draft EIS, SEA conducted additional analysis of the potential impacts of the Proposed Action on the Metra STAR Line service and the NICTD Commuter Service. Based on the additional analysis, SEA concludes that, with some additional track infrastructure, it would be feasible for Metra and CN to jointly operate freight and commuter passenger service on the EJ&E rail line, similar to the way that Metra currently co-exists with several other freight railroads in the Chicago region. SEA estimates that the added infrastructure to allow for the STAR Line service would potentially add only a nominal amount (between 2 and 9 percent) to the capital cost of the EJ&E segment of the STAR Line. For these reasons, SEA concludes that the Proposed Action would not have a substantial adverse effect on the potential implementation of the STAR Line service using the EJ&E rail line.

In the Draft EIS, SEA concluded that NICTD's proposed commuter service expansions did not require analysis. However, in order to address commenters' concerns about this issue, SEA did analyze the West Lake Corridor commuter service rail alternatives as reasonably foreseeable commuter rail service in this Final EIS. Following this analysis, SEA concludes that the Proposed Action could potentially benefit the future NICTD expansion plans.

School Safety

SEA conducted an additional evaluation of the proximity of schools to the rail lines in response to comments expressing concern over the effects that the Proposed Action would have on school safety and on school bus and student delays. With respect to school safety, the state and the communities

have authority over the warning and safety devices at highway/rail at-grade crossings along the EJ&E or CN rail line and are responsible for considering pedestrian traffic (including students) and the types of warning devices that are appropriate. Therefore, in the Final EIS, SEA provides examples of safety recommendations that these jurisdictions could consider.

In addition to concern for students walking and driving to and from school, commenters on the Draft EIS raised concerns ranging from crossing the tracks at locations other than designated crosswalks and accidents/derailments, which may include hazardous materials, and timely emergency response should crossings be blocked by a train. To address these concerns in the Final EIS, SEA identified the number of schools located along the rail lines that would see a change in train traffic as a result of the Proposed Action. As explained in this Final EIS, there are 44 schools within 0.25 mile of the EJ&E rail line and 118 schools within 0.25 mile of the CN lines; there are 344 schools within 2 miles of the EJ&E rail line and 983 schools within 2 miles of the CN rail lines.

With respect to school bus delays, the Final EIS clarifies that the potential for delayed operations of the school bus fleet is the same as that for all other vehicles. In other words, existing congestion occurring in proximity to schools would continue to delay all traffic, including school buses. Subsequent to publication of the Draft EIS, new train data and traffic counts were supplied to SEA by the Applicants, the Illinois Department of Transportation, and the City of Plainfield; SEA revised its analysis using the updated data. SEA's new vehicle delay analyses found that vehicles in the study area would experience an average increase of 0.6 minutes of delay per delayed vehicle at intersections along the EJ&E line, and a decrease of 0.9 minutes of delay per delayed vehicle at intersections along the CN Study Area segments.

Updated Transportation Information

SEA updated its analysis of transportation systems based on new or revised information on average daily traffic counts and potential effects resulting from changes to: highway/rail at-grade crossings; delays to emergency services; rail operations and safety; air quality; and intersection mobility. The Draft EIS listed 16 crossings as substantially affected. After publication of the Draft EIS, SEA received updated information that resulted in re-analysis of any adverse effects the Proposed Action might have on transportation systems. Updated information includes average daily traffic volumes or number of vehicles per day and train operations. SEA's updated analysis resulted in 13 highway/rail at-grade crossings being designated as substantially affected by the Proposed Action. Additional analysis was also conducted with emergency services facilities and is presented in Chapter 2 of this Final EIS.

Hazardous Materials Transport

In response to comments on the Draft EIS, SEA revised its analysis of hazardous materials transport and the potential effects of spillage on water resources and wetlands. Further information about the types of hazardous materials that are currently and would be hauled by the Applicants and spill prevention measures were also provided.

The analysis in the Draft EIS shows that the risk of a hazardous material spill at any one specific location along the EJ&E rail line would be extremely low. Further, since the same commodity groups (for example, combustible liquids, corrosive materials, explosives, hazardous waste, poisonous gases, and radioactive materials) would be carried on the EJ&E rail line as are currently carried on the CN subdivisions, emergency responders would face the same incident-specific issues they face today. In addition, the CN subdivisions are generally in more densely populated areas. SEA anticipates that, in the unlikely event of a hazardous materials spill, the spill would potentially lead to environmental exposure of relatively short duration. The spill would be limited by the volume in the railcar.

Moreover, existing regulations, the Applicants' voluntary mitigation, and SEA's proposed final mitigation would ensure prompt containment and cleanup of any spill.

SEA also re-examined potential impacts to groundwater and wells as a result of a hazardous material spill. Additional analysis following the publication of the Draft EIS identified an area near Joliet, Illinois, where the Silurian dolomite aquifer has a relatively high potential for ground water contamination from a hazardous materials spill. In the unlikely event that a contaminant was released in these areas, public and private wells drilled into bedrock in the vicinity of the release could be affected. The precise number of affected wells cannot be determined because of the absence of information on the type of hazardous material, the specific location of the release, the amount of the release, the effectiveness of the response, and specific hydrogeological factors such as fracture patterns, well construction, pumping rates and general flow directions. It should be noted, however, that since hazardous materials are already transported on the EJ&E rail line, the threat to these wells already exists. The Proposed Action changes the likelihood that a given well could be affected, but does not change the potentially affected areas or populations. If a spill were to occur, Applicants would be required by law to mitigate the impacts by remediating the groundwater resource and/or providing an alternate supply of water to the property owner.

Socioeconomics and Quality of Life

SEA conducted additional analysis on effects to property values and potential effects to residential property taxes for this Final EIS. The additional analysis included a supplemental literature search to find studies of potential effects of freight rail traffic on property values or other closely related studies, a comparative assessment of current residential property values along the EJ&E rail line, an estimate of the number of residences potentially affected by changes in rail traffic, and an estimate of the extent of the effect to residential property values and tax revenues for the communities that would experience additional freight train traffic. Nothing in the additional analysis changes the basic conclusions in the Draft EIS.

Environmental Justice

SEA re-assessed the potential effects on environmental justice communities based on new and revised information. The environmental justice analysis presented in the Draft EIS has been updated based on the additional analyses of noise, safety, and traffic delay included in this Final EIS and recalculation of the environmental justice threshold criteria. SEA reanalyzed the environmental justice criteria for minority and low-income populations. Based on the additional analysis, SEA concluded that minority and low-income populations were not likely to experience high and adverse impacts due to safety concerns, vehicle delay, construction, or exposure to hazardous materials. SEA also identified benefits to minority and low-income populations along the CN rail lines as a result of decreased train traffic along the CN lines, corresponding with decreased train noise, vehicle/train interaction frequency, and vehicular delay at crossings. Results of the additional environmental justice analysis, which confirm the conclusions of the Draft EIS, are included in Chapter 2 of the Final EIS.

Air Quality

A number of comments received on the Draft EIS raised concerns about localized effects to air quality from locomotive emissions. In response, SEA conducted additional air quality analysis using dispersion modeling, presented in Chapter 2 of this Final EIS. This quantitative analysis addressed emissions from moving trains and emissions from idling trains on sidings. Effects to air quality focused on:

- Criteria air pollutants-those for which National Ambient Air Quality Standards have been established
- Mobile source air toxic pollutants

Climate change is also addressed in Chapter 2 of this Final EIS. As a result of the additional analysis, SEA validated the conclusions in the Draft EIS that the Proposed Action air quality impacts would be minor.

Noise and Vibration

As a result of comments on the Draft EIS, SEA refined the analysis of noise associated with the Proposed Action to more fully address noise associated with connections, crossovers, and wheel squeal on curved track. SEA also refined the analysis of ground-borne vibration on historic structures and construction vibration. Additionally, SEA assessed the cost-effectiveness of noise mitigation measures at 96 locations along the EJ&E corridor. SEA concludes that the Applicants' proposed voluntary mitigation measures would result in meaningful and appropriate noise reduction. In addition, SEA proposes additional noise mitigation regarding maintaining an existing quiet zone in Barrington, Illinois, and vibration mitigation for Fermi Lab.

Biological Resources

In response to Draft EIS comments from the Department of Interior's U.S. Fish and Wildlife Service (USFWS), SEA undertook additional analysis for the Federally-listed Hine's emerald dragonfly, the Karner blue butterfly, the Eastern prairie fringed orchid/Prairie white fringed orchid, and the Indiana bat. Additional coordination with USFWS and the Illinois and Indiana departments of natural resources was also conducted on these species and their associated habitat. A biological report was prepared that documents the results of the coordination and specific investigations and analysis undertaken. The biological report is contained in Appendix A of this Final EIS. Following informal consultation with the USFWS, the Applicants proposed six additional voluntary mitigation measures to address transaction-related impacts to a number of important species. SEA concludes in the Final EIS that the Proposed Action may affect, but is not likely to adversely affect, listed threatened or endangered species.

Cumulative and Indirect Effects

SEA reviewed the locations where other railroads intersect or run parallel to the EJ&E rail line to determine whether implementation of the Proposed Action could result in additional cumulative or indirect effects on rail/rail at-grade crossings and nearby highway/rail crossings that were not addressed in the Draft EIS. For this analysis, SEA examined the potential indirect and cumulative effects where other railroads cross the EJ&E rail line. SEA concluded that any potential for cumulative or indirect effects would be reduced by the Applicants' voluntary mitigation measure VM 38, where the Applicants commit to operate the key interlockings (rail/rail at-grade crossings) in accordance with the current agreements.

Monitoring and Enforcement

Should the Proposed Action be approved, SEA is recommending a five-year environmental reporting and monitoring period that would require quarterly reporting from the Applicants on the implementation of the Board's final environmental mitigation and allow the Board to take appropriate action, if warranted, if there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions.

Corrections to the Draft EIS

Corrections to the Draft EIS are presented in Section 2.14 of this Final EIS.

Public Outreach and Agency Coordination

SEA conducted extensive public outreach and agency coordination. Public participation throughout the environmental review process has been extraordinary and unprecedented: more than 3,400 scoping comments were received; approximately 4,600 people attended the Draft EIS public meetings; and over 9,500 comment documents were received on the Draft EIS addressing more than 55,000 issues and concerns. Interested parties, Federal, state, and local agencies, Federally-recognized tribes, elected officials, low-income and minority groups, potentially affected communities, and the general public all actively participated in the environmental review process.

Scoping

The Board published a Notice of Intent to Prepare an EIS in the Federal Register on December 21, 2007, to request comments on the scope for the EIS as required by the CEQ regulations implementing NEPA and the Board's regulations at 49 CFR 1105.10(a). SEA held 14 scoping open house meetings at seven locations in January 2008. The scoping comment period concluded on February 15, 2008. After reviewing and considering all comments received, the Board published the Notice of Availability of the Final Scope of Study for the EIS in the Federal Register on April 28, 2008.

Commenting on the Draft EIS

SEA issued the Draft EIS on July 25, 2008, and made it available for public review and comment for a 60-day period. In addition to soliciting written comments on the Draft EIS, SEA held eight open house/public meetings throughout the Study Area, as shown in Table ES- 1 below. Each meeting included an open house session and a more formal public meeting during which attendees could present oral comments. Comment forms were provided in several languages, including Spanish, Polish, and Chinese, at the public meetings and were accepted on-site or by mail. The project toll-free telephone line remained open for the duration of the comment period to record comments over phone lines; commenters could also submit electronic comments through the STB's website (www.stb.dot.gov).

Date	Location	Approximate # of Attendees	#Speakers
Monday, August 25, 2008	Matteson, Illinois Holiday Inn Hotel & Conference Center	350	33
Tuesday, August 26, 2008	Mundelein, Illinois Crowne Plaza Chicago North Shore	200	35
Wednesday, August 27 , 2008	Barrington, Illinois Barrington High School	3,000	69
Thursday, August 28 , 2008	Bartlett, Illinois Bartlett High School	250	38
Monday, September 8, 2008	Chicago, Illinois Loyola University of Chicago	75	21
Tuesday, September 9, 2008	Aurora, Illinois West Aurora High School	420	55

Wednesday, September 10, 2008	Gary, Indiana Indiana University Northwest	100	19
Thursday, September 11, 2008	Joliet, Illinois Holiday Inn Hotel & Conference Center	250	35
TOTAL		4,645 Attendees	305 Speakers

The following outreach efforts were also undertaken:

- On July 25, 2008, the Board issued a press release to regional media outlets announcing the availability of the Draft EIS; the press release was reissued to the regional press prior to the eight public meetings referenced above.
- SEA placed posters announcing the eight Draft EIS public meetings in 53 public libraries, 53 city halls, and 47 chambers of commerce in the Chicago metropolitan area.
- SEA maintained a website (<http://www.stbfinancedocket35087.com>) throughout the environmental review process. The website includes information regarding the project, the environmental review schedule, public involvement opportunities and contact information, information requests from SEA and responses from the Applicants, published documents including the Scope of Study and the Draft EIS, current news and project information, and Frequently Asked Questions. The website has been continually updated to include reports of the types and quantities of comments received during the comment period.
- SEA has maintained a bilingual toll-free project information hotline throughout the project's duration.

Agency and Elected Official Outreach

SEA notified 20 Congressional members, 31 State of Illinois elected officials, and 10 State of Indiana elected officials of the public meetings. It consulted with Federal, state, and local agencies in the Chicago metropolitan area by letter, telephone, and meetings to coordinate issues, collect data, and provide information. Through its interaction with those agencies, SEA gathered data and information about the Chicago metropolitan area and related planning efforts.

Under 40 CFR 1503.2, "Federal agencies with jurisdiction by law or special expertise with respect to any environmental impact involved and agencies which are authorized to develop and enforce environmental standards shall comment on statements within their jurisdiction, expertise, or authority." The following Federal resource agencies were specifically invited to review/comment on the Draft EIS:

- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Department of Energy
- U.S. Department of Transportation

In addition, SEA mailed copies of the Draft EIS to seven Federally recognized tribal groups, seven State of Illinois agencies, five State of Indiana agencies, local agencies including county and regional governments and forest preserve districts, and other groups. SEA encouraged the recipients to submit

environmental comments for consideration in preparing the Final EIS. A list of recipients is provided in Section 5.3 in Chapter 5 of this Final EIS.

Local Governments

On June 25, 2008, SEA attended a Metropolitan Mayors Conference meeting with 27 officials from the Chicago metropolitan area. On September 30, 2008, SEA attended a meeting of the South Suburban Mayors and Managers Association, a group of stakeholders representing cities on the south side of Chicago.

Stakeholder Meetings

Prior to publication of the Draft EIS in July 2008, SEA met with Federal, state, and local agencies on April 29, April 30, and May 1, 2008, to discuss the Proposed Action. Participants with similar concerns were combined into stakeholder groups to facilitate discussion. On September 2, 3, and 4, 2008, these groups were invited to discuss their comments on the Draft EIS. A total of 31 agencies participated. Meetings were held in Chicago, Illinois, and in Hammond and Indianapolis, Indiana.

Minority and Low-Income Communities

Consistent with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, SEA reached out to minority and low-income populations (also known as environmental justice populations) to provide meaningful involvement opportunities, and to fully consider their concerns.

To further expand SEA's environmental justice outreach after the Draft EIS was issued, SEA identified 10 Hispanic organizations in Illinois and 27 additional African-American organizations from Illinois and Indiana. Each of these organizations received a letter and materials summarizing the Proposed Action and potential environmental effects.

Staff Briefing

The Board held a public meeting on November 18, 2008, at its Washington, D.C. headquarters, to discuss the analysis and preliminary conclusions and recommendations in the Final EIS. SEA briefed the Board on the major issues raised in comments on the Draft EIS and how SEA proposed to address them in the Final EIS. Topics discussed included rail operations, rail safety, hazardous materials, transportation, noise and vibration, biological resources, water resources, quality of life issues, and mitigation and how it should be funded. SEA also briefed the Board on the extensive public outreach that was conducted for the environmental review process for the Proposed Action. Following SEA's presentations, the Board questioned SEA staff on various issues. The meeting was open for public observation, but not public participation. The public meeting was at the Board's headquarters at Patriots Plaza, 395 E Street, S.W., Washington, D.C. A video broadcast of the hearing was accessible to all interested parties, including those in the Chicago area, through the website at <http://www.stb.dot.gov>, under "Information Center"/"Webcast"/"Live Video" on the home page.

Final EIS Distribution

More than 30,000 individuals are on the environmental distribution list. SEA will distribute the Final EIS to individuals who provided mailing addresses in four different distribution categories as described in Chapter 5 of this Final EIS.

Next Steps

SEA anticipates that the U.S. Environmental Protection Agency (EPA) will publish a Notice of Availability of the Final EIS in the Federal Register on December 12, 2008. Under CEQ regulations (40 CFR 1506.10(b)), agencies must wait 30 days from EPA's Federal Register notice before issuing a final decision unless they have an internal appeal process. The Board has such a process, which means that the Board could issue a final decision in less than 30 days from December 12, 2008. If the Board were to do so, SEA recommends that the Board's administrative review period be extended to permit parties to seek agency reconsideration of the final decision within 30 days after it is served, rather than the typical 20 days. The Board would consider any administrative appeals in a subsequent decision.

Overview of the Comments

SEA received over 9,500 comment documents containing over 55,000 issues and concerns about the Draft EIS. Elected officials submitted 52 of the comment documents, Federal, state agencies and local governments submitted 264 documents. SEA did not receive any comment documents from tribal entities on the Draft EIS.

SEA created a database to track all comment documents received on the Draft EIS and used a multistage process that included assigning each comment document a tracking number, identifying substantive issues within each document, grouping issues into subject matter categories as appropriate, and responding to each substantive issue raised. Many issues in each category raised similar concerns; therefore, to eliminate unnecessary repetition, SEA grouped and sorted issues together for response.

SEA has reviewed and considered all of the comment documents and issues both individually and collectively as required by CEQ NEPA regulations, and prepared the comment/issue responses in accordance with CEQ guidance. SEA's responses clarify or correct information presented in the Draft EIS, explain and communicate government policies or regulations, direct commenters to information in the Draft EIS or to new information in the Final EIS, or answer technical questions.

SEA received comment documents expressing both support and opposition to the Proposed Action. Many of those expressing support talked generally of project benefits, and sometimes specifically of reduced noise or congestion along CN rail lines that would experience a decreased volume of freight rail traffic or improved regional rail traffic efficiency. Many of CN's freight customers wrote in support of the Proposed Action because, by providing the Applicants a quicker route through Chicago, it would give their customers faster and more reliable service in shipping their products both regionally and nationally. Many of the commenters opposing the Proposed Action made specific mention of issues such as traffic delays and congestion, safety, and noise. Commenters also questioned whether the reduction of rail traffic along the CN lines would be permanent and raised concerns that if rail traffic through Chicago increases in the future, the potential benefits of the Proposed Action could be short-lived. Figure ES- 5, below, illustrates both the number of issues raised within major issue categories and the major issues of public concern.

Overall, commenters most frequently submitted issues related to transportation systems, socioeconomics, rail safety, mitigation, and the Proposed Action and Alternatives. Comment highlights are provided below.

Transportation Systems

The public's paramount concerns with the Proposed Action focused on the effect it may have on local and regional highway systems. Key issues within this category were the impacts of the additional train traffic on the response times of emergency service providers such as ambulance, fire, and law

enforcement personnel, and the effects these trains would have on already congested streets and highways.

Socioeconomics and Quality of Life

The primary socioeconomic concerns expressed by commenters were potential impacts on property values and effects on community cohesion due to increased train traffic. Commenters stated that their quality of life would be negatively affected because the increase in train traffic would bisect their communities.

Rail Safety

The principal concern of the public in the rail safety category was the safety of school buses. Many commenters noted that school buses cross the EJ&E rail line daily during the school year, and the expected increase in rail traffic would increase the potential for accidents and delays. Concerns for the safety of pedestrians and bicyclists, particularly school children and seniors, were also frequently expressed. Commenters noted that increased train traffic would result in more accidents and more injuries to, or deaths of, vehicle passengers, pedestrians, and bicyclists.

Mitigation

Many of the concerns regarding mitigation focused on which highway/rail at-grade crossings SEA would recommend for mitigation. In addition, many commenters expressed interest in how mitigation would be funded, emphasizing in particular that local communities should not shoulder the bulk of the cost of grade separations.

Noise and Vibration

Residents adjacent to the EJ&E rail line raised the issues of the noise from idling trains, noise from nighttime train operations, and protection for noise-sensitive receptors such as homes, schools, and parks. Other commenters questioned SEA's methodology and stated that it was outdated and used incorrect thresholds. Some commenters also expressed concerns about the potential impacts that would result from increased vibrations caused by the increased train traffic.

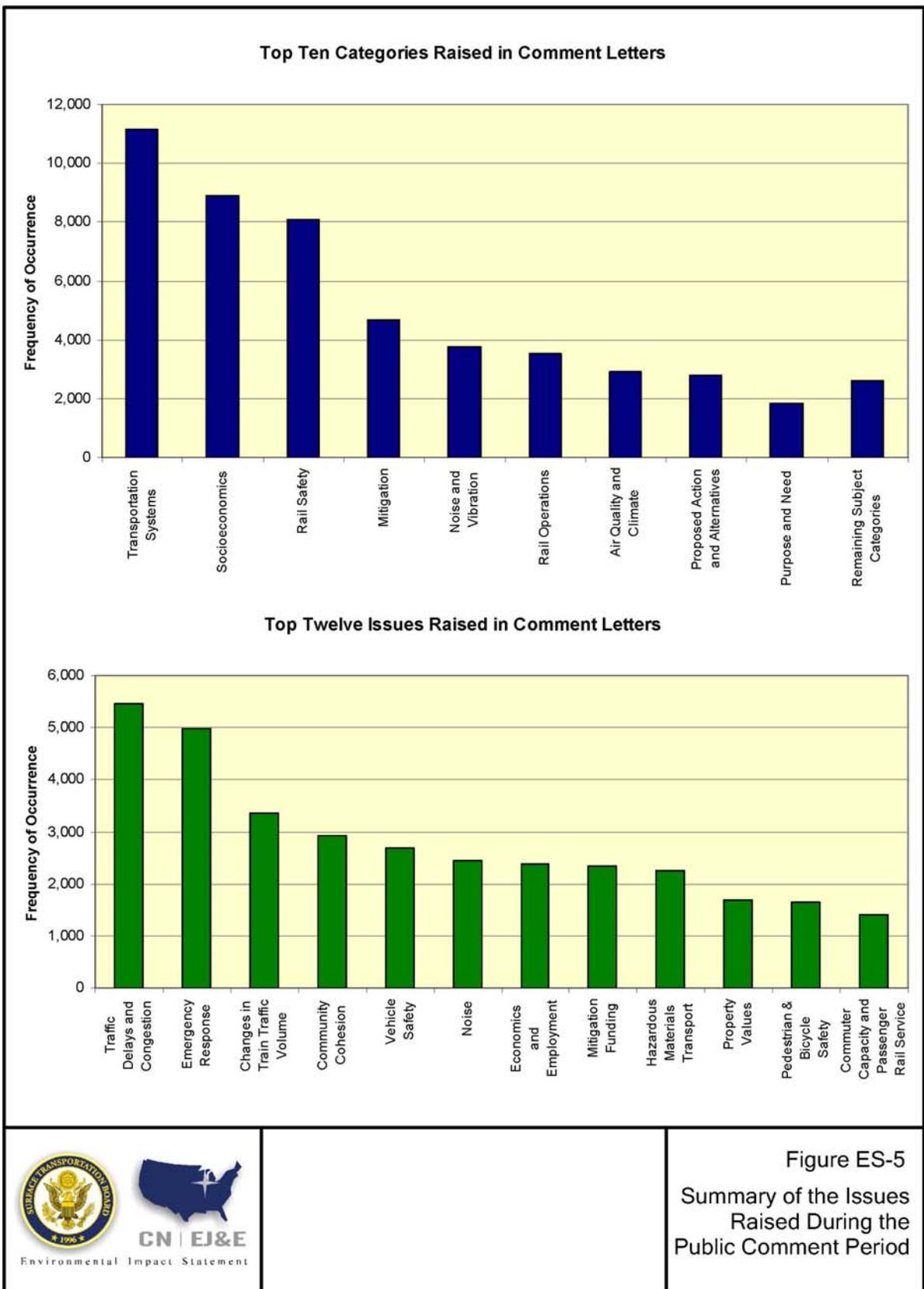
Rail Operations

Many commenters expressed concern about the number and length of trains that would be shifted onto the EJ&E rail line without relating that issue to any specific environmental impact. Other commenters questioned the capacity of the EJ&E rail line and wondered if plans for commuter rail could still be fulfilled if the Board approved the Proposed Action.

Other Important Public Concerns

In addition to the issue categories noted above, SEA received many comments regarding:

- Worst-case scenarios
- Emergency response delays
- Traffic congestion
- Hazardous materials transport
- Mitigation funding of grade-separated crossings



Comments from Federal Agencies

Four Federal agencies with jurisdiction by law submitted comments on the Draft EIS. These were the U.S. Environmental Protection Agency (EPA), the Federal Railroad Administration (FRA), the U.S. Department of the Interior (U.S. Fish and Wildlife Service), and the U.S. Department of Transportation. SEA's summary of these comments and responses to them can be found in Section 3.4 in Chapter 3 of this Final EIS.

Applicants' Comments

The Applicants also submitted comprehensive comments regarding the Draft EIS. Applicants' comments included a revised voluntary mitigation proposal and specific comments regarding SEA's analysis of potential impacts in several resource areas. On November 13, 2008, the Applicants submitted supplemental voluntary mitigation. SEA's summary of the Applicants' comments and responses to them can be found in Chapter 3 of this Final EIS.

Conclusions

In short, SEA has determined that the Proposed Action would have beneficial environmental effects to communities located along the five CN rail lines leading into and out of Chicago, including decreased traffic delay, reduced noise, reduced air emissions, and fewer shipments of hazardous materials by rail. At the same time, SEA recognizes that nothing would prevent Applicants from reintroducing more trains back onto the CN rail lines if the demand for the Applicants' rail service increases. In that case, the potential benefits of the Proposed Action to communities along the CN rail lines could be short-lived.

While communities along the EJ&E rail line would experience adverse effects, including increased traffic, delay, noise, air emissions, and the shipment of hazardous materials by rail, many of these communities already experience traffic congestion. Therefore, the increased train traffic that would result from the Proposed Action would likely exacerbate the congestion. SEA has recommended reasonable and appropriate environmental mitigation measures designed to address the transaction-related adverse impacts, including recommending two grade separations and recommending that the Board set Applicants' financial responsibility for these crossings at 15 percent of the cost.

If the Board decides to approve the Proposed Action, SEA recommends that the Board require the Applicants to implement SEA's final recommended environmental conditions set forth in Chapter 4 of this Final EIS.

SEA's final recommended mitigation measures would minimize the potential adverse effects and would not compromise the potential benefits of the Proposed Action. The recommended mitigation measures reflect the Board's practice of mitigating only the direct effects of a proposed action and not pre-existing conditions.

SEA's Final Recommended Mitigation

SEA identified both potential beneficial and adverse environmental effects associated with the Proposed Action during its environmental review. For the Draft EIS, SEA developed preliminary environmental mitigation measures to address identified adverse environmental impacts of the Proposed Action. SEA's environmental analysis and its resulting preliminary environmental mitigation recommendations reflected the variety and complexity of the environmental issues and the most reasonable and feasible way to minimize some of the environmental impacts discovered during the course of SEA's environmental review. CN also proposed extensive voluntary mitigation

measures that were set forth in the Draft EIS. SEA specifically sought public comment on CN's proposed voluntary mitigation and SEA's preliminary environmental mitigation measures.

Based on its further analysis of potential environmental effects (described in Chapter 2 of this Final EIS) and comments received on the Draft EIS from the public, agencies, other railroads, and the Applicants, SEA developed final environmental mitigation measures that it recommends the Board impose as environmental conditions should it approve the Proposed Action. These mitigation measures address the potential adverse environmental effects that SEA determined could be significant. In addition, the Applicants submitted revised voluntary mitigation measures in its comment letter on the Draft EIS dated September 30, 2008, and supplemental voluntary mitigation measures on November 13, 2008, to address concerns raised by the U.S. Department of the Interior related to effects to biological resources. All of the Applicants' voluntary mitigation measures and SEA's final recommended mitigation is set out below and in Chapter 4 of this Final EIS.

The Board has authority to impose conditions to mitigate potential environmental effects, but that authority is not limitless. As a government agency, the Board can only impose conditions that are consistent with its statutory authority. Any conditions that the Board imposes must relate directly to a specific transaction, be reasonable, and be supported by the record before the Board. The Board's practice consistently has been to mitigate only those impacts that result directly from a proposed action. The Board does not require mitigation for existing environmental conditions, such as the effects of current railroad operations.

Applicants' Voluntary Mitigation

Safety

Grade Crossings

- VM 1. Applicants shall consult with appropriate agencies to determine the final design and other details of the grade crossing protections or rehabilitations on EJ&EW's¹ rail line. Implementation of all grade crossing protections shall be subject to the review and approval of the Federal Railroad Administration ("FRA") and the appropriate state Departments of Transportation.
- VM 2. Applicants shall coordinate with the appropriate state departments of transportation, counties, and affected communities along the EJ&E rail line to develop a program for installing temporary notification signs or message boards, where warranted, in railroad right-of-way ("ROW") at highway/rail at-grade crossings, clearly advising motorists of the increase in train traffic on affected rail line segments. The format and lettering of these signs shall comply with the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (FHWA 2007b) and shall be in place no less than 30 days before and six months after the acquisition by CN of the control of EJ&EW. The Applicants shall conduct a media campaign throughout the affected counties and communities surrounding the EJ&E rail line advising the public of increased operations along the EJ&E rail line. The campaign shall include the use of different media (radio, television, newspaper, Internet). Applicants shall distribute all information in both English and Spanish, where appropriate.

¹ The Applicants use EJ&EW to refer to EJ&E West Company. EJ&E would transfer all of its land, rail, and related assets located west of the centerline of Buchanan Street in Gary, Indiana, to EJ&E West Company. The Applicants are seeking the Board's approval to acquire control of EJ&E West Company. Should the Board approve the Proposed Action, EJ&E would change its name to Gary Railway and EJ&E West Company would assume the EJ&E Company name. This Final EIS refers to EJ&E West Company as EJ&E.

- VM 3. Where necessary for implementation of a Quiet Zone,² and in consultation with the affected community, FRA, and the appropriate state Department of Transportation, Applicants shall construct or install roadway median barriers to reduce the opportunity for vehicles to maneuver around a lowered gate.
- VM 4. Applicants shall cooperate with the municipalities affected to determine which improvements would be necessary for existing Quiet Zones to maintain FRA compliance.
- VM 5. Applicants shall cooperate with interested communities for the establishment of Quiet Zones and assist in identifying supplemental or alternative safety measures, practical operational methods, or technologies that may enable the community to establish Quiet Zones.
- VM 6. Applicants shall consult with affected communities to improve visibility at highway rail at-grade crossings by clearing vegetation or installing lighting to illuminate passing or stopped trains.
- VM 7. Within 6 months of acquisition by CN of the control of the EJ&EW, Applicants shall cooperate with the Illinois Department of Transportation, Indiana Department of Transportation and other appropriate local agencies to coordinate a review of corridors surrounding highway/rail at-grade crossings to examine safety and adequacy of the existing warning devices, and identify remedies to improve safety for highway vehicles.
- VM 8. Where grade-crossing rehabilitation is agreed to, Applicants shall assure that rehabilitated roadway approaches and rail line crossings meet or exceed the standards of the State Department of Transportation's rules, guidelines, or statutes, and the American Railway Engineering and Maintenance of Way Association ("AREMA") standards, with a goal of eliminating rough or humped crossings to the extent reasonably practicable.
- VM 9. For each of the public grade crossings on EJ&EW's rail line, Applicants shall provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing identification number in compliance with Federal Highway Regulations (23 C.F.R. Part 655). The toll-free number shall enable drivers to report accidents, malfunctioning warning devices, stalled vehicles, or other dangerous conditions and shall be answered 24 hours per day by Applicants' personnel. At crossings where EJ&EW's ROW is close to another rail carrier's crossing, Applicants shall coordinate with the other rail carrier to establish a procedure and share information regarding reported accidents and grade-crossing device malfunctions.
- VM 10. Within 6 months of acquisition by CN of the control of EJ&EW, Applicants shall cooperate with school and park districts to provide fencing where schools or parks are within one-quarter mile of the right of way and to identify at-grade crossings where additional pedestrian warning devices may be warranted.
- VM 11. Applicants shall continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.5 miles of EJ&EW's ROW and provide, upon request, informational materials concerning railroad safety to such identified schools.
- VM 12. Within 6 months of the effective date of the Board's final decision, Applicants shall initiate review of the locations of designated pedestrian and recreational trail at-grade crossings along the EJ&E rail line that would see an increase in train traffic under the Proposed Action. The Applicants shall cooperate in the review with local agencies and community trail groups to assess the adequacy of the existing warning devices, to

² A Quiet Zone is a location along a rail line where horns are not sounded at highway/rail at-grade crossings.

ascertain if particular trail uses or issues reduce the effectiveness of these warning devices, and to identify appropriate remedies to improve safety for pedestrian and recreational trail users.

Construction

- VM 13. Before starting any construction activities for the proposed connections or installation of double track, Applicants shall develop – in conjunction with the affected communities and local fire and emergency response departments along the EJ&E rail line – an adequate plan for fire prevention and suppression and subsequent land restoration during construction and operation along the EJ&E rail line. Applicants shall submit the plan to local communities and local fire and emergency response departments. Applicants’ plan shall ensure that all non-turbocharged locomotives are equipped with functional spark arrestors on exhaust stacks, and carry fire extinguishers suitable for flammable liquid fires, electrical fires, and combustible materials fires, as well as provide for the installation of low-spark brake shoes on all locomotives.

Hazardous Materials Transportation

- VM 14. Applicants shall comply with the current Association of American Railroads (“AAR”) “key route” guidelines, found in AAR Circular No. OT-55-I, and any subsequent revisions.
- VM 15. Applicants shall comply with the current AAR “key train” guidelines, found in AAR Circular No. OT-55-I, and any subsequent revisions.
- VM 16. To the extent permitted and subject to applicable confidentiality limitations, Applicants shall distribute to each local emergency response organization or coordinating body in the communities along the key routes a copy of the Applicants’ current Hazardous Materials Emergency Response Plans.
- VM 17. Applicants shall incorporate EJ&EW into their existing Hazardous Materials Emergency Response Plan.
- VM 18. Applicants shall comply with all hazardous materials regulations of the United States Department of Transportation (including the Federal Railroad Administration and the United States Pipeline and Hazardous Materials Safety Administration) and Department of Homeland Security (including the Transportation Security Administration). Applicants shall dispose of all materials that cannot be reused in accordance with applicable law.
- VM 19. Upon request, Applicants shall implement real-time or desktop simulation emergency response drills with the voluntary participation of local emergency response organizations.
- VM 20. Applicants shall continue their ongoing efforts with community officials to identify the public emergency response teams located along EJ&EW and shall provide, upon request, hazardous material training.
- VM 21. Applicants shall conduct Transportation Community Awareness and Emergency Response Program (TRANSCAER) workshops (training for communities through which dangerous goods are transported) in those communities along the EJ&E rail line that request this training.
- VM 22. Applicants shall assist in the hazardous materials training emergency responders for affected communities that express an interest in such training. Applicants shall support

- through funding or other means the training of one representative from each of the communities located along the EJ&E rail line segments where the transportation of hazardous materials would increase. Applicants shall complete the training within 3 years from the date that the Applicants initiate operational changes associated with the Proposed Action.
- VM 23. Applicants shall develop internal emergency response plans to allow for agencies to be notified in an emergency, and to locate and inventory the appropriate emergency equipment. Applicants shall provide the emergency response plans to the relevant state and local authorities within 6 months of acquisition by CN of the control of EJ&EW.
- VM 24. Applicants shall provide dedicated toll-free telephone number to the emergency response organizations or coordinating bodies responsible for communities located along the EJ&E rail line. This telephone number shall provide access to applicant personnel 24 hours per day, seven days a week, enabling local emergency response personnel to obtain and provide information quickly regarding the transport of hazardous materials on a given train and appropriate emergency response procedures should a train accident or hazardous materials release occur.
- VM 25. In accordance with their Emergency Response Plan, Applicants shall make the required notifications to the appropriate Federal and state environmental agencies in the event of a reportable hazardous materials release. Applicants shall work with the appropriate agencies such as the United States Fish and Wildlife Service, Illinois Environmental Protection Agency and Indiana Department of Environmental Management to respond to and remediate hazardous materials releases with the potential to affect wetlands or wildlife habitat(s), particularly those of federally threatened or endangered species.
- VM 26. Prior to initiating any Transaction³-related construction activities, Applicants shall develop a spill prevention plan for petroleum products or other hazardous materials during construction activities. At a minimum, the spill prevention plan shall address the following:
- Definition of what constitutes a reportable spill;
 - Requirements and procedures for reporting spills to appropriate government agencies;
 - Methods of containing, recovering, and cleaning up spilled material;
 - Equipment available to respond to spills and location of such equipment; and
 - List of government agencies and Applicants' management personnel to be contacted in the event of a spill. In the event of a reportable spill, Applicants shall comply with their spill prevention plan and applicable Federal, state, and local regulations pertaining to spill containment and appropriate clean-up.

Transportation Systems

Grade Crossing Delay

- VM 27. Applicants shall comply with the Voluntary Mitigation Agreement concluded with the City of Joliet, which among other things addresses delay at the public highway/rail at-grade crossings at Woodruff Road and Washington Street.

³ The Applicants use the term Transaction to refer to the Proposed Action. This Final EIS uses the term Proposed Action to define the Applicants' proposal to acquire the EJ&E rail line, land, and related assets.

- VM 28. Although Applicants have not identified any grade crossings, other than Woodruff Road and Washington Street, that would require mitigation under SEA's established standards,⁴ Applicants shall, upon request, cooperate with municipalities and counties in support of their efforts to secure funding, in conjunction with appropriate state agencies, for grade separations where they may be appropriate under criteria established by relevant state Department of Transportation. Applicants shall contribute their statutorily required amount of funding⁵ to the cost of the grade separation.
- VM 29. Applicants shall examine train operations for ways of reducing highway/rail at-grade crossing blockages.
- VM 30. Applicants shall cooperate with the appropriate state and local agencies and municipalities to:
- Evaluate the possibility that one or more roadways listed in Table ES-1 [of the Draft EIS] could be closed at the point where it crosses the EJ&E rail line, in order to eliminate the at-grade crossing.
 - Improve or identify modifications to roadways that would reduce vehicle delays by improving roadway capacity over the crossing by construction of additional lanes.
 - Assist in a survey of highway/rail at-grade crossings for a determination of the adequacy of existing grade crossing signal systems, signage, roadway striping, traffic signaling inter-ties, and curbs and medians.
 - Identify conditions and roadway, signal, and warning device configuration may trap vehicles between warning device gates on or near the highway/rail at-grade crossing.
 - Cooperate with state and local agencies to develop and implement a plan to grade-separate the highway/rail crossing.
- VM 31. Applicants shall install power switches along EJ&EW where Applicants determine that manual switches could cause stopped trains to block grade crossings for excessive periods of time and that power switches would increase the speed of rail traffic and reduce the likelihood of such blockages.
- VM 32. In order to minimize the number of trains being stopped by operators at locations that block grade crossings on the EJ&EW system, Applicants shall work with other railroads to establish reasonable and effective policies and procedures to prevent other railroads' trains from interfering with Applicants' trains on EJ&EW.
- VM 33. Applicant's design for wayside signaling systems shall be configured and implemented to minimize the length of time that trains or maintenance-of-way vehicles or activities occupy at-grade crossings or unnecessarily activate grade-crossing warning devices.
- VM 34. Applicants shall install control signals ("A" block or absolute stop signals) at the ends of sidings, double track sections, crossovers, and other control switch locations (Applicants 2008a).
- VM 35. Applicants shall operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes unless it cannot be avoided and that, if possible, rail cars, engines, and rail equipment may not stand closer than 200 feet from a highway/rail at-grade crossing when there is an adjacent

⁴ SEA's environmental rules are silent on standards for at-grade crossing delay. Applicants frequently use criteria established in prior transactions as a basis for evaluating impacts.

⁵ The Applicants' statutorily required amount of funding typically is 5 percent of the total cost of the grade-separated crossing.

track (Applicants 2008a). If the blockage is likely to exceed this time frame, then the train shall then be promptly cut to clear the blocked crossing or crossings.

- VM 36. Applicants shall develop and submit to SEA a report on frequency and duration of trains delay at crossing for a period covering the first three years of operational changes.

Commuter and Passenger Rail Service

- VM 37. Applicants shall abide by the commitment made to Amtrak in a letter dated March 10, 2008 concerning Amtrak's use of the St. Charles Air Line (Air Line). In general, the commitment allows Amtrak to remain indefinitely on the Air Line after CN's trains are re-routed from the Air Line onto the EJ&E rail line should the Proposed Action be approved and implemented, thereby preserving Amtrak's access to Chicago's Union Station and Amtrak's ability to continue to provide service to and from points such as Champaign and Carbondale, Illinois. Applicants shall abide by the commitment to capping the cost to Amtrak for maintaining the Air Line at the current level, indexed for inflation (Applicants 2008p).
- VM 38. Applicants shall operate the key interlockings at West Chicago and Barrington, Illinois, according to the current agreements under which EJ&E operates. Those agreements require EJ&E to give priority to passenger trains over either UP or EJ&E freight trains (Applicants 2008k).
- VM 39. Applicants shall work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line. The timing and implementation of STAR Line service remain subject to numerous variables, including securing government funding, but the Applicants are committed to continuing discussions with Metra on the STAR Line (Applicants 2008j).
- VM 40. During and after construction, Applicants shall maintain the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision rail line at Matteson (Applicants 2008l).
- VM 41. Applicant shall comply with any written and executed curfew agreements that are now in effect regarding operations affecting passenger or commuter train service.

Emergency Vehicle Delay

- VM 42. Applicants shall notify Emergency Services Dispatching Centers for communities along the affected segments of all crossings blocked by trains that are stopped and may be unable to move for a significant period of time. Applicants shall work with affected communities to minimize emergency vehicle delay by maintaining facilities for emergency communication with local Emergency Response Centers through a dedicated toll-free telephone number; and providing, upon request, dispatching monitors that allow Emergency Response Center dispatching personnel to see real-time train locations.
- VM 43. Applicants shall make Operation Lifesaver programs available to communities, schools, and other organizations located along the affected segments.
- VM 44. For up to 3 years after acquisition by CN of the control of the EJ&EW, Applicants shall provide Operation Lifesaver programs in Spanish, upon request.

Construction

- VM 45. At least one month prior to initiation of Transaction-related construction activities, Applicants shall provide the information described below regarding Transaction-related

construction of sidings, double-tracking, or connections, as well as any additional information, as appropriate, to fire departments and the Local Emergency Planning Commissions (“LEPC”) for communities within or adjacent to the construction area:

- The schedule for construction throughout the project area, including the sequence of construction work relating to public grade crossings and approximate schedule for these activities at each crossing;
 - A toll-free number to contact Applicants’ personnel, to answer questions or attend meetings for the purpose of informing emergency-service providers about the project construction and operations; and
 - Revisions to this information, including changes in construction schedule, as appropriate.
- VM 46. In undertaking Transaction-related construction activities, Applicants shall use practices recommended by AREMA and recommended standards for track construction in the AREMA Manual for Railway Engineering.
- VM 47. During Transaction-related construction concerning at-grade crossings, when reasonably practicable, Applicants shall consult with the appropriate state Department of Transportation regarding detours and associated signage, as appropriate, or maintain at least one open lane of traffic at all times to allow for the quick passage of emergency and other vehicles.
- VM 48. Applicants shall minimize temporary road closures during construction activities associated with the connections and double track. Applicants shall manage construction schedules to:
- Minimize highway/rail at-grade crossing closures
 - Relay highway/rail at-grade crossing closure schedules to local emergency service providers

Land Use

General Land Use

- VM 49. Before beginning construction activity, Applicants shall survey all suitable habitats potentially impacted by the construction activity for Federally- and state-listed threatened or endangered plant species. If any listed plant species are located, Applicants shall implement a mitigation plan in consultation with the appropriate Federal and state agencies.
- VM 50. If identified in the area, Applicants shall coordinate with USFWS-Indiana and The Nature Conservancy (TNC) to monitor effects on the Karner blue butterfly in the West Gary Recovery Unit.
- VM 51. Applicants shall continue with the existing agreements for Paul Ales Branch operation for the protection of the Federally-listed Hine’s emerald dragonfly.
- VM 52. Applicants shall identify suitable habitat for Franklin’s ground squirrel within construction limits, and minimize mowing along the ROW beyond what is necessary for reasonable railroad maintenance and safety.
- VM 53. Land areas that are directly disturbed by Applicants’ Transaction-related construction and are not owned by the Applicants (such as access roads, haul roads, and crane pads) shall be restored to their original condition, as may be reasonably practicable, upon completion of Transaction-related construction.

- VM 54. During construction, temporary barricades, fencing, and/or flagging shall be used in sensitive habitats to contain construction-related impacts to the area within the construction Right Of Way (“ROW”). Staging areas shall be located in previously disturbed sites and not in sensitive habitat areas.
- VM 55. To the extent reasonably practicable, Applicants shall confine construction traffic to a temporary access road within the construction ROW or established public roads. Where traffic cannot be confined to temporary access roads or established public roads, Applicants shall make necessary arrangements with landowners to gain access from private roadways. The temporary access roads shall be used only during project-related construction. Any temporary access roads constructed outside the rail line ROW shall be removed and restored upon completion of construction unless otherwise agreed to with the landowners.
- VM 56. During Transaction-related earthmoving activities, Applicants shall remove topsoil and segregate it from subsoil. Applicants shall also stockpile topsoil for later application during reclamation of disturbed areas along the ROW. Applicants shall place the topsoil stockpiles in areas that would minimize the potential for erosion and use appropriate erosion control measures around all stockpiles to prevent erosion.
- VM 57. Applicants shall commence reclamation of disturbed areas as soon as reasonably practicable after Transaction-related construction ends along a particular stretch of rail line. The goal of reclamation shall be the rapid and permanent reestablishment of native ground cover on disturbed areas. If weather or season precludes the prompt reestablishment of vegetation, Applicants shall use measures such as mulching or erosion control blankets to prevent erosion until reseeding can be completed.
- VM 58. Applicants shall limit ground disturbance to only the areas necessary for Transaction-related construction activities.
- VM 59. Applicants shall review the limits of land disturbance prior to construction to determine whether any U.S. Department of Commerce, National Geodetic survey monuments (that is, a government owned permanent survey marker) would be disturbed. If any survey monuments would be disturbed, Applicants shall give a 90-day notification to the U.S. Department of Commerce.
- VM 60. Applicants shall consult with the appropriate state, county personnel, Forest Preserve and trail managers prior to construction activities on state land and shall flag the boundaries of the ROW.
- VM 61. Applicants shall notify the trail managers of new construction that intersects trails during final design. Where possible, Applicants shall maintain access to all existing trails, greenways, and scenic corridors during construction. If temporary trail closures are required during construction, Applicants shall provide appropriate signage to detour pedestrian and recreational trail users to a safe alternate route.
- VM 62. Before construction of the Applicants’ Proposed Munger Connection adjacent to the Pratt’s Wayne Woods Forest Preserve, Applicants shall flag the boundaries of the CN ROW, the EJ&E ROW, and the portion of the Commonwealth Edison ROW required for construction. Applicant shall remain within the flagged boundaries. Unless agreed by the Forest Preserve Management, no construction shall take place outside of the flagged construction area. Where possible, Applicants shall maintain access during construction activities to all existing roads, trails, and facilities within the Pratt’s Wayne Woods Forest Preserve.

- VM 63. Applicants shall require contractors to dispose of waste generated during Transaction-related construction activities in accordance with all applicable Federal, State, and local regulations.

Community Outreach

- VM 64. Prior to initiation of Transaction-related construction activities, Applicants shall name a Community Liaison to: consult with affected communities, businesses, and agencies; seek to develop cooperative solutions to local concerns regarding construction activities; be available for public meetings; and conduct periodic public outreach regarding Transaction-related construction activities. The Community Liaison shall be available to consult with businesses and agencies until all Transaction-related construction activities are complete. Applicants shall provide the name and phone number of the Community Liaison to mayors and other appropriate local officials in each community where Transaction-related construction activities will occur.
- VM 65. Applicants shall continue their ongoing community outreach efforts by maintaining, throughout the period of construction of Transaction-related sidings, double-track, and connections, a website about the construction.

Residential

- VM 66. Applicants' Transaction-related construction vehicles, equipment, and workers shall not access work areas by crossing residential properties without the permission of the property owner or occupant.

Business and Industrial

- VM 67. Applicants' Transaction-related construction vehicles, equipment, and workers shall not access work areas by crossing business or industrial areas, including parking areas or driveways, without advance notice to the business owner.
- VM 68. Applicants shall work with affected businesses or industries to appropriately redress Transaction-related construction activity issues affecting any business or industry.
- VM 69. To the extent reasonably practicable, Applicants shall ensure that entrances and exits for businesses are not obstructed by Transaction-related construction activities, except as required to move equipment.

State Lands

- VM 70. Applicants shall consult with the General Land Office ("GLO") of Illinois to coordinate an Easement Agreement for crossing State-owned parks to reach Transaction-related construction areas.

Utility Corridors

- VM 71. Applicants shall make reasonable efforts to identify all utilities that are reasonably expected to be materially affected by the proposed construction within their existing ROW or that cross their existing ROW. Applicants shall notify the owner of each such utility identified prior to commencing Transaction-related construction activities and coordinate with the owner to minimize damage to utilities. Applicants shall also consult with utility owners to design the rail line so that utilities are reasonably protected during Transaction-related construction activities.

- VM 72. Applicants shall use the services of a qualified pipeline engineering firm that is familiar with the project area to assist in the identification of the various pipeline crossings and to assist in the design of crossings as necessary for Transaction-related construction activities.

Air Quality

- VM 73. Applicants shall accelerate implementation of EPA locomotive emissions reduction efforts⁶ by installing idling control systems on their switching locomotives assigned to the Chicago area and shall accelerate replacement of switching locomotives that are excluded from EPA emission standards and are now in service at Chicago-area yards that will experience increased yard activity as a result of the Transaction with locomotives that are compliant with EPA Tier 0 or more stringent emission standards.
- VM 74. Applicants, to the extent reasonably practicable, shall adopt efficient fuel saving practices that may include a range of operating practices that will help reduce locomotive emissions, such as shutting down locomotives when not in use and when temperatures are above 40 degrees.
- VM 75. To minimize fugitive dust emissions created during Transaction-related construction activities, Applicants shall implement appropriate fugitive dust suppression controls, such as spraying water or other approved measures. Applicants shall also regularly operate water trucks on haul roads to reduce dust.
- VM 76. Applicants shall work with their contractors to make sure that construction equipment is properly maintained and that mufflers and other required pollution-control devices are in working condition in order to limit construction-related air emissions.

Noise and Vibration

- VM 77. Applicants shall work with affected communities that have sensitive receptors that would experience an increase of at least 5 dBA [A-weighted decibel] and reach 70 dBA to mitigate train noise to levels as low as 70 dBA by cost effective means as are agreed to by an affected community and Applicants. In the absence of such an agreement, Applicants shall implement cost effective mitigation that could include such measures as (1) constructing noise control devices such as noise barriers, (2) installing vegetation or berming, or (3) installing, or providing funding for installation of, enhanced warning devices in order to provide the level of warning necessary to allow the community to request a waiver from Federal Railroad Administration (FRA) of the requirement to sound the horn and achieve quiet zone requirements.
- VM 78. Applicants shall consult with affected communities and work with their construction contractors to minimize, to the extent reasonably practicable, construction-related noise disturbances near any residential areas.
- VM 79. Applicants shall work with their construction contractors to maintain Transaction-related construction and maintenance vehicles in good working order with properly functioning mufflers to control noise.
- VM 80. In addition to the development of other noise mitigation measures, Applicants shall consider lubricating curves where doing so would both be consistent with safe and efficient operating practices and significantly reduce noise for residential or other noise sensitive receptors. Applicants shall also continue to employ safe and efficient operating

⁶ EPA has issued rules designed to reduce locomotive emissions over time.

procedures that, in lieu of, or as complement to, other noise mitigation measures can have the collateral benefit of effectively reducing noise from train operations. Such procedures include:

- inspecting rail car wheels to maintain wheels in good working order and minimize the development of wheel flats;
- inspecting new and existing rail for rough surfaces and, where appropriate, grinding these surfaces to provide a smooth rail surface during operations;
- regularly maintaining locomotives, and keeping mufflers in good working order; and
- removing or consolidating switches determined by Applicants to no longer be needed.

- VM 81. To minimize noise and vibration, Applicants shall install and maintain rail and rail beds according to AREMA standards.
- VM 82. Applicants shall comply with FRA regulations establishing decibel limits for train operations.
- VM 83. Applicants shall install or relocate a Wheel Impact Load Detector (WILD) on the EJ&E rail line within three years of acquisition by CN of control of EJ&EW.

Biological Resources

- VM 84. For impacts to non-jurisdictional isolated wetlands habitat along the new line, Applicants shall survey the route to determine if the Hines Emerald Dragonfly is present along the ROW.
- VM 85. Upon consultation with U.S. Fish and Wildlife Service, should the Hines Emerald Dragonfly be observed on the site of Transaction-related construction activities, Applicants shall implement appropriate measures prior to and during construction to reduce or eliminate impacts on the Hines Emerald Dragonfly.
- VM 86. Prior to initiating Transaction-related construction activities, Applicants shall consult with the local offices of the Natural Resource Conservation Service (“NRCS”) to develop an appropriate plan for restoration and re-vegetation of the disturbed areas (including appropriate seed mix specifications).
- VM 87. During construction activity, Applicants shall take reasonable steps to ensure contractors use fill material appropriate for the project area.
- VM 88. Applicants shall, to the extent reasonably practicable, revegetate the bottom and sides of the drainage ditches using natural recruitment from the native seed sources in the stockpiled topsoil.

Water Resources

- VM 89. In the case where there is a potential for a railroad drainage ditch to influence wetland hydrology, Applicants shall construct low permeability clay berms (wetland berms adjacent to the drainage channels that would be proximal to the isolated wetlands). These berms would minimize the impact to surface water drainage from the proposed drainage ditch.
- VM 90. Applicants shall compensate in accordance with USACE regulations in both Illinois and Indiana for wetland impacts that cannot be avoided and for impacts that are determined by USACE to be on waters of the U.S. for construction related to the proposed action.

- VM 91. Applicants shall maintain drainage ditches as permanent vegetated swales to provide storm water retention and treatment. Removal of accumulated sediments shall be conducted only as necessary to maintain storm water retention capacity and function.
- VM 92. To minimize sedimentation into streams and waterways during construction, Applicants shall use best management practices, such as silt fences and straw bale dikes, to minimize soil erosion, sedimentation, runoff, and surface instability during project-related construction activities. Applicants shall seek to disturb the smallest area possible around any streams and shall conduct reseeding efforts to ensure proper revegetation of disturbed areas as soon as reasonably practicable following Transaction-related construction activities.
- VM 93. In order to control erosion, Applicants shall establish staging and lay down areas for Transaction-related construction material and equipment at least 300 feet from jurisdictional waters of the United States and in areas that are not environmentally sensitive. Applicants shall not clear any vegetation between the staging area and the waterway or wetlands. To the extent reasonably practicable, areas with non-jurisdictional isolated waters will not be used for staging and lay down and will only be impacted when necessary for construction. When Transaction-related construction activities, such as culvert and bridgework, require work in streambeds, Applicants shall conduct these activities, to the extent reasonably practicable, during low-flow conditions.
- VM 94. During Transaction-related construction activities, Applicants shall require all contractors to conduct daily inspections of all equipment for any fuel, lube oil, hydraulic, or antifreeze leaks. If leaks are found, Applicants shall require the contractor to immediately remove the equipment from service and repair or replace it.
- VM 95. Applicants shall employ best management practices to control turbidity and disturbance to bottom sediments of surface waters during Transaction-related construction. Applicants shall implement best management practices in wetlands or other waters of the United States to avoid adverse downstream impacts on fish, mussels, and other aquatic biota.
- VM 96. Applicants shall implement their current noxious weed control program during construction and operation of Transaction-related sidings, double-track, and connections. All herbicides used by Applicants shall be approved by the U.S. EPA.
- VM 97. Applicants shall ensure that any herbicides used in ROW maintenance to control vegetation are approved by the U.S. EPA and are applied by licensed individuals who shall limit application to the extent necessary for rail operations. Herbicides shall be applied so as to prevent or minimize drift off of the ROW onto adjacent areas.
- VM 98. During construction, Applicants shall prohibit Transaction-related construction vehicles from driving in or crossing streams at other than established crossing points.
- VM 99. Applicants shall, to the extent reasonably practicable, ensure that any fill placed below the ordinary high water line of wetlands and streams is appropriate material selected to minimize impacts to the wetlands and streams. All stream crossing points shall be returned to their pre-construction contours to the extent reasonably practicable and the crossing banks will be reseeded or replanted with native species immediately following project-related construction.
- VM 100. Applicants shall obtain a National Pollutant Discharge Elimination System (“NPDES”) storm water discharge permit from U.S. EPA or appropriate State agencies for Transaction-related construction activities.

Monitoring and Enforcement

- VM 101. Applicants shall submit quarterly reports to SEA on the progress of, implementation of, and compliance with the mitigation measures for a period covering the first three years of operational changes.

Supplemental Voluntary Mitigation Measures

- VM 102. Applicants shall cooperate with Midwest Generation, LLC (“MWG”), to identify locations on Applicants’ property, or available to Applicants, on which loaded coal trains could be staged while awaiting delivery to MWG’s Will County Generating Station and Joliet Generating Station and which would make unnecessary the construction of additional train storage capacity on MWG property that would adversely affect the Hine’s emerald dragonfly or its habitat. If no adequate existing train storage locations can be identified, Applicants shall make reasonable efforts to acquire or construct, at MWG’s expense, new train storage capacity, at locations where construction would not have adverse impacts on the Hine’s emerald dragonfly or its habitat, and which would make construction of additional storage capacity on MWG’s property unnecessary, and shall make that capacity available as needed for staging of coal trains destined for Will County and Joliet Stations.
- VM 103. In consultation with the U.S. Fish and Wildlife Service (USFWS) and relevant natural resource stakeholders, Applicants shall participate in the development of a Habitat Conservation Plan for the Hine’s emerald dragonfly or necessary work plans applicable to State and Federally listed threatened and endangered species and take the necessary measures to ensure that rail operations do not cause undue impact to those species.
- VM 104. [Migratory Birds] Where warranted, Applicants shall work with relevant natural resource stakeholder groups, Forest Preserve Districts, the Indiana office of The Nature Conservancy (TNC), Illinois Department of Natural Resources (IDNR), Indiana Department of Natural Resources (INDNR), and USFWS to support the creation or enhancement of migratory bird habitat away from those segments of the EJ&E rail line on which Applicants project Transaction-related increases in rail traffic, and where there is proposed Transaction-related construction of double-track and new or improved connections.
- VM 105. [Rare and Listed Turtles] In consultation with USFWS, Applicants shall construct and maintain adequate passages (that is, pipes or culverts) for turtles to cross through the track bed in areas on the EJ&E rail line between Leithton and Gary on which Applicants expect to increase rail traffic and where habitat for rare and/or listed turtle species (that is, Blanding’s or spotted turtle) exists on both sides of the rail line.
- VM 106. [Karner Blue Butterfly] In consultation with USFWS, Applicants shall identify areas of suitable habitat of the Karner blue butterfly within Kirk Yard and in the vicinity of all planned Transaction-related construction of double track and new or improved connections within the State of Indiana for potential habitat protection and/or enhancement. Applicants shall contact TNC about participation in the Safe Harbor Agreement for the Karner blue butterfly.
- VM 107. [Indiana Dune and Swale] In consultation with appropriate Federal and State natural resource stakeholders, including USFWS, INDNR and TNC, Applicants shall designate EJ&EW-owned areas of prime prairie and dune swale habitat for potential land management agreement and/or conservation easement. Should modifications to Kirk Yard be proposed in the future, Applicants shall review proposed plans for upgrading and

expansion of Kirk Yard in order to avoid construction in identified dune swale areas. In the event that unavoidable impacts are identified, the Applicants shall work with TNC to develop a plan for mitigation of those impacts and improvement of the quality of remaining dune swale areas.

- VM 108. [Eastern prairie fringed orchid] Prior to any ground disturbing activities, Applicants shall hire a qualified biologist to survey for the Eastern prairie fringed orchid (*Platanthera leucophaea*) in areas containing suitable habitat. Applicants shall survey each area on at least three non-consecutive days between June 28 and July 11, as this is when the orchid typically flowers and is most identifiable. If the Applicants' biologist finds orchids, Applicants shall not conduct any construction activities in that area and Applicants shall notify USFWS and the Board immediately. The Board shall reinstate consultation with USFWS. Applicants shall work with the Board and USFWS to determine appropriate measures to offset impacts, most likely providing funding for an ongoing hand pollination project, or providing funding to be used to enhance another orchid site (that is, brush cutting, prescribed burning).

SEA's Final Recommended Mitigation Measures

Applicants' Voluntary Mitigation

- 1) Applicants shall comply with their voluntary mitigation measures.

Rail Operations

- 2) As part of the Applicants' quarterly reports that would be required under VM 101, VM 36, and Condition 70, Applicants shall report quarterly to SEA and communities adjacent to or intersected by the EJ&E rail line on the frequency, cause, and duration of train blockages of crossings of 10 minutes in duration or greater, listing each delay and including any notifications from persons affected by the blockage and the time of the beginning and end of each delay. Applicants shall summarize the cause of each type of blockage that the Applicants self-report and shall state how the Applicants intend to reduce the incidence of all blockages not attributed to emergencies or weather-related incidents (sometimes called Acts of God) in the quarterly report.
- 3) Applicants shall distribute to communities adjacent to or intersected by the EJ&E rail line the contact information for the Applicants' community liaison established in VM 64 to ensure that Applicants are aware of highway/rail at-grade crossing blockages lasting 10 minutes or more.

Rail Safety

Safety Integration Plan

- 4) Applicants shall comply with their approved final Safety Integration Plan (SIP), prepared pursuant to 49 CFR 1106, which may be modified and updated as necessary to respond to evolving conditions.
- 5) Applicants shall continue to coordinate with FRA in implementing the approved final SIP, including any amendments thereto. The ongoing safety integration process shall continue until FRA notifies the Board that the integration of the Applicants' operations has been safely completed.

Freight Rail Safety

- 6) Applicants shall adhere to all applicable Federal Occupational Safety and Health Administration (OSHA), FRA, and state construction and operational safety regulations to minimize the potential for accidents and incidents on the EJ&E rail line.

Vehicle Safety

High Accident Frequencies

- 7) If Applicants have not initiated a corridor study (as committed to in VM 7) in Griffith, Indiana, within 6 months of the effective date of the Board's final decision, or if the appropriate road authority having jurisdiction over the roadway prefers, Applicants shall meet with the appropriate road authority, Indiana Department of Transportation (INDOT), the City of Griffith, and other appropriate local agencies and shall participate in an on-site diagnostic review of the Lake Street and Miller Street highway/rail at-grade crossings. The purpose of the diagnostic review would be to examine the adequacy of the existing warning devices, to ascertain if there are particular roadway uses or localized issues that would reduce the effectiveness of these warning devices, to prescribe appropriate remedies to improve safety for highway vehicles, and to establish the time frame and funding for identified improvements. Because the at-grade crossings at Lake Street and Miller Street are less than 0.25 mile apart, the diagnostic review shall consider closure of one at-grade crossing or the other and make appropriate improvements to the other. In the absence of any other funding agreements, Applicants' funding participation for any improvements shall be limited to the cost of installation of a standard, automatic flashing light signal and automatic half roadway, gate-warning devices at one highway/rail at-grade crossing.
- 8) If the Applicants and the appropriate agencies do not come to an agreement concerning Lake Street and Miller Street within 2 years of the effective date of the Board's final decision, Applicants, with the concurrence of the other parties, shall participate in and assume the cost of binding arbitration or mediation to determine a solution for Lake Street and Miller Street, without further involvement or review by the Board. Applicants shall notify the Board within 30 days of completing the negotiations, the arbitration, or the mediation.

Industry Track

- 9) As requested by the Illinois Commerce Commission (ICC), Applicants shall notify ICC prior to modifying rail service to existing rail shippers along the EJ&E rail line during the morning and evening commuter rush hours, in areas where: 1) industry tracks cross highway/rail at-grade crossings, and 2) those industry track highway/rail at-grade crossings are protected with warning devices that are not interconnected with or part of the warning devices at a highway/rail at-grade crossing of the same roadway located within 300 feet which experiences commuter rail traffic. Before modifying the rail service Applicants shall allow ICC to review the adequacy of the highway/rail at-grade crossing warning devices and abide by the ICC's reasonable determination(s), including contributing to funding any required modifications.

Quiet Zones

- 10) Applicants shall work with Barrington, Illinois, to determine which improvements would be necessary for the City to maintain its quiet zone designation, should the transaction cause it to fall out of compliance with FRA regulations. The existing Barrington Quiet

Zone includes the highway/rail at-grade crossings at Lake/Cook Road, Otis Road, Penny Road, Old Sutton Road, Shoe Factory Road, Spaulding Road, and West Bartlett Road. For 3 years from the effective date of the Board's final decision, the Applicants shall fund reasonable improvements FRA deems necessary to maintain existing quiet zone.

Hazardous Materials Transportation Safety

- 11) To supplement Applicants' VM 21, Applicants shall conduct TRANSCAER workshops in English and Spanish upon request for 3 years from the effective date of the Board's final decision authorizing the Proposed Action.
- 12) In addition to Applicants' VM 25, Applicants shall adhere to all EPA regulations as described in 40 CFR 263 and shall coordinate with EPA, state agencies, and local agencies on spill responses.

Pedestrian and Bicycle Safety

- 13) To supplement Applicants' VM 10, Applicants shall coordinate with each affected community prior to installation of this fencing and shall install fencing where the community deems appropriate. Applicants shall furnish and install at their sole expense a standard 6-foot-high, galvanized, chain-link fence at all locations where an effective fence does not currently exist. Upon completion of construction, the fence shall be owned and maintained by the community unless both parties agree otherwise in writing. The community may decide to install fencing that differs from this standard, but Applicants shall only be obligated to provide funds sufficient to construct the standard fence.
- 14) Applicants shall coordinate with representatives from Camp Manitoqua in Frankfort, Illinois, to determine if fencing is warranted along the camp's property line. If it is, Applicants and Camp Manitoqua shall cooperate to determine a reasonable allocation of construction and maintenance costs, with the Applicants' cost share limited to an amount sufficient to construct the standard fence described in Condition 13, above.
- 15) To supplement Applicants' VM 43 and 44, Applicants shall make Operation Lifesaver programs available to communities, schools, and other appropriate organizations located along the EJ&E rail line for 3 years after the effective date of the Board's final decision. The programs will be designed and provided in coordination with ICC and INDOT.
- 16) To address concerns raised by the U.S. Department of Transportation, Applicants shall either continue EJ&E's practice of holding trains south of Ann Street in West Chicago, Illinois, or work with the community to replace the George Street pedestrian crossing. Ann Street is located approximately 0.1 mile south of the George Street pedestrian crossing and 0.3 mile south of the signal in West Chicago. Applicants shall hold their trains at this location to avoid blocking the at-grade crossing at Ann Street (USDOT # 260545V, MP 28.50), the pedestrian crossing at George Street (USDOT # 260806T, MP 28.27), and the at-grade crossing at Church Street (USDOT # 260543G, MP 28.77). Upon obtaining a clear signal, to the extent possible, Applicants' trains shall not stop and block the at-grade crossings.

Transportation Systems

Regional and Local Highway Systems

- 17) In addition to VM 28, Applicants shall coordinate with the following state and local officials for the expeditious implementation of a grade separation at:
- The highway/rail at-grade crossing of Ogden Avenue and the EJ&E rail line in Aurora (USDOT # 260560X). Coordinate with DuPage County, Illinois, and Aurora, Illinois, the Illinois Department of Transportation (IDOT), and ICC
 - The highway/rail at-grade crossing of Lincoln Highway (US 30) and the EJ&E rail line in Lynwood (USDOT # 260651D). Coordinate with Cook County, Illinois, Lynwood, Illinois, IDOT, and ICC

The substantial effects of the Proposed Action on traffic delay, regional and local mobility, and grade-crossing safety warrant an increase over the traditional railroad share of the final design and construction cost of grade separations that are approved and funded. As explained in this Final EIS, Applicants' share of the responsibility for total vehicle delay in the Chicago metropolitan area is calculated to be 15 percent. Therefore, Applicants shall contribute 15 percent of the preliminary engineering and environmental analysis, final design, ROW acquisition, utility relocation, and construction costs of these grade separations. This obligation shall be in effect for projects where construction is initiated within 10 years of the effective date of the Board's final decision. SEA anticipates that IDOT would be the lead agency for the development of these grade separations.

- 18) Applicants shall coordinate with IDOT and the appropriate counties and affected communities to develop a program to install traffic advisory signs on roadway ROW at certain public highway/rail at-grade crossings along the EJ&E rail line. These signs shall clearly advise motorists not to block intersections, and the format and lettering of these signs shall comply with FHWA's *Manual on Uniform Traffic Control Devices*. These signs shall be in place within a year of the effective date of the Board's final decision, subject to the approval of the coordinating agencies, and shall be located near the following intersections:
- a. Old McHenry Road/Midlothian Road, Hawthorn Woods, Illinois
 - b. Main Street/IL 22, Lake Zurich, Illinois
 - c. Hough Street (IL 59)/Northwest Highway (US 14), Barrington, Illinois
 - d. Plainfield-Naperville Road/IL 59, Plainfield, Illinois
- 19) Applicants shall construct the revised connection at Matteson, Illinois, and the revised double track connection at Leithton (near Mundelein, Illinois) as described in the Applicants' letters dated August 21, 2008 and September 17, 2008, respectively.
- 20) As requested by ICC, Applicants shall consult with ICC, as well as INDOT, to locate roadway intersections with traffic lights within 1,000 feet of existing highway/rail at-grade crossings along the EJ&E rail line to identify circumstances where queued cars could extend over the EJ&E rail line and to consider reasonable solutions.

Emergency Response

- 21) In addition to VM 42, to further assist with the timely response of the emergency service providers listed in Table ES- 2 below, Applicants shall consult with all appropriate

agencies to implement a CCTV system with video cameras placed in locations so that the movement of trains can reasonably be predicted at the highway/rail at-grade crossings listed in Table ES-2. Applicants shall pay for the necessary equipment, including cameras, monitors, poles, cables, controllers, cabinets, communications equipment, electrical connections, or other necessary components, the installation of the equipment, and equipment training for up to two individuals for each emergency service provider listed in Table ES-2. Applicants shall work with all appropriate agencies to determine specifications and scheduling for the installation of this system. Applicants shall not be responsible for the ongoing maintenance and operation of the CCTV system after the system is installed and operational.

Table ES- 2. Emergency Service Providers Receiving CCTV at Affected Highway/Rail At-Grade Crossing Locations		
Community	Facility	Highway/Rail At-Grade Crossings
Mundelein, Illinois	Countryside Fire Protection District - Station No. 1	Allanson Road Diamond Lake Road IL 60 & 83 Gilmer Road
Lake Zurich, Illinois	Lake Zurich Rural Fire Protection District - Station No. 3	Gilmer Road Old McHenry Road Oakwood Road
Barrington, Illinois	Barrington Fire Department - Station No. 1	Lake Zurich Road Northwest Highway (US 14) Hough Street (IL 59) Lake Cook Road/Main Street
Barrington, Illinois	Advocate Good Shepherd Hospital	Lake Zurich Road Northwest Highway (US 14) Hough Street (IL 59) Lake Cook Road/Main Street
Bartlett, Illinois	Bartlett Fire Protection District - Future Station No. 3	Spaulding Road West Bartlett Road Stearns Road
West Chicago, Illinois	West Chicago Fire Protection District Headquarters/Station No. 1	Washington Street Aurora Street Church Street Ann Street
West Chicago, Illinois	West Chicago Fire Protection District - Station No. 3	Washington Street Aurora Street Church Street Ann Street
Plainfield, Illinois	Plainfield Fire Protection District - Station No. 3	111 th Street Ferguson Road/119 th Street 127 th Street
Chicago Heights, Illinois	Saint James Hospital and Health Centers - Chicago Heights	Euclid Avenue Chicago Road West End Avenue/Halsted Street East End Avenue
Schererville, Indiana	Schererville Fire Department Headquarters	Kennedy Avenue Broad Street

Table ES- 2. Emergency Service Providers Receiving CCTV at Affected Highway/Rail At-Grade Crossing Locations		
Community	Facility	Highway/Rail At-Grade Crossings
Griffith, Indiana	Griffith Volunteer Fire Department Headquarters/Station No. 1	Broad Street East Main Street East Lake Street East Miller Street East Elm Street East 45 th Avenue
Griffith, Indiana	Griffith Volunteer Fire Department - Station No. 2	Broad Street East Main Street East Lake Street East Miller Street East Elm Street East 45 th Avenue

Airports

- 22) Applicants shall comply with the four-party Preliminary Memorandum of Understanding (PMOU) announced by the Gary/Chicago International Airport, EJ&E, CSX, and NS on June 27, 2008, regarding the airport's plan to extend its main runway and to relocate the EJ&E rail line.

Land Use

- 23) Applicants shall consult with and comply with the reasonable requirements of INDNR to demonstrate compliance with the Coastal Zone Management Act (CZMA) (16 USC 1451-1456) and the Indiana Lake Michigan Coastal Program in accordance with the guidelines found in the Indiana Natural Resources Commission's Information Bulletin #43 (Indiana Natural Resources Commission 2007). Applicants shall demonstrate CZMA compliance prior to initiating any project-related construction activities in Indiana.

Environmental Justice

- 24) In addition to VM 23, which requires Applicants to provide a copy of their emergency response plan to all appropriate state and local authorities within 6 months of the effective date of the Board's final decision, Applicants shall provide the appropriate authorities a Spanish-language version of the emergency response plan, upon request.
- 25) In addition to VM 11, all of Applicants' informational materials concerning railroad safety shall be provided to elementary, middle, and high schools within 0.5 mile of the EJ&E ROW in both English and Spanish, upon request. In addition to VM 65, Applicants shall make materials and information on their project-related website available in both English and Spanish.
- 26) In addition to VM 64, Applicants shall provide a Spanish-language translator to work with the Applicants' community liaison as needed to consult with affected communities and businesses, to attend public meetings, and to conduct public outreach.

Air Quality and Climate

- 27) Applicants shall comply with EPA emissions standards for diesel-electric railroad locomotives (40 CFR 92) when purchasing and rebuilding locomotives.

- 28) Applicants shall notify local fire departments along the EJ&E rail line at least 4 hours before any open burning activities along the EJ&E rail line ROW and in proposed construction areas and shall obtain oral or written permission from the fire departments prior to such burning activities.

Noise and Vibration

- 29) Upon request, Applicants shall consult with communities affected by wheel squeal at existing locations on the EJ&E rail line, and cooperate in determining the most appropriate methods for implementing VM 80.
- 30) Applicants shall make reasonable efforts to notify the U.S. Department of Energy Fermi National Accelerator Laboratory (Fermilab) in Batavia, Illinois, of potentially significant operational changes, such as substantial increases in train speed and/or axle loadings that could affect their vibration-sensitive equipment.
- 31) In addition to VM 77 through 83 and Condition 70, Applicants shall include in their quarterly reports documentation of their efforts to implement in a timely manner their voluntary noise and vibration mitigation, which is intended to provide effective and measurable noise reduction in areas that qualify for noise mitigation under IDOT or INDOT criteria, as discussed in Chapter 2 of the Final EIS.

Biological Resources

Resource Agency Liaison

- 32) In addition to VM 64, Applicants shall establish a local resource agency liaison(s) with expertise in environmental and natural resource management to work closely with Federal, state, and local natural and water resource agencies (including Fermilab) for the purpose of improved adaptive natural resource management. Applicants shall name their liaison(s) within 1 month of the effective date of the Board's final decision. Applicants' liaison(s) shall ensure that the adaptive management measures developed shall be incorporated into all relevant railroad ROW maintenance contracts. Applicants' liaison(s) shall be available to consult with resource agencies for 5 years following the effective date of the Board's final decision.
- 33) Applicants shall work with relevant natural resource stakeholder groups, forest preserve districts, TNC, INDNR, IDNR and USFWS to establish appropriate monitoring programs. These programs shall include identifying baseline conditions and post-transaction conditions, in areas adjacent to forest preserves and designated natural areas on species of concern to the above groups. Applicants shall fund the monitoring programs for a period of 5 years from the effective date of the Board's decision.

Plant Communities

- 34) In addition to VM 96 and VM 97, Applicants shall work with the natural resource agencies through the Applicants' resource agency liaison(s) (see Condition 32, above) to define sensitive areas where use of herbicides should be restricted.
- 35) In addition to VM 96, Applicants shall consult with and develop cooperative and adaptive management strategies with natural resource agencies to address invasive species spread directly by transaction-related operations. Applicants' local resource agency liaison(s) (see Condition 32, above) shall serve as coordinator(s).

- 36) Applicants, through the local resource agency liaison (established in Condition 32, above), shall work with the forest preserve districts to minimize disruptions and complications to the management and implementation of district-prescribed burn programs, to the extent possible.

Federally-Listed and State-Listed Threatened and Endangered Species

- 37) In addition to VM 51, Applicants shall continue to abide by the special conditions of the 1996 USACE Permit #19960211 for train operations on the Paul Ales Branch in order to minimize further effects on the Hines' emerald dragonfly.
- 38) To avoid any direct take of Indiana bats, Applicants shall not remove trees within the former EJ&E ROW with a diameter of 3 or more inches between April 15 and September 15. Applicants shall avoid or minimize tree clearing and snag removal within project-related construction area limits.

Water Resources

- 39) Within 6 months of the effective date of the Board's final decision, Applicants shall consult with EPA, Illinois Environmental Protection Agency (IEPA), and Indiana Department of Environmental Management (IDEM) regarding sensitive surface or groundwater resources along the EJ&E rail line and potential cost-effective preventative measures that could be taken to protect such resources from potential contamination in the unlikely event of a hazardous material release from a rail car on the EJ&E rail line. Applicants shall include in their quarterly reports documentation of the outcome of their consultations and shall abide by the consulting agencies' reasonable requirements.
- 40) In addition to VM 90, and in response to concerns raised by INDNR, Applicants shall coordinate project-related wetland mitigation planning with INDNR.
- 41) Applicants shall meet with EPA, USFWS, and USACE during the design of all project-related construction (including the locations of connections and double track) and shall comply with the reasonable requirements of those agencies in order to avoid and minimize, to the extent feasible, effects on wetlands and biological resources.

Constructions

Rail Operations

- 42) In addition to VM 40, Applicants shall maintain access to the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision at Matteson, Illinois. Construction of the Applicants' proposed connection shall not interfere with the public's access along Front Street in Matteson. Prior to the proposed construction, Applicants shall consult with Metra to devise reasonable requirements pertaining to coordinating tunnel access, track construction and existing pedestrian safety.

Rail Safety

- 43) Applicants shall consult with state Departments of Transportation and other appropriate agencies and shall abide by the reasonable requirements of ICC or INDOT prior to constructing, relocating, upgrading, or modifying highway/rail at-grade crossing warning devices on the EJ&E rail line.

Hazardous Waste Sites

- 44) Applicants shall use established standards for recycling or reuse of construction materials, such as ballast and rail ties. When recycling construction materials is not a viable operation, the Applicants shall use disposal methods that comply with applicable solid and hazardous waste regulations.
- 45) Applicants shall follow American Society of Testing and Materials (ASTM) E1527-05, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, prior to construction activities related to the Proposed Action in areas where potential contamination may be encountered (ASTM 2005). If the Applicants encounter contamination (or signs of potential contamination) during these activities, Applicants shall perform a Phase 2 environmental investigation.

Land Use

- 46) In addition to VM 70, in response to concerns raised by IDNR, Applicants shall consult with IDNR or INDNR to coordinate a reasonable easement agreement for crossing state-owned parks in Illinois or Indiana, respectively, to reach project-related construction areas.
- 47) In addition to VM 54, VM 60, and VM 62, Applicants shall flag the boundaries of any project-related construction near a forest preserve, nature preserve, protected area, local park, scenic corridor, or land and water reserve and shall coordinate with the respective owners and/or managers and abide by their reasonable requirements.
- 48) Applicants shall store construction-related equipment and materials in established storage areas or on the Applicants' property.
- 49) Prior to construction of double track near Gilmer Road near Hawthorn Woods, Illinois, Applicants shall coordinate with and abide by the reasonable requirements of Hawthorn Woods regarding the Gilmer Road scenic corridor.

Noise and Vibration

- 50) Applicants shall implement best management practices when developing construction plans and performing transaction-related construction activities to ensure that construction-related noise and vibration effects are minimized to the extent possible.
- 51) Applicants shall design and build all new transaction-related, curved track sections of 3 degrees or above in a manner that minimizes or eliminates the potential for wheel flange squeal using guidance provided by AREMA standards.

Biological Resources

- 52) Applicants shall immediately cease transaction-related construction in the event that a previously unidentified Federally- or state-listed threatened or endangered species is encountered during transaction-related construction activities. In that event, Applicants shall consult with USFWS for Federally-listed species and IDNR and/or INDNR for state-listed species for guidance on how to minimize transaction-related effects and protect these species, and shall comply with the reasonable solutions suggested by those agencies. Applicants' resource agency liaison(s) (see Condition 32, above) shall serve as coordinator(s).

- 53) In addition to VM 86, Applicants shall not include any invasive weed species in seed mixes for revegetation of areas that would be disturbed during transaction-related construction activities.
- 54) Applicants shall avoid construction of the Munger connection within Pratt's Wayne Woods Forest Preserve, or any other identified migratory bird nesting or breeding area, during the bird breeding season (April through August) to avoid disturbance of breeding birds.
- 55) Prior to transaction-related construction activities, Applicants shall reexamine the Federal and state lists of threatened and endangered species for any newly listed species and shall consult with the appropriate resource agencies on any newly listed species. Applicants' resource agency liaison(s) (see Condition 32, above) shall serve as coordinator(s).
- 56) Applicants shall ensure that all equipment for transaction-related construction activities is washed prior to entering the construction site and after the construction activities are completed. Prior to leaving the construction site, Applicants shall inspect all construction equipment and remove any attached flora, fauna, mud or seeds.
- 57) Applicants shall maintain the current access to Pratt's Wayne Woods near Wayne, Illinois at the Applicants' Proposed Munger Connection in accordance with existing access and management agreements.

Water Resources

- 58) Applicants shall compensate for effects on isolated wetlands according to the regulations of the State of Indiana for transaction-related construction activities. Isolated wetlands in Indiana are regulated as State Regulated Wetlands (SRWs) under 327 Indiana Administrative Code (IAC) 17.
- 59) For transaction-related construction activities, Applicants shall mitigate for effects on isolated wetlands according to the regulations of Lake and DuPage counties in Illinois, both of which have specific mitigation requirements for effects on isolated waters and their associated buffer areas.
- 60) When performing transaction-related construction activities, Applicants shall not affect existing wetlands in order to create the ponds or stormwater detention that may be required for the management of stormwater runoff.
- 61) Applicants shall comply with the reasonable requirements of the Will County, Illinois Stormwater Management Ordinance for all transaction-related construction activities in Will County.
- 62) When performing transaction-related construction activities, Applicants shall avoid increasing upstream flood elevations in Federal Emergency Management Agency (FEMA)-regulated floodplains and shall obtain a Letter of Map Revision (LOMR) from FEMA where construction of bridges, culverts, or embankments would result in an unavoidable increase in 100-year flood elevations greater than 0.1 foot.
- 63) Prior to beginning transaction-related construction activities, Applicants shall delineate wetlands and conduct floristic quality assessments in jurisdictional wetland and non-jurisdictional wetland habitat in transaction-related construction areas along the EJ&E rail line (including the six connections and the proposed double track).

Cultural Resources

- 64) During transaction-related construction activities, Applicants shall immediately cease excavation work if archeological resources are encountered during construction activities. Applicants shall inform and consult with the appropriate State Historic Preservation Office and/or appropriate Tribal Historic Preservation Office regarding appropriate measures for addressing the resource, and shall comply with the reasonable requirements those agencies suggest.

Negotiated Agreements

- 65) Applicants shall comply with the terms of the negotiated agreement that was executed by Joliet, Illinois, and the Applicants on August 25, 2008.
- 66) Applicants shall comply with the terms of the negotiated agreement that was executed by Crest Hill, Illinois, and the Applicants on November 18, 2008.
- 67) If Applicants enter into negotiated agreements with communities or other entities following publication of this Final EIS, Applicants shall submit a copy of the agreement to the Board, and the Board will impose a condition that requires the Applicants to comply with the terms of the agreement. The agreement then would substitute for any site-specific mitigation for that particular community or other entity.

Monitoring and Enforcement

- 68) If there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions, and upon petition by any party who demonstrates such material change, the Board may review the continuing applicability of its final mitigation, if warranted.
- 69) Applicants shall retain a third-party contractor to assist SEA in the monitoring and enforcement of mitigation measures on an as-needed basis until the Applicants have completed transaction-related construction activities, as well as a period covering the first 5 years from the effective date of the Board's final decision, or for any period the Board imposes.
- 70) In addition to VM 101, Applicants shall submit quarterly reports to SEA on the progress of, implementation of, and compliance with these mitigation measures for a period covering 5 years from the effective date of the Board's final decision or for any period the Board imposes.