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September 30, 2008

BY E-FILING

Ms. Victoria J. Rutson, Chief
Section of Environmental Analysis
Surface Transportation Board
395 E Street, S.W.
Washington, D.C. 20423-0001

Re: ***Canadian National Railway Company and Grand Trunk Corporation – Control – EJ&E West Company*** **(STB Finance Docket No. 35087)**

Dear Ms. Rutson:

Pursuant to the July 25, 2008, decision of the Surface Transportation Board, Canadian National Railway Company and Grand Trunk Corporation submit the enclosed comments on the scope of the final environmental impact statement to be prepared in this proceeding.

Yours truly,

Paul A. Cunningham

Counsel for Canadian National Railway Company and Grand Trunk Corporation

Enclosures

BEFORE THE
SURFACE TRANSPORTATION BOARD

STB Finance Docket No. 35087

CANADIAN NATIONAL RAILWAY COMPANY
AND GRAND TRUNK CORPORATION
– CONTROL –
EJ&E WEST COMPANY

APPLICANTS' COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

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September 30, 2008

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Part 1 – Applicants' Voluntary Mitigation Proposal

CN submitted a comprehensive Voluntary Mitigation Proposal ("VMP") to SEA on June 26, 2008, detailing the conditions that CN proposed that the Board impose to mitigate adverse environmental impacts both generally and at specific locations. This proposal, discussed in chapter 6 of the DEIS (at 6-3 through 6-12), was intended to cover communities that do not enter into individual mitigation agreements with CN.

Individual mitigation agreements are often preferable to Board-imposed mitigation, because they can cover issues and provide remedies that are outside the Board's authority or that or are not directly related to the Transaction. But for those communities for which CN is unable to reach an agreement, the voluntary mitigation plan serves as a backstop to ensure that adverse impacts are still subject to reasonable mitigation, regardless of whether the Board would have the power to impose those mitigation conditions absent CN's consent. The conditions CN has proposed were based on CN's extensive experience in past control transactions, conditions that were accepted by railroads in previous control proceedings, and conditions that were requested during the scoping process or CN's negotiations with affected communities.

CN's voluntary mitigation proposal is intended to provide for mitigation that meets the standards of relevance, reasonableness, and support set forth by the Board in previous cases: "any conditions the Board imposes must relate directly to the transaction before it, must be reasonable, and must be supported by the record before the Board."[1] Thus, CN's proposal is

[1] Draft Environmental Impact Statement at 6-1, *San Jacinto Rail Ltd. – Constr. & Operation Exemption – Build-Out to the Bayport Loop Near Houston, Harris County, TX*, STB Finance Docket No. 34079 (STB served Dec. 6, 2002) ("*Bayport Loop DEIS*"); Draft Environmental Impact Statement at 5-1, *S.W. Gulf R.R. – Constr. & Operation – In Medina County, TX*, STB Finance Docket No. 34284 (STB served Nov. 5, 2004) ("*SW Gulf DEIS*"). *See also* 1 Draft Environmental Impact Statement at 3-3, *CSX Corp. – Control & Operating Leases/Agreements –*

intended to provide for mitigation of all relevant environmental impacts which are shown to be likely as a result of the CN/EJ&EW Transaction, and which are significant when measured under the standards applied by the Board in previous cases. CN's voluntary mitigation proposal reasonably addresses the significant impacts of the Transaction, while not jeopardizing CN's ability to realize the public benefits anticipated as a result of the Transaction.

Based on SEA's thorough analysis and recommended mitigation in the DEIS, CN is now submitting a revised voluntary mitigation proposal that would provide further relief to impacted communities. Subject to a limited number of exceptions, CN agrees to almost all of the additional mitigation proposals included in the DEIS even though such extensive mitigation is not required by NEPA, by the Board's governing statute, the ICC Termination Act of 1995 ("ICCTA"), 49 U.S.C. §§ 10101 *et seq*, or by the rules of the Council on Environmental Quality ("CEQ") or the Board.[2] The list of voluntary mitigation measures CN is now agreeing[3] includes 101 discrete elements. CN expects the total cost of this revised program to be roughly $60 million.[4]

Conrail Inc., STB Finance Docket No. 33388 (STB served Dec. 12, 1997) ("*Conrail DEIS*") (for an environmental mitigation condition to be imposed without consent it "must be reasonable, must be directly related to the impact caused by the Acquisition, must be appropriate to the scope and degree of the environmental impact, and should not unduly frustrate the ability of the Applicants to realize the anticipated public benefits of the proposed . . . Acquisition.").

[2] CN's proposal may not include all specific items of SEA's proposed additional mitigation that relate to routine compliance with regulatory requirements in connection with implementation of mitigation or of the Transaction. CN intends, nevertheless, to comply fully with any applicable laws and regulations. If greater specificity is desired regarding this commitment, CN would appreciate the opportunity to comment on any further SEA proposals in that regard.

[3] Because CN is voluntarily agreeing to much of the mitigation suggested by SEA, uncertainties regarding the extent of the Board's authority to impose environmental conditions in minor transactions may not need not to be resolved. CN reserves its rights to challenge the Board's authority to impose any unreasonable conditions.

[4] Though CN believes the concerns raised by some of the more vocal local activists are largely overstated or unsupported, it continues to reach out to the affected communities in the hope of

APPLICANTS' VOLUNTARY MITIGATION MEASURES

Applicants propose the following voluntary mitigation measures for the Board to consider in issuing its final decision. These measures refine and supplement the 70 voluntary measures Applicants listed on June 26, 2008, and include 32 of the additional measures which SEA, recommended should the Board authorize the Application. DEIS at 6-13—6-31. Applicants plan on implementing the proposed mitigation within the later of three years after approval of the Application or the completion of the capital improvements described in the operating plan.

The individual mitigation measures are organized by the Environmental Impact Categories found in the Corrected Final Scope of Study, served April 28, 2008.

1. SAFETY

Grade Crossings

VM 1. Applicants shall consult with appropriate agencies to determine the final design and other details of the grade crossing protections or rehabilitations on EJ&EW's rail line. Implementation of all grade crossing protections shall be subject to the review and approval of the Federal Railroad Administration ("FRA") and the appropriate state Departments of Transportation.

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

VM 3 Where necessary for implementation of a Quiet Zone, and in consultation with the affected community, FRA, and the appropriate state Department of Transportation, Applicants shall construct or install roadway median barriers to reduce the opportunity for vehicles to maneuver around a lowered gate.

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reaching some agreements, and has proposed a mitigation budget of $60 million – a full 20% of the acquisition cost of EJ&EW.

VM 4 Applicants shall cooperate with the municipalities affected to determine which improvements would be necessary for existing Quiet Zone to maintain FRA compliance.

VM 5 Applicants shall cooperate with interested communities for the establishment of Quiet Zones and assist in identifying supplemental or alternative safety measures, practical operational methods, or technologies that may enable the community to establish Quiet Zones.

VM 6 Applicants shall consult with affected communities to improve visibility at highway rail at-grade crossings by clearing vegetation or installing lighting to illuminate passing or stopped trains.

VM 7 Within 6 months of acquisition by CN of the control of EJ&EW, Applicants shall cooperate with the Illinois Department of Transportation, Indiana Department of Transportation and other appropriate local agencies to coordinate a review of corridors surrounding highway/rail at-grade crossings to examine safety and adequacy of the existing warning devices, and identify remedies to improve safety for highway vehicles.

VM 8 Where grade-crossing rehabilitation is agreed to, Applicants shall assure that rehabilitated roadway approaches and rail line crossings meet or exceed the standards of the State Department of Transportation's rules, guidelines, or statutes, and the American Railway Engineering and Maintenance of Way Association ("AREMA") standards, with a goal of eliminating rough or humped crossings to the extent reasonably practicable.

VM 9 For each of the public grade crossings on EJ&EW's rail line, Applicants shall provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing identification number in compliance with Federal Highway Regulations (23 C.F.R. Part 655). The toll-free number shall enable drivers to report accidents, malfunctioning warning devices, stalled vehicles, or other dangerous conditions and shall be answered 24 hours per day by Applicants' personnel. At crossings where EJ&EW's ROW is close to another rail carrier's crossing, Applicants shall coordinate with the other rail carrier to establish a procedure and share information regarding reported accidents and grade-crossing device malfunctions.

VM 10 Within 6 months of acquisition by CN of the control of EJ&EW, Applicants shall cooperate with school and park districts to provide fencing where schools or parks are within one-quarter mile of the right of way and to identify at-grade crossings where additional pedestrian warning devices may be warranted.

VM11 Applicants shall continue ongoing efforts with community officials to identify elementary, middle, and high schools within 0.5 miles of EJ&EW's ROW and

provide, upon request, informational materials concerning railroad safety to such identified schools.

VM 12 Within 6 months of the effective date of the Board's final decision, Applicants shall initiate review of the locations of designated pedestrian and recreational trail at-grade crossings along the EJ&E rail line that would see an increase in train traffic under the Proposed Action. The Applicants shall cooperate in the review with local agencies and community trail groups to assess the adequacy of the existing warning devices, to ascertain if particular trail uses or issues reduce the effectiveness of these warning devices, and to identify appropriate remedies to improve safety of pedestrian and recreational trail users.

Construction

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

2. HAZARDOUS MATERIALS TRANSPORTATION

VM 14 Applicants shall comply with the current Association of American Railroads ("AAR") "key route" guidelines, found in AAR Circular No. OT-55-I, and any subsequent revisions.

VM 15 Applicants shall comply with the current AAR "key train" guidelines, found in AAR Circular No. OT-55-I, and any subsequent revisions.

VM 16 To the extent permitted and subject to applicable confidentiality limitations, Applicants shall distribute to each local emergency response organization or coordinating body in the communities along the key routes a copy of the Applicants' current Hazardous Materials Emergency Response Plans.

VM 17 Applicants shall incorporate EJ&EW into their existing Hazardous Materials Emergency Response Plan.

VM 18 Applicants shall comply with all hazardous materials regulations of the United States Department of Transportation (including the Federal Railroad Administration and the

United States Pipeline and Hazardous Materials Safety Administration) and Department of Homeland Security (including the Transportation Security Administration). Applicants shall dispose of all materials that cannot be reused in accordance with applicable law

VM 19 Upon request, Applicants shall implement real-time or desktop simulation emergency response drills with the voluntary participation of local emergency response organizations.

VM 20 Applicants shall continue their ongoing efforts with community officials to identify the public emergency response teams located along EJ&EW and shall provide, upon request, hazardous material training.

VM 21 Applicants shall conduct Transportation Community Awareness and Emergency Response Program (TRANSCAER) workshops (training for communities through which dangerous goods are transported) in those communities along the EJ&E rail line that request this training.

VM 22 Applicants shall assist in the hazardous materials training emergency responders for affected communities that express an interest in such training. Applicants shall support through
funding or other means the training of one representative from each of the communities located along the EJ&E rail line segments where the transportation of hazardous materials would increase. Applicants shall complete the training within 3 years from the date that the Applicants initiate operational changes associated with the Proposed Action.

VM 23 Applicants shall develop internal emergency response plans to allow for agencies to be notified in an emergency, and to locate and inventory the appropriate emergency equipment. Applicants shall provide the emergency response plans to the relevant state and local authorities within 6 months of acquisition by CN of the control of EJ&EW.

VM 24 Applicants shall provide dedicated toll-free telephone number to the emergency response organizations or coordinating bodies responsible for communities located along the EJ&E rail line. This telephone number shall provide access to applicant personnel 24 hours per day, seven days a week, enabling local emergency response personnel to obtain and provide information quickly regarding the transport of hazardous materials on a given train and appropriate emergency response procedures should a train accident or hazardous materials release occur.

VM 25 In accordance with their Emergency Response Plan, Applicants shall make the required notifications to the appropriate Federal and state environmental agencies in the event of a reportable hazardous materials release. Applicants shall work with the appropriate agencies such as the United States Fish and Wildlife Service, Illinois Environmental Protection Agency and Indiana Department of Environmental

Management to respond to and remediate hazardous materials releases with the potential to affect wetlands or wildlife habitat(s), particularly those of federally threatened or endangered species.

VM 26 Prior to initiating any Transaction-related construction activities, Applicants shall develop a spill prevention plan for petroleum products or other hazardous materials during construction activities. At a minimum, the spill prevention plan shall address the following:

- Definition of what constitutes a reportable spill;
- Requirements and procedures for reporting spills to appropriate government agencies;
- Methods of containing, recovering, and cleaning up spilled material;
- Equipment available to respond to spills and location of such equipment; and
- List of government agencies and Applicants' management personnel to be contacted in the event of a spill. In the event of a reportable spill, Applicants shall comply with their spill prevention plan and applicable Federal, state, and local regulations pertaining to spill containment and appropriate clean-up.

3. TRANSPORTATION SYSTEMS

Grade Crossing Delay

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

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 funding to the cost of the grade separation.

VM 29 Applicants shall examine train operations for ways of reducing highway/rail at grade crossing blockages,

VM 30 Applicants shall cooperate with the appropriate state and local agencies and municipalities to:

- Evaluate the possibility that one or more roadways listed in Table ES-1 could be closed at the point where it crosses the EJ&E rail line, in order to eliminate the at-grade crossing.

- Improve or identify modifications to roadways that would reduce vehicle delays by improving roadway capacity over the crossing by construction of additional lanes.

- Assist in a survey of highway/rail at-grade crossings for a determination of the adequacy of existing grade crossing signal systems, signage, roadway striping, traffic signaling inter-ties, and curbs and medians.

- Identify conditions and roadway, signal, and warning device configuration may trap vehicles between warning device gates on or near the highway/rail at-grade crossing.

- Cooperate with state and local agencies to develop and implement a plan to grade-separate the highway/rail crossing.

VM 31 Applicants shall install power switches along EJ&EW where Applicants determine that manual switches could cause stopped trains to block grade crossings for excessive periods of time and that power switches would increase the speed of rail traffic and reduce the likelihood of such blockages.

VM 32 In order to minimize the number of trains being stopped by operators at locations that block grade crossings on the EJ&EW system, Applicants shall work with other railroads to establish reasonable and effective policies and procedures to prevent other railroads' trains from interfering with Applicants' trains on EJ&EW.

VM 33 Applicants' 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.

Commuter and passenger rail service

VM 37 Applicants shall abide by the commitment made to Amtrak in a letter dated March 10, 2008 concerning Amtrak's use of the St. Charles Air Line (Air Line). In general, the commitment allows Amtrak to remain indefinitely on the Air Line after CN's trains are re-routed from the Air Line onto the EJ&E rail line should the Proposed Action be approved and implemented, thereby preserving Amtrak's access to Chicago's Union Station and Amtrak's ability to continue to provide service to and from points such as Champaign and Carbondale, Illinois. Applicants shall abide by the commitment to capping the cost to Amtrak for maintaining the Air Line at the current level, indexed for inflation (Applicants 2008p).

VM 38 Applicants shall operate the key interlockings at West Chicago and Barrington, Illinois, according to the current agreements under which EJ&E operates. Those agreements require EJ&E to give priority to passenger trains over either UP or EJ&E freight trains (Applicants 2008k).

VM 39 Applicants shall work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line. The timing and implementation of STAR Line service remain subject to numerous variables, including securing government funding, but the Applicants are committed to continuing discussions with Metra on the STAR Line (Applicants 2008j).

VM 40 During and after construction, Applicants shall maintain the pedestrian tunnel from the Metra Park-n-Ride lot to the Metra train station on the east side of the Chicago Subdivision rail line at Matteson (Applicants 2008l).

VM 41 Applicants shall comply with any written and executed curfew agreements that are now in effect regarding operations affecting passenger or commuter train service.

Emergency vehicle delay

VM 42 Applicants shall notify Emergency Services Dispatching Centers for communities along the affected segments of all crossings blocked by trains that are stopped and may be unable to move for a significant period of time Applicants shall work with affected communities to minimize emergency vehicle delay by maintaining facilities for emergency communication with local Emergency Response Centers through a dedicated toll-free telephone number; and providing, upon request, dispatching monitors that allow Emergency Response Center dispatching personnel to see real-time train locations.,

VM 43 Applicants shall make Operation Lifesaver programs available to communities, schools, and other organizations located along the affected segments.

VM 44 For up to 3 years after acquisition by CN of the control of EJ&EW , Applicants shall provide Operation Lifesaver programs in Spanish, upon request.

Construction

VM 45 At least one month prior to initiation of Transaction-related construction activities, Applicants shall provide the information described below regarding Transaction-related construction of sidings, double-tracking, or connections, as well as any additional information, as appropriate, to fire departments and the Local Emergency Planning Commissions ("LEPC") for communities within or adjacent to the construction area:

- The schedule for construction throughout the project area, including the sequence of construction work relating to public grade crossings and approximate schedule for these activities at each crossing;
- A toll-free number to contact Applicants' personnel, to answer questions or attend meetings for the purpose of informing emergency-service providers about the project construction and operations; and
- Revisions to this information, including changes in construction schedule, as appropriate.

VM 46 In undertaking Transaction-related construction activities, Applicants shall use practices recommended by AREMA and recommended standards for track construction in the AREMA Manual for Railway Engineering.

VM 47 During Transaction-related construction concerning at-grade crossings, when reasonably practicable, Applicants shall consult with the appropriate state Department of Transportation regarding detours and associated signage, as appropriate, or maintain at least one open lane of traffic at all times to allow for the quick passage of emergency and other vehicles.

VM 48 Applicants shall minimize temporary road closures during construction activities associated with the connections and double track. Applicants shall manage construction schedules to:
- Minimize highway/rail at-grade crossing closures
- Relay highway/rail at-grade crossing closure schedules to local emergency service providers

4. LAND USE

General Land Use

VM 49 Before beginning construction activity, Applicants shall survey all suitable habitats potentially impacted by the construction activity for Federally- and state-listed threatened or endangered plant species. If any listed plant species are located,

Applicants shall implement a mitigation plan in consultation with the appropriate Federal and state agencies.

VM 50 If identified in the area, Applicants shall coordinate with USFWS-Indiana and The Nature Conservancy (TNC) to monitor effects on the Karner blue butterfly in the West Gary Recovery Unit.

VM 51 Applicants shall continue the existing agreements for Paul Ales Branch operation for the protection of the Federally-listed Hine's emerald dragonfly.

VM 52 Applicants shall identify suitable habitat for Franklin's ground squirrel within construction limits, and minimize mowing along the ROW beyond what is necessary for reasonable railroad maintenance and safety.

VM 53 Land areas that are directly disturbed by Applicants' Transaction-related construction and are not owned by the Applicants (such as access roads, haul roads, and crane pads) shall be restored to their original condition, as may be reasonably practicable, upon completion of Transaction-related construction.

VM 54 During construction, temporary barricades, fencing, and/or flagging shall be used in sensitive habitats to contain construction-related impacts to the area within the construction Right Of Way ("ROW"). Staging areas shall be located in previously disturbed sites and not in sensitive habitat areas.

VM 55 To the extent reasonably practicable, Applicants shall confine construction traffic to a temporary access road within the construction ROW or established public roads. Where traffic cannot be confined to temporary access roads or established public roads, Applicants shall make necessary arrangements with landowners to gain access from private roadways. The temporary access roads shall be used only during project-related construction. Any temporary access roads constructed outside the rail line ROW shall be removed and restored upon completion of construction unless otherwise agreed to with the landowners.

VM 56 During Transaction-related earthmoving activities, Applicants shall remove topsoil and segregate it from subsoil. Applicants shall also stockpile topsoil for later application during reclamation of disturbed areas along the ROW. Applicants shall place the topsoil stockpiles in areas that would minimize the potential for erosion and use appropriate erosion control measures around all stockpiles to prevent erosion.

VM 57 Applicants shall commence reclamation of disturbed areas as soon as reasonably practicable after Transaction-related construction ends along a particular stretch of rail line. The goal of reclamation shall be the rapid and permanent reestablishment of native ground cover on disturbed areas. If weather or season precludes the prompt reestablishment of vegetation, Applicants shall use measures such as mulching or erosion control blankets to prevent erosion until reseeding can be completed.

VM 58 Applicants shall limit ground disturbance to only the areas necessary for Transaction-related construction activities.

VM 59 Applicants shall review the limits of land disturbance prior to construction to determine whether any U.S. Department of Commerce, National Geodetic survey monuments (that is, a government owned permanent survey marker) would be disturbed. If any survey monuments would be disturbed, Applicants shall give a 90-day notification to the U.S. Department of Commerce.

VM 60 Applicants shall consult with the appropriate state, county personnel, Forest Preserve and trail managers prior to construction activities on state land and shall flag the boundaries of the ROW.

VM 61 Applicants shall notify the trail managers of new construction that intersects trails during final design. Where possible, Applicants shall maintain access to all existing trails, greenways, and scenic corridors during construction. If temporary trail closures are required during construction, Applicants shall provide appropriate signage to detour pedestrian and recreational trail users to a safe alternate route.

VM 62 Before construction of the Applicants' Proposed Munger Connection adjacent to the Pratt's Wayne Woods Forest Preserve, Applicants shall flag the boundaries of the CN ROW, the EJ&E ROW, and the portion of the Commonwealth Edison ROW required for construction. Applicant shall remain within the flagged boundaries. Unless agreed by the Forest Preserve Management, no construction shall take place outside of the flagged construction area. Where possible, Applicants shall maintain access during construction activities to all existing roads, trails, and facilities within the Pratt's Wayne Woods Forest Preserve.

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

Community Outreach

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

VM 65 Applicants shall continue their ongoing community outreach efforts by maintaining, throughout the period of construction of Transaction-related sidings, double-track, and connections, a website about the construction.

Residential

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

Business and Industrial

VM 67 Applicants' Transaction-related construction vehicles, equipment, and workers shall not access work areas by crossing business or industrial areas, including parking areas or driveways, without advance notice to the business owner.

VM 68 Applicants shall work with affected businesses or industries to appropriately redress Transaction-related construction activity issues affecting any business or industry.

VM 69 To the extent reasonably practicable, Applicants shall ensure that entrances and exits for businesses are not obstructed by Transaction-related construction activities, except as required to move equipment.

State Lands

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

Utility Corridors

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

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

5. AIR QUALITY

VM 73 Applicants shall accelerate implementation of EPA locomotive emissions reduction efforts by installing idling control systems on their switching locomotives assigned to the Chicago area and shall accelerate replacement of switching locomotives that are excluded from EPA emission standards and are now in service at Chicago-area yards that will experience increased yard activity as a result of the Transaction with locomotives that are compliant with EPA Tier 0 or more stringent emission standards.

VM 74 Applicants, to the extent reasonably practicable, shall adopt efficient fuel saving practices that may include a range of operating practices that will help reduce locomotive emissions, such as shutting down locomotives when not in use and when temperatures are above 40 degrees.

VM 75 To minimize fugitive dust emissions created during Transaction-related construction activities, Applicants shall implement appropriate fugitive dust suppression controls, such as spraying water or other approved measures. Applicants shall also regularly operate water trucks on haul roads to reduce dust.

VM 76 Applicants shall work with their contractors to make sure that construction equipment is properly maintained and that mufflers and other required pollution-control devices are in working condition in order to limit construction-related air emissions.

6. NOISE AND VIBRATION

VM 77 Applicants shall work with affected communities that have sensitive receptors that would experience an increase of at least 5 dBA and reach 70 dBA to mitigate train noise to levels as low as 70 dBA by cost effective means as are agreed to by an affected community and Applicants. In the absence of such an agreement, Applicants shall implement cost effective mitigation that could include such measures as (1) constructing noise control devices such as noise barriers, (2) installing vegetation or berming, or (3) installing, or providing funding for installation of, enhanced warning devices in order to provide the level of warning necessary to allow the community to request a waiver from Federal Railroad Administration (FRA) of the requirement to sound the horn and achieve quiet zone requirements.

VM 78 Applicants shall consult with affected communities and work with their construction contractors to minimize, to the extent reasonably practicable, construction-related noise disturbances near any residential areas.

VM 79 Applicants shall work with their construction contractors to maintain Transaction-related construction and maintenance vehicles in good working order with properly functioning mufflers to control noise.

VM 80 In addition to the development of other noise mitigation measures, Applicants shall consider lubricating curves where doing so would both be consistent with safe and

efficient operating practices and significantly reduce noise for residential or other noise sensitive receptors. Applicants shall also continue to employ safe and efficient operating procedures that, in lieu of, or as complement to, other noise mitigation measures can have the collateral benefit of effectively reducing noise from train operations. Such procedures include:

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

VM 81 To minimize noise and vibration, Applicants shall install and maintain rail and rail beds according to AREMA standards.

VM 82 Applicants shall comply with FRA regulations establishing decibel limits for train operations.

VM 83 Applicants shall install or relocate a Wheel Impact Load Detector (WILD) on the EJ&E rail line within three years of acquisition by CN of the control of EJ&EW.

7. 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.

8. WATER RESOURCES

VM 89 In the case where there is a potential for a railroad drainage ditch to influence wetland hydrology, Applicants shall construct low permeability clay berms (wetland berms adjacent to the drainage channels that would be proximal to the isolated wetlands). These berms would minimize the impact to surface water drainage from the proposed drainage ditch.

VM 90 Applicants shall compensate in accordance with USACE regulations in both Illinois and Indiana for wetland impacts that cannot be avoided and for impacts that are determined by USACE to be on waters of the U.S. for construction related to the proposed action.

VM 91 Applicants shall maintain drainage ditches as permanent vegetated swales to provide storm water retention and treatment. Removal of accumulated sediments shall be conducted only as necessary to maintain storm water retention capacity and function.

VM 92 To minimize sedimentation into streams and waterways during construction, Applicants shall use best management practices, such as silt fences and straw bale dikes, to minimize soil erosion, sedimentation, runoff, and surface instability during project-related construction activities. Applicants shall seek to disturb the smallest area possible around any streams and shall conduct reseeding efforts to ensure proper revegetation of disturbed areas as soon as reasonably practicable following Transaction-related construction activities.

VM 93 In order to control erosion, Applicants shall establish staging and lay down areas for Transaction-related construction material and equipment at least 300 feet from jurisdictional waters of the United States and in areas that are not environmentally sensitive. Applicants shall not clear any vegetation between the staging area and the waterway or wetlands. To the extent reasonably practicable, areas with non-jurisdictional isolated waters will not be used for staging and lay down and will only be impacted when necessary for construction. When Transaction-related construction activities, such as culvert and bridgework, require work in streambeds, Applicants shall conduct these activities, to the extent reasonably practicable, during low-flow conditions.

VM 94 During Transaction-related construction activities, Applicants shall require all contractors to conduct daily inspections of all equipment for any fuel, lube oil, hydraulic, or antifreeze leaks. If leaks are found, Applicants shall require the contractor to immediately remove the equipment from service and repair or replace it.

VM 95 Applicants shall employ best management practices to control turbidity and disturbance to bottom sediments of surface waters during Transaction-related construction. Applicants shall implement best management practices in wetlands or other waters of the United States to avoid adverse downstream impacts on fish, mussels, and other aquatic biota.

VM 96 Applicants shall implement their current noxious weed control program during construction and operation of Transaction-related sidings, double-track, and connections. All herbicides used by Applicants shall be approved by the U.S. EPA.

VM 97 Applicants shall ensure that any herbicides used in ROW maintenance to control vegetation are approved by the U.S. EPA and are applied by licensed individuals who shall limit application to the extent necessary for rail operations. Herbicides shall be applied so as to prevent or minimize drift off of the ROW onto adjacent areas.

VM 98 During construction, Applicants shall prohibit Transaction-related construction vehicles from driving in or crossing streams at other than established crossing points.

VM 99 Applicants shall, to the extent reasonably practicable, ensure that any fill placed below the ordinary high water line of wetlands and streams is appropriate material selected to minimize impacts to the wetlands and streams. All stream crossing points shall be returned to their pre-construction contours to the extent reasonably practicable and the crossing banks will be reseeded or replanted with native species immediately following project-related construction.

VM 100 Applicants shall obtain a National Pollutant Discharge Elimination System ("NPDES") storm water discharge permit from U.S. EPA or appropriate State agencies for Transaction-related construction activities.

9. 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.

Part 2 – Applicants' Comments on the Draft Environmental Impact Statement

I. Preface & Background

A. Preface

CN welcomes this opportunity to Comment on the DEIS. It offers this preface to put its comments in perspective.

There is no real question that the CN/EJ&EW Transaction[5] would further the public interest in meeting important national and regional transportation needs and improving the economy. The most significant question in this proceeding has become whether the Transaction will "survive" the length of the Board's environmental review.

At the outset, that seemed to be an easy question. The Transaction is a simple one – the acquisition of 158 route miles of operating railroad. It would have two principal sources of environmental impacts: 1) the shifting of trains from CN lines to under-utilized EJ&E lines (a shift that, as railroads respond to Chicago's rail congestion, might occur without the Transaction and without regulatory review); and 2) the construction of facilities not otherwise subject to the Board's jurisdiction to better accommodate those additional trains. And CN entered upon the Transaction ready and willing to mitigate all environmental impacts that might be reasonably attributed to the Transaction under the Board's existing standards for measuring and mitigating such impacts. CN was prepared for serious environmental review.

Thus, when the Board determined to conduct its first EIS for a "minor" transaction, CN agreed, without waiving any rights, to assist and fund the Board's EIS on the very reasonable

[5] Applicants incorporate by reference the short forms and abbreviations set forth in the Table of Abbreviations at CN-2 at 8-11.

assumption that the Board could readily complete the "hard look" it had undertaken with regard to the Transaction in time for CN to consummate the Transaction before the end of 2008. CN therefore saw little risk that the EIS would ultimately threaten termination of the Transaction at year's end under CN's Stock Purchase Agreement with EJ&E.

The Board, however, did not do what was necessary, as required by Congress and Supreme Court precedent, to conduct an expeditious and disciplined review process. Instead, the Board embarked on a review that may, in proportion to the substantive environmental issues presented, be the most time-consuming and expensive in the agency's history. The study is expected to cost $20 million or more just for SEA's consultants; the preparation of the DEIS alone consumed, for every route-mile of railroad being acquired, about $79,000.00 in consultant fees and 422 consultant hours.

In the course of this study, when it became clear that the Transaction might be at risk by virtue of delay, the Board rejected CN's requests for either an expedited process to allow the closing of the Transaction by year's end, or if expedition was beyond the Board's capacity, a bifurcated process that would allow the closing of the Transaction by year's end and the protection of the environmental status quo until the Board completed its environmental review. As a result, there is now a very real risk that the Transaction will be terminated before the Board's has finished its review.

While many legitimate concerns were raised in good faith about the Transaction prior to the DEIS, no one explicitly identified any matters that, in light of the Board's prior experience, could have warranted such an expenditure of money and time. The draft and final scope of study for the EIS took a long time to develop, but both were conventional. They presented no significant issues that had not been encountered by the Board or its consultants in the past. And

they required the consultants working under the Board's supervision to employ no science, methodologies, or technology that were not readily available to professional evaluators of environmental impacts. This was very familiar territory to an agency that had conducted many inquiries into the impacts of train operation and railroad construction on the environment.

With the production of the DEIS, however, it became clear that the extraordinary length and cost of the Board's process was almost entirely attributable to its response to the controversy over the Transaction's potential impacts that had been generated[6] by a number of opposing communities along the EJ&E. And that reaction appears also to have influenced the substance of the DEIS. Where controversy has been greatest, the DEIS appears to reflect more a reaction to that controversy than to an independent, professional environmental review.

Thus, the DEIS departs from established practice and precedent to include certain assessments that have little real basis in science, logic, or economics, that lack reasonable proportion or perspective, and have no predicate in law or generally applicable public policy. This is most obvious with respect to the increased delay at railroad grade crossings that would accompany a shift of trains from other lines to the EJ&EW. There, the DEIS appears to have abandoned rigorous objectivity with respect to the matters warranting study, the vehicle traffic data used to support its analyses, the proper measure of impacts that require mitigation, and the proper allocation of the cost of mitigation, and gives short shrift to the beneficial impacts of the Transaction on the majority of the impacted population in the region. In short, the DEIS's assessment of a few controversial subjects, is unreasonable.

The basis for CN's concerns about the impact of controversy on the DEIS process is well illustrated by the opposition of the Village of Barrington, Illinois, an affluent suburb of some

[6] *See e.g.*, CN-39 at 3.

10,000 residents located along the EJ&E. Barrington has been among the most vocal of the opponents of the Transaction, and its well-funded activism appears to have influenced the Board's approach to the Transaction in ways that are not necessarily in the broad public interest.

The village is traversed by the lines of EJ&E and UP and currently experiences about 60 freight and commuter trains a day on the UP line, and about 5 trains per day on EJ&E. After the Transaction, CN proposes to run an additional 13 trains a day through the village – for a total of approximately 18 trains per day over the EJ&E line. These 13 new trains would be about 17% of the total trains experienced daily by the citizens of Barrington.

From Barrington's reaction to these 13 new trains per day, one would never guess that what is at issue is an average delay of a few seconds a month for the average motorist using a railroad crossing. Yet, in an effort to whip up opposition and influence the Board's adjudicatory process, village leaders have characterized these impacts essentially as threatening to end life as it is now known in Barrington. The village president refers to the proposed Transaction, apparently without any irony, as "the greatest challenge we have ever faced."[7]

These efforts to influence the Board's focus in its environmental review appear to have had a profound impact. For example, the review process paid scant attention to the benefits of the Transaction to the many communities inside the EJ&E arc or to issues of environmental justice.[8]

There are many communities that now experience the trains that CN would like to shift to the EJ&E at traffic levels equivalent to those that communities along the EJ&E would experience

[7] Press Release, President Darch Gives State of the Village 2008 (May 19, 2008), http://www.ci.barrington.il.us/News/NewsReleaseDetail.asp?ID=232.

[8] C. Berry and E. Bueno de Mesquita, "Stalemate over Rail Plan Reflects Failure of Political Leadership," *available at* http://media1.dailysouthtown.com/multimedia/berrymesquitacn.pdf_20080911_13_16_26_47.imageContent.

if the Transaction were approved. For example, Harvey, in southern Cook County, has a population of 30,000 with a median income of roughly $32, 000. Harvey has 9 grade crossings on CN's line through the center of its town and CN proposes to reduce train traffic on that line from 15 trains a day to 1 train a day – a reduction almost directly equivalent to the increase in traffic through Barrington. According to calculations submitted to SEA by CN, Harvey will see a reduction in average delay per vehicle which almost exactly matches the average increase in delay per vehicle for Barrington.

Yet, reading the DEIS, one would be hard pressed to find any detailed discussion of this benefit and like benefits to the many citizens who would be positively affected by the Transaction. These citizens number far more than those who would be negatively affected. While the Board sponsored 6 scoping meetings and 7 open houses at communities along EJ&E, it made no attempt to reach out to the people of Harvey and similarly situated communities to solicit their input on the Transaction. Yet the need for such an assessment was obvious, as shown by Exhibit 1.

The lack of perspective in the DEIS concerning reciprocal benefits seems contrary to the purposes of NEPA. NEPA was not intended to be a tool to be used to prevent change that has demonstrable economic, environmental, and social benefits for the region generally and for minorities and other environmental justice communities in particular.

Fortunately, all of this is merely prologue to the next step in the process ordained by the Board. There is no requirement in NEPA or any other law or policy for the Board to continue to bend its standards in the face of controversy. The Board should revert to its prior standards and expeditiously produce an FEIS based on solid law, science, reason, and economics from a balanced perspective, informed by generally applicable public policies. Given the SEA's well-

established professional capacities, and proper Board direction, this should not be a difficult matter.

The good news is that most of the analyses conducted for the DEIS were not distorted by reaction to controversy and are reasonable. CN accordingly has generally endorsed and accepted, as part of its comprehensive Voluntary Mitigation Plan much of the analyses and mitigation recommended in the DEIS.

With respect to matters where the DEIS appears to be most affected by controversy, CN has made an effort to determine, and reflect in this response what a reasonable approach would indicate. It has sought to supply the most accurate data, to take into account the overall environmental impacts, and to use well-established indicators of impact, the need for mitigation, and the proper allocation of the costs of mitigation. On that basis, even though the Transaction will produce environmental impacts that, on a regional basis, are almost entirely positive, CN continues to stand by its commitment to voluntarily provide mitigation of all impacts at levels that would meet or exceed the Board's prior standards for impact analysis, prescription of mitigation, and sharing of mitigation costs.

Contrary to the early judgments of some observers, all of the environmental impacts that the Board has previously required to be mitigated can be reasonably mitigated here, albeit at great expense. This is reflected in CN's new Voluntary Mitigation Program, revised to reflect the DEIS and CN's own revised analyses, which would cost roughly $60 million -- a proportion of the Transaction's cost that is unprecedented in STB history.

Where there are real problems – such as at the two crossings in Joliet where the level of service would have been reduced to what has previously been recognized as an unacceptable level – CN has already agreed to mitigate them. Where other communities would be interested

in a grade separation, CN has already agreed to work with them to identify sources of funding and has committed to paying its fair share as established under long-standing practice and legal requirements. Where noise levels would exceed SEA's established levels for mitigation, and where CN is unable to reach a mitigation agreement with a community, it has agreed to work with the community to implement cost-effective mitigation.

CN cannot reasonably be expected to pay for mitigation imposed in response primarily to controversy. CN, however, fully recognizes that reasonable parties may differ as to the best approach to these matters. It continues to be willing to accept other mitigation proposed by the Board so long as the mitigation is reasonable, in light of sound science, logic and economics, and generally applicable public policies. It looks forward to working with the affected communities to implement all reasonable mitigation imposed by the Board's final EIS.

B. SEA's comprehensive assessment of the environmental impacts of the proposed transaction generally satisfies the requirements of NEPA and the Board's environmental regulations.

In preparing the five-volume Draft Environmental Impact Statement ("DEIS") for the proposed acquisition of EJ&E West Company ("EJ&EW") by Applicants Canadian National Railway Company and Grand Trunk Corporation (together, "CN" or "Applicants"),[9] SEA examined the potential environmental impacts of the Transaction with a level of scrutiny unprecedented in a "minor" control proceeding. As reported in the DEIS, that examination clearly took a "hard look" at the potential environmental impacts of the Transaction, and comprehensively addressed every environmental issue that the Board would be required to

[9] Applicants hereby incorporate by reference the short forms and abbreviations set forth in the Table of Abbreviations at CN-2 at 8-11.

analyze in satisfaction of its obligations under NEPA,[10] assuming it applies.[11] The DEIS accordingly provides a solid basis for expeditious completion of the environmental review, publication of the Final Environmental Impact Statement ("FEIS"), and issuance by the Board of a decision on the merits.

C. CN generally agrees with the factual analysis undertaken by SEA.

The DEIS supports the conclusion that in many respects the Transaction would have minor impacts, and in some cases would produce substantial environmental benefits. For virtually every adverse impact caused by increased train traffic on the EJ&E arc, the Transaction would cause a countervailing benefit from reduction of train traffic on lines used by CN through Chicago. For example, the DEIS recognizes that the Transaction would lead to region-wide decreases in freight rail accidents (8%), DEIS at 4.2-4, and highway/rail at-grade crossing accidents (9%), DEIS at 4.2-17. And because the communities adjacent to the lines with reduced traffic are more densely populated than those on the lines with increased traffic, the number of residents benefited is greater than those who would experience adverse environmental effects. Thus, the Transaction should be regarded as causing a net environmental benefit. This is true even without considering such factors as how increased rail capacity would make it more likely that any increases in freight traffic in the Chicago area would move on trains rather than trucks, which are acknowledged to cause greater environmental harm, because of higher fuel consumption and higher emissions of air pollutants per unit of freight transported.

[10] In fact, it might be argued that the analysis was far more extensive than NEPA would require for this relatively small transaction.

[11] On September 18, 2008, CN filed in the United States Court of Appeals for the D.C. Circuit a petition for a writ of mandamus making a legal challenge to the Board's application of NEPA. *In re Canadian Nat'l Ry.*, No. 08-1303 (D.C. Cir. Sept. 18, 2008). *See also* CN's assessment of the applicability and requirements of NEPA, discussed below in Section V.

Even in cases where the DEIS does not cite environmental benefits, it recognizes that the Transaction would have either no effect or no significant adverse impact (*e.g.*, commuter capacity and passenger rail service (*id.* at 4.1-41—4.1-49); intercity passenger rail service (*id.* at 4.1-50–4.1-51); rail operations (*id.* at 6-12); passenger rail safety (*id.* at 6-15); navigable waterways (*id.* at 6-22); airports (*id.* at 4.3-91); hazardous waste sites (*id*. at 6-23); prime farmland (*id.* at 4.5-1); socioeconomics (*id.* at 6-23); environmental justice (*id.* at 6-23); energy use (*id.* at 4.8-7); air quality (*id.* at 4.9-30); climate (*id.* at 4.9-31); wildlife (*id.* at 6-25); and other biological resources (*id.* at 4.11-26); floodplains and streams (*id.* at 4.12-7, 4.12-8); surface water quality; wetlands (*id.* at 4.12-7); and cultural resources (*id.* at 6-26)). Where the Transaction might lead to significant adverse impacts, the DEIS indicates that effective mitigation is possible. *See, e.g.*, *id*. at 4.4-4 (adequate procedures can mitigate impact to hazardous waste sites from construction).

CN agrees with these important conclusions, but believes that in many cases the true benefits of the Transaction – which must be weighed against its adverse impacts – are much greater than indicated in the DEIS. Additionally, CN takes exception to SEA's treatment of a relatively small number of issues, as described in more detail below. It appears that in some cases, portions of the DEIS are based on flawed data or faulty assumptions, thereby over-estimating the potential negative impacts and under estimating the potential positive impacts. In other cases, SEA proposes mitigation that might not be warranted if more accurate or relevant data and assumptions were used.

Subject to the modifications proposed by CN below, the DEIS provides a solid foundation for the Final Environmental Impact Statement ("FEIS"). In preparing the FEIS, SEA should carefully consider what recommendations for mitigation are factually warranted, within

the legal purview of the Board, and consistent with the appropriate balance of public benefits and interests related to this Transaction.

D. Given the substantial thoroughness of the DEIS and the goals of NEPA, SEA should complete its environmental review in time to permit a final decision by the Board that would be effective by December 31.

Despite the substantial and continuing opposition to the Transaction, the DEIS confirms that the impacts are neither unusual nor greater than those in previous railroad control proceedings. Even under some of the unwarranted or questionable assumptions made by SEA (including in some instances unreasonably altering the Board's established standards for mitigation, which are based on defensible criteria), few impacts exceed the established or new thresholds applied by SEA. Given the overall thorough job SEA did in preparing the DEIS and the superficial nature of most of the critical comments offered to date, there is no apparent reason why SEA should not complete its review in time to allow CN to close on the Transaction by the end of the year.

If, however, SEA determines that, despite the thoroughness of the study it has thus far made of the Transaction, yet further analysis of specific environmental effects is needed, then this requirement should not cause action on the Application to be delayed past December 31. The Board should instead act promptly on the Application, and assuming it finds that the Transaction otherwise qualifies for approval, condition that approval on CN's submitting to such additional environmental analysis as may reasonably be required, and to such reasonable further mitigation as the study indicates is necessary.[12]

[12] *Cf. Union Pacific Corp. – Control & Merger – Southern Pacific Rail Corp.*, 1 S.T.B. 233 (1996) (approval of major transaction conditioned on further study to determine appropriate mitigation of localized environmental impacts in Reno and Wichita; applicants required to

II. CN's Outreach & Mitigation Agreements

A. CN's outreach efforts

CN has reached out to all potentially affected communities along the EJ&E line, and has offered reasonable measures to mitigate adverse environmental impacts of the Transaction. CN has already been able to reach a significant mutually acceptable agreement with one community, and is actively negotiating with others. CN remains willing to negotiate with any community that seeks to do so in good faith.

A.1 CN has sought to enter into agreements with all other communities on the EJ&E lines to provide reasonable mitigation of adverse environmental impacts potentially resulting from Transaction-related increases in rail traffic.

CN's outreach process began when CN and USS announced the Transaction in September 2007. CN contacted officials in communities along the line, offering briefings and other information on the Transaction. Prior to the scoping process, CN held at least 23 meetings with 14 of these communities, as well as with officials from DuPage, Will, Cook, and Lake counties.

Upon completion of the scoping meetings held by SEA earlier this year to receive comments on the scope of study of the proposed environmental impact statement, CN launched its formal community outreach program. A dedicated team of senior CN officers, along with environmental experts retained specifically for this purpose, offered to meet with any community along the EJ&E line to identify their environmental concerns associated with increased train traffic and to negotiate a voluntary mitigation agreement to address those concerns. Since SEA's

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maintain environmental status quo pending completion of study and determination of mitigation), *aff'd sub nom. Western Coal Traffic League v. STB*, 169 F.3d 775 (D.C. Cir. 1999).

scoping meetings, CN officials have met with officials of 31 of the 33 communities[13] along the EJ&E line in connection with this initiative, with more than 80 meetings to date, along with numerous communications by telephone, e-mail, and letter. Discussions with the communities are at varying stages. CN has also held two "emergency response" seminars covering 12 towns in Will and Lake counties.

Any agreements that are signed as a result of this outreach process will be written to take effect upon CN's implementation of the Transaction, pursuant to a Board decision approving CN's application. CN is willing to have the Board's approval of the application be conditioned on CN's adherence to these agreements in lieu of any location-specific environmental conditions which the Board might otherwise impose.

A.2 CN has reached a mutually acceptable agreement that provides reasonable mitigation for the city of Joliet.

CN has successfully negotiated a settlement agreement with the City of Joliet, which was submitted to SEA on August 26, 2008, and which addresses all of Joliet's concerns regarding the environmental impacts of the Transaction, including delay at crossings on Washington Street and Woodruff Road, which the DEIS identified as potential candidates for mitigation. CN requests that the terms of the agreement be imposed as a condition in lieu of other location-specific mitigation SEA may otherwise impose.

III. The DEIS correctly identified alternatives to the proposed Transaction.

SEA identified two alternatives to approval of the Application (described in the DEIS as the "Proposed Action"). The first is approval of the Application with conditions, including

[13] Officials from Long Grove and Deer Park have declined to meet with CN.

environmental mitigation conditions, and the second is the "No-Action" alternative, which CEQ regulations require be examined in any EIS.[14] SEA appropriately omitted other alternatives that were suggested to it in the scoping process.

SEA properly discounted the Chicago Region Environmental And Transportation Efficiency Program ("CREATE") as an alternative to the Transaction, on the grounds that CREATE would not meet the Transaction's purposes of giving CN control of its own route around Chicago, giving CN access to EJ&E's Kirk and East Joliet Yards, and allowing CN to benefit from the supply line provided by EJ&E to various industries it now serves, including the steel, chemical, and petrochemical industries. But the most fundamental reason that CREATE is not an adequate alternative to the Transaction is that the one goal of the Transaction that CREATE has the potential to address – the reduction of congestion that slows down CN's trains (and others) within Chicago – cannot be realized if the elements of CREATE that benefit CN are not financed and implemented.

Its founders originally estimated in 2003 that CREATE would cost approximately $1.53 billion, with the rail participants collectively to contribute $232 million to pay for the estimated railroad benefits of the Project, and the remainder to be funded from federal, state, and local sources to pay for the Project's public benefits, including grade separations.[15] CN was the only railroad participating in CREATE that would be required to relocate its operations through

[14] 40 C.F.R. § 1502.14(d). CEQ has explained that consideration of the No-Action alternative is required even in cases (such as this one, *see* 49 U.S.C. § 11324(d) and discussion in section V.B., below) where "the agency is under a . . . legislative command to act." Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026, 18,037 (1981) ("Forty Questions").

[15] *See, e.g.*, Joint Statement of Understandings Regarding the Proposed CREATE Project, Section II.6 (June 13, 2003), Chicago Region Environmental And Transportation Efficiency Program, Final Feasibility Plan 25 (Aug. 2005) ("CREATE Feasibility Plan"), *available at* http://www.createprogram.org/pdf/final_feasibility_plan.pdf.

Chicago to a new route to be constructed as part of the CREATE project. CN agreed to contribute $63.4 million toward the rail assets (rail, ties, ballast, and signals) required for the construction of that route, called the Central Corridor.[16] It was understood by the participants in the project that the railroads' financial contributions and their continuing participation were dependent upon full authorization and availability of the public funds required for the project.[17]

In 2005, however, in the SAFETEA-LU legislation,[18] Congress authorized significantly less federal funding for CREATE than its proponents had sought. The lower funding provided would enable only a very limited partial implementation of CREATE in the upcoming years, and, with continued funding uncertainties, leaves realization of the remainder of the project – including construction of a new CN Central Corridor route through Chicago – in serious question.

Thus, the availability of CREATE as an alternative to the Transaction is something that CN – or the Board – cannot count on in the near term or intermediate future, which means it is not presently able to satisfy any of CN's purposes in entering the proposed Transaction. The Transaction, on the other hand, could start meeting those purposes immediately upon approval by the Board.

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[16] Under CREATE, the railroads would only be required to pay for those improvements that would actually benefit their operations, and thus the public, not the railroads, would be responsible for paying for grade separations in connection with the project. *See, e.g.*, CREATE Feasibility Plan at 25. This is true even though construction of the Central Corridor would have substantial environmental impacts on the adjacent communities, including the taking and demolition of local residences.

[17] CREATE Feasibility Plan at 9, 15 ("Except as provided in Section IV hereof [regarding $2.5 million to be provided for additional engineering], the Railroad Financial Contribution to the Project shall be contingent upon a binding commitment that establishes the availability, on terms and conditions satisfactory to the Participating Railroads, of all Additional Funding and of third-party properties necessary to complete the entire Project.").

[18] Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU), Pub. L. No. 109-59, § 1301(m), 119 Stat. 1144, 1203 (2005).

Moreover, as neither CN nor the Board is in any position to implement CREATE, NEPA does not require its consideration as an alternative to CN's application. *See Envtl. Law & Policy Ctr. v. Nuclear Regulatory Comm'n*, 470 F.3d 676, 684 (7th Cir. 2006) (reasonable for agency to conclude that NEPA does not require consideration of alternatives that applicant is in no position to implement). And, as CN is a private applicant for a federal license, the Board can "accord substantial weight to the preferences of the applicant" because Congress, in drafting NEPA, "did not expect agencies to determine for the applicant what the goals of the applicant's proposal should be." *City of Grapevine v. Dep't of Transp.*, 17 F.3d 1502, 1506 (D.C. Cir. 1994) (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190 (D.C. Cir. 1991)) (quotations omitted). Under NEPA, there is therefore no legal requirement for SEA to consider CREATE as an alternative.

SEA also properly rejected the vague suggestions of other commenters that construction of an outer rail bypass at some unspecified location should have been examined as an alternative to the Transaction. As SEA has observed, DEIS at 2-69, construction of a bypass would have much more damaging environmental impacts than the proposed Transaction, because it would require creation of a new right-of-way over potentially hundreds of miles far outside Chicago. Proponents of building a Chicago rail bypass further west have not provided the slightest indication of where it might be built (*i.e.*, in who else's back yard), how long it would be, how disruptive its construction would be, how long it would take before trains could use it, or, significantly, how much it would cost. Wherever it was proposed, the residents, businesses, and landowners in the affected communities could be expected to protest at least as vigorously as the much smaller number of people affected by the construction of DM&E's proposed new rail line into the Powder River Basin.

IV. Comments on specific "Environmental Resource Categories" addressed in the DEIS.

A. Rail Operations

CN generally concurs with SEA's assessment that the Transaction would have limited impacts on freight and passenger rail operations on the affected segments. However, CN wishes to respond to (1) SEA's characterization of the Suburban Transit Access Route ("STAR") Line, now under consideration by Metra, as "reasonably foreseeable" (DEIS at 4.1-39), requiring examination of the potential impacts of the Transaction on that project in connection with CN's proposed rail operations; (2) comments that have been made by opponents to the Transaction, to the effect that local communities would be devastated by the frequent passage of trains of 10,000 feet in length; and (3) comments that CN's traffic projections are unrealistically low.

A.1 Metra's proposed STAR Line project is not reasonably foreseeable.

In past environmental review proceedings, SEA and the Board have evaluated the impacts of proposed transactions on "reasonably foreseeable commuter rail inception or expansion plans (i.e., where capital improvements are planned, approved, and funded)." Notice of Final Scope of Environmental Impact Statement, *CSX Corp. – Control & Operating Leases/Agreements – Conrail Inc.*, STB Finance Docket No. 33388, slip op. at 5 (STB served Oct. 1, 1997). In this proceeding, however, SEA has deviated from its past practice in order to describe the impacts of the Transaction on the STAR Line, but provides no justification for this change in policy.[19] At the same time, however, the DEIS itself provides evidence of how speculative the proposed service is (DEIS at 4.1-45).

[19] *Cf. Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 209-13 (1988) (agency may not retroactively revise rule absent express authority).

The STAR Line is not "reasonably foreseeable" for at least three basic reasons. First, the threshold Alternatives Analysis under the Federal Transit Administration's New Starts program has not been completed, and the STAR Line has thus not yet been determined to be the preferred alternative to carry out the planned service so as to qualify for federal funding. Second, funding for the STAR Line is not complete. Metra's website notes that it is "currently seeking funding under the latest transportation bill" and that "state money will be a necessary component of the overall funding package."[20] Neither the Illinois legislature nor Illinois DOT has taken any steps toward funding the STAR Line. Implementation of the STAR Line, in the absence of the CN/EJ&EW Transaction, is, thus, far from "reasonably foreseeable," and should be regarded by SEA as at best speculative.

In any event, those who have attacked the Transaction as likely to kill the STAR Line are mistaken. As noted above, it is not at all certain that Metra's proposed service would ever come to life, whether or not the Transaction were implemented. In fact, CN's voluntary mitigation plan includes a commitment to "work with Metra to explore all options for service on the proposed STAR Line, including use of the EJ&E rail line" (VM 39) According to Philip Pagano, the executive director of Metra, while it would be easier to implement the STAR Line without CN running on EJ&E, he believes that Metra can "co-exist[] on a rail line with both freight and commuter traffic" and can do so "at a reasonable price."[21] Additionally, Metra has a long history of working cooperatively with freight railroads, including CN, which already shares two of its existing lines (the Joliet and Waukesha subdivisions) with Metra.

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[20] *See* Frequently Asked Questions for the STAR Line, http://metraconnects.metrarail.com/faq.php?line=star (last visited Sep. 30, 2008).

[21] *See* Andre Salles, *Illinois Officials Still Think EJ&E Sale A Bad Idea*, Chic. Sun-Times, Aug. 6, 2008, *available at* http://www.ble.org/pr/news/headline.asp?id=23161.

A.2 Communities would not be divided by 10,000-foot CN trains after implementation of the Transaction, and in any event CN has proposed a mitigation condition to prevent lengthy blockages of road crossings by CN trains on the affected line.

Some commenters have raised the spectre of frequent 10,000 foot long CN trains running over the EJ&E line,[22] blocking several road crossings at a time, and potentially cutting a community in two if the train should stop while on those crossings. Such comments fail to recognize that 10,000 feet is the *maximum* length of the intermodal train moving to or from Prince Rupert, British Columbia, that CN expects to move over the Waukesha Subdivision (and, if the CN/EJ&EW Transaction is implemented, on the EJ&E line) once a day after Phase 1 of the Fairview Container Terminal at Prince Rupert is operating at full capacity. At that time, no more than two such trains per day are expected to move over the EJ&E line (one in each direction, with the westbound train (headed toward Price Rupert) largely carrying empty containers), and the average length of all trains moving on that line would be 6,321 feet (as compared to an average length of 6,423 feet for CN trains that would move on lines through Chicago in the absence of the CN/EJ&EW Transaction).[23]

Despite the false alarms raised by some commenters, the prospect of highway crossings being blocked for long periods by stopped 10,000-foot trains is not reasonable. As the DEIS

[22] *See, e.g.*, Kevin P. Cramer, *CN Rail Deal in Danger*, N.W. Herald, July 9, 2008, http://www.nwherald.com/articles/2008/07/09/news/nation_and_world/doc487443ccdb13f108342497.txt (Barrington Hills village president quoted as raising prospect of "a 10,000-, 12,000-foot freight train running through every 43 minutes" without citing any source).

[23] *See* Letter from Paul A. Cunningham, Counsel, CN, to Victoria J. Rutson, Chief, SEA, Exhibit A (Feb. 15, 2008), *available at* http://www.stbfinancedocket35087.com/html/inforequest.html; letter from Paul A Cunningham to Victoria J. Rutson, Exhibit A (Feb. 29, 2008), *available at* http://www.stbfinancedocket35087.com/html/inforequest.html.

explains,[24] the EJ&E line provides locations where trains as long as 10,000 feet could be held, without blocking any road crossings. Moreover, under CN's current operating procedures, dispatchers and locomotive engineers are required to follow U.S. Operating Rules No. 526 (Public Crossings),[25] 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 equipment may not stand closer than 200 feet from a road crossing when there is an adjacent track. (In cases where a train nonetheless stops in such a way as to block a crossing, the crew would be required to cut the train at the crossing location so that the parts of the train would be clear of the crossing while the train was stopped, and then would have to reattach the cut cars once the train was cleared to proceed.)

In any event, CN has proposed, as part of its VMP, that adherence with U.S. Operating Rule No. 526 (Public Crossings) be imposed as a condition of Board approval of the Transaction (VM 35). If so imposed, it would be enforceable by the Board at the request of individuals or communities affected by blockages in violation of the condition.[26]

A.3 The rail traffic volumes reported in CN's Operating Plan are a reasonable basis for SEA's analysis of the environmental impacts of the Transaction.

Some commenters have challenged SEA's use of the post-Transaction rail traffic data reported in CN's Operating Plan as the basis for its analysis of environmental impacts caused by the Transaction. (It has been suggested, for example, that CN's projection that rail traffic in the

[24] *See* DEIS at 3.1-17 – 3.1-20, Table 3.1-3.

[25] *See* Letter from Paul A. Cunningham, Counsel, CN, to Victoria J. Rutson, Chief, SEA, Exhibit E (Feb. 15, 2008).

[26] Because it would be imposed by a federal agency, such a condition would not be subject to federal preemption, as would state and local laws prohibiting road crossing blockages. *Cf. Vill. of Mundelein v. Wisc. Cent. R.R.*, 882 N.E.2d 544 (Ill. 2008), *petition for cert. filed*, 76 U.S.L.W. 3597 (Apr. 24, 2008) (No. 07-1355).

Frankfort area will rise from 6 to 28 trains per day is "quite conservative," considering that CN could make improvements that would increase the capacity of the line after consummation of the Transaction, without subjecting those improvements to any environmental study.[27])

As CN has already explained to SEA, however, there appear to be no better indicators of the reasonably foreseeable relevant traffic flows than those reflected in the Operating Plan (which are comparable to those used by the Board in past environmental reviews), and any projection of greater flows would be both unreliably speculative and unnecessary for SEA's purposes.[28] While it is true that CN, like any owner of a rail line, can make capacity improvements without regulatory review, limited only by its financial resources and its ability to acquire any land that might be needed to widen its right-of-way, that fact provides little basis for determining how much traffic the railroad would carry. The theoretical ability to enhance capacity gives no reason to believe that the traffic would grow to fill it.

Finally, as CN explained above, and in its April 21 letter, SEA's analysis under NEPA is not required to evaluate impacts from action that the Board cannot, by denying approval of the Application, prevent. *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004); *see also* section V.C, below. The traffic figures reported in CN's Operating Plan are, for reasons set forth in the April 21 letter, more than sufficient to provide a basis for analysis of impacts caused by such "but-for" trains.

Some commenters, however, have argued that the traffic accounted for in the Operating Plan is too low to serve as a basis for SEA's environmental review because it fails to include

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[27] Susan Lafferty, *Frankfort: EJ&E study 'inadequate,'* Joliet Herald News, Sept. 17, 2008, *available at* http://www.suburbanchicagonews.com/heraldnews/news/1167497,4_1_JO17_FRRAIL_S1.article.

[28] Letter from Paul A. Cunningham, Counsel, CN, to Victoria J. Rutson, Chief, SEA, at 3 (Apr. 21, 2008) ("April 21, 2008 Letter"), *available at* http://www.stbfinancedocket35087.com/html/inforequest.html.

traffic moving through the Port of Prince Rupert after completion of the proposed Phase 2 of the Port's Fairview Container Terminal. If that expansion were completed, it is argued, then the capacity of the Port would rise from 500,000 truck-equivalent units ("TEUs") to 2 million TEUs, causing a proportionate increase in Prince Rupert intermodal traffic on CN lines through Chicago, and the environmental analysis of the Transaction should therefore extend to impacts of this additional traffic. But construction of Phase 2 is not reasonably foreseeable at present, and SEA was right to exclude it from its examination of impacts if the proposed Transaction.

Phase 1 of the Fairview Terminal began operations in October 2007. It currently handles 300,000 TEUs per year, which require five weekly trains in each direction. If the Terminal were to operate at the full capacity of Phase 1 (500,000 TEUs), it would require 10 trains a week (one train a day in each direction). CN assumed that Phase 1 would in fact eventually operate at capacity, and it factored the potentially resulting train traffic into its Operating Plan, which SEA relied on as the basis for its analysis of the impacts of the Transaction.

Although the Prince Rupert Port Authority has discussed expanding the Terminal beyond Phase 1, no decision to undertake that expansion has been made. The Port Authority does not have the funds necessary for the proposed expansion, and neither the federal nor provincial government has indicated that it would provide them. Thus, if the Terminal is to be expanded into Phase 2, that decision that must be made by RREEF Infrastructure, the new owner of Maher Terminals, which operates the Terminal.[29] RREEF is facing substantial uncertainty – even apart from the current financial uncertainties in the U.S. and elsewhere – as to whether to invest in the expansion for several reasons, including the following:

[29] *See RREEF Infrastructure Completes Maher Terminals Acquisition*, Bus. Wire, July 5, 2007; RREEF, Infrastructure, Business Overview, https://www.rreef.com/cps/rde/xchg/infr_en/hs.xsl/692.html.

1. Demand for trans-Pacific intermodal traffic is lower than previously expected. Growth in that traffic is now projected to grow at levels of 5 to 7% between 2010 and 2020, rather than between 10 and 20% as previously forecast.

2. West Coast ports at Vancouver, Tacoma, and Los Angeles, which compete with Prince Rupert, are expected to expand their capacity by up to 5.4 million TEUs between now and 2020, making demand for transportation through Prince Rupert even weaker. In addition, a new container facility has been proposed for construction in Mexico at Punta Colonet, with a capacity of 2 million TEUs per year. As these projects are completed, the demand for expansion at Prince Rupert could readily change.

3. Expansion beyond Phase I would require negotiations with the Canadian Department of Oceans and Fisheries for environmental permitting, because of possible negative impacts on fish and wildlife habitat. A satisfactory outcome of those negotiations is by no means assured.

4. The expansion would require deposit of fill on land and water to which First Nations (Canadian Native Americans) have asserted claims. Before construction could begin, those claims would need to be resolved, through a process of negotiating with five First Nations bands that have inconsistent positions regarding appropriate compensation. These negotiations are likely to be more complex than comparable negotiations with First Nations in connection with Phase 1 of the Terminal, which, unlike Phase 2, involved construction on the site of an existing terminal rather than one on undeveloped property.

For these reasons, CN believes that any statements by the Prince Rupert Port Authority regarding early commencement and completion of Phase 2, however optimistic, offer little basis for anyone to conclude that Phase 2 is reasonably foreseeable. In the end, it is not the Authority

that will determine to spend the money needed for the expansion. RREEF, which would be making the investment, has not yet determined to do so.

B. Freight Rail Safety

CN agrees with SEA's conclusion that there would be an overall system-wide decrease in accidents. DEIS at 4.2-1. As the DEIS makes clear, and the following tables illustrate, CN has a better safety record than EJ&E; consequently, the DEIS appropriately projects that the Transaction would lead to a decrease in number of accidents.

Railroad	Average Accident Rates per Million Train Miles[30]	Average Main Track Accident Rate per Million Train Miles[31]	Average Yard Accident Rate per Million Yard Switching Miles[32]
CN	4.2	1.5	11.7
EJ&E	18.2	3.1	33.3

CN, moreover, has an established history of improving safety and decreasing accidents on a line after assuming control. After CN's acquisition of both Illinois Central and Wisconsin Central, the safety record of each of those systems improved.[33] And to the extent that reduction in rail congestion in Chicago makes shippers less likely to shift from rail transportation to the inherently more unsafe truck transportation, it will enhance overall hazmat safety.

In addition to the thorough analysis provided in the DEIS, CN submitted a detailed Safety Integration Plan ("SIP"), pursuant to STB and FRA regulations, and FRA has declared that it is

[30] Source: DEIS Table 4.2-1

[31] Source: DEIS Table 4.2-2

[32] Source: DEIS Table 4.2-2

[33] Federal Railroad Administration, United States Department of Transportation, 2002 Railroad Safety Statistics: Final Report, Table 1-7, *available at* http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/publications.aspx?itemno=7.05 (train accident rate on IC declined from 7.82 accidents per million train miles in 1998 (the year before its acquisition) to 6.13 in 2000 (the year after acquisition); train accident rate on WC declined from 8.27 in 2000 (the year before acquisition) to 5.21 (the year after acquisition)).

satisfied with the SIP, submitted by CN on June 27, 2008.[34] Some commenters have noted a Canadian Parliamentary report concerning past CN safety matters in Canada. While safety is always a top priority, CN's operations in Canada are subject to a different regulatory regime, and only statistics related to CN operations in the US are relevant for purposes of the DEIS because those are the only ones that can properly be compared with EJ&E.

In its Voluntary Mitigation Plan, CN has adopted (as VM 13), substantially all of SEA's proposed additional mitigation item no. 37 (regarding development of a fire prevention and suppression plan in connection with Transaction-related construction). SEA's proposal, however, is not reasonable to the extent that it would require installation of low-spark brake shoes on railcars in addition to locomotives. CN cannot require shippers and other railroads to install brake shoes on their equipment, yet must haul those cars if interchanged by other railroads or tendered by shippers. And, even as to CN's own cars, requiring retrofitting to install low-spark brake shoes would be prohibitively expensive, and not justified by the expected reduction in incident of accidental fires.

C. Vehicle Safety

CN agrees with SEA's analysis that vehicle safety would improve in the region as a result of the Transaction, DEIS at 4.2-17, and that no crossings would experience a significant increase in the frequency of accidents. DEIS at 4.2-19. SEA's proposed additional mitigation measure no. 4 (regarding a media campaign CN would be required to conduct about increased operations along the EJ&E rail line) is reasonable to the extent that it would require CN to use radio and

[34] Letter from Joseph Boardman, Administrator, FRA to Victoria J. Rutson, Chief, SEA (Sept. 12, 2008), *available at* http://www.stb.dot.gov/ect1/ecorrespondence.nsf/PublicIncomingByDateReceived/2AA0AD5F7FB0E15D852574CC007328E6/$File/13680.BOARDMAN.PDF?OpenElement

newspapers for that campaign, and CN has modified item VM 2 of its VMP to reflect SEA's item no. 4 to that extent.

However, it would be unreasonable to require that CN also hold public meetings to notify the public of increased operations. SEA has already held two rounds of meetings around the EJ&E arc, once in connection with the scope of its environmental review and once to receive comments on the DEIS. Any medium used to inform the communities about the public meetings could just as readily be employed to inform them about the fact of increased traffic volumes. There is no need for residents who have read or heard about those increases to come to a public meeting to hear about them again, nor is there any reason to require CN to bear the expense of setting up such superfluous meetings.

D. Hazardous Materials Transportation Safety

The DEIS determined that while "hazardous material releases have historically been, and should continue to be, extremely rare . . . there would be a potential increase in the possibility of a release because of increased train miles resulting from the longer route, and more carloads of hazardous materials, on the EJ&E rail line." DEIS at 4.2-38. CN agrees that the "possibility of a hazardous materials release would remain remote" both because of the existing regulatory requirements and CN's own safety-focused operating environment. Moreover, to the extent that reduction in rail congestion in Chicago makes shippers less likely to shift from rail transportation to the inherently more unsafe truck transportation, the Transaction would enhance overall hazardous materials safety.

In addition, as the DEIS properly observes, the Transaction would result in the movement of hazardous materials across the Chicago region more quickly than under the No-Action Alternative. DEIS at 4.2-38. Not only would this improve safety, by reducing the time during

which people in the vicinity of CN's lines would be exposed to risk, but it would also improve security, by reducing the time during which hazmat railcars would be vulnerable to vandalism, terrorism, or other malicious activities that could lead to a harmful release.

Moreover, the DEIS overlooked recent federal regulations that suggest that the Transaction may cause less of an increase in the volume of hazardous materials moving on the EJ&E line than assumed in the DEIS. Those regulations may require more of those materials to move on the EJ&E line, even under the No-Action Alternative.

In April 2008, the Pipeline and Hazardous Materials Safety Administration adopted an Interim Final Rule that could require rail carriers to alter their existing routes for hazardous materials in order to avoid dense urban populations. *See Hazardous Materials: Enhancing Rail Transportation Safety and Security for Hazardous Materials Shipments*, 73 Fed. Reg. 20,752, 20,771 (Apr. 16, 2008) (issuing 49 C.F.R. §§ 172.820, 172.822, 49 C.F.R. Part 172 Appendix D; revising 49 C.F.R. § 174.9). The new regulations require every rail carrier of certain hazardous materials to "analyze the safety and security for each route" that handles the materials, "identify practicable alternative routes over which it has the authority to operate," and then use the analysis to select the best route to be used. *Id*. In determining practicable alternative routes, railroads must consider the use of interchange agreements with other carriers. *Id.* at 20,766, 20,771. Because a "primary safety and security concern" addressed by the regulations is "the prevention of catastrophic release or explosion in proximity to densely populated areas, including urban areas," *id.* at 20,760, the regulations could well lead railroads such as CN to select alternatives routings for hazardous materials shipments rather than current ones through the city of Chicago, and to enter interchange agreements that would increase the hazardous materials traffic on EJ&E, even without acquiring EJ&E's lines.

It is thus entirely possible that a much higher volume of hazardous materials traffic would be transported over EJ&E under the No-Action alternative than the DEIS projects. While it may not be presently possible to quantify this potential increase in hazardous materials traffic, SEA's analysis does not appear to take it into account at all and is thus extremely conservative in this regard.

CN has added VM 23 to its Voluntary Mitigation Plan, to reflect the substance of SEA mitigation item no. 11 (regarding emergency response plans), except with regard to two points. Notification of individual residing in a community affected by a hazardous materials emergency is properly the responsibility of appropriate agencies, who are more familiar than the railroad with the community and its inhabitants, and with the best way to inform them in the event of an emergency. Also, it would be unreasonable to require CN to provide response plans to relevant agencies almost immediately (60 days) after the effective date of the Board's final decision, especially given the DEIS's conclusion that the expected interval between hazardous materials releases on the affected EJ&E lines would, at worst, decline to 71 years. VM 23 would therefore instead require CN to develop internal emergency response plans for the notification of agencies, not individuals, in an emergency and to provide its response plans to relevant authorities within six months of CN's acquisition of EJ&EW.

SEA has also proposed additional mitigation measure no. 12 (regarding provision of "toll-free telephone numbers" to the emergency response organizations or coordinating bodies responsible for each community located along the EJ&E rail line). The substance of this proposal has been incorporated into VM 24, in CN's voluntary mitigation plan. It would be unreasonable, however, to obligate CN to establish more than one toll-free number, and equally unreasonable to require CN to establish a Spanish-language option, as SEA proposal no. 12 does.

While official emergency response organizations and coordinating bodies in the United States may have bilingual capabilities, so that they may better serve those of their constituents who are not fluent in English, it would be unreasonable to assume that those organizations and bodies may themselves be unable to communicate in English. It would be even more unreasonable to impose extra costs and burdens on CN on the basis of such an unreasonable assumption.

E. Transportation Systems – Regional and Local Highway Systems

SEA evaluated the effects of the Transaction on the regional and local highway systems by estimating the change in vehicle delay at highway/rail at-grade crossings and then assessing how increased delays could affect regional mobility. SEA concluded that 15 grade crossings[35] would be "Potentially Substantially Affected" by the Transaction, meaning that, according to SEA, traffic congestion at those crossings would likely cause "a serious impact on the overall mobility of the respective communities under the Proposed Action" and that mitigation at those crossings was therefore "appropriate and warranted." DEIS at 6-18, 6-19. SEA did not recommend specific mitigation, but suggested "a menu of mitigation options" up to and including complete grade separation (*i.e.*, construction of an overpass or an underpass for the railroad or the highway), for which CN could be called on to pay up to 25 to 50 percent of the costs. *Id.* at 6-19—6-21.

SEA arrived at its list of 15 grade crossings for potential mitigation by applying not only its established Level of Service ("LOS") standard (under which only two grade crossings would

[35] In addition, two other crossings appear to meet aspects of SEA's standards for mitigation in this case, but were not included on the list of crossings that SEA determined required mitigation. Those two crossings are Diamond Lake Road (which Table 4.3-11 notes exceeds the queue length criterion) and IL 60&83, which table 4.3-4 notes exceeds the total delay criterion). Since those crossings present some common issues with the 15 listed, they are discussed below.

have been considered for grade separation),[36] but also other standards. SEA relied on Federal Highway Administration ("FHWA") guidelines that, according to SEA, "suggest that grade crossings should be considered for grade separation or otherwise eliminated across the railroad right-of-way whenever one or more" of 11 conditions exist. *Id.* at 4.2-14—4.2-15. Of those 11 conditions, SEA ultimately determined that, in application, only three indicated that mitigation might be required: "crossing exposure" (for three crossings); "total delay" (12 crossings), and high expected accident frequency (one crossing). *Id.* at 4.2-17—4.2.-19, 6-18—6-19.[37] In addition to the FHWA guidelines, SEA created a "queue length" standard, which it had not previously applied, under which a crossing was judged to be "seriously affected" if SEA determined, based on its projection of vehicular traffic volumes in 2015, that the queue of vehicles stopped at the crossing for a passing train would be long enough to block a major thoroughfare, *id.* at 6-18—6-19.

As discussed below, SEA's analysis of transportation systems was arbitrary and greatly overstated both the number of locations where mitigation, including grade separations, should be considered and the range of contribution that could reasonably be expected from CN for such grade crossings. There was no basis for SEA to alter the criteria it had previously used to identify grade crossings to be considered for mitigation, especially for grade separation. In

[36] DEIS at 6-18.

[37] The specific FHWA guidelines used are: (1) for vehicle crossing exposure, the product of the number of trains per day and ADT exceeds 1,000,000 in urban areas; (2) for "total delay," "vehicle delay exceeds 40 vehicle hours per day; and (3) for "accident frequency," the expected accident frequency for active devices with gates, as calculated by the USDOT Accident Prediction Formula, including 5-year history, exceeds 0.5. DEIS at 4.2-14—4.2-15; Federal Highway Administration, U.S. Department of Transportation, Railroad-Highway Grade Crossing Handbook 151 (rev. 2d ed. Aug. 2007) ("FHWA Handbook"), *available at* http://safety.fhwa.dot.gov/xings/07010/07010.pdf.

addition, SEA's data and methodology used to analyze traffic volumes were flawed and resulted in greatly overstated average daily vehicular traffic ("ADT"). Finally, it would be unreasonable, beyond the Board's authority, and contrary to good public policy, to require CN to pay more than the maximum fixed by statute and regulations for the railroad's share of grade separation costs or to otherwise apply to CN standards for assessing impacts, determining the need for mitigation, or allocating the cost of mitigation that are not generally applied to railroads causing similar impacts in the states and localities at issue.

E.1. CN has reached an agreement to assure mitigation of the only two vehicular crossing delay impacts of the Transaction that could reasonably be found to warrant grade separation under the standards previously applied by the Board for this purpose.

As discussed below, in past proceedings, SEA and the Board have determined that grade separation to mitigate Transaction-related vehicular delay should be considered at grade crossings where the following three criteria are met:

- Post-Transaction LOS would decrease at least one LOS grade and the Post-Transaction LOS would be at LOS E or F;
- Transaction-related train traffic would increase by at least eight trains per day; and
- Increased train speeds would appear not to be feasible or sufficient to mitigate Transaction-related delay impacts.

Draft Environmental Impact Statement at G-7, *Dakota, M. & E. R.R. Construction into the Powder River Basin*, STB Finance Docket No. 33407 (STB served Sept. 27, 2000) ("*DM&E DEIS*"); *accord*, *Conrail DEIS* at C-15.[38] Under these criteria, the only candidates for grade

[38] LOS is described in section E.2.a, below.

separations would be the crossings at Woodruff Road and Washington Street in Joliet.[39] CN has successfully negotiated a settlement agreement with the City of Joliet, which was submitted to SEA on August 26, 2008, and which addresses all of Joliet's concerns regarding the environmental impacts of the Transaction, including delay at the Woodruff Road and Washington Street crossings. CN requests that the terms of the agreement be imposed as a condition in lieu of other location-specific mitigation SEA may otherwise impose at these crossings.

E.2. SEA has offered no rational basis for the prescription of grade crossing separations where roadway performance is not impaired below levels of service as measured by generally accepted and roadway performance standards.

In previous environmental reviews, SEA has determined mitigation for vehicle delay at grade crossings based on the degradation in the LOS at the grade crossing. For the reasons discussed below, the LOS criterion is a reasonable and defensible standard for imposing mitigation that leads to predictable and rational results. In the absence of any demonstration that LOS is insufficient as a criterion for determining mitigation, it would be unreasonable to abandon its use and base mitigation on other standards.

[39] At both crossings, the projected number of daily trains would rise by 21.8. CN has determined that the LOS would fall from B to E at Woodruff Road and would fall from A to E at Washington Street. *See* letter from Paul A. Cunningham, Counsel, CN, to Victoria J. Rutson, Chief, SEA, Exhibit B (Sept. 26, 2008), *available at* http://www.stbfinancedocket35087.com/html/inforequest.html. SEA has calculated that LOS would fall to F at both crossings. DEIS, App. E., Att. E at 11. The current configuration of the tracks crossing these highways would not permit the movement of trains at speeds faster than 10 mph.

E.2.a. It would be arbitrary, capricious, and unreasonable for the Board, as suggested by SEA, to abandon its past practice of using LOS as the principal indicator of the need for mitigation due to potential vehicle delay.

LOS has long been used as a measure of operational efficiency for roadways and signalized intersections. The criteria for and descriptions of LOS are provided by the *Highway Capacity Manual*.[40] LOS is a measure of quality, describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. HCM at 2-2. LOS is expressed as a letter grade ranging from LOS A (free flowing) to F (severely congested) and is measured quantitatively by the average delay for all vehicles. Each LOS designation is also intended to reflect and describe qualitatively the user's perception of the operational conditions within the traffic stream. *Id*. at 2-3. Thus, LOS encompasses both quantitative and qualitative elements.

Because of similarities between a signalized intersection and a railroad/highway at-grade crossing, SEA adopted the LOS methodology in the *Conrail* proceeding and applied it in its environmental review in that case. *Conrail DEIS* at C-14. SEA also incorporated the LOS methodology into its criteria for determining when grade separations could be warranted. *Id.* at C-15. Basing mitigation initially, if not conclusively, on a decline in LOS is reasonable because the LOS standard is heavily studied, well understood, and widely used. Most important, the LOS criterion takes into account the change in the overall performance of vehicular traffic at the crossing, as opposed to the exceedance of a single delay criterion, which may or may not indicate degradation in roadway performance that warrants mitigation. As SEA stated in *Conrail*, it chose the criterion to "identify grade crossings where there would be a significant *degradation* in

[40] Transportation Research Board, Highway Capacity Manual (2000) ("HCM"). According to SEA, each state uses the HCM for capacity-related analysis, which governs the functional facility parameters needed to meet specified levels of performance. DM&E DEIS at G-4.

level of service as a result of . . . significant increases in proposed train traffic." *Id.* at C-15 (emphasis added). While the LOS criterion used in the HCM may not be completely representative of the conditions at highway/rail at-grade crossings, SEA's use of it was logical because a decline to an LOS of E or F represents a level at which existing infrastructure is no longer sufficient to effectively handle both vehicles and trains and where delay becomes significantly noticeable to most people.

The LOS criterion has been used by SEA since *Conrail*, where it was the basis for the only grade separation ordered as part of that proceeding.[41] Only a few months before issuing the DEIS in this proceeding, in an Environmental Assessment ("EA"), SEA used the LOS criterion as the sole determinant of whether mitigation for vehicle delay was required.[42]

LOS is based on the level of delay experienced by each vehicle that passes through the crossing – including vehicles delayed and not delayed by a train – and is calculated by dividing the total amount of time vehicles are delayed at a crossing by the total number of vehicles that travel through the crossing in a 24-hour period.[43] In other words, it is a measure of the average

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[41] Compare 6B Final Environmental Impact Statement, App. G, at G1, *CSX Corp. – Control & Operating Leases/Agreements – Conrail Inc.*, STB Finance Docket No. 33388 (STB served May 29, 1998) ("*Conrail FEIS*") (listing Randolph Street in Dekalb County, Indiana as the only crossing with a post-acquisition LOS of F) with 5 *Conrail FEIS* at 7-31 (imposing as a condition that CSX "continue negotiations . . . for the expeditious implementation of a grade separation at CSX's Randolph Street highway/rail at-grade crossing.").

[42] *See Ariz. E. Ry. – Constr. & Operation – In Graham County, AZ*, STB Finance Docket No. 34836, Draft Environmental Assessment at 4-8 & Appendix F (STB served Feb. 25, 2008) ("Traffic/transportation impacts would be considered significant if the Proposed Action resulted in excessive delay as characterized by an exceedance of LOS standards established in the Highway Capacity Manual." *Id.* at 4-8. The EA found that traffic would operate at a LOS of B or C at two relevant crossings, and that "LOS B and LOS C are considered acceptable levels of service for roads of this type. SEA has determined that no mitigation would be required." *Id.* at 4-10.)

[43] When calculating the average delay for all vehicles (on which LOS is based), SEA also multiplied the amount of time vehicles are delayed by 2 to produce "a conservative estimate of delay." DEIS, Appendix E, Attachment E1 at E-8—E-9.

amount of time a vehicle can reasonably be expected to be delayed each time it crosses a rail line. Some days a driver may not be delayed at all, while on others that same driver may be the first to arrive at a crossing as the gates are lowered. But over time, a driver will be delayed by a certain amount of average time each time he or she crosses that crossing.

The following table shows the LOS criteria used in the *HCM*:[44]

LOS	Average Delay per Vehicle Using the Crossing[45] (seconds/vehicle)
A	≤ 10
B	≥ 10-20
C	≥ 20-35
D	≥ 35-55
E	≥ 55-80
F	≥ 80

The following table shows the post-Transaction delay per vehicle using the crossing, as calculated by SEA and reported in the DEIS, and the corresponding LOS for each of the crossings identified by SEA as potentially requiring mitigation:

[44] *See also id*. at E-9, Table E.2-3.

[45] Delay per vehicle is the estimated average delay experienced for all vehicles at an affected grade crossing including vehicles not delayed by train traffic. It is most easily defined as the aggregate delay incurred by vehicles divided by total traffic at the crossing.

Post-Transaction Delay and Level of Service Calculations for Crossings Determined by SEA to Require Mitigation, as Reported in the DEIS[46]		
Crossing	Post-Transaction Average Delay per Vehicle[47] (seconds/vehicle)	Level of Service
Allanson Road	19.4	B
Diamond Lake Road	13.2	B
IL 60 & 83	12.0	B
Old McHenry Road	9.6	A
Ela Road	7.8	A
Hough Street (IL 59 & 63)	6.6	A
Liberty Street	18.0	B
Ogden Avenue (US 34)	12.0	B
Montgomery Road/83rd Street	12.0	B
135th Street	12.0	B
Woodruff Road	108.0	F
Washington Street	102.0	F
Cicero Avenue	12.0	B
Western Avenue	12.0	B
Chicago Road	24.0	C
Lincoln Highway (US 30)	12.0	B
Broad Street (IN)	18.0	B

This table shows SEA's determination of post-Acquisition average delay as of 2015, and not merely the change attributable to the Transaction. The table shows that only two crossings, with a post-Transaction LOS of F, exceed SEA's established threshold for grade separations; performance is not even close to being substantially impaired for any other crossings. As discussed above, CN has already reached a negotiated agreement regarding these two crossings

[46] *See* Table E1.2-1, in Attachment E1 of Appendix E. These figures do not take into account the several ways, discussed below, in which the DEIS overestimates delay at grade crossings. As noted in footnote 34, Diamond Lake Road and IL 60&83 are included in this table and discussion although neither is listed in Table 6.3-1.

[47] Delay per vehicle is the estimated average delay experienced for all vehicles at an affected grade crossing including vehicles not delayed by train traffic. It is most easily defined as the aggregate delay incurred by vehicles divided by total traffic at the crossing

(Washington Street and Woodruff Road in Joliet), which are the only crossings that meet SEA's established LOS criteria of significance for consideration of mitigation.

E.2.b. The hyperbole of local opponents concerning the impacts of delay is starkly contrary to the facts and cannot justify SEA's departure from its prior use of established LOS standards for identifying crossings requiring mitigation.

Citing substantial percentage increases in traffic, rather than focusing on the more relevant absolute levels of traffic that are commonly found throughout the region, many Transaction opponents have argued that their communities would be virtually destroyed by vehicle delays at grade crossings absent multiple grade separations. To them, any analytic methodology used by the Board that does not justify grade separations for their communities is necessarily flawed. As discussed in this section, however, the facts are very different. When the impacts of vehicular delay are brought down to the level of specific impacts on individual drivers it becomes evident that grade separations beyond those that would be found using the Board's customary LOS criteria are unnecessary and cannot possibly be justified on the basis of costs and benefits. Opponents' hyperbolic descriptions of delay impacts provide no basis for the Board to deviate from its LOS standard by applying new and different standards for the identification of crossings potentially warranting mitigation.

The Village of Barrington provides one case on point. At SEA's open house in the Village of Barrington, its director of community and financial services said "there are actually three grade crossings that will be substantially impacted in Barrington if this acquisition is approved. Providing grade separations at each of these crossings is estimated to cost upwards of $80 million each which means that Barrington would have to have $240 million in funding for

grade separations."[48] All of this for a community that has only some 10,000 residents, many of whom are not old enough to drive.

The following table shows that in fact there would be minimal impacts attributable to the Transaction on the three crossings that Barrington believes will be "substantially impacted":

Delay Calculations for Three At-Grade Crossings in Barrington, as Reported in the DEIS[49]			
	Northwest Highway	Hough Street	Lake/Cook Road
Total post-acquisition average delay for every vehicle that passes through the crossing (seconds per day)	6.6	6.6	6.6
Total post-acquisition average delay per vehicle delayed by a train (minutes per day)	1.6	1.6	1.6
Change in total time gates are down at crossing (minutes per day)	43.5	43.4	43.4
Change in the percent of the day gates are down at a crossing	3.0%	3.0%	3.0%
Total number of vehicles delayed per day	1,182	844	499
Total number of vehicles over the crossing per day	33,662	24,056	14,222

The average vehicle passing over these crossings would be delayed by a total of 6.6 seconds each time it passed over the crossing – or about the amount of time it takes to read this sentence. For each vehicle using the crossings, that is equivalent to an additional 40 minutes a year, assuming one crossing a day. The crossing itself would be blocked only an extra 44 minutes a day – equal to 3% of the day.

Thus, according to the calculations in the DEIS, a vehicle would be delayed at the three Barrington crossings because of a train once every 28.5 days, or 13 times a year – a little more

[48] Transcript of Scoping Meeting for the proposed Canadian National Railway Company Acquisition of the Elgin, Joliet & Eastern Railway Company (Aug. 27, 2008), *available at* http://www.stb.dot.gov/ect1/ecorrespondence.nsf/PublicIncomingByDateReceived/43533F042EC11BD8852574BB0042B1DB/$File/12377.BEAN.PDF?OpenElement. A subsequent speaker identified those three crossings as US Highway 14 (Northwest Highway), State Road 59 (Hough Street), and Lake Cook Road. *Id*. at 44. No one has identified the basis for the $80 million estimate.

[49] All numbers come from the DEIS, which overstates by 2 the number of trains (18.3) that would operate over EJ&E does not use updated train speeds, and projects ADT to 2015. The actual impacts upon implementation of the Transaction would therefore be even less.

than once a month.[50] When delayed by a train, a driver's trip would be delayed, on average, by 1.6 minutes. In other words, the "substantial impacts" that Barrington believes warrant $240 million in mitigation, would amount to a total of 1.6 minutes of delay every 4 weeks for each driver using those crossings.

To put that cost in perspective, the DEIS estimates that a total of 2,525 vehicles a day (3.5% of the total vehicles that cross on a given day) would be delayed at those three crossings. Across all three Barrington crossings, vehicles would experience a total increase of 3,721 minutes of delay a day,[51] or a total of 62 hours a day, or 22,630 hours per year, or about 678,900 hours in the 30 years over which the cost of the grade separation could be expected to be amortized. Given that Barrington believes it would be necessary to spend $240 million to mitigate the 30-year impact of 678,900 hours, in order to justify the mitigation cost on the basis of a cost benefit/benefit analysis, SEA would need to find that the opportunity cost of the time of the average vehicle occupant using the crossings in Barrington is at least $353 an hour.[52]

This is just one example of the how opponents of the Transaction have often grossly overstated the impacts the Transaction would have at crossings for communities along the EJ&E line. Minimal impacts are projected for most such crossings; daily delay per vehicle is projected to be a matter of seconds. The following table shows in detail (using DEIS data that, as is

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[50] For example, at the Northwest Highway, SEA estimates an ADT of 33,662, with 1,182 drivers delayed per day. Assuming a different 1,182 drivers are delayed on day 2 than day 1 means that a single driver will be delayed every 33,662 / 1,182 = 28.5 days. Conversely, if it is the same 1,182 drivers that are delayed every day, then every other driver would not be delayed at all. Reality will likely be somewhere in the middle, with some drivers being delayed more frequently than others. But the average driver would be delayed every 28.5 days.

[51] *See* DEIS at 4.3-11—4.4-15 (Table 4.3-4) (difference between Proposed Action and No-Action alternatives at Northwest Highway equal to a total of 1,744 minutes of delay a day; at Hough Street, 1,243 minutes; and at Lake/Cook Road, 735 minutes).

[52] $240,000,000 divided by 678,900 hours equals $353 dollars/hour.

demonstrated below, overstates delay) the impacts of the Transaction on drivers using crossings in various jurisdictions on EJ&EW:

Selected Post-Transaction Delay Calculations, as Reported in the DEIS, for Jurisdictions Along EJ&E			
	Weighted Average Delay per Vehicle[53] (seconds)	**Weighted Average Delay per Delayed Vehicle[54] (minutes)**	**Average Gate Down Time[55] (% of a 24 hour period)**
Overall	13.64	1.8	6.0%
By State			
Illinois	14.17	1.8	6.1%
Indiana	11.18	1.7	5.4%
By County			
Lake (IL)	8.92	1.8	4.0%
NW Cook (IL)	6.79	1.6	3.6%
Dupage (IL)	12.56	1.7	6.1%
Will (IL)	19.55	1.9	6.9%
SE Cook (IL)	16.14	2.0	7.1%
Lake (IN)	11.18	1.7	5.4%
By Community			
Libertyville (Lake)	13.20	2.3	4.9%
Mundelein (Lake)	12.00	2.1	4.6%
Hawthorn Woods (Lake)	9.38	1.9	4.1%
Lake Zurich (Lake)	9.29	1.9	4.2%
Barrington (Lake/Cook)	6.63	1.6	3.5%
Hoffman Estates (Cook)	7.20	1.7	3.7%
Elgin (Cook)	6.55	1.5	3.4%

[53] Delay per vehicle is the estimated average delay experienced for all vehicles at an affected grade crossing. In other words, it is the aggregate delay divided by total traffic at the crossing. This column shows the weighted average of delay per vehicle for all crossings in the listed jurisdiction.

[54] Average delay per delayed vehicle is the average amount of time that a driver would be delayed at a grade crossing as a result of a single train event, assuming uniform vehicle arrival. This column shows the weighted average of delay per delayed vehicle for all crossings in the listed jurisdiction.

[55] Average gate down time as a percentage of a 24 hour period measures the total time the crossing is blocked during a 24 hour period. Total gate down time is the product of the blocked crossing time per train and the number of trains per day. This column expresses that result as a percentage of a 24 hour period.

Selected Post-Transaction Delay Calculations, as Reported in the DEIS, for Jurisdictions Along EJ&E			
	Weighted Average Delay per Vehicle[53] (seconds)	**Weighted Average Delay per Delayed Vehicle[54] (minutes)**	**Average Gate Down Time[55] (% of a 24 hour period)**
Bartlett (Dupage)	6.60	1.5	3.7%
Wayne (Dupage)	7.80	1.6	4.0%
West Chicago (Dupage)	15.08	2.0	6.5%
Naperville (Dupage)	12.00	1.6	5.4%
Aurora (Dupage)	13.30	1.6	6.8%
Plainfield (Will)	11.98	1.5	6.6%
Crest Hill (Will)	12.50	1.5	7.2%
Joliet (Will)	56.89	3.3	9.7%
New Lenox (Will)	12.00	1.7	5.2%
Frankfort (Will)	10.26	1.7	5.2%
Matteson (Cook)	13.05	2.0	5.9%
Park Forest (Cook)	12.00	1.9	6.3%
Chicago Heights (Cook)	24.58	2.4	8.2%
Sauk Village (Cook)	6.00	1.4	5.1%
Lynwood (Cook)	12.00	1.7	6.1%
Dyer (Lake, IN)	12.00	1.6	6.0%
Schererville (Lake, IN)	12.00	1.5	5.4%
Griffith (Lake, IN)	14.05	1.8	5.6%
Gary (Lake, IN)	6.00	1.5	4.7%

This table shows that, overall, vehicles using the crossings would, on average, experience less than 14 seconds of delay. When a vehicle is stopped at a crossing, the average wait time would be less than 2 minutes. Overall, gates would be down for an average of 6.0% of the day, for a total average of 86 minutes a day.[56]

[56] This analysis comes from the DEIS, which as discussed elsewhere, substantially overstates the impact of the Transaction on vehicle delay. Under CN's analysis, which was submitted to SEA on September 26, 2008, overall average delay per vehicle would be 5.9 seconds; average delay per delayed vehicle would be 1.7 minutes; and blocked crossing time per day would be 5.4%.

Such delays are not unusual for the region, as many communities see more traffic than CN proposes to route via EJ&E. The following chart compares the traffic on main lines of three of CN's competitors into Chicago:

Comparison of Major Rail Lines in the Chicago Region					
Railroad (line)	Length of Line (miles)	Average Number of Trains (Freight & Commuter)	Number of Communities Impacted	Total Number of Public Grade Crossings	Total Number of Grade Separations
EJ&E Post-Transaction (Leithton to Gary)	105	20-40	33	99	42
BNSF (Eola to IHB)	19.5	142	9	23	15
UP West (West Chicago to Proviso)	15.9	107	8	28	8
UP North (Barrington to Mayfair)	24.3	67	8	33	7
CP (Mayfair to Roundout)	23.2	82	10	21	9

In sum, given the potential impacts of the proposed Transaction, there is no basis for concluding that the Board's LOS analysis fails to identify all grade crossing locations potentially warranting mitigation due to potential vehicle crossing delay. Accordingly, and for the reasons discussed further below, SEA's application of FHWA guideline criteria and use of a novel queue length analysis as an additional means of identifying crossing locations requiring mitigation (including possible grade separation) due to potential vehicle delay is unnecessary and unreasonable.

E.2.c. SEA has improperly used FHWA guidelines intended as non-binding threshold guidance to state transportation planners as a principal basis for prescribed mitigation.

SEA initially introduced the use of FHWA guidelines for the DEIS as relevant to its determination of whether the transaction "would significantly affect traffic safety." DEIS at 4.2-14.[57] It stated that the "guidelines suggest that grade crossings should be considered for grade separation or otherwise eliminated across the railroad right-of-way whenever one or more" of the eleven conditions listed by SEA exist. *Id*. Later in its analysis, it extended its use of FHWA guidelines to act as an independent basis for finding that mitigation is required on the basis of vehicle delay. *Id.* at 4.3-9.

SEA ultimately used three of the conditions from the FHWA guidelines – vehicular crossing exposure, vehicle delay in excess of 40 vehicle-hours per day, and "high incidence of predicted accidents" – as a basis to determine that a current grade crossing would be "substantially affected" by the Transaction and thus require mitigation, including possible grade separation. DEIS at 4.2-15. The one clearly safety-based crossing condition – high incidence of predicted accidents – was found by SEA to justify mitigation at only Woodruff Road in Joliet, which, as discussed above, already exceeded the established LOS criterion and is the subject of a settlement agreement.[58] By contrast, SEA's use of its FHWA-based "vehicle delay" guideline

[57] Similarly, in the *Bayport Loop* construction case, while SEA stated that it "conducted its grade crossings analysis in accordance with USDOT's Federal Highway Administration guidelines," Final Environmental Impact Statement at 4-23, *San Jacinto Rail Ltd. – Constr. & Operation Exemption – Build-Out to the Bayport Loop Near Houston, Harris County, TX*, STB Finance Docket No. 34079 (STB served May 2, 2003) ("*Bayport Loop FEIS*"), an examination of SEA's methodology shows that the FHWA guidelines were used in its analysis of safety impacts of the proposed new rail line, but not in evaluating delay. Instead, in assessing delay, SEA continued to rely exclusively on the LOS standard. *Compare Bayport Loop DEIS* at F-1—F-6 (grade crossing delay methodology) *with id.* at F-7 (traffic safety methodology, applying FHWA criteria).

[58] Although it should not be at issue due to the settlement, the STB should note that, in accordance with FHWA's own guidelines, Woodruff Road would not qualify as a candidate for

became the sole basis for including 7 crossings in the Board's list of 15 crossings requiring mitigation and, in combination with the volume-based "vehicle exposure" guideline, was responsible for the addition to that list of 2 more crossings. Thus, of the 13 crossings listed by SEA for mitigation that are not subject to a settlement agreement, 9 were added by SEA through its FHWA-based analysis.

This use of the FHWA guidelines was unprecedented, unwarranted, and based on a misapprehension of the purpose of the guidelines. The FHWA guidelines were neither developed nor intended to be used for the mandatory prescription of mitigation conditions, are ill-suited to that application, and were certainly not intended to be used as an independent justification for mitigation on the basis of traffic volumes or delay that would otherwise fail to meet the requirements for mitigation under the Board's LOS analysis.

The guidelines come from the FHWA Handbook. That handbook includes a list of conditions that highway planners may wish to use as guidelines when deciding whether and where to invest in traffic control devices or other measures at a highway-rail grade crossing. The conditions themselves are contained in a guidance document prepared by a Technical Working Group ("TWG") established by U.S. DOT.[59] The FHWA Handbook makes clear that

> [t]he TWG document is intended to provide guidance to assist engineers in the selection of traffic control devices or other measures at highway-rail grade crossings. It is not to be interpreted as policy or standards and is not mandatory. . . . A number of measures are included that may not have been supported by

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mitigation based on high accident frequency. DEIS at 6-18. The FHWA guidelines suggest that a crossing should be considered for grade separation if "[t]he expected accident frequency for active devices with gates, as calculated by the USDOT Accident Prediction Formula, including 5-year history, exceeds 0.5." DEIS at 4.2-15; *see also* FHWA Handbook at 151. Yet according to the DEIS, the predicted frequency of accidents at Woodruff Road would be only 0.21359, or less than half the threshold that, under the FHWA guidelines, would call for consideration of grade separation.

[59] The TWG is led by representatives from FHWA, FRA, FTA, and NHTSA. The STB was not involved in the TWG.

> quantitative research but are being used by states and local agencies. These are included to inform practitioners of the array of tools being used or explored.

FHWA Handbook at 145. (Emphasis added.) The FHWA guidelines are essentially screening tools developed to provide a quick and easy means of ranking crossings so that a state can best focus its attention on crossings that could meet each state's criteria for separation. Use of these guidelines is only the first step in a multi-factor review process, which includes a benefit/cost analysis. For example, the FHWA Handbook notes that even using exposure as a "screening method should be [done] with caution and should be calibrated for values appropriate for the particular jurisdiction." FHWA Handbook at 77. Another report concludes that the exposure index is "insufficiently accurate to serve as a decision tool to provide a particular grade separation without further technical and administrative investigation."[60] While some states (but neither Illinois nor Indiana) do rely on the exposure index to rank crossings, no state uses it as an independently sufficient determinant to require a grade separation.[61]

Similarly, there is no basis for the unadulterated use of the 40-hours-of-delay guideline as a threshold for mitigation, especially since that guideline appears to be based on a "rule of thumb" that is unsupported by any quantitative analysis. The FHWA Handbook cites the *Guidance on Traffic Control Devices at Highway-Rail Grade Crossings*, Nov. 2002, (available at http://safety.fhwa.dot.gov/media/twgreport.htm) as the source of this criterion. That document, in turn, cites a San Gabriel Valley Grade Crossings Study, Final Report (1997), which was

[60] TransTech Group, Inc., A Procedure for the Provision of Highway-Railroad Grade Separations 26 (Apr. 2001), ("TransTech Report") *available at* http://www.transtechgroupinc.com/Full_Report_042008.doc. *See also* NCHRP 288, Evaluating Grade-Separated Rail and Highway Crossing Alternatives, Transp. Res. Board (1987) ("while few states have established warrants for crossing protection based on an exposure index, this approach is not recommended because an exposure index does not accurately reflect safety conditions at crossings, and, consequently, does not provide an adequate basis for decision-making").

[61] TransTech Report at 15-16 (reporting results of 50 state survey).

prepared for the San Gabriel Valley Council of Governments by Korve Engineering in connection with the Alameda Corridor project.[62] Part of the report describes a "literature search to identify criteria for grade separation." *Id*. This search indicated that there was "a variety of considerations for grade separation but few standards." *Id*. One of those considerations was a "rule of thumb" that 40 to 50 vehicle hours of delay per day is a threshold for separation. *Id*. Based on that "rule of thumb," the designers of the Alameda Corridor apparently chose the 40-hour threshold to determine when grade separations would be constructed. *Id*. This, in turn, was adopted by the TWG and included in the FHWA Handbook as one of the measures used by states and local agencies, included merely "to inform practitioners of the array of tools being used or explored."[63] No analysis or quantitative basis for this threshold appears to have been established. So far as CN is aware, the guideline has not been adopted by any state or federal agency as a primary determinant of whether a crossing should be grade-separated.

Moreover, SEA should not use the particular conditions under the FHWA guidelines relating to vehicle exposure and delay conditions as a basis for determining that mitigation is required where use of the Board's LOS criteria indicate otherwise. Those FHWA conditions are a crude means of considering the potential impacts of traffic volumes and delay. Those matters are encompassed within the more sophisticated and appropriate LOS criteria, which take into account both the existing conditions of the crossing and the future conditions.[64]

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[62] *See* Brent Ogden, Engineering the Alameda Corridor – East Project (July 14, 2003), *available at* http://www.arema.org/eseries/scriptcontent/custom/e_arema/library/2003_Conference_Proceedings/0023.pdf

[63] FHWA Handbook at 145.

[64] As an example of this failing of the FHWA standards, consider total vehicle delay at Illinois Route 60&83 and Montgomery Road. Using the updated train counts supplied by CN, but holding all other aspects of SEA's analysis constant (even those which CN disputes, such as projected ADT), the calculated delay would be 43.2 hours at Illinois Route 60/83 and 41.6 hours

Further, requiring mitigation based on these conditions could misdirect the proper environmental focus – which, under NEPA is on changes to the environment caused by approval of CN's Application – to pre-existing conditions. This is because the traffic delays on which the DEIS's demand for mitigation focus are largely the product of past under-investment in local highway infrastructure, and/or in some instances community determinations to avoid or decline solutions. Some local officials are now seeking to use this proceeding as an opportunity to have someone else pay to resolve their pre-existing local problems.

For example, according to the Chief of Police for the Village of Plainfield, the population of the Village has increased from 5,000 to 40,000 in fifteen years.[65] However, investment in infrastructure has not kept pace with demand, to the point where "current vehicular traffic volumes far exceed their initial design capacity" making residents "unhappy with daily congestion within the community." *Id*. (emphasis added). Delay in this community is clearly a preexisting condition, and not something that CN would be creating. Indeed, the DEIS recognizes that CN would be causing at most, minimal impacts. See Table at section E.2.b, above, indicating that Plainfield drivers would on average experience 12 seconds of delay at

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at Montgomery Road. Based on misapplication of the FHWA guidelines, both crossings would be candidates for grade separation. However, increasing train speeds at both crossings just 2 mph over the speeds SEA assumed (to 30 and 40 mph, respectively) would reduce delay at each crossing to 38.8 and 39.9 hours, respectively. This would remove both crossings as candidates for mitigation under the FHWA delay guideline. The Board need not rely on such a crude analysis in which a 2 mph difference in train speed is the difference between no imposed mitigation and a grade crossing costing potentially millions of dollars. By focusing on the change in service of the crossing, instead of an arbitrary threshold, the LOS mitigation standard avoids this problem.

[65] Letter from Donald E. Bennett, Chief of Police, Village of Plainfield, to Phillis Johnson-Ball, Deputy Chief, SEA, Sep. 8, 2008, *available at* http://www.stb.dot.gov/ect1/ecorrespondence.nsf/PublicIncomingByDateReceived/52CFC053256F5EEC852574C80047AAE6/$File/13332.BENNETT.PDF?OpenElement

crossings in their community. Nor is traffic congestion a particularly recent problem for most communities along EJ&E.[66]

Similarly, Hough Street in Barrington (identified by the DEIS as requiring mitigation) has long been plagued by traffic delays.[67] As long ago as 2000, traffic on the street has been operating well above capacity,[68] but Barrington has long opposed IDOT's preferred solution of widening the road from 2 to 4 lanes.[69] If Hough Street were a 4 lane road today, it would not have a queue length problem and therefore would not even be on SEA's list of crossings requiring mitigation.

Interestingly, Barrington has previously downplayed the effects of traffic congestion, with one member of the Barrington Area Council of Governments ("BACOG") stating that Barrington is "so unique that the level of traffic doesn't really compromise the quality of life;" and "you learn to live with the small area [of town] that backs up." *Id*. Moreover, Barrington subsequently (and unanimously) rejected a variety of bypass options that would take traffic off

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[66] Kevin Barrett, *Local Leaders Gather to Press State for More Transportation Funding*, Chi. Daily Herald, July 29, 1999, at D3 (noting that Naperville city officials "warned that area roadways will not support exploding business and residential growth").

[67] Virginia Groark, *Barrington Committee Offers Ideas on Traffic; Hough Congestion a Longtime Problem*, Chi. Trib., Aug. 16, 2000 at Metro Northwest 1.

[68] *Id*. (noting that, in 2000, ADT on Hough was 22,000, or about 7,000 more than the ideal maximum of 15,000.)

[69] *See* http://www.ci.barrington.il.us/DocumentsAndForms/Documents/PDFs/Comp%20Plan/Chapter%208.pdf, 2000 Official Comprehensive Plan of the Village of Barrington, Ch. 8 Transportation, at 24. Widening Hough Street would have reduced delays by 24 seconds. Dennis Rodkin, *Barrington Continues to Sing Illinois 59 Traffic Blues*, Chicago Tribune, June 19, 2002, at 60. Conversely, CN's acquisition of EJ&E would increase delay in Barrington by approximately 6 seconds.

Hough Street and recommended that IDOT's "consideration of bypass options be limited to outside the BACOG area."[70]

LOS is also a better standard for determining the impacts on vehicle delay that are attributable to the increase in rail traffic that would result from the Transaction because it relates more closely to the actual experience of a driver waiting at or passing through the crossing. For example, a highway with high traffic volumes (such as Ogden Avenue) may reach the 40 hour threshold even though each individual driver is inconvenienced with only a minor delay. If tens of thousands of drivers are each delayed by a few seconds, a crossing could quickly reach the 40 hour threshold, even though each individual driver may not notice any difference in the functioning of the roadway.

Finally, to the extent there might be a safety element to the exposure criteria that is not fully encompassed by the LOS criteria, it would be adequately encompassed by the separate FHWA condition relating to frequency of accidents.[71] Thus, there is no need and no basis to use the additional FHWA conditions for exposure or delay where the Board has already applied its criteria based the frequency of accidents and LOS.

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70 http://www.ci.barrington.il.us/DocumentsAndForms/Documents/PDFs/Comp%20Plan/3rd_Amendment_(Traffic)_Ord_03-3095.pdf, Ordinance No. 03-3095, An Ordinance Amending the Official Comprehensive Plan of the Village of Barrington, Oct. 13, 2003.

71 In fact, SEA's safety analysis in this case showed that no grade crossing would experience a substantial increase in accident frequency, and that the overall number of rail-highway accidents per year would decrease by 9% year. DEIS at 4.2-17—4.2-18.

E.2.d. The unreasonablenesss of prescribing crossing delay mitigation based on FHWA's delay standard is highlighted by the fact that doing so would undermine the public interest in funding of grade separations for vehicle/rail crossings that have significantly greater delay than the crossings at issue here.

SEA has also provided no principled reason why, if its application of the FHWA guidelines is appropriate in this proceeding, those guidelines would not be equally applicable to other railroad crossings in Illinois and Indiana. Presumably, in accordance with the FHWA guidelines applied by SEA, the crossings with the highest exposure and greatest amount of delay would be the first candidates for grade separation, and states would start at the top of the list and work their way down as funding became available. But that is not the case, and that reality underscores the fact that SEA's proposed use of the FHWA guidelines as the basis for grade separation of the EJ&EW crossing delay impacts would be aberrational and blatantly arbitrary, unreasonable, contrary to the public interest, and discriminatory as to CN.

It appears that SEA made no investigation of or attempt to rank all crossings in Illinois or Indiana on the basis of the FHWA relative exposure index. Had it done so, it would have learned that there are approximately 122 crossings in Illinois and 4 crossings in Indiana with exposure above the proposed guideline of 1,000,000.[72] It has also made no examination of the relative rank of crossings based on the FHWA delay guideline. Yet there are an estimated 133 crossings in Illinois that currently exceed the 40 hours per day threshold for delay.[73] The following table shows the relative rank of the three crossings identified in the DEIS that would remain

[72] CN's environmental consultant compiled this list with data from the FRA database, which reports both ADT and train counts for each grade crossing in Illinois and Indiana.

[73] To calculate delay at each crossing, CN's environmental consultant used data reported in the FRA database, but had to make certain assumptions regarding train length and speed. In accordance with the Illinois Commerce Commission's methodology, it was assumed that main line trains were 7,000 feet in length and operated at 30 mph or timetable speed, whichever was lower.

candidates for mitigation under the FHWA guidelines after updated train counts and speeds are applied to 2007 ADTs:[74]

Relative Rank and Hours of Delay at Three Crossings that would Exceed FHWA Delay Threshold Even with Updated Train Counts, Updated Train Speeds, and IDOT Actual 2007 ADT[75]						
	Ogden Ave		**Chicago Road**		**Lincoln Hwy**	
	Rank in Illinois	Hours of Delay	Rank in Illinois	Hours of Delay	Rank in Illinois	Hours of Delay
IDOT Actual 2007 ADT	73	53.6	49	66.3	108	44.0
CMAP-based projection of 2015 ADT[76]	70	54.4	45	68.8	106	44.5
DEIS projected 2015 ADT	34	72.5	21	87.9	45	68.6

SEA's analysis provides no defensible reason for the starkly different outcome from state rankings that result when FHWA standards are applied at locations off the EJ&E line. In effect, the Board would be requiring the funding of mitigation at crossings that would not rank as top priorities as compared to other crossings within the same state. This strongly suggests that SEA's use of FHWA conditions as a basis for ordering mitigation of vehicle/rail crossings is flawed. If SEA were to persist in using the FHWA guidelines as it has, it would place CN at an unfair competitive disadvantage relative to other railroads not facing these standards and wrongly pressure the state and federal governments to reorder their funding priorities in an arbitrary manner.

Another indicator of how flawed the FHWA standards are as an indicator of significant impacts and the need for mitigation is that there are a number of highway/highway crossings in

[74] The reasonableness of these assumptions is described in more detail in Section E.3 below.

[75] As CN argues below, if SEA were to calculate delay using the LOS criteria, correct data, and reasonable assumptions, all crossings except for two in Joliet that are already subject to a voluntary mitigation agreement would no longer qualify for mitigation.

[76] As CN argues in more detail below, SEA should rely on IDOT's actual 2007 ADTs rather than projecting any positive ADT growth, but CN nonetheless includes projected ADTs in this table for purposes of comparison.

the affected communities that presently exceed 40 hours of delay per day. These crossings show that the communities themselves do not see that crossing the FHWA 40 hour delay threshold as much cause for concern. For example, the intersection of the Northwest Highway and IL Route 59 in Barrington causes traffic delays of 172 hours a day. Yet, Barrington has made no attempt to solve this much larger delay problem. Indeed, for each other highway/rail at-grade crossing identified in the DEIS as being substantially affected by the Transaction, there is a nearby highway/highway intersection that experiences significantly more delay than would occur at the rail crossing based on post-Transaction conditions.

Thus, if SEA were to persist in resting its decisions on the FHWA guidelines it would be seeking to impose on CN a duty to separate grade crossings that communities do not impose on themselves, that no state imposes on any other railroad, and that SEA has never sought to impose on anyone but CN. This would not be balanced regulation, but an unsustainable reactionary response to political pressure that would indefensibly discriminate against CN and put it at a competitive disadvantage to all other railroads operating in the region.

E.2.e. There can be no basis for requiring grade separation as mitigation for crossings delays without a proper determination that the value of the mitigation is warranted by the cost of the separation and by the relative value of the mitigation at one crossing as opposed to the value of mitigating delay at other crossings. SEA has not conducted that analysis.

There is also no rational basis for SEA to suggest use of the FHWA guidelines without undertaking or conditioning use of such guidelines upon undertaking a cost-benefit analysis of proposed crossings. FHWA, and the Illinois Department of Transportation ("IDOT"), either

recommend or require a cost-benefit analysis prior to deciding when to separate a crossing.[77] Other reports on grade separations have recognized that economics play an important role in grade separations.[78] As SEA itself has stated:

> The cost to grade separate a crossing can be substantial . . . and the decision should not be based solely upon the outcome of the screening criteria . . . . The decision to grade separate a crossing should be based on a benefit/cost analysis that takes into consideration the aggregate benefits from many factors.

DM&E DEIS at G-7. Likewise, FHWA recognizes that "[t]he decision to grade separate a highway-rail crossing is primarily a matter of economics" that should "be based on long-term, fully-allocated life-cycle costs." FHWA Handbook at 77. There is no rational basis to require grade separations in this case without reference to such a benefit/cost analysis. In *DM&E*, SEA recommended using a benefit/cost analysis "to assist in making informed decisions about when to grade separate a crossing." *DM&E DEIS* at G-7. Unless it conducts or even considers a cost/benefit analysis, SEA risks imposing conditions that could require construction of a grade separation where the costs would greatly outweigh the benefits.

IDOT's approach is a good example of the benefit/cost analysis. IDOT uses a relatively simple benefit/cost analysis to determine whether existing or proposed grade crossings should be eliminated and/or replaced with a grade-separation. It uses two criteria both of which must be met for a grade crossing to be considered.[79]

First, IDOT calculates the annual Expected Crash Frequency ("ECF"), expressed in crashes per year, for the crossing. To calculate the annual ECF, IDOT multiplies (1) a factor

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[77] FHWA Handbook at 155-65; Illinois Department of Transportation, Bureau of Local Roads and Streets Manual at 40-1(7) (Nov. 2006) ("IDOT BLR Manual"), *available at* http://www.dot.state.il.us/blr/manuals/Chapter%2040.pdf.

[78] TransTech Report at 27 ("Cost of grade separation improvements compared to the value of expected benefits is an important component of the technical analysis.").

[79] IDOT BLR Manual at 40-1(7).

based on the average 10-year ADT, (2) a factor based on the existing crossing protections, and (3) the number of trains per day. If the annual ECF exceeds 0.02 (that is, one additional crash every 50 years), the crossing meets the first threshold for separating.

Second, IDOT calculates the annual benefit-cost ratio for grade separating the crossing. If the benefit-cost ratio exceeds 1.0 (that is, the annual benefits exceed the annual costs), it meets the second threshold for consideration for separation. To calculate the benefit-cost ratio, IDOT uses a four step process.

First, IDOT calculates the Annual ECF savings by subtracting current ECF (that is, without the separation) from the future ECF (with the separation). Second, IDOT calculates the expected annual benefit of the grade separation. The annual benefit is the cost of a crash which is based on statistics provided by the National Safety Council ("NSC") and the Illinois Commerce Commission, multiplied by the Annual ECF savings. Third, IDOT calculates the annual cost of the grade separation, which is the total cost of the grade separation divided by the expected life of the structure, plus the additional cost of maintaining the grade separation as opposed to gates. Fourth, IDOT compares the annual benefits to the annual costs. If the annual benefits exceed the annual costs, the crossing meets IDOT's criteria for separating.

The following table shows the results of IDOT's cost benefit analysis as applied to the crossings identified by SEA as requiring mitigation, using the same assumptions regarding ADTs and train counts as in the DEIS:

Application of IDOT's Benefit/Cost Criteria[80] to Crossings[81] Identified by SEA as Requiring Mitigation					
Crossing	CN's Estimate of Construction Cost of Grade Separation	Total Annual Cost[82]	Total Annual Benefit[83]	Benefit/Cost Ratio (must be higher than 1.0 to be considered for separation)	Does crossing qualify for separation under IDOT benefit/cost analysis?
Allanson Road	$12,250,000	$434,933	$30,557	0.070	No
Diamond Lake Road	$10,000,000	$359,933	$12,784	0.036	No
IL 60&83	$7,500,000	$264,400	$38,856	0.147	No
Old McHenry Road	$17,800,000	$619,933	$46,093	0.074	No
Ela Road	$8,800,000	$319,933	$32,477	0.102	No
Hough St (IL 59&63)	$10,000,000	$359,933	$32,477	0.090	No
Liberty Street	$9,600,000	$346,600	$63,194	0.182	No
Ogden Ave (U.S.34)	$9,000,000	$314,400	$127,543	0.406	No
Montgomery Road	$9,000,000	$326,600	$75,606	0.231	No
135th Street	$10,000,000	$359,933	$32,655	0.091	No
Woodruff Road	$12,500,000	$443,267	$34,970	0.079	No
Washington Street	$6,000,000	$214,400	$23,396	0.109	No
Cicero Avenue	$13,000,000	$459,933	$64,257	0.140	No
Western Avenue	$6,500,000	$231,067	$50,555	0.219	No
Chicago Road	$17,000,000	$593,267	$60,485	0.102	No
Lincoln Hwy (U.S. 30)	$15,500,000	$531,067	$88,579	0.167	No

None of the crossings identified by SEA would be justified under IDOT's existing benefit/cost formula, further highlighting the minimal impacts of the transaction. All parties recognize that capital transportation budgets are stretched thin; to waste scarce resources without

[80] IDOT uses two criteria to determine whether existing or proposed grade crossings should be eliminated and/or replaced with a grade separation: when the expected crash frequency (ECF) for grade crossing gates exceeds 0.02 and the benefit-cost ratio exceeds 1.0.

[81] Broad Street in Griffith is not included because it is in Indiana.

[82] Assumptions: annual maintenance costs are $14,400 for a railroad overpass and $26,600 for a railroad underpass and grade separation has a 30 year life. The annual cost is the total construction cost divided by the 30 year expected life, plus maintenance costs.

[83] Assumptions: cost of a crash equals $688,379 (based on most recently published data on crash probabilities from the Illinois Commerce Commission and crash damages from the NSC); crash frequency is calculated using the formula Expected Crash Frequency ("ECF") = A * B * T, where A is a factor based on ADT, B is a factor based on existing crossing protections, and T is the number of trains. The annual benefit equals the ECF multiplied by the cost of a crash.

determining whether a separation is economically justified would violate the purposes of NEPA, as well as common sense.

E.3. SEA did not properly analyze impacts on vehicular traffic and therefore overstated the Transaction's impact on delay at grade crossings.

SEA's analysis of grade crossing delay mistakenly used data and assumptions that significantly overstated the likely impacts of the Transaction. Specifically, (1) SEA failed to use the most recent data regarding train counts, train speeds, and ADT; (2) SEA unreasonably used projected ADT data; and (3) even if it were reasonable to use projections of future ADTs, SEA's methodology for projecting ADT was unreasonable. The more reasonable assumptions set forth below indicate that, even under the flawed FHWA guidelines, only 4 crossings are potential candidates for mitigation.

E.3.a. SEA should use the train counts most recently reported by CN.

SEA should use updated train counts provided by CN. The train counts used in the DEIS included two trains that, at the time the Application was filed, CN believed would be rerouted over EJ&EW for interchange with CSXT at Kirk Yard. However (as CN advised SEA in April and May), CN has been unable to obtain CSXT's consent to an interchange of those trains at Kirk Yard, and they will therefore not be rerouted.[84] The DEIS notes the updated train counts (see the note preceding Appendix C to the SIP, which is included as Appendix B of the DEIS),

[84] Letter from Paul A. Cunningham, Counsel, CN, to Victoria J. Rutson, Chief, SEA, at 2 & n.1 (May 23, 2008), *available at* http://www.STBfinancedocket35087.com/html/inforequest.html; April 21, 2008 Letter, ("at least two of the trains that CN projected just six months ago would move over EJ&EW following the Transaction are unlikely to do so"),; *id.*, Attachment 1 ("The figures reflected in the Operating Plan include two trains that CN interchanges with CSX that CN expected to route over EJ&EW from Leithton to Kirk Yard. However, as a result of conversations with CSX, CN no longer expects those trains to be operated over EJ&EW.")

but fails to update the data used in its analyses accordingly. For the FEIS, SEA's analysis of delay should take this change in train counts into account.

E.3.b. SEA should use updated train speeds.

CN has redesigned the connection between the CN and EJ&E lines at Matteson to allow faster operating speeds on the main line though the connection than would the configuration originally planned by CN and submitted in its Application. CN submitted the revised design to SEA on August 21, 2008. CN has also modified its plans for improving the connection between the CN and EJ&E lines at Leithton so that southbound trains coming onto EJ&E from CN's Waukesha subdivision and northbound trains moving onto the Waukesha subdivision from EJ&E would be able to move at higher speeds than the design CN originally submitted for its planned improvement to this connection. CN submitted the revised design to SEA on September 18, 2008. For both connections, CN used its Train Performance Calculator ("TPC") to recalculate speeds of trains over grade crossings near the connections, and reported those speeds to SEA on September 26, 2008. (The updated train speeds reported on September 26 also corrected an error in CN's earlier calculation of the weighted average of the CN, EJ&E, and other train speeds on the EJ&E line, which gave excessive weight to the "other" (i.e., non-CN, non-EJ&E) trains. Additionally, to increase the accuracy of the results, CN calculated the train speed at each crossing as the average of the speeds as the head end, the midpoint, and the tail end of the train passed over the crossing, and reported the train speed as the average of those three speeds, instead of simply reporting the speed of the midpoint of the train at each grade crossing, as was done in the calculations reported previously.) For the FEIS, SEA should use these updated train speeds in its analysis of delay at grade crossings. Using updated train speeds would remove

Liberty Street, Montgomery Avenue, Broad Street, Cicero Avenue, Illinois Route 60/83, and Allanson Road as candidates for mitigation under the FHWA guidelines.

E.3.c. SEA should use the most recent reports of Average Daily Vehicular Traffic ("ADT") information.

CN agrees that SEA should obtain ADT data from a reliable, regional source and not rely on local source that could potentially be biased or use methodologies to collect and record ADTs that are inconsistent with those used by other jurisdictions. To the extent that traffic counts throughout the region are collected by a single agency using a reliable methodology, SEA should rely on those data. Fortunately, IDOT regularly collects traffic counts for roads throughout the region, and supplies its data to FRA for inclusion in FRA's grade crossing database.[85]

To ensure the most accurate analysis, SEA should use the most recent information on ADT available from IDOT and reported in the FRA's grade crossing database. In Illinois, traffic is counted on state-maintained routes every other year, while county highways and township roads are generally counted every five years.[86] According to the records maintained by FRA, IDOT updated the ADT information for several roads (both state- and county-maintained) with grade crossings over EJ&E, and that information has been available from FRA since March 31, 2008. Where this information is available, SEA should use it, because, as discussed below in section E.3.3, SEA's estimated 2007 ADT was off by over 60% compared to ADTs actually observed by IDOT.

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[85] *See, e.g.*, Illinois Department of Transportation, Illinois Highway Information System: Railroad Information and Procedure Manual at ii (Jan. 2002), *available at* http://www.dot.il.gov/irrismanual.pdf. With the updated train speeds noted in the preceding section, the one Indiana crossing as to which the DEIS recommended mitigation would no longer trip the threshold criteria.

[86] Illinois Department of Transportation, Illinois Traffic Monitoring Program at 37 (2005), *available at* http://www.dot.state.il.us/itmp.pdf

The following chart shows those crossings where IDOT has recently updated the reported ADT, and compares the 2007 ADTs projected by SEA (based on growth rates it assigned to each county) with the ADTs currently observed and reported by IDOT and available in the FRA database. (As discussed below, Current Roadway LOS is included in order to indicate which highways are currently at or near capacity.)

Comparison of SEA's Estimated 2007 ADTs with 2007 ADTs Reported by IDOT					
Crossing	SEA 2007 estimated ADT	IDOT 2007 reported ADT	Previously reported year	Previously reported ADT	Current Roadway LOS[87]
Diamond Lake Road	7,103	4,900	2004	6,500	C
IL 60&83	23,413	22,900	2005	23,300	F
Gilmer Road	14,729	12,600	2004	12,700	E
Old McHenry Road	25,596	21,400	2004	21,400	D
Oakwood Road	5,354	3,750	2004	4,900	B
Main Street (Lake Zurich)	13,792	5,900	2005	13,000	D
Old Rand Road	8,414	5,900	2004	7,700	B
Ela Road	16,892	15,000	2004	14,300	E
Cuba Road	10,249	7,600	2004	8,300	D
Northwest Hwy	26,573	26,800	2005	25,600	D
Hough Street/ IL 59&63	18,990	17,800	2005	17,800	E
Ogden Ave	36,177	36,400	2005	34,100	F
Main Street (Plainfield)	17,505	15,800	2005	16,500	E
Nelson Road	5,791	1,009	2004	5,300	C
Cicero Ave	28,257	21,500	2005	27,700	E
Chicago Road	24,788	21,600	2005	24,300	D
Lincoln Hwy	36,622	27,000	2005	35,900	F

The table shows that, in many instances, ADT has either stayed relatively constant (Gilmer Road, Old McHenry Road, Hough Street) or has declined substantially (Diamond Lake Road, Cicero Avenue, Chicago Road, Lincoln Highway). This is not surprising, because, as the table above demonstrates, many of the roadways currently operate at or above capacity, which

[87] The roadway LOS (which is different from a crossing LOS) is determined by calculating the volume to capacity ratio, which is the total daily volume divided by the total capacity. Capacity is determined based on the type of road and the number of lanes. For roadways with an LOS of F, the ratio is greater than 1.0, meaning that volume exceeds capacity. DEIS at 3.3-27.

limits the potential for growth in traffic. It is unclear why ADT at some crossings has fallen, but among the possible reasons for the decrease are higher gas prices, changes in demographic or traffic patterns, or construction of additional alternative routes.[88] In any event, the ADT observed in 2007 for several crossings is substantially lower than the ADT that SEA projected for 2007, strongly indicating that SEA's projections based on assumed annual growth percentages significantly overstate actual 2007 ADTs for all other crossings on the EJ&E arc.

E.3.d. There is no rational basis for using projected ADTs; SEA should use 2007 ADTs.

It is unprecedented and unreasonable to base mitigation requirements on ADT projected for eight years, to 2015. It is one thing to discuss impacts in terms of taking a "hard look" at the Transaction, but it is a different matter when an agency uses highly questionable projections as the sole basis for imposing mandatory mitigation. SEA has never before based mitigation on impacts that would not be projected to occur until many years in the future, and might not occur

[88] The FHWA, which measures vehicle miles traveled ("VMT") on a monthly basis, reports that, as of March 2008, cumulative VMT had fallen by 17.3 billion miles since November 2006. Press Release, Federal Highway Administration, Americans Driving At Historic Lows (May 23, 2008), *available at* http://www.dot.gov/affairs/fhwa1108.htm. That trend has continued through the summer of 2008, and since November of 2007 Americans have driven 53.2 billion fewer miles than they did over the same period a year earlier – topping the 1970s' total decline of 49.3 billion miles. Press Release, Federal Highway Administration, American Driving Reaches Eighth Month of Steady Decline (Aug. 13, 2008), *available at* http://www.dot.gov/affairs/fhwa1708.htm.

at all.[89] In all previous EISs, SEA relied on currently available ADTs without projecting them into the future.[90]

There are good reasons why SEA has historically declined to project future vehicular traffic as a basis for prescribing environmental mitigation, and there are good reasons to again decline to do so now. Predictions with the level of precision and reliability necessary to serve as the basis for very costly mandatory mitigation would, as a practical matter, be exceedingly difficult or impossible to make for the reasons discussed in the attached memorandum by Professor Jeffrey Dubin of the University of California Anderson School of Management (Exhibit 2). These include the difficulty of reasonably forecasting ADTs for such a long period, the uncertainty regarding their actual growth rates, the problems with assuming that a single county growth rate can be applied to a specific crossing, and the particularly large variances and uncertainties regarding underlying factors such as population growth rates and gasoline prices that can be expected to strongly influence ADTs. He explains that each of these sources of uncertainty makes any effort to forecast route specific vehicular traffic highly problematic and of limited utility. Prof. Dubin Memo, Exhibit 2 at 12-13.

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[89] CN is aware of only one instance in which SEA used projected ADTs, and that was an Environmental Assessment where the issue was not imposition of expensive mitigation, but confirmation of the absence of significant impacts. *See Arizona E. Ry. – Construction & Operation – In Graham County, AZ,* STB Finance Docket No. 34836, Draft Environmental Assessment at 4-10 & Appendix F (STB served Feb. 25, 2008).

[90] See *Bayport Loop DEIS* at F-8 (ADT information was provided by TxDOT and was based on 2001 data, with the exception of three crossings for which 1996 or 1992 data were used because 2001 data were not available); *SW Gulf DEIS* (served Nov. 2004) at 4-15 (ADTs based on 2002 figures from TxDOT or 2003 figures from Medina County Commissioner); *DM&E DEIS* at G-1 (SEA obtained data from the FRA database and supplemented it with field observations and information supplied by DM&E and state officials); *Conrail FEIS* at 4-32 (SEA used ADTs contained in FRA database, updated for locations where state or local government agencies provided that information).

In addition, based on the information available, it appears as likely or more likely that future changes in ADT will be zero or negative rather than positive for the affected roads. Accordingly, Professor Dubin concludes that a growth rate no higher than zero should be assumed for purposes of SEA's ADT analysis. *Id*. This evidence is compelling.

For example, recently observed data by both IDOT and FHWA indicates that Americans and the citizens of Illinois are driving less, a trend that may continue as gas prices remain at historically high levels. The following chart shows the actually observed growth rates on some roads in northeastern Illinois:

Growth Rate at Selected Intersections Based on Last Two ADT Measurements by IDOT				
Crossing	2007 reported ADT	Previously reported year	Previously reported ADT	Observed Growth Rate
Diamond Lake Road	4,900	2004	6,500	-8.99%
IL 60&83	22,900	2005	23,300	-0.86%
Gilmer Road	12,600	2004	12,700	-0.26%
Old McHenry Road	21,000	2004	21,400	-0.63%
Oakwood Road	3,750	2004	4,900	-8.53%
Main Street (Lake Zurich)	5,900	2005	13,000	-32.63%
Old Rand Road	5,900	2004	7,700	-8.49%
Ela Road	15,000	2004	14,300	1.61%
Cuba Road	7,600	2004	8,300	-2.89%
Northwest Hwy	26,800	2005	25,600	2.32%
Hough Street/ IL 59&63	17,800	2005	17,800	0.00%
Ogden Ave	36,400	2005	34,100	3.32%
Main Street (Plainfield)	15,800	2005	16,500	-2.14%
Nelson Road	1,009	2004	5,300	-42.47%
Cicero Ave	21,500	2005	27,700	-11.90%
Chicago Road	21,600	2005	24,300	-5.72%
Lincoln Hwy	27,000	2005	35,900	-13.28%

This trend of flat to decreasing ADT is consistent with national and state-wide trends. The FHWA has noted that Americans and the citizens of Illinois and Indiana have been driving

less. The following chart shows the month-to-month change in vehicle miles traveled on urban arterial roads both nationally and in Illinois and Indiana, as reported by FHWA.[91]

Month-over-Month Change in Vehicle Miles Traveled on Urban Arterials			
Month	Nationwide Change in VMT (Urban Arterials)	Illinois-wide Change in VMT (Urban Arterials)	Indiana-wide Change in VMT (Urban Arterials)
Nov-07	-0.40%	0.90%	-1.0%
Dec-07	-3.80%	-6.30%	-6.1%
Jan-08	-1.70%	-1.30%	-2.7%
Feb-08	-0.40%	-1.90%	0.9%
Mar-08	-3.70%	-6.00%	-7.9%
Apr-08	-1.00%	-1.40%	-3.5%
May-08	-3.20%	-4.10%	-6.8%
Jun-08	-4.20%	-4.50%	-4.9%

VMT is a measure of demand for automobile travel and is thus closely related to ADT. Based on the data in the chart above, it would not be surprising for ADTs at many crossings to exhibit zero or negative growth rates going forward.

One obviuous source of decreased demand for automobile travel is increased gasoline prices. Unsurprisingly, gasoline prices have risen substantially over the period of time for which FHWA has reported decreased VMT. In the face of high gasoline prices, consumers have short, intermediate, and long term responses; each would have a negative effect on ADT.

In the short term, drivers can make fewer trips,[92] make shorter trips, or make more combined trips or they can choose to take transit, bike, or walk.[93] In the medium term,

[91] Traffic Volume Trends, from which this data is compiled, is a monthly report based on hourly traffic count data reported by the States, and is available at http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm. These data are collected at approximately 4,000 continuous traffic counting locations nationwide.

[92] National gasoline consumption has been declining, indicating motorists are driving less. *See* Energy Information Administration, Short-Term Energy Outlook (Sept. 4, 2008) 4, *available at* http://www.eia.doe.gov/emeu/steo/pub/sep08.pdf ("Total U.S. petroleum and other liquids consumption is projected to decline by 610,000 bbl/d, or about 3 percent, in 2008"). Since February 2007, month over month consumption has declined in Illinois. *See* http://tonto.eia.doe.gov/dnav/pet/hist/a103620171m.htm.

consumers may choose to purchase more fuel-efficient vehicles, which could have a positive effect on ADT growth (or a neutral one, if the new vehicles are used to replace existing ones).[94] In the long term, drivers may take more significant measures, such as moving to be closer to their jobs or mass transit. All of these responses will tend to drive down ADT.

This underscores another reason it would be unreasonable for SEA to base mitigation on effects expected at some arbitrary time in the future. If it is true that ADT growth is either flat or negative (as recently observed data suggests), then current 2007 ADT is actually a conservative estimate of impacts from delay. There are simply too many unknowns regarding important inputs into SEA's model to support conditions that would impose upon CN a duty to pay now to mitigate effects that may never actually occur. SEA's use of only current ADT in taking a "hard look" at delay impacts has been judicially upheld, and there is no sound reason to change that methodology now.

In light of such evidence and broad trends against ADT growth, SEA's assumptions of uniform positive growth rates are unsupportable. The Board should instead use the latest available actual ADT data from IDOT or other like sources.

E.3.e. Even if SEA projects growth in vehicular traffic, any projections should be based on reasonable growth assumptions and not on the arbitrary assumptions contained in the DEIS.

Even if SEA concludes that it must project ADT for the purpose of conducting a "hard look" at the impacts of the Transaction, it should use more appropriate growth rates for vehicular

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[93] Metra, for example, has seen a significant increase in ridership. *See* Jon Hilkevitch and Richard Wronski, Record ridership strains CTA, Metra, Pace – and it's likely to get worse, Chic. Trib., Sept. 2, 2008 (noting that, "fueled by high gas prices," Metra ridership increased 5% for the first half of 2008 and that Metra expects 2008 to be its third straight record-setting year).

[94] Although supply of fuel efficient vehicles has yet to catch up with demand, by the time current fuel inefficient vehicles are replaced on a large scale by fuel efficient ones, long-term impacts from high gasoline prices may begin to influence ADT.

traffic than those applied in the DEIS. As discussed by Professor Dubin (Exhibit 2 at 4-5), one way to assess the accuracy of SEA's forecasts is by examining its estimates of 2007 ADT versus the actual 2007 ADT counts that have now been completed. The following chart shows the crossings where IDOT updated its ADTs for 2007 (as reported to and available in the FRA database) and compares those figures with SEA's projected 2007 ADTs.

Comparison of SEA Projected 2007 ADT to Actual 2007 ADT Reported by IDOT			
Crossing	SEA's 2007 Estimated ADT	IDOT's Reported Actual ADT	Percent Difference
Diamond Lake Road	7,103	4,900	45.0%
Gilmer Road	14,729	12,600	16.9%
Old McHenry Road	25,596	21,000	21.9%
Oakwood Road	5,354	3,750	42.8%
Main Street (Lake Zurich)	13,792	5,900	133.8%
Old Rand Road	8,414	5,900	42.6%
Cuba Road	10,249	7,600	34.9%
Northwest Hwy	26,573	26,800	-0.8%
Hough Street/ IL 59&63	18,990	17,800	6.7%
Ogden Ave	36,177	36,400	-0.6%
Main Street (Plainfield)	17,505	15,800	10.8%
Nelson Road	5,791	1,009	473.9%
Cicero Ave	28,257	21,500	31.4%
Chicago Road	24,788	21,600	14.8%
Lincoln Hwy	36,622	27,000	35.6%
Average SEA Percentage Error			**60.6%**
Sources: DEIS at 3.3-7-14; FRA, Office of Safety Analysis, http://safetydata.fra.dot.gov/officeofsafety/publicsite/crossing/XingLocResults.aspx?state=17&countycity=&railroad=EJE&radionm=County&street=.			

As the table illustrates, SEA's growth assumptions begin with an average over-estimation of 2007 ADT of 60.6%. This suggests strongly that SEA's chosen growth rates are too high. Moreover, as noted by Professor Dubin, the fact that SEA's forecasts are so far in error during

the earliest years of the forecast suggests that the degree of error could compound radically as the forecast horizon is extended to 2015 and beyond. *Id.* at 5.

These poor results are not surprising given the fatally flawed approach used by SEA for forecasting ADT growth. First, using a single growth rate for an entire county is unrealistically simplistic, because, among other factors, population growth is not uniform throughout the county. Developable areas that are closer to jobs and retail may be built up before outlying areas, and real-world growth in ADT would reflect this uneven growth in a way that county-wide projections do not. Also, as roads become congested, drivers begin to avoid them in favor of alternative routes.[95] Thus, ADT on a congested road might stay relatively constant (at a level that represents the capacity of the road), while traffic on alternative routes would grow, at least until those roads also reached their capacity. Professor Dubin explains that use of macro data such as county-wide growth rates on a micro basis at individual crossings substantially undermines SEA's forecasts due to resulting disaggregation uncertainty. Memorandum of Professor Dubin, Exhibit 2 at 5-6.

Second, the growth rates used by SEA are not supported by current demographic trends. SEA states that growth rates for Cook and Lake (IL) Counties were supplied by county engineering offices.[96] For other counties, SEA "estimated the percentage of growth for each year and each county using data from the late 1980s to 2006 to project ADT for the year 2007."[97] The

[95] TransTech Report at 35 ("[A]s capacity of a road is approached, the traffic will spread over time to form longer peak periods, or will divert to less congested roads. This can work in reverse; a road that is not currently at capacity can have an abnormal increase of traffic due to diversion from a more congested parallel route.").

[96] DEIS at 3.3-4.

[97] *Id*.

following table shows population growth in each of the counties that would be impacted by the EJ&E Transaction.

Comparison of SEA's Estimated County-wide ADT Growth Rates to Historic and CMAP's Projected Population Growth Rates					
County	SEA Applied ADT Growth Rate	1980-1990 Growth Rate	1990-2000 Growth Rate	2000-2007 Growth Rate	2007-2030 Projected Growth Rate
Cook	1-2%	-0.26%	0.51%	-0.25%	0.52%
Lake (IL)	3%	1.51%	2.17%	1.40%	0.74%
Dupage	3%	1.74%	1.41%	0.39%	0.34%
Will	3%	1.01%	3.41%	4.27%	2.06%
Lake (IN)	3%	-0.90%	0.17%	0.22%	0.54%
Source: U.S. Census data, except future growth data, which is from CMAP, http://www.chicagoareaplanning.org/data/forecast/2030_revised/ENDORSED_2030_forecasts_9-27-06.pdf					

As the table indicates, SEA's ADT growth rates are substantially higher than the historical growth rates in population that one would expect to correlate with SEA's projections. The table also indicates that 4 of the 5 counties are substantially developed and are unlikely to exhibit high levels of future growth. Cook and Lake (IN) counties have been substantially developed since before 1980, and have historical and projected future growth rates that are significantly below those figures used by SEA. While Lake (IL) and Dupage counties experienced significant growth in the periods 1980-1990 and 1990-2000, that growth has tapered off as the counties have now become fully developed. Moreover, even in those periods of relatively high growth, neither county saw the level of explosive growth that SEA has projected between the present and 2015. SEA's selected growth rate for Will County, which is the least inconsistent with population growth rate, is still a full percentage point higher than projections provided by CMAP.[98] See discussion of CMAP projections below.

[98] CMAP is an official Metropolitan Planning Organization, and is created by and operates under state law. CMAP was created to address regional transportation planning issues in northeastern Illinois.

As Professor Dubin shows in his memorandum, one of the most unsupportable aspects of SEA's forecast is in fact its unwarranted assumption that growth rates will be constant and positive. Memorandum of Professor Dubin, Exhibit 2 at 10-12. The table below powerfully illustrates that growth factors vary across crossings within individual counties, and that overall growth rates have in recent experience largely been negative instead of positive.

Comparison of Recent Annual ADT Growth Rates with SEA's Assumed Growth Rates

Street	County	Start Year	Start ADT	End Year	End-ADT	Growth Rate	SEA's Assumed Annual Percentage Growth Factor
Allanson Road	Lake	2004	15,300	2007	14,400	-2.00%	**3**
Old McHenry Rd.	Lake	2004	21,400	2007	21,000	-0.63%	**3**
Ela Road	Lake	2004	14,300	2007	15,000	1.61%	**3**
Hough St. Ill (59&63)	Lake	2005	17,900	2007	17,800	-0.28%	**3**
Liberty Street	DuPage	2004	15,200	2005	15,400	1.32%	**3**
Ogden Ave. (U.S.34)	DuPage	2005	34,100	2007	36,400	3.32%	**3**
Cicero Ave.	SE Cook	2005	27,700	2007	21,500	-11.90%	**1**
Chicago Rd.	SE Cook	2005	24,300	2007	21,600	-5.72%	**1**
Lincoln Hwy.	SE Cook	2005	35,900	2007	27,000	-13.28%	**1**
					Simple Average	**-3.06%**	

Source: Developed from data collected by FRA's Office of Safety Analysis, http:/safetydata.fra.dot.gov/officeofsafety/publicsite/crossing/xingqryloc.aspx.

This shows that SEA's assumption of constant positive growth rates is untenable. It also reinforces the point that negative or zero near term and long term growth rates are just as likely at crossings of interest as positive growth rates.

For all of the above reasons, there are no grounds for SEA to depart from prior precedent and attempt to forecast ADTs with positive growth. Given the recent lack of growth in ADT, and the added fact that the impacts of the tremendous rise in gasoline prices are just beginning to be seen in changes in driving patterns and data reflecting those changes, the Board has ample

grounds for relying on current ADTs as a conservative (*i.e.*, likely high) estimate of future ADTs.

Alternatively, if the Board believes it can develop its own reasonably reliable forecasts of ADTs, it should use a more reliable and accurate methodology than that used for the DEIS, so that its projections properly reflect the anticipated zero or negative growth in ADT for most or all crossings.

As discussed above, however, making any projections regarding ADTs is not a simple matter. Therefore, as a final and least supportable option, if the Board believes it is compelled to forecast ADTs rather than rely on the latest available IDOT information, and the Board also believes it cannot reasonably do so itself, it might consider as a last resort utilizing CMAP information to develop projected ADTs. CMAP, an official government planning agency, maintains a list of projected ADTs for roads in northeastern Illinois. Nonetheless, as noted by Professor Dubin, CMAP's data will suffer from both model and data lag, and thus will likely project ADT that is too high. *See* Memorandum of Professor Dubin, Exhibit 2 at 13 For example, the future impacts of greatly increased gasoline prices will not be fully reflected in the CMAP data. This is one of the chief reasons it would be more accurate and defensible for the Board to utilize the most recent IDOT data.

Nonetheless, as compared to the DEIS projection methodology, CMAP's projections have the benefit of being well-studied and widely used, and of taking into account many of the considerations discussed above. CMAP's projections use a professionally recognized four-step transportation model that takes into account: trip generation; trip distribution; modal split; and

trip assignment.[99] CMAP's projections also take into account the fact that all roads are not equally attractive to drivers, who select the most efficient routes and avoid those that become congested if faster options are available. In other words, CMAP maintains a reasonably-robust transportation planning model for predicting, on a roadway by roadway basis, future ADTs.

While CMAP projects ADTs to 2030 and not to any years between then and the present, implied growth rates can be used to calculate projected ADTs for 2015, as set forth in the following table.

Comparison of SEA's 2015 Projected ADT to CMAP's 2015 Projected ADT					
Crossing	SEA 2015 projection	CMAP 2030 projection	Implied CMAP growth rate	CMAP 2015 projection	Difference from SEA 2015 projection
IL 60 & 83	29,659	27,000	0.72%	24,250	-5,409
Diamond Lake Road	8,998	7,000	1.56%	5,547	-3,451
Old McHenry Road	32,424	27,000	1.10%	22,918	-9,506
Ela Road	21,398	17,000	0.55%	15,667	-5,731
Hough Street (IL 59 & 63)	24,056	18,000	0.05%	17,869	-6,187
Liberty Street	20,696	18,000	0.68%	16,259	-4,437
Ogden Avenue (US 34)	45,828	38,000	0.19%	36,949	-8,879
Montgomery Road/83rd Street	27,131	24,000	0.88%	21,030	-6,101
135th Street	11,766	15,000	2.50%	10,357	-1,409
Woodruff Road	10,659	16,000	3.23%	9,930	-729
Washington Street	11,714	9,000	0.91%	7,851	-3,863
Cicero Avenue	30,598	32,000	1.74%	24,689	-5,909
Western Avenue	24,717	32,000	1.52%	25,506	+789
Chicago Road	26,842	24,000	0.46%	22,406	-4,436
Lincoln Highway (US 30)	39,656	28,000	0.16%	27,344	-12,312
Broad Street (IN)[100]	19,572	21,681	0.81%	16,484	-3,088

[99] *See, e.g.*, Illinois Department of Transportation, Transportation Research Center, *Developing Long Range Traffic Projection Models for Illinois* at 11 (June 2004) *available at* http://www.dot.state.il.us/materials/research/iva_h1_fy03.exe.
("The most commonly accepted procedure for performing travel demand modeling is the 4-step process of trip generation, trip distribution, mode split, and trip assignment. . . . Common applications of travel demand models [include] predicting changes in travel patterns that result from changes in demographic characteristics and transportation supply.").

[100] Information from Northern Indiana Regional Planning Commission.

Certainly, if any use of projections is warranted, use of these CMAP 2015 ADTs would be more reasonable than using SEA's constant annual growth factors. *See* Exhibit 2 at 13 (despite CMAP's data and model lag, it provides a more accurate indicator of future growth than SEA's approach). They are based on projections by a professional, local planning agency that has the experience, expertise, and ability to make these kinds of projections. Further, they are based on a rigorous transportation model that is widely used for planning purposes in the Chicago area and is route specific. Use of projections for 2015 derived from CMAP's projections would eliminate Old McHenry Road as a candidate for mitigation.

E.4. Queue length is not a rational basis to require mitigation, and even if it were indicative of a need for mitigation, it would not require a grade separation.

SEA evaluated the operations of roadways that cross rail line segments expected to experience a change in rail traffic in order to assess the impact on regional mobility. Part of this assessment was an analysis of queue lengths, which SEA studied "to determine effects on local access and circulation due to the queued vehicles blocking crossing roadways." DEIS at 4.3-9. SEA determined that there would be a "serious" effect if the queue length at a crossing blocks a roadway that is not blocked under the No-Action Alternative. DEIS at 4.3-10. SEA calculated the queue length by estimating the number of vehicles in line at the end of the blocked crossing time of a single train event and multiplying that by an average vehicle length. If the queue length was longer than the storage length,[101] SEA determined the crossing could be substantially affected. SEA has never previously required mitigation based on this criterion, and it should not do so here.

[101] Storage length is the roadway distance from the at-grade crossing to the major thoroughfare, multiplied by the number of lanes.

E.4.a. Queue length is not a rational basis for requiring mitigation

There are a number of reasons why the queue length criterion, as used by SEA, is inappropriate for determining mitigation, and would be especially inappropriate for requiring a grade separation. First, the queue length criterion is based on the impact of a single train; because it is independent of changes in rail traffic volume, it can lead to anomalous results. For example, even if CN were proposing to add just one train to EJ&E, the crossings at Ela Road, Hough Street, 135th Street, and Lincoln Highway would still require mitigation under the queue length standard. Under SEA's logic, there could be substantial impacts where applicants propose increasing train traffic by fewer than three trains per day, below SEA's established thresholds, which only require analysis where train traffic would double (in tonnage) or increase by three or more trains a day. *See* DEIS at 4.3-1.

Second, it would be excessive for the Board to order mitigation on the basis of its queue length analysis because it is against the law in Illinois for a driver to enter an intersection "unless there is sufficient space on the other side of the intersection . . . to accommodate the vehicle he is operating without obstructing the passage of other vehicles . . . notwithstanding any traffic-control signal indication to proceed." 625 ILCS 5/11-1425(a). Thus, queue length from a grade crossing would only affect operation of an intersecting roadway where motorists were in violation of Illinois law. Where motorists follow the law, they will not enter the intersection if there is not sufficient space to clear it, and would therefore not interfere with operation of the intersecting road.[102]

[102] There are other potential problems with the queue length analysis. For example, CN is aware of only one previous environmental review where SEA calculated the actual length of the affected queue (rather than merely calculating the number of vehicles in the queue), and in that draft EA, served only seven months ago, SEA estimated queue length using a length of 17 feet 8 inches per vehicle, instead of the 25 feet assumed for this review. *See Ariz. E. Ry. – Constr. & Operation – in Graham County, Ariz.*, STB Finance Docket No. 34836, Draft Environmental

E.4.b. Even if it were reasonable for SEA to use queue length as a basis for finding a grade crossing to be "potentially substantially affected," the DEIS properly recognizes that solutions other than grade separations are appropriate.

Even if use of queue length were an appropriate criterion for imposing mitigation, the DEIS properly recognizes that there are effective solutions other than designating a crossing for grade separation. The most cost-effective solution is simply installing signs reminding motorists of their legal obligation not to enter an intersection where there is not enough space to clear it. Such "don't block the box" measures have been successfully implemented in jurisdictions, including Washington, D.C., facing intersection gridlock. Another possibility, recognized by the DEIS, are traffic signal revisions to manage queuing, or signalization interconnection. Such revisions would entail forwarding preemption/notification of an approaching train to the roadway traffic signal controller and railroad active warning devices at the same time. This information would cause the signal to alter its phasing to limit the queue buildup at the grade crossing.

There is more than one way to limit queue buildup using signalization interconnection, but the simplest would be limiting any movements that would conflict with the train. Alternatively, a traffic detection loop could be installed that would permit conflicting movements (i.e., allowing cars to be added to the queue) until the queue reaches a particular length, and then stop all conflicting movements. If uncontrolled left or right turns exist and contribute to queue length problems, signage could be installed to limit this problem. Therefore, as properly recognized in the DEIS, grade separations are neither justified nor required at those intersections where queue length is the sole ground for imposition of mitigation.

Assessment at 4-9 (STB served Feb. 25, 2008). The DEIS provides no explanation for the change in SEA's queue length assumptions.

E.5. Use of updated data, corrected assumptions, and proper analysis in keeping with past precedent, eliminates all crossings as candidates for mitigation other than Washington Street and Woodruff Road.

The preceding sections discuss (1) why it is unreasonable to abandon the LOS criteria for determining the applicability of mitigation, (2) various data that can and should be updated as part of SEA's FEIS, and (3) assumptions and analyses that should be corrected, in order to reasonably analyze whether there are potential impacts at vehicular grade crossings of the EJ&E line to determine if mitigation is warranted.

In sum, correcting the data – specifically the train counts and train speeds – underlying SEA's analysis would remove 6 crossings (Allanson Road, IL 60&83, Liberty Street, Montgomery Road, Cicero Avenue, and Broad Street) as candidates for mitigation even under the flawed FHWA guidelines. Using 2007 ADTs, which, as CN demonstrates above is a more reasonable basis for analysis than the county-wide growth rates applied by SEA, would remove a further 2 crossings (Old McHenry Road and Western Avenue) as candidates for mitigation under those guidelines. Recognizing that the queue length criterion is an inappropriate basis for mitigation would eliminate 4 further crossings (Diamond Lake Road, Ela Road, Hough Street, and 135th Street) as candidates for mitigation. Finally, recognizing that the FHWA guidelines are inappropriate for determining mitigation would eliminate the final 3 crossings (Ogden Avenue, Chicago Road, and Lincoln Highway). None of the crossings identified by SEA, with the exception of Washington Street and Woodruff Road (which are already the subject of a voluntary mitigation agreement) are therefore properly candidates for mitigation.

The following table summarizes the above paragraph, with each "NMR" signifying that at the given crossing No Mitigation is Required based on the assumption in the column heading.

Summary of How Reasonable Assumptions Regarding SEA's Grade Crossing Analysis Eliminates Certain Crossings as Candidates for Mitigation (NMR: No Mitigaiton Required)							
Crossing	Mitigation Agreement	Update Train Counts*	Update Train Speeds	Use 2015 ADTs based on CMAP growth rates	Use 2007 ADTs	Eliminate Queue Length Analysis	Use Only LOS criteria
Allanson Road			NMR	NMR	NMR		NMR
IL 60 & 83			NMR	NMR	NMR		NMR
Diamond Lake Road						NMR	NMR
Old McHenry Road				NMR	NMR		NMR
Ela Road						NMR	NMR
Hough Street						NMR	NMR
Liberty Street			NMR	NMR	NMR		NMR
Ogden Avenue (US 34)							NMR
Montgomery Road/83rd Street			NMR	NMR	NMR		NMR
135th Street						NMR	NMR
Woodruff Road	NMR						
Washington Street	NMR						
Cicero Avenue			NMR	NMR	NMR		NMR
Western Avenue					NMR		NMR
Chicago Road (IL 1)							NMR
Lincoln Highway (US 30)							NMR
Broad Street			NMR	NMR	NMR		NMR

* Would reduce findings of impacts, but would not by itself result in the removal of any of the listed crossings as candidates for mitigation.

This table demonstrates that under a proper analysis, the only two vehicular-rail at grade crossings warranting potential mitigation are the two grade crossings in Joliet (Woodruff Road and Washington Street), both of which are already subject to the mitigation agreement between the City of Joliet and CN.

E.6. Even if there were a rational basis for prescribing grade separations at crossings other than those in Joliet, the allocation of responsibility for any such crossing should be that traditionally applied under federal and state law.

One of the mitigation options that SEA is considering is for CN to pay up to 50% of the cost of a grade separation. For the reasons discussed below, such an allocation would violate the equitable principles inherent in the Transaction because CN is reducing delay and queue length at a number of grade crossings from levels that would meet SEA's criteria under the No Action Alternative but would not under the Proposed Action. Any mitigation imposed by the Board must recognize and take into account the substantial savings for those crossings. Additionally, SEA's proposed allocation would be contrary to decades of established federal policy. Absent exceptional circumstances, which, as the DEIS indicates are not present here, SEA should adhere to the traditional cost allocations for grade separations.

E.6.a. In considering responsibility for funding grade separations, SEA should take into account reductions in crossing delays.

The following tables list crossings on current CN lines into Chicago that currently meet the same standards for grade separation that SEA proposed be applied to crossings on the EJ&E line, but which would cease to be candidates for mitigation under those standards if the Transaction were approved:

Crossings on CN Lines that Exceed the 40 Hours of Vehicle Delay Threshold Under the No-Action Alternative but Not the Proposed Action[103]		
Crossing	No-Action Delay (hours)	Proposed Action Delay (hours)
Golf Road (IL 58)	48.3	1.5
Rand Road (US 12)	44.7	1.3
95th Street (US 12/US 20)	42.5	0.0
170th Street	57.2	8.5

Crossings on CN Lines that Exceed the Queue Length Threshold Under the No-Action Alternative but Not the Proposed Action Alternative[104]	
Crossing	Queue would block the following major thoroughfare
1st Avenue	North Avenue (IL 64)
Euclid Avenue	Wolf Road
Butterfield Road	Townline Road (IL 60)
26th Street	Harlem Ave (IL 43)
Des Plaines Ave	Cermak
Cermak	1st Ave/Golfview Ave (IL 171)
Wolf Road	Harrison St
79th Street	Columbus Ave
103rd Street	Kedzie Ave
111th Street	Kedzie Ave
Kedzie Ave	95th Street
95th Street	Kedzie Ave
99th Street	Kedzie Ave
119th Street	Kedzie Ave
127th Street	Kedzie Ave
Oakton Street	Rand Road (US 12)
Thacker Road	Graceland
Rand Road (US 12)	Golf Road (IL 58)

As SEA is well aware, many of CN's trains operate via trackage rights to navigate their way through the Chicago Terminal District. As a result of the Transaction, CN would

[103] All calculations regarding pre- and post-Transaction delay are taken from the DEIS. *See* DEIS at Table 4.3-6.

[104] All information regarding which crossings would have queue lengths that block major thoroughfares under the No Action Alternative but not the Proposed Action is taken from the DEIS. *See* DEIS at Attachment E1 pages 106-24.

substantially reduce operations on these shared lines – some of which cause considerable delay at grade crossings. For example, in a 2002 report, the Illinois Commerce Commission identified 30 crossings that delayed the most motorists per day, and 30 crossings that caused the most total delay per day.[105] The following table lists the crossings included in that report where CN would reduce or cease operations as a result of the EJ&E Transaction:

Grade Crossings Identified by the Illinois Commerce Commission as Experiencing Excessive Delay That Would Benefit From Reduced CN Traffic[106]

Crossing	Community	No Action Trains	Proposed Action Trains	No Action Delay (hours)	Proposed Action Delay (hours)
Cumberland Ave. (Metra)	River Grove	3.6	0.0	11.5	0.0
Marquette Road (BRC)	Chicago	5.6	0.0	7.5	0.0
Archer Ave. (BRC)	Chicago	10.1	4.0	37.4	2.7
63rd Street (BRC)	Chicago	5.6	0.0	7.1	0.0
55th Street (BRC)	Chicago	5.6	0.0	13.2	0.0
47th Street	LaGrange	10.2	1.0	15.7	0.9

Some of the grade separations that are planned as part of CREATE are current at-grade crossings over rail lines on which CN train volumes would decrease as a result of the Transaction. Consequently, if the Transaction were approved, it is possible that these crossings would no longer require a separation, and the public money allocated for those projects could be reallocated to other crossings. The following table lists grade separations planned in connection with CREATE on which CN would reduce operations:

[105] *See* Illinois Commerce Commission, *Motorist Delay at Public Highway – Rail Grade Crossings In Northeastern Illinois* at 18-19 (July 2002), available at www.icc.illinois.gov/downloads/public/rr/021114rrdelay.pdf.

[106] All information regarding train counts and pre-and post-Transaction delay is from CN's analysis of grade crossings, which was submitted to SEA on September 26, 2008.

Grade Separations Planned as Part of CREATE[107] that Will Benefit From Reduced Rail CN Traffic			
Crossing	Community	No Action Trains	Proposed Action Trains
Archer Ave. (BRC)	Chicago	10.1	4.0
47th Street (IHB)	LaGrange	10.2	1.0
East Ave. (IHB)	LaGrange	10.2	1.0
31st Street (IHB)	LaGrange	10.2	1.0
71st Street (IHB)	Bridgeview	9.6	1.0
115th Street (IHB)	Alsip	9.6	1.0

In its 2030 Regional Transportation Plan, CMAP has designated several roads in the Chicago area as forming what CMAP calls the Strategic Regional Arterial ("SRA") System.[108] Many of the grade crossings on CN's lines that would experience reduced rail traffic as a result of the Transaction are on the SRA roads, as illustrated by the following table (SRA's identified by boldface):

Grade Crossings That Are Part of CMAP's Strategic Regional Arterial System That Would Benefit from Reduced CN Rail Traffic[109]						
Crossing	Community	No-Action Trains	Proposed Action Trains	No-Action Delay (hours)	Proposed Action Delay (hours)	Queue would block the following thoroughfare
Crossings that meet SEA's Thresholds						
Golf Road (IL 56)	Des Plaines	19.1	4.0	48.3	1.5	n/a
Rand Road	Des Plaines	19.1	4.0	44.7	1.3	n/a
95th Street (US 12 / US 20)	Evergreen Park	3.4	0.0	42.5	0.0	Kedzie

[107] *See* CREATE Final Feasibility at 53-54. All information regarding train counts and pre-and post-Transaction delay is from CN's analysis of grade crossings, which was submitted to SEA on September 26, 2008.

[108] CMAP, SRA Map: http://www.cmap.illinois.gov/WorkArea/showcontent.aspx?id=5584; CMAP, 2030 Regional Transportation Plan for Northeastern Illinois, at 98 n.137, 252-254 (June 12, 2008), *available at* http://www.cmap.illinois.gov/WorkArea/showcontent.aspx?id=8726. (System Description and System List, respectively)..

[109] All information regarding train counts and pre-and post-Transaction delay is from the DEIS, s*ee* DEIS at Table 4.3-6, as is information regarding which crossings would have queue lengths that block major thoroughfares under the No Action Alternative but not the Proposed Action is taken from the DEIS, *see* DEIS at Attachment E1 pages 106-24.

1st Avenue	River Grove	3.5	0.0	6.6	0.0	**North Ave (IL 64)**
Butterfield Road	Vernon Hills	19.1	4.0	5.6	0.6	**Townline Road (IL 60)**
26th Street	North Riverside	4.4	1.7	6.7	0.7	**Harlem Ave (IL 43)**
Des Plaines Ave	North Riverside	4.4	1.7	7.4	0.8	**Cermak Ave**
Cermak Ave	North Riverside	4.4	1.7	16.9	1.8	**1st Ave/Golfview Ave (IL 171)**
Kedzie Ave	Evergreen Park	3.4	0.0	33.4	0.0	**95th Street**
127th Street	Blue Island	3.4	0.0	32.0	0.0	Kedzie
Other Crossings						
159th Street (US 6)	South Holland	19.5	1.0	30.4	1.4	n/a
55th Street	Chicago	5.6	0.0	35.9	0.0	n/a
87th Street	Chicago	3.4	0.0	27.4	0.0	n/a
Townline Road	Mundelein	19.1	4.0	12.7	1.3	n/a
Half Day Road (IL 22)	Prairie View	19.1	4.0	19.5	0.7	n/a
Touhy Ave	Des Plaines	19.1	4.0	37.7	1.0	n/a
IL 59	Bartlett	3.0	1.7	7.4	1.2	n/a
County Farm Road	Hanover Park	3.0	1.7	4.6	0.7	n/a
North Ave (IL 64)	Villa Park	3.0	1.7	8.3	1.5	n/a

Any mitigation that SEA might recommend must take these crossings into account. The purpose of mitigation is not to create a public windfall. As the above tables indicate, the rerouting of trains now operating on CN lines in Chicago would have substantial environmental benefits – benefits that would offset the adverse environmental impacts experienced by communities along the EJ&E line.[110] In deciding on an appropriate allocation of mitigation expenses, SEA should be cognizant of the fact that CN is creating net environmental and public benefits and it therefore would not be appropriate to allocate mitigation funding to CN. In the absence of a railroad creating a net public harm, it would be unreasonable to allocate mitigation

[110] *See* Letter from Paul A. Cunningham to Victoria J. Rutson (Sept. 26, 2008) (transmitting CN's grade crossing delay analysis, showing a net reduction of 228 hours of delay region-wide).

costs on that entity. Such an approach has the potential of deterring transactions for which the cost of mitigating the all problems over whatever threshold is set would be prohibitive, even for a transaction which would benefit the public overall.

E.6.b. There is no rational basis for imposing on a railroad the cost and burden of mitigation of the impacts of a control Transaction differently from the delay impacts of any other railroad operation.

The impacts described in the DEIS, for which SEA is proposing mitigation, are almost entirely the result of anticipated increases in train traffic on the affected lines. But increases in traffic on rail lines are not regulated events; they are part of the normal operation of a railroad. Railroads are free to increase traffic on their lines without federal authorization (and may even be required to increase that traffic, if that is the only way they can discharge their common carrier obligations). In particular, railroads are free to rationalize use of their systems to increase efficiency and provide much needed augmentation of capacity by shifting traffic from heavily congested lines to underutilized lines. Doing so also can have positive environmental effects (as in this case) by removing rail traffic from locations where noise, delay at grade crossings, and similar impacts fall on relatively more residents than in the locations to which the traffic is shifted.

CN's competitors are free to increase traffic on their lines, and become more efficient by shifting traffic from one line to another, without federal licensing and thus without agency environmental review, and with no obligation to mitigate impacts of those traffic shifts.[111] The

[111] For example: UP has increased traffic on the former CNW line through West Chicago to 85 to 90 trains a day, up from 55 to 60 trains per day in the mid-1990s. Judy Newman, *Midwest Bottlenecks Mean More Train Traffic in State,* Wisc. State J., June 1, 2008, at C6. Similarly, NS increased traffic over its line between Front Royal and Manassas, Virginia, in the early 1990s, without any regulatory or environmental review, from two trains a day to 18 a day, in connection

market for rail transportation will be distorted if, in the context of a control transaction, an agency requires environmental mitigation that prevents or deters an acquiring railroad from using its property in ways that will enhance the efficiency of its rail operations, when other railroads are free to use their property to make similar enhancements without incurring any mitigation costs or other regulatory obligations.

The reason that Congress requires railroads to obtain STB approval for "minor" control transactions is not so that the STB will have a hook it may use to regulate the environmental effects that may follow such transactions. It is, as the statutory standards of section 11324(d) indicate, to prevent transactions from going forward that would substantially impair competition, and where the transactions' contributions to meeting significant transportation needs would not outweigh the anticompetitive effects. In other words, Congress meant for the agency to address the kinds of adverse impacts that are particularly characteristic of control transactions. There is nothing in the text or legislative history of the Staggers Act, which established the statutory standard under which this Transaction must be evaluated, to indicate that Congress meant the agency to address the kinds of adverse impacts that are typical of rail operations generally. To the extent that control transactions may, incidentally, have environmental effects caused by the ordinary operations of the new rail system, those effects are identical, from an environmental point of view, to similar effects caused by ordinary operations of other railroads. There is therefore no good reason, as a matter of environmental policy, to regulate those effects differently in the different contexts in which they arise.

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with its plan to use its existing underused lines more efficiently to provide a new routing for its traffic to the Northeast. Ann O'Hanlon, *Angry Resident Suspicious of Rail Study*, Wash. Post, June 13, 1996, at V01; Don Phillips, *Freight Railroads' Recovery Appears to Be for Long Haul*, Wash. Post, July 11, 1994, at A1.

If it is considered desirable, as a matter of public policy, to protect the interests of communities along railroad lines by prohibiting those railroads from increasing traffic on their lines (and CN doubts that it would be desirable to prevent railroads from responding to increased demand for rail service), then that prohibition should apply equally to all rail lines and should not be dependent on a nexus with a corporate transaction such as a merger or acquisition. The increases in rail traffic that result from a rail acquisition are qualitatively and quantitatively identical to impacts from increases of the same magnitude resulting from a railroad's improved marketing, better service, internal re-routing, or other causes that do not require or flow from a control transaction, or result in agency-imposed conditions, as are the impacts on surrounding communities from such increases. There is no good reason why they should be regulated indirectly in a way that allows them to occur freely under one but not the other set of circumstances.

E.6.c. Federal and state grade separation policies would limit the railroad contribution here to no more than 5% of the cost of grade crossing upgrades, including separation.

The subject of who should pay for grade separations has been actively debated for some time. The current consensus is that, because the public derives most, if not all, of the benefit from a grade crossing improvement, the public should bear most, if not all, of the cost for that improvement. In recognition of the relatively minor benefits accruing to the railroad and the relatively larger benefits accruing to the public,federal and state policies regard the proper allocation for grade crossing improvement to come primarily from governmental authorities.

Beginning in the early 1960s, the federal government became concerned with the frequency of accidents at grade crossings and began to study ways to improve safety and properly allocate costs for upgrades to crossing safety devices. In 1962, the Interstate Commerce

Commission ("ICC") (the predecessor to the Board), after a thorough investigation of the problem of highway/rail at-grade crossing safety, found that "the consensus supports a conclusion that the major costs of grade separation and protection at rail-highway grade crossings should be borne by the public since the public is the principal recipient of the benefits derived from grade-crossing protection." *Prevention of Rail-Highway Grade Crossing Accidents Involving Railway Trains and Motor Vehicles*, 322 I.C.C. 1, 83 (1964).[112]

Building on the ICC's report, Congress, in the Federal Railroad Safety Act of 1970,[113] directed the Secretary of Transportation to undertake "a comprehensive study of the problem of eliminating and protecting railroad grade crossings" and to provide "recommendations for appropriate action, including, if relevant, a recommendation for equitable allocation of the economic costs of any such program proposed as a result of such study."[114] The same year, Congress also passed the Highway Safety Act of 1970,[115] which called for "a full and complete investigation and study of the problem of providing increased highway safety at public and private ground-level rail-highway crossings . . . including the estimate of the cost of such a program."[116]

The result of these two pieces of legislation was a two-part report, jointly prepared by the staffs of FHWA and FRA, and submitted by the Secretary of Transportation to Congress. Part

[112] *See also id*. at 87 (because "highway users are the principal recipients of benefits flowing from rail-highway grade separations . . . the cost of installing and maintaining such separations and protective devices is a public responsibility and should be financed with public funds that same as highway traffic devices.").

[113] Pub. L. No. 91-458, 84 Stat. 971, 972.

[114] *Id*.

[115] Pub. L. No. 91-605, 84 Stat. 1713.

[116] *Id.* § 205(a), 84 Stat. 1713, 1743 (enacting 23 U.S.C. § 322(e)).

I[117] discussed the crossing safety problem, and Part II[118] provided recommendations, including that Congress create a federal funding program for highway/rail at-grade crossings and allocate costs for crossing upgrades (including separations) according to relative benefits. Part II included a specific discussion of the relative benefits accruing to railroads and the public from grade crossing upgrades, and the equitable allocation of costs for those upgrades. The primary benefits to the railroad were found to be reduced maintenance costs for existing grade protection devices and the reduction in cost of claims for personal injuries resulting from accidents at grade crossings.[119] Benefits to motorists included reduced accidents, reduced delay, and reduced operating costs.[120] Based on the Report, the Secretary recommended that for separations "where benefits accrue to the railroad . . . the railroad contribution would be 5 percent of the railroad benefit related portion of the project cost" and for separations "where no benefits accrue to the railroad . . . there would be no railroad contribution to the project costs."[121]

Based on these two reports, Congress passed the Highway Safety Act of 1973,[122] which established a categorical safety program (section 203) for the elimination or reduction of hazards at rail/highway at-grade crossings and further stipulated that the federal share of improvement costs was to be 90%.[123]

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[117] U.S. DOT, *Railroad-Highway Safety, Part I: A Comprehensive Statement of the Problem, A Report to Congress* (Nov. 1971).

[118] United States Department of Transportation, *Railroad-Highway Safety, Part II: Recommendations for Resolving the Problem* (Aug. 1972) ("*DOT Recommendations*").

[119] *DOT Recommendations* at 104.

[120] *Id.*

[121] *Id.* at 105.

[122] Pub. L. No. 93-87, 87 Stat. 250, 282.

[123] The Act also included funds for several demonstration projects that were intended to determine the feasibility of increasing safety at highway/rail at-grade crossings in urban areas. For these projects, federal funds covered 95% of the costs, while state or local governments paid

Under the current scheme, 23 U.S.C. § 130(b) authorizes DOT to:

> classify the various types of projects involved in the elimination of hazards of railway-highway crossings, and . . . set for each such classification a percentage of the costs of construction which shall be deemed to represent the net benefit to the railroad or railroads for the purpose of determining the railroad's share of the cost of construction. The percentage so determined shall in no case exceed 10 per centum. The Secretary shall determine the appropriate classification of each project.

Pursuant to that statute, DOT has adopted regulations that explicitly stated what the ICC had recognized in the early 1960s – railroads receive no ascertainable net benefit from grade crossing improvements, including grade separations:

> Projects for grade crossing improvements are deemed to be of no ascertainable net benefit to the railroads and there shall be no required railroad share of the costs.

23 C.F.R. § 646.210(b). Thus, under the current funding scheme, a railroad's contribution to a grade separation is capped at 5% when federal dollars are used (representing the slight benefit to the railroad from the elimination of its responsibility for maintenance of existing active warning devices, and from the reduction of its potential liability for crossing accidents).

It is therefore unclear whether the Board has the authority to impose on CN a requirement that it pay more for a grade separation than the statutory maximum, or the maximum imposed by regulation. In any event, simply because a crossing has been identified as a candidate for grade separation in an environmental review does not provide any basis for imposing a greater burden on the Transaction than the law imposes on railroads generally when crossing delay call for separation.

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the remaining 5%. In subsequent highway funding bills, Congress made funds available for all crossings (regardless of whether they were on federal highways) and continued to appropriate money for the section 203 program. With the Surface Transportation and Uniform Relocation Assistance Act of 1987, Pub. L. No. 100-17, 101 Stat. 132, 160, the Grade Crossing Safety Program became a permanent law, s*ee id.* § 121(a), 101 Stat. 132, 159 (enacting 23 U.S.C. § 130(d)-(h)).

E.6.d. The longstanding federal policy concerning the allocation of the costs of grade improvements should be maintained in this case.

Basic principles. The allocation under the federal highway assistance programs of all or most of the costs of grade improvements away from the railroads – an allocation arrived at after numerous studies over many years - is the correct allocation from the viewpoint of social welfare – in particular, allocative efficiency – and fairness. Because there is "no ascertainable net benefit to the railroad," 23 C.F.R. § 646.210(b)(1)-(2), there would be a mismatch of costs and benefits were the allocation otherwise.

The proper allocation does not change in the present circumstance, where the environmental effects at issue are the result of a minor control transaction.[124] Congress has determined that minor transactions without anticompetitive effects are in the national interest. The Application here amply demonstrates the substantial transportation benefits of this Transaction. Those benefits would accrue to shippers both on CN and on other railroads with which CN interchanges traffic or that otherwise utilize the new routings, in addition to the private benefits to CN's shareholders, who are financing the Transaction. From the viewpoint of national transportation policy, this is socially desirable investment, bringing substantial public benefits.

[124] In this section, CN discusses the public policy considerations without waiving its positions, expressed elsewhere in these Comments, that the Board may lack authority to impose environmental conditions on a minor transaction; that, under NEPA, the environmental impacts of increased train traffic are not the result of the federal action at issue (*i.e.*, the approval by the Board of the Application), which the agency is required to take in the absence of anticompetitive effects – even if the environmental impacts are, as a practical matter, the result of the Transaction itself; that the increase in train movements along the EJ&E line, including in particular hazardous materials movements, may not even be a result of the Transaction itself; and that the DEIS overstates some of the negative environmental impacts. Even if none of these positions were correct, the longstanding federal policy of allocating the costs of grade improvements away from the railroad would be the correct policy here.

In addition to transportation benefits, which include public benefits, the Transaction would have environmental effects. They are both negative and positive, and those benefits and burdens fall on different communities. Those facts may, at least superficially, complicate the question of the best allocation, but they do not change the basic principles.

From the viewpoint of allocative efficiency, investors will not invest unless the benefits they will realize exceed the costs to them, and then they will choose the investments that allow them to realize the greatest amount of net benefits. From the viewpoint of fairness, the cost of benefits should be assigned to those who benefit. Thus, the federal policy embedded in the highway assistance program implicitly reflects an answer to two related questions: Which allocation best matches costs and benefits? And, what will be the effect on socially desirable investment of allocating a greater share to the railroad than is warranted by the benefits to it?

Mismatch of costs and benefits. The benefits of grade improvements, including grade crossings, at the 15 locations identified in the DEIS, like grade improvements generally, would not benefit the railroad or its customers. The improvements will not enable trains to proceed more quickly through the crossings, and any reduction in the number of accidents would have minuscule effects on the overall efficiency of the rail system. As the regulations governing federal highway aid confirm, the benefits of the grade improvements accrue to the communities involved.

If, nonetheless, and contrary to past practice, a large share of the costs of grade improvements is assigned to CN, the result would be a mismatch of costs and benefits. It is no response to say that the proper perspective is with respect to the Transaction as a whole that benefits CN's shareholders. It is true that CN's shareholders would benefit from the Transaction, but so would CN's shippers, other shippers, and the public, including the communities that will

benefit environmentally. Moreover, CN would have already paid a market rate for the Transaction, and CN has expressed a willingness to pay the costs of reasonable mitigation in line with past Board practice. Thus, assigning more costs to CN would not bring about a match of costs and benefits even from a Transactional perspective; a Transactional perspective does not allow or provide for a matching of costs and benefits.

Effects on socially desirable investment. Moreover, assigning a large share of the costs to the railroad could have adverse systemic effects. It would not increase and could reduce the extent of socially desirable railroad investment. The proposed Transaction would bring about public benefits in the form of transportation benefits and environmental benefits. Even without precise quantification, it is reasonably evident that these public benefits together would outweigh the adverse environmental effects. Indeed, CN believes that, if the DEIS eliminated faulty data and overly conservative assumptions, it would show that the Transaction's environmental benefits alone are greater than its environmental burdens.

If a generator of net benefits to society is required to pay the costs of generating benefits that do not accrue to it, there cannot be a positive impact on overall social welfare. Instead, investment decisions will skew toward investments that have minimal public costs or that generate benefits that accrue entirely to the railroad. The fact that shareholders of the railroad might nonetheless benefit from an investment, even if a greater share of costs that do not benefit the railroad are assigned to the railroad, does not change the point that the systemic effects of such an allocation could reduce socially desirable investment.

Effects on efficient negotiation. The DEIS encourages negotiated outcomes with respect to the 15 crossings and recognizes that "agencies with a regional perspective" are important in such negotiations. *See* DEIS at ES-41—ES-42. CN agrees that, because the

benefits and burdens fall on different communities, a regional perspective that embraces both types of communities can be important. CN also agrees that negotiated outcomes can be fairer and more efficient than Board-imposed outcomes, but only if the parties to the negotiations are prepared to bear costs commensurate with the benefits they will receive. If the Village of Barrington negotiates from the implicit position that drivers in that community value their time at $353 an hour, and that Barrington should not bear the costs of the grade improvements necessary to generate a significant portion of that amount, a successful negotiation is unlikely.

Thus, while a given outcome is or is not cost-effective and cost-beneficial without regard to how the costs are allocated, the likelihood of a negotiation actually achieving a cost-beneficial and cost-effective outcome depends greatly on the allocation as understood by the parties when they enter the negotiation. When one party, in accordance with longstanding federal policy, sees "no ascertainable benefit," and the other sees large benefits, impasse is likely if the allocation of costs is the opposite of the expected benefits.

Conclusion. Longstanding federal policy regarding the allocation of the costs of grade improvements is the proper policy in the context of this minor Transaction. Other than by allocating virtually all of the costs of grade improvements to the communities that will otherwise sustain adverse environmental impacts, there is no way to align the costs with the benefits of the grade improvements.

From the perspective of all of the environmental impacts of the Transaction, both positive and negative, the participation in negotiations of a regional agency whose responsibilities include both the communities that will be negatively affected and those that will be positively affected may bring about the fairest and most efficient result. Allocating a large share of the costs to CN would not align costs and benefits; would, if anything, reduce socially desirable investment; and

would reduce the chances that negotiations would achieve cost-beneficial and cost-effective outcomes.

E.6.e. The fact that CN is a profitable company incorporated and headquartered in Canada should be irrelevant to the issues before the Board under ICCTA and NEPA

Some comments from residents of Chicago suburbs who may be affected by increased freight train traffic over the EJ&E line have displayed an unfortunate bias against companies that are profitable or have "foreign" connections. They cite no authority for the Board to treat CN differently because it is a profitable Canadian railroad. Such biases have no place in the Board's proceeding. ICCTA, NEPA, and STB's rules do not impose any nationality or profitability test on an applicant. Nor does the application of these authorities differ based on where the acquiring company is incorporated or headquartered, or its level of profitability. Indeed, in the United States' economic system it is generally regarded as a good thing for a company to be efficient and profitable.

To the extent relevant, CN notes that (1) CN or predecessor companies have been operating in the U.S. since 1880; (2) its CEO, several other key officers, and most of its U.S. employees are Americans; and (3) the Board has not deemed CN's status as a Canadian company relevant in its three prior control proceedings in the past 10 years.

Canada and the United States are long-standing allies and partners in commerce and trade who share a 5500-mile border, about 4000 miles shared with 12 states on Canada's south, and over 1500 miles with Alaska on its west.[125] Their close economic relationship is reflected in the North American Free Trade Agreement (NAFTA), which encourages trade between the U.S. and Canada. Under applicable law and STB rules, the involvement of cross-border rail traffic has no

[125] CRS, Report for Congress: United States International Borders: Brief Facts at 2 (Nov. 9, 2006).

relevance to approval of control. Similarly, CN's status as a company incorporated in Canada also has no relevance under ICCTA or STB rules, nor under NEPA or CEQ rules.

Some opponents of the Transaction have disparagingly referred to the traffic likely to move over CN's lines as nothing more than "cheap goods from China." That should be irrelevant even if it were true, because in our economic and regulatory system it is not up to the residents of Barrington, Frankfort, or other Chicago suburbs to pass judgment on what imports or other traffic CN or other railroads should be allowed or encouraged to carry on their lines. As a freight railroad lawfully operating in the U.S., CN has a historic, federally-mandated common carrier duty to move the freight that is offered to it.[126]

The freight to and from Asia that CN will be carrying over the EJ&E line will be very much like the inbound and outbound freight that other railroads serving West Coast U.S. ports are carrying now, aided by substantial public investment in the infrastructure required to do so. As a result of the CN Transaction, U.S. shippers and receivers in Chicago and other commercial centers in the central, southern, and eastern parts of the country will be better situated to handle such trade.

F. Transportation Systems – Effects on Emergency Response

CN has been actively reaching out to potentially affected communities to address emergency response issues. While SEA relied on the same formulas for analysis as have been used (and upheld)[127] in previous EISs, CN has determined, based on its discussions with affected communities, that the emergency response analysis could be more useful if it was more rigorous.

[126] CN notes that no one is before the STB complaining about the same goods carried to, from, or within the U.S. by other railroads

[127] *See Mid-States Coalition for Progress v. STB*, 345 F.3d 520, 540 (8th Cir. 2003) (finding that SEA's analysis of emergency vehicle delay in DM&E EIS complied with NEPA).

CN is therefore offering to fund a quantitative analysis of the impact of the transaction on the provision of emergency services among the communities listed in Table 4.3-13 of the DEIS (DEIS at 4.3-75). CN has contracted with Innovative Emergency Management, Inc. ("IEM"), a leading national provider of homeland security and emergency management services to federal, state, and local government, to conduct a quantitative study of the impact of grade crossing delay on emergency response times for the 11 emergency response providers identified in the DEIS. CN initially undertook this expense in order to facilitate its negotiations with some of the affected communities, but believes it has application for the EIS more generally. IEM has completed an analysis of Mundelein, which CN uses as an example below.

Based on its consultation with IEM, CN offers the following comments on the analysis of emergency response providers included in the DEIS.

F.1 The emergency response analysis included in the DEIS failed to accurately quantify impacts to emergency response.

Instead of directly measuring impacts on emergency response time, the DEIS used two measures as proxies for emergency response delay: D_A (average delay for delayed vehicles) and T (total daily blockage time at the crossing). If an at-grade crossing was within an arbitrary 2-mile radius of an emergency response facility and would experience an increase of 30 seconds or more in average delay per delayed vehicle and 30 minutes or more of total daily blocked crossing time SEA considered that facility to be potentially significantly impacted. For the reasons discussed below, this screening process was over-inclusive and likely included many emergency response provides whose response times would only be minimally impacted by the increase in train traffic that would result from the Transaction. Therefore, before mitigation can be imposed, a more detailed analysis of actual impacts on response time must be performed.

F.1.a SEA's simplistic analysis overstates effects on emergency response.

Modern traffic simulation models (such as the one created by IEM) can capture the interactive effects among vehicles, infrastructure, and traffic control devices, and the delay at a crossing can be better estimated using more realistic models of arrival patterns, queuing effects, and acceleration/deceleration behavior. These models allow for the quantification of existing emergency response times, in order to form a baseline for comparison, and can be used to demonstrate the incremental effect of an increase in train traffic on emergency response times in a community. Such models can overcome the deficiencies with SEA's simplistic analysis, which are discussed below.

First, SEA's assumptions are limiting with respect to traffic behavior, particularly as related to the determination of their value for average delay for delayed vehicles (D_A). Response time is affected by more variables than simply delay at a crossing – variability in traffic volume, traffic queues, and driver behavior can all have a direct impact on response times. A more rigorous characterization of these and other variables is potentially important.

Second, average delay for delayed vehicles does not consider the interactive effects of regular traffic and emergency vehicles at the rail/highway at-grade crossings. SEA's estimation of average delay for delayed vehicles is based on a simple formula, with the assumption that vehicles arrive in uniform patterns and a 1.3 factor for deceleration and acceleration of vehicles. This simplistic formula is acceptable for measuring effects on normal traffic, but emergency vehicles operate under a different set of rules.

Third, SEA's use of the total time the crossing is blocked does not reflect coupling effects of the train traffic, automobile traffic, and emergency call patterns as related to intersection blockage. There is only a conditional probability (which can be estimated) that a response would

be ongoing and involving an emergency vehicle already taking the specific route to the blocked crossing when that crossing is blocked. There appears to have been no part of SEA's analysis that focused on this conditional probability and thus the probability of the specific set of events at issue – the frequency of responses that are delayed at blocked crossings. SEA's analysis in the DEIS is similar to simply saying "a train could block the path of an emergency response vehicle at some point in a 24 hour period" instead of saying "how likely is it that a train would block the path of an emergency response vehicle." For example, if a given station handles 12 calls in a day, but only one of them requires the use of an at-grade crossing, then the probability that the crossing will be blocked the one time during the day when the emergency response vehicle needs to use it is extremely low.

Thus, average delay per delayed vehicle and total time the crossing is blocked do not directly indicate impacts on emergency vehicles. Rather, they indicate the impacts on regular vehicles (which accounts for the vast majority of traffic), which may at best serve as a very rough surrogate for the impacts on the relatively infrequent and episodic emergency vehicles. Instead, the DEIS should consider the special characteristics of emergency vehicles, such as having the right of way during a response or the ability to turn all traffic lights to green in the direction of travel. The DEIS should also take into account the fact that emergency vehicles can and do move to the front of the queue of vehicles stopped at a crossing and would thus have a lower average delay per delayed vehicle value than other vehicles.

SEA's simplistic model did not take these realities into account. In contrast, the response time output provided by IEM comes from a simulation that specifically treats emergency vehicle behavior and the interaction of those vehicles with normal traffic and the driving environment

(intersections, crossings, signals, etc.). IEM's model is therefore a defensible basis for deciding on what levels of mitigation may be necessary in a given community.

F.1.b The DEIS failed to consider in any meaningful way the possibility of coordination between potentially impacted facilities during a response.

Although the DEIS alluded to mutual response agreements, DEIS at 4.3-52, the analysis gave no consideration to coordination between potentially impacted facilities, which appears to be the operational norm in at least some of these communities. Thus, there is no way to judge, based just on the analysis provided in the DEIS, whether an emergency response provider could potentially lower its response time to a level below the screening response time thresholds used in the DEIS by invoking mutual aid or their own dispatch policies that would involve nearby facility resources in a response.

For example, according to its fire chief (who was not interviewed for the DEIS analysis), the Village of Mundelein typically responds with equipment from multiple stations and with equipment from both the Village and one or more of the adjacent fire districts. Thus, a response, per dispatch rules, could come from more than one station to a point outside the arbitrary two-mile radius used to identify facilities in the DEIS. In such a scenario, which happens regularly, it is possible that responders from a second or even third station could arrive faster than the screening threshold delay would imply for the station in question. The DEIS analysis does not appear to account for such a real-world coordination, which would have a direct bearing on emergency response. Thus, the impacts projected by the DEIS are overly inclusive and incomplete, and likely overstate the actual impacts on emergency response time.

Again, sophisticated models, like the one developed by IEM, can simulate these coordinated responses and more accurate estimate response times that are likely to occur if the Transaction were to be implemented.

F.2 SEA should have used a more sophisticated model to estimate impacts on those emergency response providers identified in the DEIS

As discussed above, CN has hired an expert consultant, IEM, to quantitatively assess existing and expected emergency response impacts for each of the 11 emergency response providers identified in the DEIS as likely to be substantially affected. The IEM report for Mundelein is attached as Exhibit 3, but a brief summary of IEM's analysis and results is included here.

IEM created a traffic model that was able to simulate the movements of normal vehicles and emergency vehicles on the roadways, and that further simulates the effects of delays on vehicle travel due to the presence of freight or commuter trains.[128] ADT information was provided by IDOT and CMAP, and for morning peak hour queue counts, by Parsons Transportation Group. Freight train volume, length, and velocity were collected from the DEIS, and information on commuter trains was collected from Metra's website.

Emergency response calls were assumed to originate during the peak traffic hour (as a conservative estimate of expected response time) and geographically based on the population of a given area. To accurately simulate response times, IEM assumed emergency response vehicles moved at the same speed as surrounding traffic on uncongested roads, faster than surrounding

[128] The model roadway network includes all major roads, all major roads leading to the nearest fire stations, and the road network geography, including number of lanes, number of turn lanes, location and timing of traffic controls.

vehicles on congested roadways (but slower than if unobstructed), and are allowed to bypass queues at red lights (but at a lower speed than if the light were green).

IEM carefully and thoroughly calibrated and validated the model by (1) comparing simulated peak hour queues with queues actually collected in the field, (2) comparing simulated travel times for a handful of routes to travel times observed in the field, and (3) reviewing an animated version of the model to ensure that congestion and queuing occurred in the model at the same locations and to the same extent as observed in the field.

Once the model was built, calibrated, and verified, IEM ran 3,600 Monte Carlo simulations (i.e. random samplings) for each of 4 scenarios: 2008 ADTs with existing train data; 2008 ADTs with post-Transaction train data; 2015 ADTs with existing train data; and 2015 ADTs with post-Transaction train data. The simulations indicate that the average response time by emergency vehicles in Mundelein would change very little, if at all, as a result of the Transaction. The following table shows the results of IEM's analysis:

Average Travel Time by Fire Station and Scenario (in seconds)			
Scenario	Countryside Fire Station #1	Countryside Fire Station #2	Mundelein Fire Station #2
2008 No Action	383	288	247
2008 Proposed Action	385	286	250
2015 No Action	390	287	257
2015 Proposed Action	390	287	255
Difference Between 2008 No Action and 2015 Proposed Action	7	-1	8

Thus, according to IEM's analysis, increasing rail and vehicle traffic as contemplated by the DEIS would increase average response times at two fire stations by less than 10 seconds, and

would decrease average response time at the third.[129] The portion of that increased response time attributable to increased rail traffic (*i.e.*, the difference between traffic under the 2015 No-Action Alternative and under the 2015 Proposed Action) is comparable. Statistically there is not a significant difference in response times between the respective scenarios compared. Further statistical analysis and charts and graphs are available in IEM's report.

F.3 Any mitigation should be based on actual degradation in response time as estimated by the model created by IEM

The DEIS does not attempt to quantify existing emergency response times, nor does it attempt to estimate emergency response times once the Transaction has been implemented. The former is important because it provides a baseline against which the actual effects of the Transaction can be measured, allowing SEA to measure the estimated incremental impacts fairly attributable to the increase in train traffic. To the extent that any commenters or the DEIS relies on anecdotal evidence or lay speculation about past problems or possible future scenarios, the evidence is irrelevant without substantial evidence and careful analysis of a causal relationship.

In contrast, the model developed by IEM provides a defensible quantitative means for analyzing the impacts to emergency response time and assessing the need for mitigation in a given community. If SEA is to conclude that mitigation for impacts on emergency response time is warranted, it should base that mitigation on the results of the analysis in IEM's model and not on speculation or anecdotal or potentially biased information provided by commenters. While CN was only able to complete its analysis for one community in time for this comment, it is ready, willing, and able to apply its model to other communities identified in the DEIS as being potentially substantially affected, either upon their request or at the request of SEA. CN is

[129] It is not surprising that response times would slightly decrease at Countryside Fire Station #2 in the post-Transaction scenario, as that station is proximate to a CN line that would experience a decrease in rail traffic.

confident that a rigorous, quantitative analytical process will demonstrate that impacts to emergency response providers may be overestimated by opponents and by SEA in the DEIS.

G. Land Use

CN agrees with the assessment of the DEIS that impacts on land use would be minimal.

H. Socioeconomics

Among the common suburban critiques of the Transaction is the claim that the "Transaction does nothing more than shift the problem from one town to another." Nothing, however, could be further from the truth. The problems the Transaction is designed to reduce are delay, inefficiency, and unreliability caused by slow moving trains through and across the intersecting lines in the Chicago terminal district. These are the problems CREATE was intended to resolve. The problem motivating CREATE, and motivating CN in entering this Transaction, is not vehicle delay at crossings on CN's existing lines, which is the primary problem that communities believe is being shifted to them.

Shifting trains to the EJ&E line would allow them to move more efficiently and relatively unimpeded, thus saving time throughout the regional transportation system and reducing delay at crossings overall. Moving CN's trains through Kirk Yard would allow CN to, for the most part, bypass the congested terminal district in downtown Chicago and would free up additional capacity in the yards, at the rail/rail crossings, and on the shared trackage of the terminal district. Changes in routing and the addition of $100 million in infrastructure improvements would result in positive improvements in CN's operations and the operations and fuel use of other railroads that have to move their trains through the Chicago terminal district. It is thus evident that the Transaction would have substantial, and positive, socioeconomic impacts.

CN's Application in this case did not describe those socioeconomic benefits in detail, but that was because it focused instead on the factors relevant to the statutory standard for approval and the applicable rules. While applicants for approval of "major" control transactions are required to "enumerate and, where possible, quantify the net public benefits their merger would generate," including "cost savings . . . and other merger-related public interest benefits," 49 C.F.R. § 1180.6(b)(11), no such requirement is imposed on applicants for approval of "minor" transactions. Requiring such socioeconomic information in connection with minor transactions would be contrary to Congress's purpose in enacting the Staggers Rail Act and ICCTA, which was to reduce regulatory burdens on railroads, in part by limiting the factors to be considered in reviewing non-major transactions, effectively deregulating those transactions except where they would substantially impair competition.

NEPA also does not require the Board to examine the economic or sociological consequences of its actions. *Ass'n of Pub. Agency Customers v. Bonneville Power Admin.*, 126 F.3d 1158, 1186 (9th Cir. 1997). Under CEQ regulations, "[e]conomic or social effects are not intended by themselves to require preparation of an environmental impact statement." 40 C.F.R. § 1508.14. Where economic and social effects are interrelated with natural and physical environmental effects, the EIS must "discuss" those effects, but neither NEPA nor CEQ regulations require government agencies to take economic effects into account in making their decisions. *Town of Stratford, Conn. v. FAA*, 285 F.3d 84, 89 (D.C. Cir. 2002).

It was not appropriate, however, for the DEIS to include SEA's analysis of purported impacts from elimination of redundant jobs, because the abolition of those positions (unlike, for example, Transaction-related changes in train traffic) was not interrelated with any impacts on the natural or physical environment. *Cf.* 40 C.F.R. § 1508.14. NEPA does not authorize an

agency to use its environmental review as a wedge to open up an examination of socioeconomic impacts generally; such an examination would transform the environmental review of a non-major rail control transaction into something close to a full-bore public interest analysis of the kind required for major transactions, and undo the deregulatory work of the Staggers Act.

But if the Board is to evaluate socioeconomic impacts, albeit limited to those interrelated with the natural or physical environment, in its NEPA review, then SEA should examine a much broader range of positive economic impacts than those mentioned in the DEIS here. A few of the beneficial economic impacts that the DEIS completely overlooked are described below, and a conservative valuation of their benefits is estimated. Also, if SEA is going to stand by its approach in quantifying the socioeconomic impacts that are mentioned in the DEIS, it should correct the flaws in that quantification that are described below.

The DEIS recognizes that the proposed transaction has the potential, if approved, to create powerful socioeconomic benefits for the Chicago area and the nation as a whole. For example, the DEIS states that, "[f]rom a broad societal perspective, the Proposed Action would improve the efficiency of rail operations and reduce the cost of shipping goods through the Chicago metropolitan area. Benefits include improved rail efficiency and construction employment generated while the double track and connections are being constructed." DEIS at 4.6-1. Moreover, "[t]he Proposed Action would improve the operational efficiency of the North American freight rail system by reducing transit time through Chicago." *Id.* at 4.6-23. Balanced against these gains, the DEIS claims to identify no more than "minor, negligible [adverse socioeconomic] effects." *Id.* at 6-23.

Nonetheless, the DEIS does not quantify fully, or even substantially, many of the socioeconomic benefits that would accrue if the Transaction were implemented. As explained

below, the DEIS does not account for, among other things, (1) the full measure of job gains attributable to the Transaction, (2) the value of the reduction of waiting times at at-grade crossings, and (3) the benefits to be derived from greatly improved operational efficiency of the North American freight rail system by reducing transit time and increasing the reliability of trains passing through Chicago. Even an incomplete sampling of the benefits for which the DEIS does not account demonstrates additional societal benefits on the order of $1.2 million per year from reduction in the time motorists are delayed at grade crossings, and $23.5 million each year from supply chain cost savings to CN customers as a result of greater efficiency of operations through Chicago. Together, over a 25-year period, these savings have a net present value of more than $170 million. In addition, the supply chain savings to CN customers would have downstream beneficial impacts on the national economy, so that the cost savings would result in a total gain of $54.6 million in U.S. economic output. Moreover, the Transaction would increase employment by approximately 1,025 jobs during its two-year implementation period, resulting in increased total output to the local (Illinois) economy of $155 million in each of the two years, and could potentially result in savings of approximately 1,400 jobs by relieving congestion exacerbated by future growth in rail traffic. The quantification of these benefits is explained below.

Moreover, as demonstrated below, the DEIS erroneously quantifies adverse labor impacts that it attributes to the Transaction. It exaggerates even the "minor, negligible" impacts it identifies as a result of job losses, and it fails to take account of the economic benefit to the national economy resulting from the railroad's ability, after the Transaction, to provide the same level of transportation services as it did before, but using fewer labor resources.

H.1 The DEIS does not properly assess the labor impacts of the Transaction in the Chicago area; the Transaction would actually have a significant positive impact on employment in both the Chicago region and the national economy.

When assessing labor impacts of the proposed Transaction, the DEIS examined only three effects. First, it considered the anticipated elimination of 114 redundant positions, as described in the Operating Plan, CN-2 at 226, and applied various multipliers provided by the IMPLAN input-output model to conclude that this job reduction would cause further job losses in the local economy, resulting in a total reduction of 280 jobs. DEIS at 4.6-4, H-4 & n.1. Second, the DEIS estimates that construction of new connections and double-track as part of implementation of the Transaction would create 396 new jobs during the two-year construction period, and it applied the same IMPLAN model to conclude that total employment would rise by 708 jobs, but that this job growth would be temporary, ending with the completion of construction after two years. *Id.* at 6.4-13—6.4-14. Third, the DEIS appears to conclude that the Transaction would make rail transportation more attractive to some shippers who presently move their freight by truck, leading to a decrease in truck traffic and the loss of 109 jobs in the trucking industry, with a corresponding increase in rail traffic and an increase of 53 jobs in the rail industry. The DEIS concludes, again on the basis of the IMPLAN model, that the total net impact of the shift from truck to rail transportation would be a loss of 86 jobs. DEIS at H-4; *id.* App. H, Attachment H1 at 14.[130]

The socioeconomic impacts caused by elimination of redundant positions were not an appropriate subject for analysis in an EIS prepared under NEPA, because those job reductions would result from operational efficiencies gained by combining two formerly separate

[130] While the DEIS states that "there would be no effect from the Proposed Action on local trucking firms," DEIS at 4.6-5, a calculation of such impacts is reported in Appendix H.

workforces; they would not arise from or be "interrelated" with "natural or physical environmental effects." *See* 40 C.F.R. § 1508.14.

But even if it were appropriate to examine those job eliminations, the DEIS misinterpreted their economic impact, as explained below. Further, the DEIS underestimated the total potential job growth attributable to the proposed Transaction, from both the creation of new jobs and the prevention of job losses.

H.1.a The DEIS miscalculates the employment impacts of the Transaction.

The DEIS correctly states that the proposed Transaction would create jobs in the Chicago region by providing a basis for CN to undertake construction projects involving rail connections, extension of sidings, and installation of double track. But its estimate that the Proposed Action would permanently reduce total Chicago-area employment by 280 jobs, while temporarily generating only 708 total jobs, which would disappear after completion of Transaction-related construction (DEIS at 4.6-2), greatly understates the job creation that should reasonably be anticipated as a result of the Transaction.

The DEIS's underestimation of total job growth is attributable to several errors.

First, the DEIS fundamentally misinterprets the economic significance of the reduction of positions resulting from the Transaction. These reductions, unlike job reductions resulting from reductions in output, represent cost savings whose effect on the economy as a whole is beneficial. The eliminations of positions in this case would occur because the railroad would be able to produce the *same* output as before, but with fewer resources (employees).[131] This is the

[131] SEA claims that the elimination of the 114 jobs would have negative economic impacts that "may appear high," but that this is "[b]ecause the rail transportation sector requires relatively little labor to produce a million dollars of output and each job produces a great deal of business output and value added to the region," so that "the loss of jobs would reduce the gross regional

very definition of economic efficiency. When this happens, as the Board and its predecessor agency have well understood, the public realizes an economic *gain*. In the words of the ICC, "[c]ost reductions, regardless of whether they are passed on to shippers, are public benefits because they permit a railroad to provide the same level of rail services with fewer resources or a greater level of rail services with the same resources." *Burlington N., Inc. – Control & Merger – Santa Fe Pac. Corp.*, 10 I.C.C.2d 661, 724 (1995) ("*BN/Santa Fe*"), *aff'd sub nom. W. Resources, Inc. v. STB*, 109 F.3d 782 (D.C. Cir. 1997).

Those cost savings may be passed on to shippers, and as a matter of fact "[t]hese efficiency gains, in varying degrees depending on competitive conditions, have generally been passed on to shippers as reduced rates and/or improved services."[132] In any event, the capital conserved by these efficiency gains is made available for more productive uses elsewhere in the economy, with resulting, positive, multiplier effects on output and on employment. The DEIS's failure even to mention (let alone attempt to quantify) those beneficial effects, while calculating supposed negative multiplier effects, unsupported by economic theory previously accepted by the Board, misrepresents the impacts of the Transaction.

Second, the DEIS erred by basing its estimate of job creation solely on the $100 million that CN plans to spend on capital improvements to implement the Transaction, leading to "construction employment generated while the double track and connections are being

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product by $32.72 million in total." DEIS at 4.6-2, 4.6-5 n.2. But this misses the point that the proposed job reduction would make it possible for CN to produce every $1 million of output with even *less* labor, so that each railroad job would produce even *more* business output and value added to the region than before, and so that there would be no reduction in the gross regional product.

[132] *Canadian Nat'l Ry. – Control – Ill. Cent. Corp.*, 4 S.T.B. 122, 139-40 (1999); *accord*, *CSX Corp. – Control & Operating Leases/Agreements – Conrail Inc.*, 3 S.T.B. 196, 246 (1998) ("*Conrail*"), *aff'd sub nom. Erie-Niagara Rail Steering Committee v STB*, 247 F.3d 437 (2d Cir. 2001); *BN/Santa Fe*, 10 I.C.C.2d at 724.

constructed," DEIS at 4.6-1, while ignoring the jobs that would be created by the roughly $60 million that CN expects to spend on mitigation of the environmental impacts of the Transaction.

The DEIS estimates that construction of new connections and double-track to implement the Transaction would create 396 new jobs during the two-year construction period. SEA used the IMPLAN input model, applying various multipliers to calculate the direct, indirect, and induced labor and economic impacts of that job creation, and concluded that total jobs would rise by 708 during the construction period. But if impacts from expenditures on mitigation are taken into account, the positive economic impacts of the Transaction in the Chicago area are shown to be considerably greater than reported in the DEIS.

At CN's request, Global Insight, Inc., an economic consulting firm that is widely recognized for its expertise in modeling and forecasting, used its proprietary input-output model to conduct its own multiplier analysis of the effects of a CN expenditure of $150 million (including mitigation costs) to implement the Transaction over two years.[133] Global Insight's conclusions[134] were that that expenditure would bring about a total gain of 1,025 jobs in each of

[133] CN originally estimated that it would spend approximately $100 million in capital improvements in order to implement the Transaction. It later estimated that it would spend approximately $40 million to mitigate the environmental impacts of the Transaction. As noted above, CN now estimates that implementing its voluntary mitigation plan would cost roughly $60 million dollars. While not all of the mitigation spending would go into the construction sector, and while the applicable multipliers would differ to some degree to the extent that the expenditure went to non-construction industries, $50 million is a conservative estimate of the amount that would be spent on construction. The important point to remember here is that SEA did not examine *any* multiplier impacts from mitigation spending, which is clearly erroneous.

For the sake of simplicity, Global Insight modeled the entire economic impact based on economic data for the State of Illinois, rather than attempting, as SEA did, to split the job impacts and resulting economic effects between the two states. There is no reason to believe that the multiplier effect of employment gains or reductions would be materially different in Indiana than in Illinois. (In any event, the majority of the impacts would be felt in Illinois.)

[134] *See* Global Insight, Inc., Economic Analysis for Canadian National Railway: Scenario Impact on the Illinois Economy (Sept. 2008) (attached hereto as Exhibit 4).

the two years. In addition, the expenditure would increase total employment by 1,025, labor income by $59 million, economic output by $155 million, economic value added by $73.6 million, and state tax receipts by $22 million for each year.

Third, the DEIS fails to note that CN does not plan to eliminate the 114 positions through workforce reductions or layoffs, but instead over time, primarily through attrition, as current job incumbents retire or move on to other positions (including ones that open up on CN itself). CN-2 at 226; see also *id.* App., Att. B, at 248. Thus, the personal and local dislocations that often accompany even efficient job reductions should be substantially mitigated in this case. Moreover, the Board is required by law to impose *New York Dock* labor conditions to protect the interests of employees adversely affected by control transactions such as this one.[135] These conditions would require CN to provide payments to displaced or dismissed employees for up to six years, depending on length of service, to protect those employees from loss of income from Transaction-related personnel actions. (This requirement is a powerful incentive for CN to implement job reductions in this case through attrition rather than through sudden layoffs.)

Fourth, even if SEA's use of the IMPLAN model to calculate multiplier effects from CN's planned job reductions were conceptually sound, its actual results would overstate the negative effects. Global Insight found, when it applied its input-output model to the reduction of 114 positions, that if the expected job losses had cascading negative effects through the economy (which they would not, for reasons stated above), they would lead to a total loss of 193 jobs (rather than the 280 calculated by SEA).[136]

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[135] 49 U.S.C. § 11326(a); *New York Dock Ry. – Control – Brooklyn E. Dist. Terminal*, 360 I.C.C. 60, *aff'd sub nom. New York Dock Ry. v. United States*, 609 F.2d 83 (2d Cir. 1979).

[136] *See* Global Insight, Inc., Economic Analysis for Canadian National Railway: Scenario Impact on the Illinois Economy (Sept. 2008) (attached hereto as Exhibit 4). As explained above, the

Fifth, even if it were appropriate to assume that the Transaction would cause traffic to shift from truck to rail transportation,[137] it would not be appropriate to calculate the economic impact of that shift, as SEA appears to have done DEIS, App. H, Attachment H at 13, simply by looking at the immediate job losses in the trucking industry and applying multipliers to project a total job loss, offset only by corresponding job gains in the rail industry. That approach does not take into account the value of the cost savings or service improvements (which have similar economic effects to those of cost savings) that impel shippers to make such a shift. The benefits to shippers redound in turn to the shippers' customers or owners and so have beneficial multiplier effects through the local and national economy.

H.1.b The DEIS does not take into account potential positive labor impacts other than those caused by CN's planned construction activity.

The DEIS calculation of the impacts of the Transaction on employment is also incomplete because it does not reflect economic activities flowing from the Transaction other than construction activities. It thus overlooks many positive impacts on employment.

One way of estimating some of those positive impacts is by reference to the benefits that have been projected in connection with the CREATE Program, a portion of which would be achieved by the proposed Transaction. As the DEIS states, CREATE is a partnership dedicated to implementing "critically needed improvements to increase efficiency of the region's rail

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assumption that 114 jobs would be abolished in the first year does not reflect CN's actual intentions; it thus leads to an exaggeration of the immediate impact of the job reductions.

[137] CN has not assumed that there would be any diversions of freight from truck to rail, and it is unclear (as noted above) whether SEA actually makes such an assumption, as the discussion of socioeconomic impacts in chapter 4 appears inconsistent with Appendix H. If in fact, however, SEA means to assume traffic diversions from freight to rail, the SEA needs also to describe fully the beneficial net environmental effects of the shift from truck to rail, including reductions in fuel consumption, highway congestion, and risk of accidents, none of which is discussed in the DEIS.

infrastructure and the quality of life of Chicago-area residents." DEIS at 2-65 (quoting www.createprogram.org/index.html). Included among the economic impacts that CREATE has studied are the impacts on employment levels expected as a result of congestion-reducing improvements to the Chicago Terminal District. CREATE estimates that it would, among other things, prevent the loss of 17,000 jobs that would be lost over the next 20 years if rail congestion problems are not addressed.[138]

The proposed Transaction would achieve part of the transportation improvement envisioned by CREATE in that it would reduce congestion by removing CN trains from rail lines in the CREATE District in central Chicago. It is therefore reasonable to expect that these improvements by CN to fluidity within Chicago would provide partial benefits comparable to those envisioned by CREATE.[139] That would include a portion of the 17,000 jobs expected to be preserved by CREATE within the CREATE District. Whatever methodology SEA may choose to calculate a proportion of the CREATE benefits that could be attributed to the Transaction, it

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[138] CREATE Final Feasibility Plan at 37 (Aug. 2005).

This estimate was based on the assumption that there would be a 78.7% increase in rail freight, measured by the number of railcars, over a 20-year period. CN has maintained that any projections of rail traffic over more than a very short time horizon are likely to be inaccurate and unreliable. *See* letter of Paul A. Cunningham to Victoria J. Rutson (Apr. 21, 2008) (responding to SEA Information and Data Request #3). Nevertheless, to the extent that SEA finds any part of CREATE's projections of total growth in Chicago-area traffic to be reliable, then it may reasonably conclude that CREATE would prevent the job loss caused by the resulting increase in rail congestion. SEA may further reasonably conclude that to the extent that the Transaction would relieve some of that future congestion, it would prevent loss of a proportionate number of jobs.

[139] CN proposes to remove a total of 48.9 trains per day from its five subdivisions within the CREATE District, or approximately 8.2% of the 600 total daily trains operating in that District On those portions of its lines within the CREATE District, CN expects to reduce train traffic from 19.1 trains per day to 2.0 trains per day on the Waukesha Subdivision, from 3.0 to 1.7 trains per day on the Freeport Subdivision, from 12.6 to 2.0 trains per day on the Chicago Subdivision, and from 22.1 to 2.0 trains per day on the Elsdon Subdivision. CN also plans to increase train traffic from 1.8 to 2.0 trains per day on that portion of the Joliet Subdivision within the CREATE District, for a net decrease of 48.9 trains per day on all its lines in the District.

should at least acknowledge the likelihood that the Transaction would accomplish some widely desired transportation improvements, with positive economic and employment consequences.

H.2 The Transaction would have economic benefits, which the DEIS overlooked, from the net reduction in vehicular delays at at-grade highway crossings in the Chicago area.

Focusing on "increased traffic delays at highway/rail at-grade crossings" at locations "where the EJ&E tracks run directly through a community," the DEIS recognizes that "impacts to community cohesion are not expected to be more than moderate." DEIS at 4.6-10. It also recognizes that "[t]raffic delays would be reduced along the CN rail lines that experience decreased rail traffic" and that "this would reduce any existing, adverse effect to community cohesion along these rail lines." It makes no attempt, however, to quantify the economic benefit to the Chicago region from reduced delay at grade crossings.

CN has calculated that the Transaction would cause a net decrease of 228 hours each day to vehicles stopped at affected rail-highway grade crossings.[140] The monetary value of this time saving can be calculated by using time-value factors prescribed by the United States Department of Transportation ("DOT") in its "Departmental Guidance for the Valuation of Travel Time in Economic Analysis,"[141] which provides an objective, readily available estimate of value of time

[140] *See* Letter from Paul A. Cunningham to Victoria J. Rutson at 4 (Sept. 26, 2008); *id.*, Exhibit B.

[141] Memorandum from Frank E. Kruesi, Assistant Secretary for Transportation Policy, DOT, to Secretarial Officers and Modal Administrators, "Departmental Guidance for the Valuation of Travel Time in Economic Analysis" (Apr. 9, 1997) ("1997 Departmental Guidance"), *available at* http://ostpxweb.dot.gov/policy/Data/VOT97guid.pdf; Memorandum from Emil H. Frankel, Assistant Secretary for Transportation Policy, DOT, to Assistant Secretaries and Modal Administrators, "Revised Departmental Guidance, Valuation of Travel Time in Economic Analysis" (Feb. 11, 2003) ("2003 Revision to Departmental Guidance"), *available at* http://ostpxweb.dot.gov/policy/Data/VOTrevision1_2-11-03.pdf.

to persons delayed in transportation. DOT has instructed its modal agencies[142] to use the values and procedures set forth in this guidance document "for future DOT cost-benefit and cost-effectiveness analyses that employ measures of the value of travel time lost or saved."[143] The guidance document specifies, among other factors, the recommended percentage of hourly income, as well as the dollar value, to be used for estimating the value of time lost or saved for personal and business trips by car, as well as truck trips.

In 2003, DOT revised its Departmental Guidance to reflect updated information on hourly income. Following these revisions, DOT's estimated hourly value of travel time savings per person-hour for local travel by surface mode (measured in 2000 dollars) is:

For Personal Travel[144]	-	$10.60
For Business Travel	-	$21.20
Weighted Average (above two)	-	$11.20
Truck Drivers	-	$18.10

Because the values calculated by DOT are per person-hour, they cannot be applied until CN's calculations of vehicle-hours saved are converted into person-hours. The CMAP assumes that the number of persons per vehicle is 1.2 for work trips and 1.4 for non-work trips.[145] The 2000 U.S. Census, however, shows a larger number of persons (approximately 1.4) per vehicle

[142] *I.e.*, the Federal Highway Administration (highways), Federal Transit Administration (urban mass transit), Federal Aviation Administration (air), and Federal Railroad Administration (rail). (The omission of the Board from this listing reflects the Board's different status as an independent agency, not any view that the document is less relevant to the Board's activities.)

[143] 1997 DOT Guidance, transmittal memorandum at 1.

[144] Includes trips to work.

[145] Chicago Area Transportation Study, *Conformity Analysis Documentation: 2030 Regional Transportation Plan, FY 2004 - 2009 Transportation Improvement Program* (Oct. 2003).

for work trips in the Chicago Metropolitan Area.[146] It is therefore reasonable to assume that the average number of persons per vehicle for all trips in the Chicago area is 1.4.

Finally, it may be assumed that trucks constitute approximately 7.5% of the vehicles delayed at grade crossings. (This number is derived from the FRA's inventory of highway-rail grade crossings, which reports that trucks constitute 7.503113% of the total number of vehicles at the grade crossings on the EJ&E arc and on the lines within the arc used by CN.)

Applying these assumptions to the 228 net travel time savings calculated by CN yields these results:

1. **Local Travel Savings (excluding trucks)**

    - Number of passenger vehicle-hours saved per day
      = 228 x 0.925= 210.9
    - Number of person-hours saved per day
      = 1.4 x 210.9 = 295.26
    - Number of person-hours saved per year[147]
      = 325 x 295.26 = 95,959.5
    - Annual savings (dollar values as of 2000)
      = $11.20 x 95,959.5 = $1,074,746

2. **Local Travel Savings (trucks only)**

    - Number of truck vehicle-hours saved per day
      = 228 x 0.075 = 17.1
    - Number of person-hours saved per year
      = 1 x 325 x 17.1 = 5,557.5
    - Annual savings (dollar values as of 2000)
      = $18.10 x 5,557.5 = 100,591

[146] U.S. Bureau of the Census, Department of Commerce, U.S. 2000 Census of Population and Housing - Long Form, Table P-30 ("Means of Transportation to Work for Workers 16 and Over"). (The calculation of 1.4 persons per vehicle was made by taking the weighted average of the counts of number of persons per car for Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will counties in Illinois and Lake County in Indiana.)

[147] The number of person-hours per day was multiplied by 325, rather than 365, as a conservative reflection of the lower vehicular traffic volumes on the affected roads on weekends.

3. **Total Annual Savings (dollar values as of 2000)**
= $1,074,746 + $100,591 = $1,175,337

The present value of 25 years of these savings would amount to $15.0 million.

Thus, the quantification that the DEIS does not undertake demonstrates that the Transaction would annually contribute an additional $1,175,337 to the Chicago-area economy. (This estimate is a conservative one, because it is based on hourly income in 2000 and therefore does not reflect increases in income since that year.)

H.3 The Transaction would provide economic benefits to shippers as a result of reduced transit time and increased reliability of train service through Chicago.

CN's proposed acquisition of the EJ&E line around Chicago would allow CN to improve the fluidity and performance of the approximately 12,000 trains per year that it moves through the Chicago region. This fluidity translates into reduced transit times and improved system reliability, thereby lowering the overall supply chain costs for CN's customers whose freight must move through Chicago. SEA's analysis of the socioeconomic impacts of the Transaction does not acknowledge or account for any of these savings, even though they constitute clear socioeconomic benefits that would result from CN's re-routing of its trains over the EJ&E line in implementation of the Transaction.

Two of the most significant shipper savings made possible by improvement in CN's service and overlooked in the DEIS are reduced carrying cost of in-transit inventory and reduced safety stock costs. While goods are in transit, they are included on shippers' financial balance sheets, but they are not available for use in production or for sale. Time spent in transit thus imposes substantial carrying costs on shippers. If travel time is reduced, shipments arrive earlier at their destinations and are available for use or sale, and rail customers' inventory costs are

lowered. In addition, more reliable service enables customers to make further savings, because they are able to reduce their levels of safety stock levels (*i.e.*, additional inventory that is kept on hand as a hedge against fluctuations around mean transit time).

To develop estimates of these savings, CN retained Oliver Wyman, a global management consulting firm with extensive expertise in supply chain and logistics management and experience in advising the rail industry. Using CN data from 2006[148] and in consultation with CN personnel, Oliver Wyman determined pre-Transaction transit times, variability of transit times, and rail yard performance for each train type (*e.g.*, merchandise, intermodal, bulk) that CN now moves to, from, or through the Chicago terminal. CN personnel, using CN's Train Performance Calculator ("TPC"), statistics provided by EJ&E on actual operating performance on its line, and their own judgment based on their operating experience, provided their estimates of the post-Transaction speeds and variability of trains operating over the routes, including the EJ&EW line, that CN would use following implementation of the Transaction.

Using this information, Oliver Wyman was able to estimate the change that could be expected in mean transit time and variability for each train type on each applicable route. Reduction in transit time was a combination of reduced line-haul transit time and, where applicable, reduced dwell time in yards.[149] (Dwell time would not be applicable to unit trains, which do not require handling in yards.) Reduction in dwell time was an important factor in calculating reduction in transit time variability because longer time needed for car handling in a

[148] This year was chosen for the sake of consistency with the Operating Plan that was submitted as part of CN's Application, and which was constructed using data from 2006, the last full year for which data was available at the time the Plan was created.

[149] Because of time pressure, Oliver Wyman calculated the improvement in yard dwell time at CN's Markham Yard, and used Markham as a proxy for the other classification facilities used by the Chicago traffic under review. This approach gave a conservative estimate of the probability of making connections at non-CN yards.

yard means greater probability that a car will miss its connection with the outgoing train that is scheduled to take it to the next terminal. (Because at CN the connecting trains generally run once a day, if a car misses its departing train, even by as little as one or two hours, it will usually be delayed a full 24 additional hours. Long dwell times in a yard, by increasing the likelihood of missed train connections, can therefore multiply the variability of transit times over the length of a movement from origin to destination.

Oliver Wyman's calculations of improvements in transit time and reliability were conservative, because they omitted (a) reductions in time spent waiting by trains that have been made up and are awaiting a crew at locations outside the EJ&E arc for a route through Chicago (which often occurs today because the railroad is reluctant to pay for costs of a crew that is train that is only sitting on the track, so it waits until it knows the train can proceed before it calls a crew for a stopped train); (b) reduced transit time and variability of transit time for CN traffic within the Chicago terminal that would continue to use its current routes, but which would move more readily because of reduced traffic on the lines within Chicago; (c) downstream improvements in yard performance or transit time outside the EJ&E arc, resulting from improvements within the arc that make it more likely that a CN train will make its next connection on time at a downstream yard; and (d) improvements to traffic through Chicago that CN does not participate, but which would benefit from the reduction of CN's use of lines inside the arc.

An inventory carrying cost model was developed to estimate the savings to CN customers from reductions in transit times. This model applies the annual cost of capital and the reduced travel time to the total value of the goods in transit. Exhibit 5 ("Supply Chain Savings to CN Customers Resulting from acquisition of EJE: Model Results") presents Oliver Wyman's

calculations of the inventory carrying costs savings, both for all industries and for selected industries representing significant commodity groups (chemicals, metals, paper, and prepared food).[150]

In addition, Oliver Wyman developed a safety stock model, using transit time and transit time variability from origin to destination, and improvements to those factors, to estimate the pre- and post-Transaction safety stock levels. The post-Transaction reductions in safety stock were aggregated into commodity groups, and an average value per ton for each group was estimated. Oliver Wyman then calculated the annual dollars of savings to customers by multiplying the average value per ton by the safety stock reduction in tons multiplied by the cost of capital for the industry group multiplied by the average value per ton. Oliver Wyman's findings are reported in Exhibit 5, aggregated both for all industries and for the representative industries for which inventory carrying cost savings were reported.[151]

Thus, Oliver Wyman calculated the total savings that CN customers could expect from reductions in inventory carrying costs and safety stocks, as a result of the Transaction, is $23.5

[150] It was CN's judgment that a reasonable measure of pre-tax cost of capital for the affected industries would be 14% (8.7% after tax), and calculations based on that number are therefore reported in Exhibit 5. If, however, this number is regarded as too high, alternative calculations based on pre-tax costs of capital of 10 and 12% (6.2% and 7.4%, respectively, after tax) are also shown.

[151] If SEA wishes to inquire further into the methodology used by Oliver Wyman to arrive at these conclusions, CN is prepared to make members of the expert Oliver Wyman team that calculated them available to SEA.

million each year.[152] The present value of these savings over 25 years would be in excess of $160 million, at a 14% pre-tax cost of capital.[153]

These savings to CN's customers would have beneficial impacts throughout the national economy. In order to calculate the downstream impacts of these savings, CN asked Global Insight to calculate the multiplier effects that these savings could be expected to yield, if shippers used them to expand their manufacturing output by a corresponding level. Using its input-output model (described in section H.1.a, above), Global Insight calculated that an increase in manufacturing output of $100 million would lead to a total gain of 549 U.S. jobs, and $29.8 million in U.S. labor income. Moreover, it would lead to a total gain of $232.4 million in U.S. economic output, a total gain of $97.7 million in economic value added for the U.S. economy, and a total increase of $14.5 million in U.S. tax receipts.[154] For an increase in manufacturing output of only $23.5 million (the value of the yearly supply chain savings calculated by Oliver Wyman), the corresponding proportional results would be: a total gain of 129 U.S. jobs; increase in U.S. labor income of $7.0 million; a total gain of $54.6 million in U.S. economic output; a total gain of $23.0 million in economic value added for the U.S. economy; and a total increase of $3.4 million in U.S. tax receipts.

These savings are only a small portion of socioeconomic benefits that may be expected as a result of improved transit time and reliability caused by the Transaction. They exclude, for

[152] As noted above, this assumes a pre-tax cost of capital of 14%, but even at lower cost of capital assumptions, the savings are significant. A 10% pre-tax cost of capital would yield annual savings of $16.8 million, and a 12% pre-tax cost of capital would yield savings of $20.2 million.

[153] A pre-taxcost of capital of 10% or 12% would change the present value of the savings to approximately $160 million, or close to $160 million, respectively.

[154] These findings are reported in Exhibit 6 hereto ("Economic Analysis for Canadian National Railway: Manufacturing Scenario Impact on the U.S. Economy by Industry.")

example, the value that would be created for other railroads (both freight and passenger) operating in the Chicago area by increased fluidity of CN trains, greater line capacity, and improved on-time performance for interline connections. They also exclude the savings to CN from better crew and equipment utilization that would be made possible by improved transit times and reliability. They are, however, illustrative of the kinds of benefits that were overlooked in the DEIS's assessment of the socioeconomic impacts of the expected re-routing of CN trains, and that should be included if SEA intends its EIS to include such an analysis.

H.4 There is no basis for any determination that any negative effects of the transaction on property values would be other than minimal and offset by increases by positive impacts of property values where train operations are to be reduced

SEA apparently conducted a thorough literature search regarding the economic impact of increased rail traffic on property values. While the relevant data/literature supporting (or negating) adverse effects on property values from increased train traffic is sparse, DEIS at 4.6-6, in most respects SEA reasonably utilized existing literature to support its conclusions. The DEIS found that property values in the Chicago area overall will not be affected and there would be only "minor localized effects on property values," *id*. at 4.6-23 – which it did not quantify – while reduced traffic could bring beneficial effects to property values adjacent to the CN subdivisions, *id*. at 4.6-2. The DEIS does not, however, account for those beneficial effects in the various communities along CN's current lines. If that missing analysis were to be included, given that there are more properties adjacent to CN's existing lines, where traffic would be reduced, than adjacent to the EJ&E line, where traffic would be increased, there is every reason

to believe that the proposed Transaction's beneficial effects on property values equal or outweigh any adverse ones.[155]

The limited analysis contained in the DEIS is also subject to some significant problems and qualifications. The literature and data on "stigma" harm to property values due to nearby train traffic is too limited to form reliable quantitative conclusions – SEA found just one article addressing effects of train traffic levels on property values (Simons & El Jaouhari 2004 ("Simons article") – and several factors suggest that possible values SEA infers from the Simons article are on the high side.

First, in order to form any reliable conclusions, and in order to satisfy the minimum requirements of the Uniform Standards of Professional Appraisal Practice ("USPAP"), an opinion regarding property values must take into account local variables, including, where possible, relevant local market data. *See, e.g.*, USPAP Advisory Opinion No. 9, lines 179-81 (an analysis of environmental stigma "must be based on market data") (2006). SEA's purely mathematical extrapolation from the Simons article, DEIS Table 4.6-3, which addressed property values in entirely different communities in Ohio, does not do so. Local and individual data are likely to be highly significant here: for example, a plausible hypothesis is that residences and communities that are relatively upscale and that feature relatively modern construction may be well insulated by trees and modern windows from sound or other nuisances, and rail traffic may be less noticeable to potential buyers if rail lines are obscured by trees or other landscape

[155] It is also possible, although there is no evidence supporting such a conjecture, that because the communities along the EJ&E line are typically more affluent, with higher value residences, if – contrary to literature cited by SEA – additional train traffic has more effect on high-value residences than on low-value residences, the balance would go the other way. However, any suggestion that a possible decrease in value of a certain number of expensive residences outweighs a decrease in value of a larger number of less expensive residences would exacerbate the environmental justice concerns discussed below regarding SEA's analysis.

features. This hypothesis may explain Simons' finding of minimal or non-existent effects on property value for more upscale residences in the Ohio study.[156] It also suggests that negative property value effects reported in the Simons article, which involved a study of properties averaging 60 years old, *see id.* at 4.6-8, are likely to be greater than any effects that might be experienced in more recently built communities along the EJ&E line.

Second, in extrapolating from the Simons study, SEA assumed that each additional train would have the same property value effect, *i.e.,* 20 trains would have 20 times the property value effect of one new train. *See* DEIS 4.6-9 & Table 4.6-3. This assumption seems implausible on its face: at some point, it seems reasonable to expect the significance of additional trains to decline, as property owners either acclimatize to train noise or reach the threshold at which they opt to invest in improved sound insulation. Yet DEIS's analysis neither accounts for the likely reduced significance of the twentieth additional train as compared to the first, nor cites any

[156] Simons' finding profoundly undermines claims made by the Village Administrator of the Village of Lake Zurich at the August 26 Open House. As the DEIS notes, Simons found ***no*** statistically significant impact on property values for upscale properties (which Simons defined as those with more than 1,700 square feet) beyond 250 feet from the Ohio rail line, and only an average of 0.19% value decline per train for such properties within 250 feet of the rail line. *See* DEIS at 4.6-7, Table 4.6-3. Relying solely on the DEIS, the Lake Zurich Administrator asserted a 5-15% value decline in the value of all 364 Lake Zurich properties alleged to be within 500 feet of the EJ&E line. Statement of Bob Vitas, Village Administrator, Village of Lake Zurich, at 2, *available at* http://www.stb.dot.gov/Ect1/ecorrespondence.nsf/PublicIncomingByDocketNumber/D4B4A6DD0E13EE3E852574B40042F654/$File/10533.VITAS.PDF?OpenElement. He provided no basis whatsoever for that range, given that the range of value effects extrapolated in Table 4.6-3 of the DEIS is from no statistically significant impact to a maximum decline of 5.35% (for medium-sized properties within 250 feet of the rail line assuming an extra 20 trains a day). Moreover, while the Lake Zurich Administrator did not provide square footage data so that a direct comparison with the Simons study could be made, the value data he did provide strongly suggests that most of the 364 properties at issue (about 60% of which are alleged to be beyond 250 feet from the rail line, *see id.,* Ex. 2) would fall into the upscale category for which Simons found no significant impact. The mean value of the 340 residential properties for which the Lake Zurich Administrator provides fair market value data exceeds $324,700 ($110,408,403 / 340). (The remaining 24 properties either have no value assigned or have values assigned below $12,000.) *See id.*

literature nor makes any argument to justify treating all trains equally. Nor does it appear that DEIS's analysis takes any account of other factors likely to result in additional trains having different value effects, such as individual train noise, length, speed and timing (*e.g.*, night versus day).

Third, SEA's extrapolations from the Simons article should not be understood to predict any long-term effects. As SEA correctly notes, Simons "did not study whether property values would rebound over time." DEIS at 4.6-8. While the analogy is imperfect, the much richer appraisal literature that addresses "stigma" caused by environmental contamination suggests a likely answer to that question: that literature consistently finds that "stigma" declines – *i.e.*, property values recover – over time (often within a few months) as publicity dies down. *See, e.g.*, T. Jackson, "The Effects of Environmental Contamination on Real Estate: A literature Review," 9 *Jo. Real Est. Lit.* 93, 110 (2001) (reviewing 15 studies). This finding is unsurprising: property values reflect public perceptions which in turn reflect publicity, and the exaggerated claims of some property owners close to the EJ&E line who oppose the Transaction, and the adverse publicity they have generated, may be reflected in short-term stigma.

Thus, SEA's discussion of the Simons study from Ohio can generate nothing more than speculative suggestions about limited property value effects that are likely to be short-term, highly variable and individualized. Local property prices are no doubt affected by other factors extraneous to the proposed Transaction. For example, property prices in the region have declined recently, along with most of the rest of the United States. And, property prices along the EJ&E line may be negatively affected by the fact that those properties were built (almost invariably after the rail line) adjacent to a functioning rail line. But the pre-existing presence and type of use of the rail line – which the proposed Transaction would not change – should already

be built into property prices, and is anyway not attributable to the Transaction. Indeed, since no legal restriction currently limits traffic on the EJ&E line to its present levels, and since the level of freight traffic on the EJ&E line has fluctuated substantially over time, at least some risk of increased rail traffic should, if significant, already be built into local property values. Such pre-existing effects cannot be blamed on the proposed Transaction.

In summary, CN concurs with the finding of the DEIS indicates that, while there may be adverse effects on values of property adjacent to the EJ&E line, there would also be "a corresponding beneficial effect on property adjacent to the CN rail lines." DEIS at 4.6-9. Further, the DEIS finds that "the Proposed Action would not affect overall property values within the Study Area (the Chicago metropolitan area)." *Id.* Beyond those two conclusions, the analysis in the DEIS is speculative, and omits both the data necessary to reach any reliable affirmative finding of negative property value effects, and any examination of likely positive property value effects.

I. Environmental Justice

CN generally agrees with the conclusion in the DEIS that the Transaction would not cause significant environmental justice impacts. However, the DEIS appears to arbitrarily identify environmental justice communities falling only within 400-foot contours adjacent to CN lines inside the arc, but falling within 1,500-foot contours adjacent to the EJ&E arc. DEIS at 3.7-1. This different treatment is inexplicably discriminatory and potentially understates the impact of the No-Action alternative on environmental justice communities within the arc that are located more than 400 but fewer than 1,500 feet from existing CN lines. Additionally, the DEIS fails to analyze whether the No-Action alternative would have disproportionately high and adverse impacts on minority and low-income populations.

Even a cursory comparison of the demographics of the communities adjacent to the affected EJ&E lines, which would experience increased train traffic under the Proposed Action, with those of the communities adjacent to the existing CN lines, which would benefit from decreased train traffic, makes it extremely likely that SEA's analysis overlooked disproportionately high and adverse impacts of the No-Action alternative on the minority and low-income populations along the CN lines. Moreover, SEA should acknowledge the likelihood that imposition of costly environmental mitigation conditions itself could cause environmental injustice, by making the Transaction prohibitively expensive, and causing those disproportionately high and adverse impacts to fall upon the minority and low-income communities that would be deprived of the benefits of the Transaction.

After publication of the DEIS Christopher Berry and Ethan Bueno de Mesquita,[157] both of the University of Chicago, issued a report finding that the Transaction would benefit poorer areas with largely minority populations. Their report found that communities in Chicago that would experience a decrease in rail traffic have a population of about 1.25 million residents – 70 percent of them non-white, with a median household income of $46,000. In contrast, they report, the population of suburban communities along EJ&E is about 900,000 – 67% of whom are white, with a median income of $76,000.

With regard to mitigation, SEA's proposed additional item no. 20 (regarding "account[ing] for the special needs of minority and low-income populations adjacent to or in the immediate vicinity of the EJ&E rail line in the development of contingency or emergency plans such as the hazardous materials emergency response plan") is unreasonable. First of all, SEA

[157] C. Barry and E. Bueno de Mesquita, "Stalemate over Rail Plan Reflects Failure of Political Leadership," *available at* http://media1.dailysouthtown.com/multimedia/berrymesquitacn.pdf_20080911_13_16_26_47.imageContent.

does not explain how minority or low-income populations have "special needs" with regard to the railroad's emergency materials plans. CN would expect to respond in different ways depending on the nature of the emergency, but does not believe that its responses should differ materially with the demographics of the affected communities. But a more important point is that the DEIS identified no basis on which to impose mitigation for the sake of environmental justice. It found that "the potential for environmental justice communities to experience exposure due to a hazardous materials release would be slightly elevated, but not high and adverse," much less disproportionately high and adverse.[158] DEIS at 4.7-5. Exec. Order 12898 (1994), which provides the charter under which federal agencies evaluate environmental justice in conducting NEPA reviews, calls only for "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of [agency] programs, policies, and activities on minority populations and low-income populations." Exec. Order No. 12898 § 1-101. The Executive Order is not a mandate for federal agencies to look for ways to benefit minority and low-income communities by imposition of conditions in licensing proceedings. In the absence of any disproportionately high and adverse impacts on minority or low-income populations from transportation of hazardous materials, there are no environmental justice effects regarding that transportation, and no basis for imposition of conditions to mitigate such effects. In any event, the greatest benefit the Board could confer on environmental justice communities is approval of CN's Application, which would allow CN to re-route trains that now run though those communities, and would lead to a reduction in the adverse noise, safety, and vehicular delay impacts now caused by those trains.

[158] In fact, the DEIS did not find that environmental justice communities would experience any disproportionately high and adverse impacts with respect to and of the effects it studied. DEIS at 4.7-3—4.7-5.

J. Noise & Vibration

When considering mitigation to noise impacts, SEA should, consistently with past practice, apply a "reasonableness" assessment to any mitigation measures proposed. SEA has historically proposed noise mitigation only where it was both feasible and reasonable. Feasibility issues considered by SEA include: technical practicability, site topography, the existing noise environment, and right-of-way and easement requirements. Reasonableness considerations include the extent of mitigation, the cost effectiveness, and the desires of local residents. 2 *Conrail FEIS* at 4-69.

SEA has also recognized that any noise increases on existing railroad rights-of-way from increased train operations that are unrelated to the proposed Transaction are not subject to any regulation or mitigation, as railroads have always been free to increase their operations and train traffic in the normal course of business without being constrained by the increased noise that might result.

SEA should apply the same reasonableness and feasibility determinations here. Feasible noise mitigation is that which can be implemented and provide a noise level reduction of at least 8 dBA to an impacted receiver. Additionally, to determine cost effectiveness, SEA should evaluate each impacted area where feasible noise mitigation could be provided and determine if the cost of such mitigation is $24,000 or less per benefiting receiver (residence). This is an IDOT standard[159] that is referenced in the Draft EIS. *See, e.g.*, DEIS at 4.10-14.

[159] *See* IDOT, Frequently Asked Questions – Noise Abatement, http://www.dot.state.il.us/desenv/noise/faqAbatement.html. While INDOT's standard is not referenced in the DEIS, it considers noise abatement to be feasible if a majority of first row receivers will experience at least a 7 dBA reduction in noise, and reasonable if it could be done for a cost of $25,000 or less per benefited receiver. *See* Indiana Department of Transportation, Traffic Noise Policy 7 (Jan. 2007), *available at* http://www.in.gov/indot/files/INDOTNoisePolicy(1).pdf

With regard to the analysis used in the DEIS, CN believes SEA used an unreasonably small sample size when conducting noise measurements, particularly given the wide range of results that were obtained. Only four EJ&E train passbys and eleven CN train passbys were measured. However, the range of the measured noise levels varied by 18 decibels for locomotives and 15 decibels for rail cars. This wide of a range indicates that there may be some outliers there that are skewing the results and suggests that averaging all of the measurements may not be appropriate. Alternatively, the CREATE Freight Noise Model (CREATE Model), available from FRA's website, could be used. This model was developed as part of the CREATE Program and includes reference source noise levels (SELs) developed for use in evaluating freight train operations. The CREATE Model is based on FTA's General Transit Noise Assessment spreadsheet, but incorporates a list of rail noise source categories that are more appropriate for the freight rail activity related to this proposed transaction. Additionally, it appears that SEA measured noise impacts based on EJ&E's existing operations. SEA's analysis does not take into account the fact the locomotives that CN would operate over EJ&E after the transaction is implemented are newer, better maintained, and much quieter than the locomotives that EJ&E currently operates.

CN cars are also better maintained, and use WILD detectors to eliminate flat spots on wheels, reducing wayside noise impacts. Thus, SEA's analysis of noise likely overstates that potential impact of the Transaction.

In addition to the proposals CN has made in items VM 77 through VM 83 of its VMP regarding noise and vibration, SEA has proposed additional measures nos. 23 through 27, many of which repeat the substance of CN's own proposals. However, SEA proposal no. 26 (regarding communication with Fermilab) is unreasonable as written, because it does not specify what kind

of "operational changes" could trigger a reporting requirement, and could even be construed to require notification every time CN modifies its train plan, regardless of any potential impact on the Fermilab. This requirement would be especially unreasonable because it has been proposed to mitigate vibration impacts that SEA has not even determined would take place. (The DEIS finds that "train-induced vibration would not affect current research activities at Fermilab (regardless of the number of trains per day on the EJ&E rail line), because current research activities are not located along the eastern property line near the EJ&E rail line." DEIS at 4.10-25. It then finds that train operations *could* affect future research activities, if Fermilab were to locate them within 500 feet of the EJ&E line. *Id.* It concedes, however, that "Fermilab has not selected specific locations for its future expansion projects." *Id.* It has not determined that expansion projects within 500 feet of the rail line are even likely, much less "reasonably foreseeable," let alone whether, if such projects were undertaken, "vibration from the Proposed Action would adversely affect Fermilab." In the absence of such a determination, there are no impacts to mitigate, and therefore no basis for the imposition of conditions on CN.

K. **Biological Resources**

While the DEIS discusses impacts of Transaction-related construction and changes in train operations on plant communities, wildlife, and conservation and natural areas, it generally concludes that those impacts would be "low" or "slight," or that they would lead to a "remote" probability of hazardous materials spills or wildfires. DEIS at 4.11-13, 4.11-26. To the extent that any of the impacts discussed rise above a minimal level, however, they would be adequately mitigated by the voluntary mitigation measures (VM 84 through VM 88) that CN would undertake if the Transaction were approved.

L. Water Resources

CN agrees with the conclusions of the DEIS indicating that impacts to water resources would be minimal. DEIS at 4.12-7, 4.12-48—4.12-49. In addition, CN has revised its Voluntary Mitigation Plan to incorporate much of the substance of SEA's proposed additional mitigation measures no. 63-68 into VM 89 through 100. CN, however, regards SEA's additional mitigation proposal no. 66 (regarding mitigation of impacts on isolated wetlands) as unreasonable to the extent that it imposes obligations in addition to CN's ordinary practice of consulting with the U.S. Army Corps of Engineers and following the Corps' guidance regarding obtaining all required wetlands permits from all levels of government. SEA proposal no. 66 should therefore be removed, or clarified to state that CN may follow that established practice, and that if the Corps advises it that any affected wetlands are subject to regulations of Kane and DuPage counties rather than to those of the Corps, then it will take such actions as may be required to conform to the local regulations.

M. Monitoring & Enforcement

SEA has proposed additional mitigation measure no. 72, requiring quarterly reports on the progress of, implementation of, and compliance with the mitigation conditions during the first three years of operational changes, or such other period as the Board may require. This requirement is considerably more burdensome than environmental monitoring and enforcement conditions imposed in other cases. For example, while the Board required applicants in the massive *Conrail* proceeding to certify their compliance with the environmental mitigation conditions imposed by the Board, *see generally CSX Corp. – Control & Operating Leases/Agreements – Conrail, Inc.*, 3 S.T.B. 196, 567-602 (1998), it only required periodic reporting with regard to one environmental condition, *id.* at 580 (Condition 8(A), requiring

quarterly reporting on quarterly reporting regarding grade crossing upgrades or improvements). In this case, if CN is to be required to report periodically on its progress in complying with all environmental mitigation conditions, it would be reasonable to require those reports no more frequently than semi-annually.

V. The Requirements of NEPA

A. NEPA does not require or authorize imposition of any mitigation.

It is axiomatic that NEPA is a procedural statute that does not require any particular outcome. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) ("NEPA itself does not mandate particular results, but simply prescribes the necessary process"). Where NEPA applies to a proposed action by a federal agency, its only requirement is that the "adverse environmental effects of the proposed action [be] adequately identified and evaluated," *id.*, and that the agency take a "hard look" at the environmental consequences of its action. *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1979). NEPA's goal is to promote more informed agency decision-making, "by focusing the agency's attention on the environmental consequences of a proposed project." *Robertson*, 490 U.S. at 349. However, an agency is free to decide that other benefits of a proposed transaction, such as the substantive transportation benefits here, outweigh the adverse environmental impacts and call for approval. *Id.* at 350. In sum, NEPA requires only that an agency consider the potential environmental impacts of its actions. *Id.* at 352-53.

NEPA does not "require" that any action be taken "to mitigate the adverse effects of major federal actions." *Robertson*, 490 U.S. at 353 (citations and quotations omitted). NEPA requires nothing more than that the EIS "contain a detailed discussion of *possible* mitigation measures." *Id.* at 351 (emphasis added). There is no requirement that the agency have the

authority or ability to impose that mitigation, nor that it do so.[160] Indeed, it would be "inconsistent with NEPA's reliance on procedural mechanisms – as opposed to substantive, result-based standards" – to hold that NEPA authorizes an agency to develop and implement a plan to mitigate environmental harm before it can act. *Id.* at 353. And, "[b]ecause NEPA imposes no substantive requirement that mitigation measures actually be taken, it should not be read to require agencies to obtain an assurance that third parties will implement particular measures." *Id*. at 353. Thus, any authority the Board may have to mitigate the environmental impacts of a control transaction must be found in the Board's own governing statute.[161]

The obligations of an agency with regard to mitigation in the context of an EIS are thus fundamentally different from its mitigation obligations in the context of an Environmental Assessment ("EA"). Since passage of the Staggers Rail Act of 1980, neither the Board nor its predecessor has ever prepared an EIS for a rail control transaction, other than the massive *Conrail* acquisition proceeding. Even for large acquisitions with national implications, such as the *UP/SP* merger,[162] only an EA was prepared.[163] The purpose of an EA is to determine

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[160] *Id.* at 352 ("There is a fundamental distinction . . . between a requirement that mitigation be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated . . . and a substantive requirement that a complete mitigation plan be actually formulated and adopted").

[161] And CN has consistently reserved the right to challenge conditions that exceed the Board's authority under that statute. *See* April 21, 2008 Letter at 6 n.2; *see also* CN-49 at 12 n.7.

[162] *Union Pac. Corp. – Control & Merger – S. Pac. Rail Corp.*, 1 S.T.B. 233 (1996) ("*UP/SP*"), *aff'd sub nom. W. Coal Traffic League v. STB*, 169 F.3d 775 (D.C. Cir. 1999).

[163] For many control transactions, neither an EA nor an EIS was found necessary. *E.g., Fortress Investment Group LLC – Control – Florida E. Coast Ry.*, STB Finance Docket No. 35031, slip op. at 5 (STB served Sept. 28, 2007); *Kansas City S. – Control – Kansas City S. Ry.*, STB Finance Docket No. 34342, Decision No. 12, slip op. at 21-23 (STB served Nov. 23, 2004); *Canadian Nat'l Ry. – Control – Bessemer & L.E. R.R.*, STB Finance Docket No. 34424, Decision No. 7, slip op. at 20-23 (STB served Apr. 9, 2004). Even a "major" control transaction was approved without either an EA or an EIS. *Union Pac. Corp. – Control – Chicago & N.W.*

whether the proposed federal action would have significant environmental impacts warranting the preparation of an EIS. For this reason, any significant adverse environmental impacts identified by an EA must be mitigated below a level of significance, or the agency must proceed to prepare an EIS. *See* Forty Questions, 46 Fed. Reg. at 18,037 (agencies can include enforceable mitigation measures to conclude that an action does not require preparation of an EIS).

In contrast, when an EIS is prepared, there is no corresponding requirement that all identified adverse impacts be mitigated. There is only the procedural requirement that the EIS include a "reasonably complete discussion of possible mitigation measures." *Robertson*, 490 U.S. at 352. In fact, the DEIS prepared by SEA in this case (in five volumes, containing over 3,500 pages and standing nearly 8-1/2 inches high when stacked – the same size as the DEIS in *Conrail*) clearly identifies and describes potential mitigation, and thus fully satisfies NEPA's requirements.

B. It is unclear whether ICCTA, the Board's governing statute, provides any authority to impose environmental review or mitigation conditions on a "minor" transaction such as the CN/EJ&EW transaction.

The Transaction is governed by 49 U.S.C. § 11324(d), which requires the Board to approve it *unless* it finds that (1) the Transaction would be likely to cause "substantial lessening of competition, creation of a monopoly, or restraint of trade in freight surface transportation in any region of the United States," *and* (2) the anticompetitive impacts of the Transaction outweigh the public interest in meeting significant transportation needs. If the Board cannot find serious anticompetitive impacts, as described in section 11324(d)(1), then its substantive inquiry

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Transp. Co., Finance Docket No. 32133, Decision No. 25, 1995 ICC LEXIS 37, at *149 (ICC served Mar. 7, 1995).

"is at an end." *Illinois v. ICC*, 687 F.2d 1047, 1053 (7th Cir. 1982). It is clear from the record in this case that there is no basis for such a finding of anticompetitive harm.[164]

While it might appear that 49 U.S.C. § 11324(c) authorizes the Board to impose conditions on its approval of a transaction subject to section 11324, it has been held judicially and by the Board's predecessor agency that any authority the agency might have to impose conditions is limited to those matters which it may consider in granting or denying approval of the transaction under review. *Lamoille Valley R.R. v. ICC*, 711 F.2d 295, 301 n.3 (D.C. Cir. 1983) ("We therefore reject the suggestions . . . that the Commission has broader discretion in imposing conditions on a merger than in approving or rejecting the merger as a whole."); *Norfolk & W. Ry. – Purchase – Ill. Terminal R.R.*, 363 I.C.C. 882, 891 (1981) ("*Norfolk & Western/IT*") ("[W]e should not attempt to impose a condition on our approval of a transaction related to a matter which we could not lawfully consider as a basis for withholding our approval of that transaction. . . . To give effect to the congressional intent [in enacting the predecessor to section 11324(d)], we will exercise our conditioning power only where a condition bears on issues we may consider in deciding whether to approve a transaction.").

Thus, in this case, governing precedent would appear to preclude the imposition of involuntary conditions (other than the statutorily mandated labor protective conditions, *see* 49 U.S.C. § 11326; *Norfolk & Western/IT*, 363 I.C.C. at 892 n.10) aimed at mitigating non-competitive impacts of the Transaction.

[164] *See* CN-29; CN-31.

C. NEPA does not require analysis of impacts for which the agency action is not the legally relevant cause.

NEPA requires no more than an examination of the reasonably foreseeable environmental impacts that are caused by the agency action. The Supreme Court has rejected the "unyielding variation of 'but for' causation, where an agency's action is considered a cause of an environmental effect even when the agency has no authority to prevent the effect." *Pub. Citizen*, 541 U.S. at 767. Therefore, "where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect." *Id.* at 770. Accordingly, under NEPA, the agency's environmental review need not consider effects the agency approval would not cause. *Id.*

As CN has previously argued, the Board's authority over "minor" transactions is limited; under 49 U.S.C. § 11324(d), the Board "shall" approve the Transaction unless it finds both (a) likely and substantial anticompetitive effects, and (b) that those effects are not outweighed by "the public interest in meeting significant transportation needs." So a minor transaction may not be disapproved on environmental grounds, and *Lamoille Valley* seriously calls into question the Board's authority to impose environmental mitigation conditions on such a transaction. Thus, as it is unclear whether the Board's decision regarding to a minor transaction may be affected by the findings of an EA or EIS, it remains unclear that NEPA properly applies to such a transaction at all. However, accepting for purposes of this comment only that NEPA does apply, what is clear from *Public Citizen* is that it does not require analysis of impacts that could occur in the absence of the Transaction.

Therefore, the base for any study required under NEPA (as construed by the Supreme Court in *Public Citizen*) are those changes in traffic that would not happen "but for" the license sought here by the Applicants. For this reason, the impacts are unlikely to be as far reaching as

many parties to this proceeding seem to assume. CN and other railroads (and their respective customers) are presently free to re-route, and EJ&E is free to accept, additional traffic from the urban Chicago routes of CN and other railroads. Indeed, EJ&E is legally free to accept as much traffic as it finds in its interest to accept. (And it is free, without Board approval, to make improvements to the capacity of its line, such as new or extended sidings, double-tracking, improved signaling, that might be necessary or desirable for it to handle the increased traffic, so long as the improvements do not constitute construction of rail lines that invade new territorial markets.[165]) And if CN and EJ&E were to make such alternative arrangements for re-routing CN's traffic, in lieu of the proposed Transaction, there would be, absent the need for rail construction subject to the Board's jurisdiction, no environmental review and no related voluntary or imposed mitigation.[166]

As CN has previously explained, many of the trains that it currently runs through Chicago, and that it anticipates would be rerouted to the EJ&E line following the acquisition of EJ&EW, could be rerouted to EJ&E line without any regulatory action by the Board and thus without any environmental review.[167]

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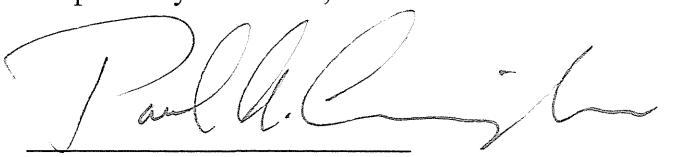
[165] *Missouri Pac. R.R. & So. Pac. Transp. Co. – Constr. & Operation Exemption – Avondale, LA*, STB Finance Docket No. 33123 slip op. at 4 (STB served July 11, 1997); *Texas & Pac. Ry. v. Gulf, Colo. & Santa Fe Ry. Co.*, 270 U.S. 266 (1926).

[166] *See, e.g., Conrail FEIS* at 1-5 (noting that "a railroad may upgrade a portion of its system or add service to shippers without seeking the Board's approval. Thus, if [applicants] had not proposed this Acquisition, they could have increased the number of trains on their existing lines to any level they deemed appropriate to meet demand and/or to achieve efficiency without the Board's review or regulation.").

[167] *See* Letter from Paul A. Cunningham to Victoria A. Rutson (April 21, 2008), available at http://www.stbfinancedocket35087.com/html/inforequest/request3/08apr21response/08apr21Response_Letter.pdf. The only exceptions are trains that CN plans to route to and from Kirk or Joliet yards, which CN cannot acquire without regulatory approval from the Board. Even for those exceptions, though, the obstacle to the movement of the trains over EJ&E is a practical one, not a legal one. CN could legally send those trains over the EJ&E line, and EJ&E could

Respectfully submitted,



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September 30, 2008

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legally handle them, without any regulatory action by the Board; the railroads would simply have no reason to do so.