

**EJ&E/CN RAILROAD
FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS)
RELEASED ON 12-05-08
REVIEW
FOR
WILL COUNTY**



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JANUARY 2008

*EJ&E/CN Railroad FEIS Review
for Will County*

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EJ&E/CN Railroad FEIS Review for Will County

1.0 Introduction

SEC Group, Inc (SEC) was tasked by the Will County Highway Department to review the Final Environmental Impact Statement (FEIS) prepared by HDR, Inc. (HDR), a third party subcontractor of Section of Environmental Analysis (SEA), the Surface Transportation Board. Will County has asked that SEC identify the mitigation applicable to Will County and analyze the FEIS (identify differences between the FEIS and DEIS, and to identify the weakest arguments in the FEIS. Huff & Huff, Inc. has been tasked to assist SEC with this evaluation. The Surface Transportation Board (STB) held a public meeting on November 18, 2008 at its Washington, D.C. headquarters concerning the Draft Environmental Impact Statement (DEIS) being prepared for the sale of the EJ&E West Company holdings to the Canadian National Railway Company (CN) and Grand Trunk Corporation, STB Finance Docket No. 35087. Following the hearing and review of the DEIS, SEA released the Final Environmental Impact Statement (FEIS) on December 5, 2008. On December 24, 2008 the STB released their Record of Decision (ROD) to the public. The STB has indicated that any condition or mitigation that was requested by any party in the preceding STB Finance Docket No. 35087 that is not included in the final STB recommendations or agreed to previously through independent negotiations prior to the ROD would be denied by this action. Also, parties have until January 23, 2009 to file petitions for reconsideration and replies must be filed by February 12, 2009.

2.0 Summary of Major Weaknesses

The following is a summary of weaknesses in the FEIS. Section 3.0 goes into further detail of the weaknesses when describing the differences between the DEIS and FEIS and noting which issue areas were still inadequately addressed.

2.1 The primary weakness is that the Purpose and Need for the project is too narrowly defined and should have not been left to the Applicants alone to define. The Purpose and Need should have been much broader to allow for the evaluation of a greater range of alternatives and provide some meaningful measurable public benefits versus those disclosed in the FEIS which are merely private benefits at the public's expense. The communities affected and agencies who have permitting authority should have been able to weigh in on the Purpose and Need from its inception rather than be debating the merits of the action and limited alternatives that were developed and readily dismissed. The EIS process should have followed Section 6002 of SAFETEA-LU which amended Subchapter I of chapter 1 of title 23, United States Code, is amended to include Section 139 - Efficient Environmental Reviews for Project Decision making. The intent of the provisions is to garner more public and agency involvement in the NEPA process and to streamlining permitting by allowing regulatory agencies the ability to be involved with a project from its inception to construction. The reference to Purpose and Need in the provisions states:

(f) Purpose and Need-

'(1) PARTICIPATION- As early as practicable during the environmental review process, the lead agency shall provide an opportunity for involvement by participating agencies and the public in defining the purpose and need for a project.

The Purpose and Need was too narrowly defined and would have been more broadly defined in Section 6002 provisions were followed.

2.2 Even dismissing the inadequacies of the Purpose and Need, the range of alternatives to meet the Applicants stated Purpose and Need was also deficient especially considering Section 6002 provisions as noted below:

(4) ALTERNATIVES ANALYSIS-

'(A) PARTICIPATION- As early as practicable during the environmental review process, the lead agency shall provide an opportunity for involvement by participating agencies and the public in determining the range of alternatives to be considered for a project.

'(B) RANGE OF ALTERNATIVES- Following participation under paragraph (1), the lead agency shall determine the range of alternatives for consideration in any document which the lead agency is responsible for preparing for the project.

'(C) METHODOLOGIES- The lead agency also shall determine, in collaboration with participating agencies at appropriate times during the study process, the methodologies to be used and the level of detail required in the analysis of each alternative for a project.

'(D) PREFERRED ALTERNATIVE- At the discretion of the lead agency, the preferred alternative for a project, after being identified, may be developed to a higher level of detail than other alternatives in order to facilitate the development of mitigation measures or concurrent compliance with other applicable laws if the lead agency determines that the development of such higher level of detail will not prevent the lead agency from making an impartial decision as to whether to accept another alternative which is being considered in the environmental review process.

The SEA alone should not have ruled on the adequacy of the range of alternatives selected for further review without seeking public and agency input. Will County has submitted that under the proposed action that per National Environmental Policy Act of 1969 as amended (NEPA) requirements that all alternatives be reviewed, yet there is not a detail analysis of each of the alternatives presented under the DEIS review. The only “hard look” was CN’s proposed application as discussed throughout the FEIS. Throughout the DEIS and FEIS the analysis utilized guidelines that are not the most stringent but ones that benefit the Applicants. SEA speaks of benefits where train traffic is to be moved from existing CN lines, yet there is no supporting documentation (qualitative or quantitative) to back such benefits. Alternatives for new alignments outside the populated areas were dismissed because of “more environmental impacts” but there is no analysis presented to support that statement. One potential alternative presented by Will County but not addressed in the FEIS related to the continued use of the existing CN lines in conjunction with the EJ&E:

1. Acquire the EJ&E but move only a portion of the railroad traffic from the existing CN line and EJ&E line to reduce impacts.
2. Provide alternatives for the locations of the double tract sections based upon impact analysis.

Splitting traffic meets the Purpose and Need of the project; and reduces impacts. There are no conditions that state if applicants move all traffic to the EJ&E line that they will not add other traffic to the current CN lines.

As such, the FEIS and DEIS did not offer a rigorous alternative analysis prior to selection of the proposed action, and, in fact, did not include detailed analysis of any reasonable alternative to the Proposed Action. The CEQ regulations require the evaluation of all or a reasonable number of alternatives that meet the Purpose and Need. The SEA failed to conduct an analysis of operational alternatives in combination with the Proposed Action.

2.3 The DEIS and FEIS did not include a review and analysis of the double tracking of the EJ&E line although this is reasonably foreseeable with the interest of Metra using the corridor for STAR Line commuter rail and the uncertainty of the operations of the rail line for freight traffic beyond the timeframe analyzed. To improve operation and to facilitate additional trains, it is reasonably foreseeable that the CN will double track the entire line. Maybe not by 2015, but by 2030 which is the regionally agreed to planning horizon year. The impacts of doing so need to be analyzed and disclosed. This should not be left to a third party i.e., Metra, since there is no other available corridor to support north-south suburban commuter rail and these impacts are cumulative.

2.4 Council on Environmental Quality (CEQ) states that "Mitigation includes: (a) Avoiding the impact altogether by not taking a certain action or parts of an action. (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment. (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action. (e) Compensating for the impact by replacing or providing substitute resources or environments." SEA states that “The Proposed Action would likely exacerbate these pre-existing conditions”, but does not provide adequate mitigation or adequate compensation for the

addition of delay in travel. Resolving the exacerbated conditions would create an additional burden of financial strain on Will County and its communities for the financial benefit of a private entity. CN train traffic is expected to reach full operations in a three (3) year timeframe. These conditions would not allow for communities to prepare for such impacts. There are no mentions of any government agencies accepting the traffic data presented within the DEIS or FEIS.

2.5 The Council on Environmental Quality NEPA Implementing Regulations [40 CFR 1508.25(a)]: “Connected actions . . . are closely related and therefore should be discussed in the same impact statement. Actions are connected if they: (i) Automatically trigger other actions which may require environmental impact statements. (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously. (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.” This statement reiterates many commenter’s concerns that the proposed action was not fully analyzed for all actions. The proposed action will have adverse impacts to travel patterns and community cohesion due to the impediments. Analysis which addresses parts of “larger actions” such as the CMAP 2030 planning horizon, would have allowed the STB and adjacent communities make an informed decision and/or agreement with applicants if it was informed of all adverse affects of the proposed actions as it relates to typical planning horizons. The Chicago Metropolitan Agency for Planning (CMAP) has questioned why 2030 volumes were not used considering that is the benchmark for all planning studies. CMAP is the region’s official Metropolitan Planning Organization and Class I Railroads are a member of CMAP’s Work Program Committee who is responsible for the development of the Regional Transportation Plan (RTP). The Preferred Alternative was assessed with 2015 interpolated No Build traffic numbers with respect to highway volumes although the 2030 RTP is the currently adopted plan. In addition, no travel demand modeling was done to take into account the impediments caused by the increased train traffic. It would be reasonable to assume that trips will be altered to take advantage of existing or any newly proposed grade separations to avoid delays, even the possibility of delays. Therefore, although the Applicants used build volumes for increased trains, they failed to use build volumes for roadway traffic that would be redistributed by the proposed action.

2.6 The DEIS and FEIS fail to disclose indirect and cumulative impacts caused by the action. It would be reasonable to assume that the additional train traffic will result in changes to land use decisions which will alter the development patterns of the Will County communities. As one of the fastest growing counties in the county, this may result in less residential development along the EJ&E line and create some hop-scotch development of residential subdivisions thereby exasperating urban sprawl. Only if the rail line were to become a commuter line to be more conducive to residential land uses would this likely not occur. Although this may be speculative, there is no thorough review of secondary or cumulative impacts disclosed in the DEIS or FEIS. If the commuter line were to occur as planned by Metra, then the impacts of double tracking the entire line from Plainfield north to the Will County line and beyond need to be disclosed.

3.0 FEIS Analysis

The following section is organized to provide Will County with summaries of the comment response section (Chapter 3) of the FEIS, to review items that were originally listed as deficient in the DEIS and has not been fully addressed in the FEIS, to review items that have flaws, are deficient, and/or have not been fully addressed in the FEIS, and identify the weakest arguments in the in the FEIS. The summary of the sections are as follows; Transportation Systems, Proposed Action and Alternatives, Environmental Justice, Safety, Grade Crossing Delay, Rail Operations, Commuter Passenger Rail Service, Emergency Vehicle Delay, Land Use, Air Quality and Climate, Noise and Vibration, Biological Resources, Water Resources/Wetlands, Hazardous Waste, and Indirect (Secondary) and Cumulative Effects.

3.1 Transportation Systems

United State Department of Transportation (USDOT) states that EJ&E trains are not responsible for all traffic congestion at rail crossings and that both the Applicants and affected communities should fund remedial measures. SEA states that *“existing vehicle traffic congestion is a factor in overall vehicle delays and congestion at highway/rail at-grade crossings along the EJ&E rail line, and SEA has taken that into account in developing its final recommended mitigation, where appropriate (as for the recommended grade separations).”* SEA’s final mitigation would require mitigation costs to be shared. But, there is no mention of the specifics of what mitigation is to be shared and at what cost. *SEA’s final mitigation conditions require that the Applicants would provide funds when they implement the mitigation or at the appropriate point in the process where it is clear that mitigation that involves other entities would be implemented.* What is an appropriate point and who determines this to be appropriate? Crossing surfaces should have been analyzed according to Illinois Department of Transportation Bureau of Local Roads (IDOT BLR) standard 40-1.02(c).

SEA states that, *“The highway/rail crossing of 116th Street does not include automatic gates and the Applicants recognized this and have included within their Safety Integration Plan (SIP) a commitment to add gates to this crossing as part of the track construction. Should the Board approve the Proposed Action, commitments made within the SIP would be mandated.”* How much money is allocated to this and if this is the case who oversees the commitment is followed through on?

“SEA considered 2015 vehicular traffic volumes to be appropriate for consideration of impacts under the Proposed Action. This methodology was discussed in Chapter 4 of the Draft EIS. The year 2015 was deemed to be appropriate due to the lack of reliable forecasts beyond that date for train traffic, and the shorter timeframe was consistent with past actions before the Board.” Forecasts out to 2015 vehicular traffic is the same as projecting out to any other foreseeable date, hence future conditions beyond 2015 should have been evaluated as indirect impact due to the incremental cost that are burdened to the affected communities. In section 3.4.9.6 SEA notes that population of Will County is projected to increase by more than 100 percent by 2030 (data provided to SEA in DEIS review), so this statement reiterates the fact that the traffic analyzed should have been analyzed on a further horizon to help truly determine the cumulative effects on the environment. Thus, the impacts associated with noise, air quality, travel delay, emergency services, and land use are understated. SEA believes that a shorter horizon for

analysis of impacts is appropriate; however, ignoring available data that provide reasonably foreseeable impacts reduces the validity of the impact analysis. The future impacts associated with growth in the Will County area would provide additional information regarding the true environmental cost of the Proposed Action. As these future conditions are not included in the direct impact analysis, the FEIS understates the foreseeable impacts. CEQ states clearly that the EIS “shall provide a full and fair discussion of significant environmental impacts” (40CFR 1502.1); however, ignoring available information limits the ability of the decision-makers and the public to evaluate the true cost of the Proposed Action. There are no mentions if sight distances were checked at double tracking areas per IDOT BLR criteria (605 ILCS 5/9-112). Also, in the analysis the expected crash frequency should have analyzed according to IDOT’s BLR standards.

3.2 Proposed Action and Alternatives

The Alternative Analysis is incomplete as not all reasonable actions that would meet Purpose and Need and that would reduce avoid or minimize impacts were considered. As per NEPA the alternative analysis is the “heart of the environmental impact statement” and should evaluate all reasonable alternatives, including those not under the jurisdiction of the lead agency.

One potential alternative presented in our DEIS comments but not addressed in the FEIS related to the continued use of the existing CN lines in conjunction with the EJ&E:

- **Acquire the EJ&E but move only a portion of the railroad traffic from the existing CN line and EJ&E line to reduce impacts.**
- **Provide alternatives for the locations of the double tract sections based upon impact analysis.**

Splitting traffic meets the Purpose and Need of the project; and reduces impacts. See Page ES-6, Description of the Proposed Action – Connected Actions, Third Paragraph. Alternative – Did CN consider splitting number of trains on existing CN lines and EJ&E, thereby potentially alleviating need for double track. There are no conditions that state if applicants move all traffic to the EJ&E line that they will not add other traffic to the current CN lines.

The FEIS and DEIS did not offer a rigorous alternative analysis prior to selection of the proposed action, and, in fact, did not include detailed analysis of any reasonable alternative to the Proposed Action. The CEQ regulations require the evaluation of all or a reasonable number of alternatives that meet the Purpose and Need. The SEA failed to conduct an analysis of operational alternatives in combination with the Proposed Action. The proposed alternative of purchasing the EJ&E lines but limiting traffic on the EJ&E lines by splitting traffic between existing CN lines and EJ&E lines was presented in earlier comments but was not addressed in the FEIS, Chapter 3 Response to Comments. This alternative meets the stated Purpose and Need and should have been considered. This alternative could also have resulted in analysis of varying percentages of traffic splitting between the two (2) lines to reduce impacts to communities. Such an alternative reduces impacts and yet provides the benefits of the three (3) components identified in the Purpose and Need.

3.3 Environmental Justice

SEA recognized there was an error in the calculation of the environmental justice criteria. SEA revised the calculation of the percentage of the minority population in Will County from 46.5 to 32.6 percent. This value includes the 10 percent that is added to the minority percentage of the county as described in Section 3.7 of the Draft EIS. The revised environmental justice criteria are presented in Section 2.9 of this Final EIS. The change in the environmental justice criteria did not alter SEA's conclusion, presented in the Draft EIS, that minority and low-income populations do not experience disproportionate high and adverse effects from train noise, delays, and safety as a result of the Proposed Action. The low-income and minority environmental justice criteria calculated for each county accounted for the differences in the percentage of these populations among the counties included in the Study Area. The percentage of minority or low-income populations within each census block group was compared to the criteria for the county in which the census block group resides. The analysis included the entire Study Area to assess whether minority and low-income populations experience the impacts disproportionately compared to non-minority and low-income populations within the Study Area. In Sections 4.9 and 4.6 of the Draft EIS, SEA determined that the effects of the Proposed Action on air quality and property values would not be substantial. In response to concerns about localized air quality effects due to locomotive emissions, SEA performed additional air quality impact analysis for the preparation of this Final EIS. The additional analysis, described in detail in Section 2.8, shows that changes to local air quality would be minimal in comparison to National Ambient Air Quality Standards (NAAQS). SEA also performed additional analysis of the potential effects on property values; the results are presented Section 2.10 of this Final EIS. Therefore, SEA did not conduct an analysis of disproportionate high and adverse effects for air quality or property values on minority and low-income populations.

The following item was originally listed as deficient in the DEIS and has not been fully addressed in the FEIS.

Although the property value assessment was improved, there is no specific discussion related to the housing stock of minority and low income census blocks. Also, refer to Section 3.10 of this document as it refers to Air Quality and response to SEA's statement above.

The following two (2) items are deficient and have not been fully addressed in the FEIS.

1. Page ES- 12, Environmental Justice, 2nd paragraph, 4th sentence. The number of wells along the EJ&E rail line could have been described relative to the distance from the rail line, i. e. 200 feet, 200 to 500 feet, and so forth. To put in perspective how many wells exist along this corridor and could potentially be impacted as a result of a spill.
2. Page 2-70, Section 2.7.2.4 – “SEA also identified several rail segments with potential for a spill to affect private wells.” The number of private wells with the potential to be affected has not been disclosed. The analysis is incomplete regarding potential groundwater impacts. This should have been disclosed in the FEIS.

3.4 Safety

SEA determined that “13 facilities would be potentially substantially affected by the Proposed Action and would warrant mitigation. Section 4.3 of this Final EIS contains the recommended mitigation conditions that SEA believes will reduce the potential adverse effects on these 13 emergency service providers.” (From Table 4.4-1, only affected ESP in Will County is Plainfield Fire Protection District Station No. 3 at Highway/Rail At-Grade Crossings at 111th Street, 119th Street, and 127th Street) “Applicants shall not be responsible for the ongoing maintenance and operation of the CCTV system after the system is installed and operational.” Is there any evidence that installation of CCTV systems adequately address the fire districts response? It may make them aware that a train is present but delay is still an unaddressed issue.

SEA states that, “CN’s voluntary mitigation measures commit CN to provide fencing along the EJ&E ROW where schools or parks are within 0.25 mile of the EJ&E rail line, and to make Operation Lifesaver Programs available. The Final EIS contains that mitigation and additional mitigation that SEA recommends the Board impose should the Proposed Action. Also, SEA concludes that the Proposed Action would exacerbate the issue along those line segments that will see additional train traffic, but is unlikely to create conditions that do not already exist.” Who will provide Operation Program and why is this not expanded to the Federal Highway Administration’s (FHWA) Safe Routes to School recommended distances of potential walkers and bikers of 1-1.5 miles who could be affected by the proposed actions. The mitigation measure should have been expanded beyond the 0.25 radius and properly addressed FHWA’s recommended distances for children who walk and bike to school. Applicants also should have mentioned the Illinois Commerce Commission (ICC) recommended conditions of working with local enforcement through cooperative efforts such as the Commission’s Public Education and Enforcement Research Study (PEERS) and Manual on Uniform Traffic Control Devices (MUTCD) standards of railroad crossings.

SEA states that, “To promote pedestrian safety at the locations where CN would add additional tracks, CN has offered voluntary mitigation, and state law requires that they consult and work with agencies having jurisdiction over the configuration and type of warning devices at these crossings prior to construction. Prior to any construction, CN would be required to implement changes deemed appropriate and necessary to accommodate the proposed additional track(s).” How can a local agency work to get a mitigation effort over the warning devices if CN is left to decide what is appropriate and necessary. If they deem it necessary, who pays for the mitigation?

3.5 Grade Crossing Delay

Please refer to SEA’s statement on community cohesion and effects of traffic congestion on page 3.4-243, which states “To compensate for delays, residents may have to alter travel patterns or plan for additional time to reach some destinations.” SEA’s analysis states throughout the analysis that proximity of at-grade crossings to grade separations (i.e. 143rd or Main Street and Illinois Route 59) would alleviate some of the traffic concerns as alternate routes, yet it is not described on how traffic would be accounted for on these alternate routes. Were traffic signal or intersection modifications evaluated due to the proposed action effects on changed routes at intersection with grade separations due to change in traffic flow patterns? Mitigation such as interconnecting highway signals to the railroad signals or intelligent transportation systems should have been analyzed as another measure to improve with traffic

flow due to increase in vehicular delay. Highway Capacity Manual (HCM) assumes the random arrival nature of traffic; the primary findings in the evaluation indicate that HCM might not be applicable to the traffic signal phase calibration for signals near grade crossing. HCM misses impacts of systemic congestion such as; turn pocket overflows, downstream intersection blockages, and short lane adds/drops. HCM methodology was discussed as the level of service (LOS) determinations, but the methodology in HCM was not actually used. In addition, no volume to capacity calculations were provided for individual roadway segments as requested by commenter's in the FEIS. Were programs such as Synchro or VISSIM used to study railroad crossings?

SEA states that, *“the calculated average delay per delayed vehicle at the Harlem Avenue highway/rail at grade crossing is 1.5 minutes under the Proposed Action, approximately 24 seconds longer than the 1.1 minutes calculated under 2015 No-Action conditions. This means that, on average, any vehicle in the queue would experience an extra 24 seconds of delay as a direct result of the Proposed Action. Correspondingly, the average blocked vehicle wishing to access Aberdeen Road would have to wait an additional 24 seconds under the Proposed Action.”* The increase in delay is not addressed with any proposed mitigation, nor does it address the issues of having access blocked on Aberdeen Road.

3.6 Rail Operations

Double track alternatives not discussed adequately in the FEIS caused by potential reasonable and foreseeable action (STAR Line). The only discussion is documenting that future coordination will occur with Metra to investigate future uses. No analysis provided to document that existing single track will accommodate expanded commuter use.

SEA states that *“CN has proposed a voluntary mitigation measure that would obligate CN to operate under its U.S. Operating Rule No. 526, requiring that trains not block public crossings for more than 10 minutes unless the blockage cannot be avoided. If the blockage is likely to exceed 10 minutes, then the train shall be promptly cut (separated in two and opened across the highway/rail at-grade crossing) to clear the blocked crossing or crossings. CN has additionally committed to developing and submitting to SEA a report on the frequency and duration of train delays at crossings for the first 3 years of operational changes.”* The voluntary measure does not adequately address the issue due to SEA adding in *“unless blockage cannot be avoided”*, which means they could block the intersection whenever CN chooses to if they deem circumstances present dictate them to block the crossing. CN should be submitting reports to the STB not to SEA, as mentioned above, so that they may enforce if mitigation measures are not met.

SEA states that the *“CN has mapped out a 3-year implementation schedule that would slowly begin to divert trains onto the EJ&E rail line. The principal factor in their diversion schedule, in addition to the time it takes to secure the necessary permits and to construct the connections and double track sections, would be to develop the yard capacities and acceptable operations performance levels at East Joliet and Kirk yards. Until this is accomplished, CN would continue to use the BRC Clearing Yard to classify their trains. During this ramp up schedule, CN would learn the characteristics of the EJ&E rail line and adjust their operations accordingly.”* **The information provided shows that the CN does not even know what operations will be, so how can operations as presented be fully accurate and properly analyzed under the proposed action.**

3.7 Commuter Passenger Rail Service

SEA states that the “*Analysis of potential impacts on the STAR Line is also included in Chapter 2 of this Final EIS. SEA concluded that Metra service, including the STAR Line, can be accommodated under the Proposed Action. In addition, CN’s voluntary mitigation measures give priority to passenger trains at West Chicago and Barrington, and require the Applicants to work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line. However, the environmental effects associated with the implementation of Metra’s STAR Line are Metra’s responsibility and would be addressed when that project is advanced. SEA has conducted a more in-depth analysis of the potential effects that the Proposed Action would have on STAR Line implementation. The analysis included RTC modeling of the EJ&E rail line segments between Hoffman Estates and Joliet. SEA also performed a field visit to the EJ&E alignment to reconfirm its ability to physically accommodate the STAR Line, and found that, despite constraints in some segments, it is feasible to implement STAR Line. SEA acknowledges that the Proposed Action would increase the cost and difficulty of STAR Line implementation, but would not preclude it. Details of this analysis can be found in Chapter 2 and Appendix A of this Final EIS.*”

Cumulative Impact Discussion Deficiency – Discussion of reasonable and foreseeable alternatives and impacts. Future double tracking should have been analyzed to accommodate STAR Line. In the late 1990s, Metra proposed expansion of the North Central Service along the Wisconsin Central Line (now CN). To increase service and add additional trains, Wisconsin Central required that the entire line from the Schiller Park Yard to Wisconsin State line be double tracked to minimize disruptions to freight and commuter service. Metra was required to double track the system and go through the NEPA process, with limited alternatives. The SEA states that the existing EJ&E trackage should be sufficient to meet existing freight goals. But if 20 – 40 commuter trains are added to the daily freight traffic, which is reasonably foreseeable, it is unlikely that a single track can accommodate all train traffic. If the CN traffic on their existing lines forced Metra to double track to minimize disruptions, then the same CN traffic routed to the EJ&E will most likely force double track installation along the EJ&E to accommodate commuter service when the same freight traffic is moved to the EJ&E. If freight traffic must hold around the rush hour commuter trains, this may force more midday and overnight freight train scheduling.

3.8 Emergency Vehicular Delay

SEA states that, “*The Applicants have stated in their Voluntary Mitigation measures that they will 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 period of time. Additionally, the Applicants shall work with affected communities to minimize emergency vehicle delays by 1) maintaining facilities for emergency communication with local emergency response centers through a dedicated toll-free telephone number; and 2) providing, upon request, dispatching monitors that allow emergency response center dispatching personnel to see real-time train locations.*” These voluntary measures may help the communities become aware of the trains present, but fails to adequately address the way an emergency service vehicle would be able to respond to an emergency. The following five items were originally listed as deficient in the DEIS and have not been fully addressed in the FEIS.

1. The SEA developed a methodology to assess community impacts based upon facility proximity, calculated delay times, and alternative routes. A key calculation is the “average” delay time based on 2015 vehicular traffic volumes. The vehicle delay time is understated because “average” delays were calculated using a 2.0 multiplier to account for peak conditions rather than estimating “peak” hour traffic vehicle delays from a more conservative approach, such as 10% of the average daily traffic (ADT). By understating the delay times, communities may have been deleted in the screening process rather than receiving full consideration and the impact measured as vehicle delay is understated. 2015 traffic volumes have not been updated in the FEIS.
2. Vehicle delay time estimation should have considered 2030 traffic patterns in assessing emergency facility impacts. Without examination of 2030 vehicle delay times the impacts are understated for communities in Will County. This county is one of the fastest growing areas in the United States and such readily available information should be included in the DEIS analysis. 2015 traffic volumes have not been updated in the FEIS.
3. Mitigation options proposed do not identify how much the projected vehicle delay time will be reduced as a result of these proposals. The FEIS does not identify how much projected vehicle delay time will be reduced. Thus, communities may be required to find alternative methods to assure the public is adequately served during emergencies. They would still face delays and the proposed action would likely exacerbate the current delays.
4. The SEA acknowledges that there are emergency services facilities, such as the Plainfield and Joliet Fire Departments, that will experience potentially substantial impacts in serving their districts; however, the mitigation for these impacts is left undefined in the FEIS except for real-time video monitoring proposed for the Plainfield Fire Department and reference to a negotiated agreement with the City of Joliet.
5. SEA does not disclose costs to the communities incurred by emergency response delays in FEIS.

3.9 Land Use

SEA states that, *“As noted in Section 3.5.2.4 of the Draft EIS, as regional growth continues to spread through Will County, rural areas, particularly those near small towns like New Lenox, will be under increasing development pressure. Therefore, SEA determined in Section 4.5 of the Draft EIS that the Proposed Action would not directly affect development or development trends. In addition, land use patterns have been established through zoning and land use plans; the increased train traffic along the EJ&E rail line would not change zoning codes or land use plans that are the basis for growth and development.”* Land use plans and comprehensive plans are not set documents but guiding documents and could change based on the proposed action and the communities or property owners’ needs. The change of such zoning due to the proposed action should have been considered in the indirect effects or documented the community’s opinion on the zoning or comprehensive plans effects. The United States Department of Housing and Urban Development (HUD) is the only agency with an existing standard for a residential noise environment. As a qualifying condition for funding proposed housing developments, HUD defines what level of ambient noise at a proposed location is

acceptable for residential land use. In the HUD Standards, Ldn below 65 dBA is considered "Acceptable," Ldn above 75 dBA is "Unacceptable," with ambient levels between Ldn 65 dBA and 75 dBA categorized as "Normally Unacceptable." The Normally Unacceptable rating does not disqualify a site from receiving HUD funds; rather, the development planned in such an area must incorporate suitable mitigation measures to provide a satisfactory interior environment. The following two (2) items were originally listed as deficient in the DEIS and have not been fully addressed in the FEIS:

1. There does not appear to be any discussion of changes in local character or land use regarding the impact of increased train traffic volumes as barriers to future development in the FEIS. The future land uses in Will County incorporate many planned residential areas. There is no discussion of the effects increased train volumes would have on these future uses in the direct or indirect and cumulative impact analysis in the FEIS.
2. Will County represents an area of rapidly changing land use; however, no further information is provided regarding the acres of farmland planned for conversion adjacent to the tracks or proposed land use in 2015 in the FEIS.

3.10 Air Quality and Climate

SEA states that, *"In response to concerns about localized air quality effects due to locomotive emissions, SEA performed additional air quality impact analysis for the preparation of this Final EIS. The additional analysis, described in detail in Section 2.8, shows that changes to local air quality would be minimal in comparison to National Ambient Air Quality Standards (NAAQS). As a result, SEA did not conduct an analysis of disproportionate adverse air quality effects on minority and low-income populations."* The "minimal" comparison should have been studied so that an accurate determination could be determined.

SEA states that, *"With respect to rail yards such as East Joliet Yard and Kirk Yard, SEA includes a qualitative discussion based on over 20 health risk analyses for rail yards published in the past 2 years by the California Air Resources Board."* SEA analysis of only one referenced publication of health risk in rail yards does not provide enough detail and consideration under NEPA requirements.

The following four items were originally listed as deficient in the DEIS and have not been fully addressed in the FEIS:

1. The air quality analysis did not utilize the 2030 traffic volumes readily available from Will County to assess impacts in Will County.
2. The FEIS did not address the cumulative risks inherent in exposure to the four (4) carcinogens. No discussion or justification was provided of the risk level used to assess the health effects of carcinogenic air pollutants. A risk level of 1 in 10,000 is the highest acceptable risk level allowed by USEPA; however, no justification is provided for this risk level. In other programs, a risk level of 1 in 1,000,000 is typically used to assess potential health effects and the risk level may be adjusted due to site specific conditions. Without consideration of the more conservative risk level, the health effects are understated for the carcinogenic air pollutants. In addition, the target organs are the same for three (3) of the carcinogens and the risks of exposure are therefore additive for

these pollutants. The air quality analysis, therefore, understates the potential health risks associated with carcinogenic pollutants.

3. Air quality at the two Will County crossings of Woodruff and Washington did not receive any further consideration from SEA in the FEIS.
4. Acrolein was identified as a Mobile Air Toxic for which the RfC was exceeded at Ogden, Washington, and Woodruff intersections. The FEIS did not further analyze the risk assessment.

3.11 Noise and Vibration

SEA states that “*Chapter 2 of this Final EIS clarifies the criteria for determining reasonability and feasibility, and contains an expanded discussion of noise and vibration at historic structures. SEA’s environmental regulations consider noise-sensitive receptors equally. This includes schools, nursing homes, historic properties, and hospitals. Therefore, SEA does not single them out in the Study Area. The noise contours shown in Appendix L of the Draft EIS represent wayside noise, locomotive horn noise (at public grade crossings), wheel squeal on the connections, special trackwork that was known at the time of the analysis, and rail yard noise. Chapter 2 of this Final EIS presents a more detailed discussion of SEA’s revised assessment of wheel squeal on sections of curved track in the project area. SEA’s assessment of noise from moving trains in East Joliet Yard divided the total traffic equally among several rail lines within the yard. Appendix L of the Draft EIS shows the noise contours associated with this assessment.*” Federal Railroad Administration (FRA) states that, “Excessive noise has the potential to disrupt routine activities, which can affect the overall quality of life, especially in residential areas. Wayside horns are positioned to direct the sound precisely down the intersecting roadways rather than along the track, which could understate the noise analysis.

The following five (5) items were originally listed as deficient in the DEIS and have not been fully addressed in the FEIS:

1. Affected receptors are shown at a scale that only depicts where concentrated areas of impacted receptors are. Indication of where sensitive receptors, such as school, nursing homes, historic properties, and hospitals is necessary to evaluate impacts and determine if noise abatement is reasonable and feasible.
2. The reasonable and feasible criteria for evaluating the effectiveness of noise walls have not been clarified in the FEIS. Without this information, the noise analysis is insufficient.
3. The analysis used the 2015 vehicular traffic volumes with the projected 2015 train volumes. As stated in earlier comments, the 2030 vehicular traffic projections are readily available and should be used to determine the risk levels for the existing quiet zones to see if the crossing would still qualify as a quiet zone.
4. There are additional at-grade crossings that are not within an existing quiet zone; however, the local entity might be considering a crossing with sensitive receptors nearby for a quiet zone. The increase in train traffic will increase the risk level for the crossing and consequently increase the cost of upgrading the crossing to meet the quiet

zone requirements. The indirect impact of that incremental cost should be considered but has not been addressed in the FEIS.

5. The issue of mitigation for noise impacts has not been adequately addressed. All that is stated is that noise walls, berms, and vegetation are all options that can be considered, if warranted, under SEA's final recommended mitigation. Vegetation unless it is fully mature and dense (over 100 ft wide) will not reduce noise levels and should not be included as a noise abatement option.

The following three items are deficient and have not been fully addressed in the FEIS:

1. Page 3.4-285, Section 3.4.12.1, Response #1. "*less than 65 decibels*" Several receptors would experience an Ldn of 70 dBA or greater which would be considered an adverse affect. This response understates the noise impacts.
2. Page 3.4-290, 2nd Response. The noise metric of Ldn would typically be used for residences and buildings where people normally sleep. Typically, Leq would be used for institutional land uses with primarily daytime and evening use such as parks, schools, libraries, and churches. The FEIS only used the Ldn descriptor and therefore has not evaluated certain land uses correctly.
3. Page 3.4-291 and 3.4-303, Response #1 and Page 3.4-403, 3rd Response, 2nd paragraph. In Chapter 2, there does not appear to be clarification of the criteria used for determining reasonability and feasibility for noise abatement evaluations.

3.12 Biological Resource

Lake Renwick Heron Rookery Nature Preserve is "By far," notes the Illinois Audubon Society, "the most valuable rookery in all of Illinois...a site of outstanding statewide significance." The mitigation that is proposed by the FEIS states that *Mitigation measures have been developed in Chapter 4 that include best management practices and appointment of a liaison that would allow Federal, state, and local natural resource stakeholders to interact with CN to complete various adaptive management measures and monitoring. Once monitoring is completed, the Applicants' liaison and natural resource stakeholders can develop and implement appropriate site-specific measures to mitigate potential effects.* The response lack the details in who will pay for the stakeholders to interact with CN and complete the various management and monitoring measures, nor does it state implications if CN does have effects on this area.

SEA states that, "*Based on the definition of "indirect effects" and the data available, SEA does not consider indirect effects on biological resources from the Proposed Action to be "reasonably foreseeable."* Reasonably foreseeable is a not a scientific explanation when there are direct and indirect effects on the understudied biological data, thus mitigation should have been provided once the Applicant's Operating Plan was fully implemented.

SEA states that, "*Under the Proposed Action, the only new structures to be built in Will County are double tracks and the Joliet Connection; no other modifications will be required to tracks through Will County. As such, there are no additional culverts or other structures that can be dammed by beavers. The construction of new double track and Joliet Connection in wetland areas would be required to comply with local, state, and Federal regulations. Chapter 4 of this*

Final EIS details SEA's recommended conditions for the Applicants to coordinate with natural resource stakeholders to identify habitat improvements away from the EJ&E ROW to off-set potential effects on wildlife inhabiting areas in proximity to the ROW." Mitigation can not be coordinated if specific detail is not provided.

SEA states "The development of a liaison would allow Federal, state, and local natural resource agencies to interact with the Applicants to complete various adaptive management measures along the EJ&E ROW if appropriate. In addition, the Applicants would either conduct or supply financial support for pre- and post- construction monitoring to evaluate and document potential effects and subsequent effects of the Proposed Action. Once monitoring is completed, the liaison and natural resource agencies would develop and implement appropriate site-specific mitigation measures. Finally, SEA is recommending that the Applicants continue consultation with state water and natural resource stakeholders on protected species issues." Who deems the mitigation as appropriate, if the applicants are left to negotiate as whether conduct or supply financial support to unspecified detail as required by CEQ regulations?

The following four (4) items were originally listed as deficient in the DEIS and have not been fully addressed in the FEIS:

1. It is impossible to assess potential impacts from the proposed action when it is unknown what species may be present along the sections of new construction. The reliance on conducting future surveys at a later date makes a comparison of alternatives impossible as well as identifying impacts, avoidance, minimization and mitigation strategies.
2. There is limited investigation of prairies to areas near roadways. More information is needed to accurately determine the potential impacts to prairies. Therefore, the analysis is incomplete.
3. There will be a reduction in forage and cover areas for wildlife. The FEIS needs to identify potential size of the reduction of habitat and whether there is sufficient habitat nearby that can be utilized by displaced wildlife. There will be increases in competition for the remaining habitat and an anticipated decline in wildlife numbers.
4. The DEIS discussion on plant species in areas is incomplete as no detailed surveys were completed. Only limited high rails were conducted as stated in the FEIS but this item is still not adequately addressed.

The following items are deficient and have not been fully addressed in the FEIS:

1. Table 3.5-3. Does not include Paul Ale Line – Lockport Prairie Nature Preserve.
2. Page 3.4-331, 1st Response. No alternative location presented to avoid wetland impacts related to new construction.
3. Page 3.4-331, 2nd Response, 2nd paragraph. The response regarding wetland quality information is incomplete precluding the appropriate evaluation of this resource.

4. Page 3.4-321, 2nd paragraph. Additional details are needed regarding CN train noise and timing of trains to assess this response. Timing is important; scattering 40 trains over 24 hours may not allow the required consecutive hours of rest a species may need.
5. Page 3.4-336, Response, 2nd & 3rd paragraph. If area heavily infested with exotics, why will these species be allowed to propagate as stated in the FEIS?

6. Appendix A – Technical Information A9 – Biological Resources

- a. Page 2, Candidate, Proposed and Sensitive, and Species of Concern. Biological Report should address all species, not just federal. This was formatted as a Biological Assessment typically prepared as part of SECTION 7 consultation with USFWS. This assumes that impacts are occurring. If this is a biological report for a NEPA document, then all biological resources should be discussed.
- b. Page 3, 4th bullet. There will continue to be impacts to HED and should be reported. Actions will not change on Paul Ales line, therefore impacts occur.
- c. Page 30, Eastern Prairie Fringed Orchid. SURVEYS will be conducted during the right time frame for plant identification; however, if approval occurs, then the irretrievable commitment of resources will be expended before the presence is known; and it may be too late to properly mitigate impacts if the species is found.

3.13 Water Resources/Wetlands

The following four items were originally listed as deficient in the DEIS and have not been fully addressed in the FEIS.

1. The DEIS stated that “*The Applicants may revise the construction limits after they have finalized the design of the double track.*” If this is the case, the new potential limits of construction need to be included in the assessment of affected environment and potential impacts. Depending on the changes on the construction areas, significant impacts could occur that would not be documented here. If alternative construction limits are already contemplated, these alternatives should be presented and impacts evaluated. This has not been adequately addressed in the FEIS.
2. The FEIS should identify additional impervious areas for new construction. Also, the FEIS indicates that natural resource areas or water supplies could be affected. The effects should be quantified instead of a general blanket statement.
3. The FEIS and DEIS indicate that delineations will be completed later, relying only on published maps. Wetland impacts and future mitigation cannot be addressed when delineations are not performed and no information on wetland quality is provided. Preparers did not use available NRCS wetland mapping.
4. Based on map resources, project will impact approximately seven acres of wetlands for connections and another nine acres for double track. A total of 16 acres of wetlands

could be impacted. No discussion is provided of ways to mitigate impacts, quality of wetland resources, avoidance, minimization measures, or alternatives to minimize wetland impacts. Not enough information has been provided to adequately assess wetlands impacts. The FEIS remains deficient in the natural resources analysis.

3.14 Hazardous Materials

The following item was originally listed as deficient in the DEIS and have not been fully addressed in the FEIS:

1. The FEIS does address local portions of rail lines where there is a greater concentration of hazardous materials shipments; however, it does not evaluate populations in these specific segments.

3.15 Indirect and Cumulative Effects

The following three items were originally listed as deficient in the DEIS and have not been fully addressed in the FEIS:

1. Additional analysis regarding property values has been completed. Barrington and Matteson were evaluated in more detail; however, a municipality in Will County should have also been included as Barrington represents Lake County and Matteson represents Cook County.
2. There is no estimate of the magnitude of impacts upon development plans in the corridor; no specific areas of the corridor are evaluated. Will County is the segment of the corridor where land use is changing rapidly. There is no analysis of specific areas where development could be adversely impacted in the FEIS.
3. Indirect effects that have not been included in the FEIS are grade separation projects within the adversely affected communities. These grade separations will have an economic cost, land use impacts, socio-economic impacts, and potential natural resource impacts. Evaluation of these indirect effects, the impacts and costs to communities are not fully disclosed in the FEIS.

4.0 STB Comments in Final Hearing

There are many comments that were provided by communities from the DEIS, mainly which are opposing the acquisition which were not addressed in the FEIS. NEPA requires the Board to not only evaluate scenarios but also those reasonably foreseeable to occur. The Board in the Record of Decision made comments which suggested they were not fully comfortable with their decisions, but still agreed to vote in favor. Statements by Vice Chairman Mulvey such as; *“I would have preferred that the Board require additional and more stringent mitigations. Specifically, I would have preferred an approach that closely tied increasing levels of mitigation at applicants’ expense to increasing levels of rail traffic, above the projections used in our analysis of this case. I will carefully scrutinize any divergence from applicants’ projections – both on rail and vehicular traffic – in future oversight proceedings.”* Why should these be on future oversight proceedings, this does not help with municipalities and how they will be affected by this transaction. This is a failure in the Board to adhere to NEPA and take a “hard-look” at potential impacts if they still want to carry this on in future proceedings. If additional measures are needed, does the Board have authority to impose additional mitigation measures beyond five (5) years? Also, with statements by Commissioner Buttrey such as; *“I do not feel that the mitigation conditions outlined in the Final EIS will be enough.”* *“Furthermore, the anticipated amelioration of some of that existing inner city congestion is the only basis for the Final EIS’s conclusion that there are benefits sufficient to offset the high environmental impacts expected for the communities along the existing EJE lines, including several environmentally pristine nature preserves.”* *“I also would have required applicants to reach a mutually-acceptable mitigation agreement with every impacted community along the EJE lines before rail volumes could be increased above pre-transaction levels. I commend CN for having reached agreements with many of the impacted communities.”* *“No one is in a better position to determine what mitigation measures are needed and appropriate than the affected community itself. In my view, this Board should not presume to know better than the affected communities what mitigation will be required in the public interest. If this transaction truly has as many potential benefits as applicants claim, then I believe that national, state and local officials would have every incentive to help CN and the affected communities along the EJE reach reasonable compromises in a timely fashion, so that the overall benefits of this transaction could be achieved.”* *This transaction is an effort by CN to address its own problems in moving traffic through Chicago. While I see the benefits to CN’s rail operations, I believe that it is unfortunate that this transaction does not address Chicago’s insufficient rail infrastructure on a more comprehensive basis. I also fear that it could inhibit future much-needed regional commuter rail options including the proposed STAR Line service. For all of these reasons, I would have required CN to do more to assure the benefits and ameliorate the impacts, as conditions of the Board’s approval of this transaction.”* Per NEPA, some of the alternatives mentioned by Commissioner Buttrey show the deficiencies in the process and failure in taking a “hard-look” at all alternatives and benefits of the proposed actions. All alternatives were not analyzed, as many commenter’s presented in the DEIS and in the FEIS were discounted as the only alternatives derived were to meet the needs of the CN.

5.0 Summary of Mitigation Applicable to Will County

The following is a list of the mitigation requirements applicable to Will County and general mitigation requirements that apply throughout the project limits:

Will County Requirements

1. Transportation Systems (VM 27): Joliet Fire Protection District Emergency Response – Mitigation under negotiated agreement (not included so unsure as to what type of mitigation this is).
2. Transportation Systems (VM 27): Woodruff Road & Washington Street at-grade crossings in Joliet – mitigated under negotiated agreement.
3. Regional and Local Highway Systems (18): Plainfield-Naperville Road at-grade crossings – traffic advisory signs.
4. Emergency Response (21): Plainfield Fire Protection District Emergency Response – Real-time video monitoring at selected locations.
5. Water Resources (61): Comply with the reasonable requirements of the Will County, Illinois Stormwater Management Ordinance for all transaction-related construction activities in Will County (Not sure how “reasonable” is defined).

General Requirements

1. Safety (VM 10): Cooperate with schools and parks within 0.25 mile of the EJ&E rail line to provide fencing along the ROW within six (6) months,
2. Hazardous Materials Transport (VM 21): 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,
3. Hazardous Materials Transport (VM 22): Provide, upon request, hazardous materials training for communities,
4. Hazardous Materials Transport (VM 23): Develop internal emergency response plans to allow for agencies to be notified in an emergency, and to locate and inventory the appropriate emergency equipment,
5. Hazardous Materials Transport (VM 24): Provide dedicated toll-free telephone number to the emergency response organizations or coordinating bodies responsible for communities located along the EJ&E rail line,
6. Hazardous Materials Transport (VM 26): Develop a spill prevention plan for petroleum products or other hazardous materials during construction activities,
7. Transportation Systems (VM 43): Make Operation Lifesaver programs available to communities, schools, and other organizations located along the affected segments,
8. Land Use (VM 49): Survey all suitable habitats prior to construction that may be potentially impacted by the construction activity for Federally- and state-listed threatened or endangered plant species. If any are listed, will implement a mitigation plan,
9. Land Use (VM 52): Identify suitable habitat for Franklin’s ground squirrel within construction limits,
10. Land Use (VM 58): Limit ground disturbance to only the areas necessary for construction activities,

11. Air Quality (VM 75): Implement appropriate fugitive dust suppression controls and also regularly operate water trucks on haul roads to reduce dust,
12. Noise and Vibration (VM 77): 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,
13. Biological Resources (VM 85): Implement appropriate measures prior to and during construction to reduce or eliminate impacts on the Hines Emerald Dragonfly, if observed,
14. Water Resources (VM 89): Where there is a potential for a railroad drainage ditch to influence wetland hydrology, construct low permeability clay berms,
15. Water Resources (VM 91): Maintain drainage ditches as permanent vegetated swales to provide storm water retention and treatment. Removal of accumulated sediments will be conducted only as necessary to maintain storm water retention capacity and function,
16. Water Resources (VM 93): Establish staging and lay down areas for construction material and equipment at least 300 feet from jurisdictional waters of the United States and in areas that are not environmentally sensitive. Not clear any vegetation between the staging area and the waterway or wetlands,
17. Supplemental Voluntary Mitigation Measures (VM 103): Participate in the development of a Habitat Conservation Plan for the Hine's emerald dragonfly,
18. Supplemental Voluntary Mitigation Measures (VM 107): Designate EJ&E owned areas of prime prairie and dune swale habitat for potential land use management agreement or conservation easement; and
19. Noise and Vibration (29): Upon request, consult with communities affected by wheel squeal and how this can be mitigated.

General Rail Requirements

1. Air Quality (VM 73): Accelerate implementation of EPA locomotive emissions reduction efforts by installing idling control systems on their switching locomotives and accelerate replacement of switching locomotives that are excluded from EPA emission standards,
2. Air Quality (VM 74): To the extent reasonably practicable, adopt efficient fuel saving practices,
3. Noise and Vibration (VM 80): 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,
4. Noise and Vibration (VM 80): Inspect rail car wheels to maintain wheels in good working order and minimize the development of wheel flats,
5. Noise and Vibration (VM 80): Inspect new and existing rail for rough surfaces, and where appropriate, grinding these surfaces to provide a smooth rail surface during operations,
6. Noise and Vibration (VM 80): Regularly maintain locomotives, and keep mufflers in good working order; and
7. Noise and Vibration (VM 80): Remove or consolidate switches determined to no longer be needed.

A significant number of the proposed mitigation measures are best management practices that are required by law. These so called mitigation measures are very general and vague and do not appear to be real mitigation measures.

6.0 Conclusion

The DEIS and ROD fail to fully disclose the impacts to the natural and human environment. The Proposed Action has a disproportional level of impacts on Will County and that issue is ignored based on the presumption that there will be overall regional benefits; however, those benefits (which are subjective and not quantifiable) may be short-lived as excess rail capacity on the existing CN line may be filled. The proposed action has significant impacts on the residents and businesses in Will County. Travel will be hampered by train disruptions which are estimated to be far more severe than predicted. The resultant impact will be increased fuel usage to highway users and delays in travel that have both a cost implication regarding lost productivity and a social impact regarding the degradation on one's quality of life.

The STB's ROD leaves the bulk of the mitigation for the public to fund for the sole benefit of a private business. With the increased efficiency claimed by the CN, a savings will be realized and the business will be more profitable. A large percentage of those proceeds should be put back into the public infrastructure to make the County "whole". Although travel may be affected on localized level, improvements to facilitate regional travel needs to be implemented to have a zero net effect and provide local rerouting options. All of the information presented above should have been analyzed in the FEIS prior to the ROD being rendered.

Deficiencies of the DEIS and FEIS based on insufficient disclosure and a lack of environmental analysis have been noted. At this juncture, the best means to challenge the STB's ROD is to challenge the fundamentals under which NEPA operates i.e., subsequent guidance and rules of compliance. The project's Purpose and Need is too narrowly defined and the Range of Alternatives is woefully inadequate. The SEA and its Applicants failed to engage key stakeholders i.e., communities and federal and state agencies in the development of the Purpose and Need and acceptance of the range of alternatives to move forward in the DEIS and FEIS. Although the SEA and Applicants will argue that extensive public involvement was done, it was not done in a manner to engage the public in accordance with the provisions of Section 6002 of SAFETEA-LU. The public involvement was merely a venue for the public reaction and not collaboration.

7.0 Appendix (Mitigation in Will County for Reference)

On November 13, 2008, the Applicants submitted supplementary mitigation measures to address concerns raised by the U.S. Department of the Interior related to potential effects on biological resources. SEA made clarifications to the Applicants' voluntary mitigation and recommends that all of the Applicants' voluntary mitigation be imposed should the Proposed Action be approved. **The voluntary mitigation numbers listed below differ from the DEIS, in that some measures have been added and renumbered. Listed below are the voluntary mitigation that have been added or modified from the DEIS.**

7.1 SEA's Process in Developing Final Conditions

7.1.1 Rail Operations

SEA concluded that there would be no substantial adverse effects on rail operations attributable to the Proposed Action if recommended mitigation measures are implemented. In addition to the Applicants' voluntary measures (see Section 4.3) and/or as supplements to them, SEA recommends its final additional conditions related to rail operations in Section 4.4, based on the Draft EIS analysis, public input, and further analysis as described in Chapter 2, Revised Information.

The Applicants propose voluntary measure (VM) 35, which states that they shall operate trains in accordance with U.S. Operating Rule No. 526 (Public Crossings). This provides in part that a public crossing must not be blocked longer than 10 minutes unless it cannot be avoided, and if the blockage would be likely to exceed this time, then the train shall be promptly cut (separated in two and opened across the highway/rail at-grade crossing) to clear the blocked crossing or crossings. Additionally, the Applicants propose VM 36, which states that the Applicants shall develop and submit to SEA a report on frequency and duration of train delay at crossings for a period covering the first 3 years of operational changes. SEA recommends Conditions 2 and 3 (in Section 4.4) to enhance the Applicants' commitment to prevent or reduce blocked highway/rail at-grade crossings. In response to Metra's concerns, SEA recommends mitigation in addition to VM 40 regarding the pedestrian tunnel and Front Street access at the Metra train station in Matteson, Illinois (see Condition 42).

7.1.2 Rail Safety

Safety Integration Plan

Pursuant to the Board's regulations at 49 CFR 1106, the Applicants prepared a Safety Integration Plan (SIP) that specifically addresses the process the Applicants propose to safely integrate the two rail systems. The Applicants filed the SIP with the Board on December 28, 2007, and submitted the SIP to the Federal Railroad Administration (FRA) for review (Applicants 2007b). On June 27, 2008, the Applicants submitted a revised version of their SIP addressing certain points raised by FRA. The Draft EIS provided the Applicants' SIP in Appendix D. SEA has independently reviewed both versions of the SIP. On September 12, 2008, FRA found that the Applicants' SIP satisfactorily addresses requirements under 49 CFR 244.13 (FRA 2008). Consistent with the Board's practice, if the Proposed Action is approved,

SEA recommends the Board impose conditions requiring the Applicants to comply with the terms of the SIP (which may continue to be modified) until FRA advises the Board that this Transaction has been safely implemented (see Conditions 4 and 5).

Freight Rail Safety

SEA determined that under the Proposed Action, the potential for accidents involving railroad equipment on the CN rail lines would decrease and the potential for accidents on the EJ&E rail line would increase, although the predicted number of additional accidents would be small, less than one additional accident per year. Although the Applicants did not specify any voluntary mitigation under the heading "Freight Rail Safety," many voluntary mitigations would improve freight rail safety on the EJ&E rail line (such as VM 32). In these circumstances, SEA recommends only mitigation, Conditions 6 and 43, to further address freight rail safety.

7.1.3 Vehicle Safety

High Accident Frequencies

Should the Proposed Action be approved and implemented, three highway/rail at-grade crossings would see an increase in predicted accidents that exceeds the threshold used by SEA in prior proceedings as a measure of high incidence of predicted accidents (more than one every seven years). The highway/rail at-grade crossings are:

- Woodruff Road, Joliet, Illinois, milepost (MP) 0.82, Segment EJE-8, U.S. Department of Transportation (USDOT) #260597M

However, as discussed in more detail below, the Applicants agreed to mitigation at Woodruff Road as part of the negotiated agreement between the City of Joliet and the Applicants (Applicants and City of Joliet 2008). Therefore, SEA does not recommend additional mitigation for Woodruff Road.

Vehicle Exposure

Should the Proposed Action be approved and implemented, three highway/rail at-grade crossings would see a substantial increase in the number of highway vehicles that would be exposed to freight trains (a unitless number called exposure, or the number of trains per day multiplied by the number of vehicles per day). At two locations, exposure would exceed 1 million, which is a threshold identified by the Federal Highway Administration (FHWA) at which construction of a grade separation should be considered. A third highway/rail at-grade crossing would have a substantial increase in exposure to nearly 1 million. SEA found that exposure would exceed 1 million at the following locations:

Industry Tracks

During a stakeholder meeting on October 8, 2008, the Illinois Commerce Commission (ICC) raised a concern regarding highway/rail at-grade crossings at industry tracks adjacent to the EJ&E rail line (HDR 2008a). According to ICC, in some locations along the EJ&E rail line, the highway/rail at grade crossing at the industry tracks adjacent to main tracks that cross the same roadway at-grade is protected with a different system of warning devices (that is, passive signs, flashers, or gates). ICC further noted that the selection of the warning devices for the industry track may have been based on the time of day that EJ&E proposed to provide service to the industries. ICC's concern is that if the Applicants change the typical time of service to those industries, the potential exists for vehicles to be trapped between these crossings and the queuing distance may be insufficient.

7.1.4 Passenger Rail Safety

SEA concluded that there would be no substantial adverse effects on passenger rail safety attributable to the Proposed Action if its final recommended mitigation measures are implemented. In addition, the Applicants propose VM 39, assuring continued discussion and cooperation with Metra on development of the proposed STAR Line, including possible use of the EJ&E rail line, and VM 40, assuring continued access to the pedestrian tunnel between the Metra Park-n-Ride lot and the Metra Matteson train station. In SEA's view, the voluntary mitigation would be adequate to address the potential passenger rail safety issues resulting from the Proposed Action.

7.1.5 Hazardous Materials Transportation Safety

The Applicants proposed voluntary mitigation measures for hazardous materials transport (see VM 14 through VM 26 that include five of SEA's proposed mitigation measures from the Draft EIS. In addition to the voluntary mitigation proposed by the Applicants, SEA recommends conditions to supplement VM 21 and VM 25 presented in Conditions 11 and 12, below.

7.1.6 Pedestrian and Bicycle Safety

The Applicants propose VM 10 through VM 12, VM 43, and VM 44 to improve pedestrian safety near schools and parks near the EJ&E rail line. In addition, the Applicants propose VM 61 to maintain access to or provide detours for trails during Transaction-related construction. SEA recommends other conditions to supplement VM 10, VM 43, and VM 44 in Conditions 13 through 15, below. SEA shares USDOT's concern regarding stopped trains blocking pedestrian crossings, especially those frequently used by students traveling to and from school.

7.1.7 Transportation Systems

SEA analyzed the effect of the Proposed Action on the communities along the EJ&E rail line as well as on the communities along the CN subdivisions. The Proposed Action would increase train operations and associated negative effects in those communities along the EJ&E rail line, but would remove trains from the CN subdivisions, reducing delay and increasing safety at the highway/rail at grade crossings along the CN subdivisions.

Several of the Applicants' voluntary mitigation measures would mitigate for the effects of the Proposed Action on regional and local highway systems (including highway/rail at-grade crossings) and emergency response (see VM 27 through VM 48) along the EJ&E rail line. In the following sections, SEA describes the mitigation needs for regional and local highway systems (Section 4.2.3.1), emergency response (Section 4.2.3.2), and airports (Section 4.2.3.3). SEA's final recommended conditions include both the Applicants' voluntary mitigation and tailored mitigation developed by SEA, as discussed below.

Substantially Affected Highway/Rail At-Grade Crossings

In the Draft EIS, SEA identified 16 highway/rail at-grade crossings as "Substantially Affected" by the Proposed Action and considered 15 of those crossings for mitigation. SEA set forth

mitigation options ranging from adopting the Applicants' voluntary mitigation, to modifying the roadway, to grade-separating the crossing, to modifying train operations, and invited the public to comment specifically on the options or try to enter into a negotiated agreement with the Applicants (see Section 6.3 of the Draft EIS).

SEA noted that some comments received on the Draft EIS at the public meetings indicated that the public had the impression that SEA would require that a grade-separated crossing be constructed at each of the 15 highway/rail at-grade crossings discussed above and that the Applicants would be required to pay all or a substantial amount of the cost. However, the Draft EIS only provided a range of mitigation options. Moreover, as SEA noted in the Draft EIS, any conclusions on mitigations here must reflect that many communities already experience traffic congestion that is not caused solely by the EJ&E rail line. Rather, multiple freight lines, commuter trains, and insufficient roadway capacity all contribute to existing congestion. Many comments on the Draft EIS confirmed that traffic congestion currently is a substantial problem in many communities along the EJ&E rail line. Accordingly, it would be inappropriate to hold the Applicants responsible for existing traffic problems and congestion. As discussed in Section 2.5 of this Final EIS, SEA has re-evaluated the highway/rail at-grade crossings that would be substantially affected by the Proposed Action using new or updated data provided by the Applicants or by other agencies and determined that 13 crossings would be substantially affected, and that 8 of those crossings would warrant mitigation due to the effects under the Proposed Action (see Table 4.2-1). For a discussion of why SEA excluded the other substantially affected crossings from mitigation, see Chapter 2, Revised Information, Section 2.5. SEA appropriately tailored site-specific mitigation for some of the affected at-grade crossings based on geometry of the current crossing, proximity to other at-grade or grade-separated crossings, other data collected during site visits, community needs, and public and agency comments. SEA considered the substantially affected crossings from a holistic perspective, with numerous mobility factors, existing conditions, and the lack of available alternate routes. Finally, SEA explained why it did not recommend mitigation for three of the affected highway/rail at-grade crossings.

Mitigation Approaches For the Substantially Affected At-Grade Crossings

As described above, SEA used three thresholds to determine if highway/rail at-grade crossings would be substantially affected by the Proposed Action: 1) crossing LOS, 2) effects on queue length, and 3) total amount of delay for all vehicles delayed at a crossing in a 24-hour period. This section describes the mitigation approaches for effects due to crossing LOS, vehicle queue length and total vehicle delay. Woodruff Road and Washington Street in Joliet, Illinois are the only two highway/rail at-grade crossings that would be substantially affected under crossing LOS criteria. As discussed further below, the Applicants address these two roadways in the negotiated agreement with the City of Joliet (Applicants and City of Joliet 2008) (see Table 4.2-1, below) If the negotiated agreement were not in place, SEA would have evaluated and recommended mitigation for these two crossings, given the level of potential impacts of the Proposed Action. However, because the parties have been able to come to terms on tailored mitigation for Joliet designed to address local concerns, SEA recommends only that the Board impose mitigation requiring the Applicants to comply with the terms of their negotiated agreement.

The effect of the Proposed Action on queue length would be a result of the queue length of waiting vehicles at the highway/rail at-grade crossing blocking a major thoroughfare that would not be blocked under the No Action alternative. Mitigation to reduce the effects of increased train traffic on nearby queue length generally may be accomplished by the following:

- Traffic Advisory Signs
- Roadway Modifications
- Grade Separations

Traffic advisory signs placed in proximity to a signalized roadway intersection blocked by a vehicle queue resulting from increased train traffic advise drivers to stay clear of the intersection, thereby eliminating blocking other movements within the intersection. Traffic advisory signs would be cost-effective, unobtrusive, and provide a legal foundation for enforcement against the blockage of an intersection by vehicle queues. Roadway modifications such as widening a roadway also would allow the storage of more vehicles on a road when a train passes. For example, widening a single-lane roadway to a two-lane roadway creates twice the storage capacity, cutting queue length in half and potentially eliminating vehicle queues into a major thoroughfare elsewhere. However, widening a roadway can be constrained by existing geometrics, and widening potentially creates a bottleneck where two lanes merge. Roadway widening also would have to be consistent with local and regional planning for the roadway network.

Finally, the roadway widening impacts may be greater to a community than the effects of increased train traffic, due to existing conditions (such as structures or mature trees that would need to be removed to allow for the widening of the roadway). Grade separating a highway/rail at-grade crossing would eliminate any effect on vehicle queue lengths as a result of increased train traffic; however, it would not eliminate any queuing from signalized intersections within a community. In some locations, the proximity of signalized intersections to a highway/rail at-grade crossing may be the cause of existing congestion that a grade separation would not address. The construction of a grade separation also could potentially modify community character. Existing structures, mature trees, and local roadways near the highway/rail at grade intersection might need to be removed to construct a grade separation. Grade separations are extremely costly (ranging from approximately \$20 million to \$50 million). Finally, because grade separations typically benefit primarily the community and not the railroad, railroads typically pay a small share (5 to 10 percent) of the total cost. Total vehicle delay is a measure of the delay that all vehicles experience at a particular crossing in 24 hours. If a highway/rail at-grade crossing experiences more than 2,400 minutes (40 hours) of vehicle delay in a 24-hour period, SEA considered it to be substantially affected. Traffic advisory signs and roadway modifications would not be appropriate to mitigate total vehicle delay. Traffic advisory signs influence driver behavior, but not total vehicle delay because vehicles still would be delayed by passing trains. Roadway modifications such as widening allow for more storage of vehicles, but all of the vehicles still would be delayed by a passing train. Grade separating a highway/rail at-grade crossing eliminates total vehicle delay by removing the conflict between the roadway and the rail line. Grade separating a highway/rail at-grade crossing also removes safety-related exposure concerns.

Exposure is a measurement of the number of highway vehicles that are exposed to freight trains. The FHWA considers an exposure of 1 million or more to warrant consideration of a grade separation. Grade separations eliminate any vehicle exposure to freight trains at a highway/rail

at grade crossing by removing the conflict between the roadway and the rail line. SEA considered the individual characteristics of each highway/rail at-grade crossing site, in determining what if any mitigation would be appropriate for the substantially affected at-grade crossing at issue here. As part of its analysis, SEA considered existing congestion, existing structures (such as, mature trees, and local roadways) near the highway/rail at-grade intersection, and the cost of a grade separation when determining the type of mitigation recommended for each substantially affected highway/rail at-grade crossing. As discussed below, SEA recommends that the Board require two grade separations (one in Aurora, Illinois, and one in Lynwood, Illinois). SEA also recommends a condition requiring traffic advisory signs for four at-grade crossings, and two at-grade crossings at Joliet, Illinois, would be mitigated under the terms of the negotiated agreement that Joliet executed with the Applicants. In SEA's view, it would be inappropriate to impose mitigation requiring roadway modifications (including closures in this case). But this is something the communities could consider and negotiate with the Applicants should the Proposed Action be approved and implemented.

Recommended Mitigation for Substantially Affected At-Grade Crossings

SEA identified two highway/rail at-grade crossings that should be grade-separated. These crossings are Ogden Avenue (US 34) in Aurora, Illinois, and Lincoln Highway (US 30) in Lynwood, Illinois. These two crossings have a predicted high exposure level (see Section 4.2.2.3) and exceed 40 hours of total vehicle delay in a 24-hour period. Both roadways have a projected traffic volume in 2015 of approximately 30,000 vehicles per day or more and are designated by their Illinois Department of Transportation (IDOT) as Strategic Regional Arterials, reflecting the importance to their respective communities and to the entire region. SEA believes that the Applicants should work with state and local officials to implement grade-separation improvements. Since Ogden Avenue (US 34) and Lincoln Highway (US 30) are state routes, it may be appropriate for IDOT to be the lead agency for planning and programming these two grade separations. The other substantially affected highway/rail at-grade crossings are not recommended for grade separations, but SEA recommends mitigation with traffic advisory signs or mitigation under the Applicants' negotiated agreement. Generally, these roadways have alternate routes, meet only one of the thresholds, or experience delays in mobility due to existing conditions. Table 4.2-1 and the discussion following the table summarize SEA's recommended mitigation for each of these affected at-grade crossings.

Highway/Rail At-Grade Crossings In The Study Area That Require Mitigation Due To Effects Under The Proposed Action (In Will County)

Plainfield-Naperville Road, Plainfield, Illinois

Woodruff Road, Joliet, Illinois

Washington Street, Joliet, Illinois

Plainfield-Naperville Road, Plainfield, Illinois

SEA identified the highway/rail at-grade crossing at Plainfield-Naperville Road as substantially affected under the Proposed Action because the queue length of 440 feet would block IL 59. The intersection of IL 59 and Plainfield-Naperville Road is located 380 feet southwest of the highway/rail at-grade crossing (see Figure 4.2-4, below). An alternate route is available to northbound motorists on IL 59 and 135th Street. A grade-separated crossing at IL 59 is approximately 500 feet from the intersection of IL 59 and Plainfield-Naperville Road. Placing traffic advisory signs at the intersection of IL 59 and Plainfield-Naperville Road, as well as the availability of the alternate route on IL 59 and 135th Street, would potentially keep motorists from blocking the intersection of Plainfield-Naperville Road and IL 59. Therefore,

SEA recommends mitigation requiring that the Applicants coordinate with local and Illinois transportation agencies to place traffic advisory signs in appropriate locations to keep motorists from blocking the roadway intersection of Plainfield-Naperville Road and IL 59 (see Condition 18, below).

Woodruff Road and Washington Street, Joliet, Illinois

SEA identified the highway/rail at-grade crossing at Woodruff Road as substantially affected because the total delay of 9,381 minutes substantially exceeds SEA's 2,400-minute threshold, the crossing LOS reduces from LOS B to LOS F, and there is a high number of predicted accidents (see Figure 4.2-5, below). SEA identified the highway/rail at-grade crossing at Washington Street as substantially affected because the total delay of 9,879 minutes substantially exceeds SEA's 2,400-minute threshold and the crossing LOS reduces from LOS B to LOS F (see Figure 4.2-5, below). The Applicants agreed to mitigation for Woodruff Road and Washington Street under a negotiated agreement with the City of Joliet (Applicants and City of Joliet 2008). SEA recommends that, should the Board approve the transaction, the Applicants be required to comply with the terms of the negotiated agreement. If the Applicants' negotiated agreement with the City of Joliet were not in place, SEA would have evaluated and recommended mitigation for both Woodruff Road and Washington Street, which could have included grade separations, given the level of potential effects of the Proposed Action. Grade separations at those locations could have eliminated the increase in vehicle delay, the reduction in crossing LOS, and for Woodruff Road, lowered the number of predicted accidents. However, the Applicants and the City of Joliet have negotiated a mutually acceptable agreement that includes tailored mitigation that Applicants will provide for the City of Joliet. The negotiated agreement is more far-reaching in certain respects than mitigation that the Board might otherwise have imposed. Because Joliet and the Applicants have been able to come to terms that both the Applicants and the City of Joliet find satisfactory to address potential local concerns, SEA does not recommend mitigation for either Woodruff Road or Washington Street beyond requiring compliance with the parties' own agreement (see VM 27 in Section 4.3.3).

Grade-Separated Crossing Funding

SEA received many public comments requesting that the Board require the Applicants to fully fund numerous grade-separated crossings throughout the Study Area. SEA agrees that many communities along the EJ&E rail line would benefit from more grade separations. However, many of these communities already face traffic congestion on the roadways and at highway/rail at-grade crossings on the same roadways that would be potentially affected by the Proposed Action, as discussed in detail in Chapters 4 and 6 of the Draft EIS and Section 2.5 of this Final EIS. In addition, the primary cause of the existing traffic congestion in the communities along the EJ&E rail line is the high number of vehicles and lack of capacity on the current roadway system. Even where trains are responsible for it, traffic congestion would not be caused solely by the Applicants' trains on the EJ&E rail line but also by the presence of multiple freight railroads on the lines that pass through the communities outside the EJ&E arc, some of which also are used by commuter trains. It would be inappropriate to hold the Applicants responsible for the inadequate roadway system that exists in the communities along the EJ&E rail line and the rarity (and in some communities, the absence) of grade separated crossings. Moreover, as a number of commenter's have pointed out, railroads historically have not paid for more than a small share (5 to 10 percent) of the total cost of grade separations because grade separations primarily benefit the community and not the railroad. SEA considers many of the traffic problems along the EJ&E rail line to be existing conditions, thus making it particularly inappropriate to require the Applicants to bear all or most of the cost. However, as explained above, the Proposed Action

would, in the two cases where grade crossing separations are recommended as mitigation, exacerbate the existing problems and cause substantial effects. As discussed above, SEA recommends grade-separated crossings for two substantially affected highway/rail at-grade crossings: one at Ogden Avenue (US 34) in Aurora, Illinois, and one at Lincoln Highway (US 30) in Lynwood, Illinois. As discussed above, SEA also identified both Woodruff Avenue and Washington Street in Joliet as substantially affected and would have evaluated and recommended mitigation for both Woodruff Road and Washington Street. Such mitigation could have included grade separations, given the level of potential effects of the Proposed Action. Grade separations at those locations could have eliminated the increase in vehicle delay, the reduction in crossing LOS, and for Woodruff Road, removed the high incidence in the number of predicted accidents. However, Applicants and the City of Joliet have negotiated a mutually acceptable agreement, which is more far-reaching in certain respects than mitigation that the Board might otherwise have imposed. Because Joliet and the Applicants have been able to come to terms that both Applicants and the City find satisfactory to address potential local concerns, SEA does not recommend mitigation for Woodruff Road or for Washington Street beyond requiring compliance with the parties' own agreement (see VM 27 in Section 4.3.3). A negotiated agreement is preferable to an imposed mitigation solution because the agreement can be implemented immediately, would be fully funded by the Applicants, and is tailored to specific community needs.

With respect to funding of the two grade separations SEA recommends for mitigation, vehicle congestion problems at Ogden Avenue (US 34) and Lincoln Highway (US 30) would be a combination of existing conditions and potential effects resulting from the Proposed Action. Therefore, SEA believes that the grade separation mitigation appropriately should be funded by a combination of entities and not by the Applicants alone. Comments received in response to the Draft EIS from the Applicants (Applicants 2008a), Union Pacific (UP) (UP 2008), and the American Association of Railroads (AAR) (AAR 2008) indicate that if SEA finds grade separations appropriate for mitigation, precedent in grade separations using Federal funds requires the railroad to pay no more than 5 percent of the grade separation cost. The Applicants state that "... under the current funding scheme, a railroad's contribution to a grade separation is capped at 5 percent when federal dollars are used..." and that "...simply because a crossing has been identified as a candidate for a grade separation in an environmental review does not provide any basis for imposing a greater burden on the Transaction³ than the law imposes on railroads generally when crossing delay call for separation" (Applicants 2008a). Similarly, UP states that "...where grade crossing elimination projects are involved, Federal Highway Administration regulations cap a railroad's share of costs at 5 percent" (UP 2008). On the other hand, a number of commenter's have maintained that, notwithstanding existing traffic congestion, the Applicants should pay the entire cost of any grade separations that might be ordered by the Board. SEA concludes that it would be appropriate to require the Applicants to bear somewhat more than the typical cost share of the two grade separations SEA recommends. In most situations involving a grade crossing separation, a public entity is pursuing a grade separation to address highway congestion or to improve highway infrastructure unrelated to rail operations. Because the railroad receives only limited benefit from a grade separation, its contribution is capped at a relatively low percentage of the cost. In the current case, SEA's analysis shows that a portion of the traffic delay would be created by the Proposed Action. In similar circumstances, the Board has in previous cases required applicants to contribute more than the typical 5 percent share toward the cost of grade separation.⁴ At the same time, SEA rejects the argument of some commenter's that the Applicants should be required to bear all or nearly all of the cost of the two grade separations SEA is recommending. While some

mitigation measures should be the Applicants' sole responsibility, others, such as grade separations, by necessity must involve the participation, cooperation and approval of outside parties. In addition, grade separations typically are very expensive and provide a substantial benefit to communities with existing congestion. Because the grade separations involved here would mitigate both existing conditions and some of the effects of the Proposed Action, SEA believes that the Applicants should cover only a portion of these grade separation costs.

In preparing this Final EIS, an important issue was how to determine a reasonable and appropriate approach for the Applicants' cost participation for the two grade separations recommended as mitigation. As part of its consideration, SEA applied two different approaches to determine a reasonable and appropriate level of cost participation for the Applicants, based on all circumstances presented here. First, SEA applied a regional approach that considered all 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 considered only the potential impact of the Proposed Action on vehicle traffic delay at Ogden Avenue (US 34) and Lincoln Highway (US 30) (the site-specific approach). In order to evaluate the net impact of the Proposed Action on regional transportation delay, SEA calculated the total vehicle delay at all of the affected highway/rail at-grade crossings on both the EJ&E rail line and the affected CN rail line segments. Specifically, SEA evaluated 88 highway/rail at-grade crossings on the EJ&E rail line and 134 highway/rail at-grade crossings on the CN rail line segments, a total of 222 crossings. As explained in detail elsewhere in the Final EIS, vehicle delay would generally increase at the highway/rail at-grade crossings along the EJ&E rail line and would generally decrease at the highway/rail at-grade crossings along the CN rail line segments. Overall, SEA calculated that the Proposed Action would cause a net increase in vehicle delay in the Chicago region of 356 hours per day out of a total of 2,259 hours per day for all of the highway/rail at-grade crossings examined. This means that the Proposed Action would be responsible for approximately 15 percent of the total future delay. SEA's estimate of a 15 percent impact on vehicle delay as a result of the Proposed Action represents a regional perspective that seeks to balance the reduction in vehicle delay because of reduced train traffic with the increase in vehicle delay due to additional train traffic. SEA believes that basing the share of the cost of these grade separations that the Applicants should bear on the results of this regional analysis would be reasonable and appropriate because this cost allocation reflects both the anticipated beneficial and detrimental effects of the Proposed Action. This traffic delay analysis is presented in full in Section 2.5 of this Final EIS.

In order to produce the most thorough analysis practical, SEA also conducted an evaluation of a cost sharing approach based on the contribution of the Proposed Action on the specific delay at both the Ogden Avenue (US 34) and Lincoln Ave (US 30) at-grade crossings of the EJ&E rail line. As shown in the Draft EIS and updated in Appendix A of this Final EIS (see Table A.5-1), for each highway/rail at-grade crossing analyzed, SEA calculated the total delay for all delayed vehicles under both the No Action and Proposed Action alternatives. In the case of Ogden Avenue, SEA determined that the total delay per day under the No Action alternative would be 1,133 minutes. The total delay per day under the Proposed Action would be 4,377 minutes, which means that the Proposed Action could contribute 74 percent of the total delay at Ogden Avenue (US 34). Based only on this site-specific analysis the Applicants' contribution could be deemed to be as high as 74 percent of the cost of the US 34 grade separation. For Lincoln Highway (US 30), SEA's site-specific analysis showed that the total delay under the No Action alternative would be 395 minutes, and that this would rise to 3,035 minutes under the Proposed Action, which means that the Proposed Action could add 87 percent to the vehicle delay. However, the site-specific analysis summarized above does not factor in any of the Proposed

Action's countervailing benefits that would arise from train traffic decreases on the CN lines. Moreover, SEA's site-specific analysis focuses solely on vehicle delay. As discussed in this Final EIS, SEA considered several other factors (level of service, change in risk profile, vehicle safety exposure, emergency response, and queue length) in evaluating the impacts of the Proposed Action on highway/rail at-grade crossings and whether, and what type of mitigation was warranted. Grade separations at Ogden Avenue and Lincoln Highway would address not only vehicle delay, but also both the substantial pre-existing traffic congestion and existing issues at each of those locations involving the level of service, risk profile, vehicle safety exposure, emergency response, and queue length backups. Because railroads are not responsible for the portion of a grade separation that would benefit the community by improving existing conditions, it would, in SEA's view, be reasonable to balance the benefit of reducing or eliminating these pre-existing issues against the increase in transaction-related traffic delay to reduce Applicants' contribution to these grade separations. In other words, SEA believes that, since it has not been the Board's practice to provide mitigation for pre-existing problems such issues should be accounted for in the Board's determination of Applicants' contribution of funds for the grade separations.

Signalized Intersections

As discussed in Section 2.5.9, ICC asked the Board to impose a condition related to signalized intersections. SEA is recommending a condition requiring consultation with the ICC and INDOT (see Condition 20, below).

7.1.8 Emergency Response

The Applicants commit to minimizing emergency response vehicle delay under the Proposed Action and during construction in VM 42, VM 45, VM 47, and VM 48, below. Based on public comments on the Draft EIS, SEA performed analysis for additional emergency service providers for the Final EIS and identified three additional emergency service providers that would be substantially affected by the Proposed Action but were not presented in the Draft EIS (see Chapter 2, above). In Table 4.2-2, SEA lists 13 emergency service providers that would be potentially substantially affected under the Proposed Action and for which SEA recommends mitigation. As discussed above, the Applicants have negotiated an agreement with the City of Joliet; therefore, SEA is not recommending any mitigation for Joliet Fire Department – Station No. 8. For the remaining 12 of the 13 emergency service providers listed in Table 4.2-2, SEA proposes as mitigation requiring a real-time video monitoring system, Closed Circuit Television Surveillance System (CCTV), which would consist of a network of video cameras installed at selected locations along the EJ&E rail line. These video cameras would transmit a signal to a specific place where they would be directly linked to live video monitors at designated emergency response dispatch centers. CCTV differs from broadcast television in that the signal would not be openly transmitted, though it may employ point-to-point wireless links. The video cameras would be installed at locations that provide the emergency dispatcher information to reasonably predict train movements across selected highway/rail at-grade crossings (see Table 4.2-2). Under SEA's recommended mitigation, a minimum of two video cameras would be installed at each location facing opposite directions so that the viewer could see trains approaching in both directions, as well as trains stopped at at-grade crossings. Emergency response dispatchers could use this video feed to advise emergency vehicle operators to use alternate routes in the event that a grade crossing would be blocked or inaccessible. SEA expects that the Applicants would coordinate with the appropriate agencies to select appropriate equipment and install a CCTV system. SEA also recommends that the Board require the

Applicants to fund the initial installation of the video cameras and all ancillary equipment, including the poles, cables, controllers, and cabinet to house the camera controller and other equipment. The communication equipment to relay the video image to the emergency response dispatch facilities could be through fiber optic cable or radio transceiver. The receiver of the video image could use any type of monitor to view the video image. The Applicants and appropriate agencies should configure the video cameras so the movement of the trains can reasonably be predicted at affected highway/rail at-grade crossings listed in Table 4.2-2. The Applicants would train two individuals from each affected emergency service provider to use the system, while ownership, maintenance and service for this system would be funded and performed by the governing bodies of the fire protection districts/departments and emergency response dispatch centers that receive it after the system is installed and operational (see Condition 21, below). The locations at which SEA proposes CCTV systems also should be able to access the dispatching monitors that the Applicants committed to providing in VM 42 in Section 4.3:

1-Plainfield, Illinois Plainfield Fire Protection District - Station No. 3 Real-time video monitoring (CCTV) at selected locations

2-Joliet, Illinois Joliet Fire Department – Station No. 8 Mitigation under the Applicants-City of Joliet negotiated agreement

7.1.9 Hazardous Waste Sites

SEA determined that the operations under Proposed Action would not affect hazardous waste sites (that is, sites that contain hazardous materials, including petroleum products that could potentially harm human health or the environment). However, the Applicants may encounter undocumented hazardous waste during Proposed Action-related construction activities. Therefore, SEA recommends mitigation that would apply during construction in Conditions 44 and 45, below.

7.1.10 Land Use

SEA reanalyzed the effects of the Proposed Action on land use, zoning, public lands, and existing and potential development areas for this Final EIS. This additional assessment was in response to comments about land use either during the formal Draft EIS comment period or at SEA's public meetings. In addition, the Applicants' voluntary mitigation for land use (see Section 4.3.4, Land Use) has been expanded. SEA's recommended conditions (Condition 23 and Conditions 46 through 49) are in Section 4.4.

7.1.11 Socioeconomics and Quality of Life

In the Draft EIS, SEA identified only minor effects on populations and demographics, economy, taxes, property values, housing, communities and community cohesion, travel patterns, and community facilities and public services. After issuance of the Draft EIS, the Applicants expanded their voluntary mitigation measures relating to schools and parks. The Applicants' revised voluntary mitigation measures would require that they confer with schools and parks within 0.25 mile of the EJ&E rail line about providing fencing along the EJ&E rail line right-of-way. In response to comments on the Draft EIS, SEA prepared additional analysis on school safety, property values, and other quality of life issues for this Final EIS. Based on its analysis, SEA recommends that the Board impose the Applicants' voluntary mitigation and also

recommends additional mitigation for schools, parks, and pedestrians. All of this mitigation can be found below (see VM 10 through VM 12, VM 43 and 44, and Conditions 13 through 16, below).

7.1.12 Environmental Justice

SEA did not identify any disproportionately high and adverse effects on minority or low-income populations in the Draft EIS. However, in recognition of the large Spanish-speaking population in the Chicago metropolitan area and along many segments of the EJ&E rail line, the Applicants committed to distributing all media information in Spanish (see VM 2) and to providing Operation Lifesaver programs in Spanish upon request (see VM 44). During the preparation of the Draft EIS, SEA conducted environmental justice outreach meetings with leaders who represented community groups and church congregations near the EJ&E rail line. At these meetings, SEA encountered instances when it needed a translator. As a result of this experience, SEA has included in several of its final recommendations requirements that materials and programs be made available in both English and Spanish, upon request. SEA's recommended conditions (Conditions 24 through 26) are in Section 4.4, below.

7.1.13 Energy

The Applicants proposed voluntary mitigation measures (see VM 73 and VM 74 in Section 4.3) that would increase the use of energy-efficient practices. SEA does not recommend additional mitigation.

7.1.14 Air Quality and Climate

In addition to the Applicants' voluntary mitigation measures (VM 73 through VM 76, SEA recommends mitigation in Conditions 27 and 28 to further address air quality and climate issues.

7.1.15 Noise and Vibration

SEA has carefully reviewed the Applicants' voluntary mitigation measures related to noise mitigation (VM 3 through VM 5 and VM 77 through VM 83, below), and believes that they would result in meaningful and appropriate noise reduction. SEA also includes in Section 4.4 mitigation recommendations that are intended to enhance and clarify the Applicants' voluntary mitigation (see Conditions 29 through 31, Condition 50, and Condition 51, below). For example, in addition to VM 80, SEA recommends the Applicants consult with affected communities to identify locations where wheel squeal is considered a nuisance (see Condition 29, below). SEA also recommends a quiet zone condition for Barrington, Illinois (see Condition 10, below). Based on concerns raised by the Applicants, SEA clarified a proposed recommended condition from the Draft EIS that would have required the Applicants to notify staff at Fermi National Accelerator Laboratory (Fermilab) if operational changes potentially result in an increase in train induced groundborne vibration. SEA modified that condition to provide examples of activities that would require notification, such as activities that could increase the train induced ground-borne vibrations including but not limited to: higher axle loads; use of larger, more powerful locomotives, and increasing train speeds (see Condition 30, below).

As part of SEA's noise analysis conducted for this Final EIS, SEA identified those locations where there are enough noise impacts to justify mitigation and where cost-effective noise mitigation could be possible. Locations where noise mitigation should be considered are identified on the noise analysis figures located in Appendix A of this Final EIS. Based on this analysis and the Applicants' voluntary mitigation, SEA recommends Condition 31 requiring the Applicants to document their voluntary efforts to provide noise reduction in areas that qualify under IDOT or INDOT criteria. Finally, SEA recommends Conditions 50 and 51 for Transaction-related construction activities.

7.1.16 Biological Resources

The Applicants commit to voluntary mitigation measures for effects on biological resources in VM 49 through VM 52, VM 64, VM 84 through VM 88, VM 90, VM 92, VM 95 through VM 97 and VM 102 through VM 108. The Applicants offered VM 49 through VM 52 in response to SEA's recommendations in the Draft EIS. Based on comments received on the Draft EIS, SEA has recommended conditions to enhance VM 51, VM 64, VM 86, VM 96, and VM 97. SEA also reanalyzed the Applicants' voluntary mitigation measures developed to mitigate the potential effects of the Proposed Action on biological resources in response to Draft EIS comments received on biological resources either during the formal Draft EIS comment period or at SEA's public meetings. As a result, SEA recommends mitigation measures (see Conditions 32 through 38 and 52 through 57, below), to supplement the voluntary mitigation measures to which the Applicants have committed.

During an Illinois Natural Resources and Water Resources stakeholder meeting, several state and regional agencies identified a need to modify the Applicants' VM 64 establishing a Community Liaison (HDR 2008b). The agencies represented at the stakeholder meeting requested that SEA modify the condition to include a resource-agency-specific liaison(s) who has expertise in environmental and natural resource management. They agreed that the resource agency liaison(s) also should have experience working with the local natural and water resource agencies for the purpose of providing improved adaptive natural resource management and maintaining access agreements. The resource agencies and stakeholders also suggested that monitoring should be conducted to assess the existing conditions and subsequent potential effects on biological resources based on the Proposed Action and proposed construction areas. Further, the Applicants' resource agency liaison(s) should work with the resource agencies to develop protocols for the adaptive natural resource management, monitoring, and tiered-mitigation to address potential effects of the Proposed Action and proposed construction on conservation and natural areas in the Study Area. In response to these concerns, SEA is recommending a condition establishing this resource agency liaison. SEA's recommended condition (Condition 32) can be found in Section 4.4. In preparing this Final EIS, SEA and the Applicants met with the U.S. Fish and Wildlife Service (USFWS) Chicago, Illinois, Field Office (CIFO), and USFWS Northern Indiana Ecological Services Sub-Office (NIESS), on October 23, 2008 to discuss concerns raised in the U.S. Department of the Interior's comments on the Draft EIS (U.S. Department of the Interior 2008). Specifically, the discussion focused on the Hine's emerald dragonfly, Karner blue butterfly, Indiana bat, Eastern prairie fringed orchid, turtle crossings, and noise effects on migratory birds. SEA met with the USFWS NIESS, The Nature Conservancy (TNC), and INDNR on October 29, 2008, to resolve USFWS NIESS's concerns. The USFWS NIESS determined that no suitable habitat exists for the Eastern prairie fringed orchid in the transaction-related construction areas in Indiana. The group also visited the dune and swale prairie remnant in Kirk Yard in Gary, Indiana, and discussed options for

preservation. SEA met in the field with the USFWS CIFO on November 6, 2008, to look at suitable habitat for the Eastern prairie fringed orchid in proposed construction areas along the EJ&E rail line in Illinois. SEA and USFWS CIFO agreed that suitable habitat exists and surveys need to be conducted prior to the start of Proposed Action-related construction (the Biological Report is located in Appendix A of this Final EIS). In November, 2008, SEA and the Applicants consulted with the USFWS CIFO and Midwest Generation regarding effects to the Hine's emerald dragonfly (see Conditions 37 and 38, 52, and 55 related to Federally- or state-listed threatened or endangered species). Based on extensive informal consultation and the Biological Report submitted to USFWS (See Appendix A of this Final EIS), SEA concludes that the Proposed Action may affect, but is not likely to adversely affect, listed threatened or endangered species. The Applicants provided SEA with additional voluntary mitigation to avoid impacts to Federally- or state-listed threatened or endangered species or other species of concern (Applicants 2008d) (see VM 102 through VM 108, below).

7.1.17 Water Resources

The Applicants' proposed voluntary mitigation measures (VM 89 through VM 100) are outlined in Section 4.3. The Applicants implemented two of SEA's proposed conditions from the Draft EIS, one regarding compensation for wetland impacts in accordance with USACE regulations (VM 90) and one regarding best management practices (BMPs) for aquatic biota (VM 95). The Applicants' remaining voluntary mitigation measures address a variety of potential stormwater, groundwater, and surface water protection issues. In addition to the Applicants' voluntary mitigation measures for water resources, SEA recommends mitigation in Conditions 39 through 41 and 58 through 63, below.

7.1.18 Cultural Resources

SEA found that the Proposed Action would not affect any National Register for Historic Places (NRHP)-listed or NRHP-eligible cultural resources. The Indiana Department of Natural Resources, Division of Historic Preservation and Archeology (INDNR) and the Illinois Historic Preservation Agency concurred with this finding in their letters dated August 27, 2008, and September 29, 2008, respectively (INDNR 2008; Illinois Historic Preservation Agency 2008 in Appendix A). SEA recommends one mitigation measure (Condition 64, below) regarding encountering archeological resources during construction.

7.1.19 Construction

In the Draft EIS, SEA assessed the potential environmental effects of the proposed connections and their alternative configurations and the double track because these constructions would take place only if the Proposed Action is approved. The Applicants propose mitigation for effects caused by construction in VM 13, VM 45 through VM 49, and VM 52 through VM 72, below. SEA recommends additional mitigation for the effects caused by construction of the proposed connections and double track in Conditions 42 through 64, below.

7.1.20 Monitoring, Enforcement and Decision-making Process

SEA's recommended quarterly reporting condition includes a 5-year reporting period (see Conditions 69 and 70, below). Many who commented requested a 10-year or 15-year reporting or oversight period; however, SEA, in most cases, recommends only a 3-year reporting period

because that period generally is adequate to assess the full effects of the transaction at issue. In this case, the Applicants plan to implement their operational changes under the Proposed Action over a 3-year period. Based on this, SEA determined that a 5-year reporting period would ensure adequate monitoring of the Applicants' proposed operational changes

7.2 Applicants' Voluntary Mitigation Measures Safety

7.2.1 Grade Crossings

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.

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 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 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 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 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.

7.2.2 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.

7.2.3 Hazardous Materials Transportation

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 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.

7.2.4 Transportation Systems

7.2.4.1 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.

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, 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 funding⁹ 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:

- o 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.
- o Improve or identify modifications to roadways that would reduce vehicle delays by improving roadway capacity over the crossing by construction of additional lanes.
- o 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.
- o 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.
- o Cooperate with state and local agencies to develop and implement a plan to grade-separate the highway/rail crossing.

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 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.

7.2.4.2 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 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.

7.2.4.3 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.

7.2.4.4 Construction

VM 48. Applicants shall minimize temporary road closures during construction activities associated with the connections and double track. Applicants shall manage construction schedules to:

- o Minimize highway/rail at-grade crossing closures
- o Relay highway/rail at-grade crossing closure schedules to local emergency service providers.

7.2.5 Land Use

7.2.5.1 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 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 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.

7.2.5.2 Noise and Vibration

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.

7.2.5.3 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.

7.2.5.4 Water Resources

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 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.

7.2.5.5 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.

7.2.6 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 reinitiate 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).

7.3 SEA's Final Recommended Mitigation Measures

1) Applicants shall comply with their voluntary mitigation measures.

The following are SEA's mitigation measures that applicants shall comply with and could affect Will County and its municipalities located within the county.

7.3.1 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.

7.3.2 Rail Safety

7.3.2.1 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.

7.3.2.2 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.

7.3.2.3 Vehicle Safety

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.

7.3.2.4 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.

7.3.2.5 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.

7.3.3 Transportation Systems

7.3.3.1 Regional and Local Highway Systems

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

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.

7.3.3.2 Emergency Response

21) In addition to VM 42, to further assist with the timely response of the emergency service providers listed in Table 4.4-1 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 4.4-1. 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 4.4-1. 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. **(From Table 4.4-1, only affected ESP in Will County is Plainfield Fire Protection District Station No. 3 at Highway/Rail At-Grade Crossings at 111th Street, 119th Street, and 127th Street)**

7.3.3.3 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.

7.3.3.4 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.

7.3.3.5 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.

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.

7.3.4 Biological Resources

7.3.4.1 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.

7.3.4.2 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.

7.3.4.3 Federally Listed and State-Listed Threatened & 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.

7.3.5 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.

7.3.6 Construction

7.3.6.1 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.

7.3.6.2 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.

7.3.6.3 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.

7.3.6.4 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.

7.3.6.5 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.

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.

7.3.6.6 Water Resources

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 nonjurisdictional wetland habitat in transaction-related construction areas along the EJ&E rail line (including the six connections and the proposed double track).

7.3.6.7 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.

7.3.7 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.

7.3.8 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.