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LEGAL SUBMISSIONS OF THE HALTON MUNICIPALITIES

TO THE REVIEW PANEL FOR THE MILTON LOGISTICS HUB PROJECT

JULY 17, 2019

PART 1 OVERVIEW

1. This Project involves a proposed outdoor intermodal terminal and railway yard that will operate 24 hours per day, 365 days per year. There are no plans to decommission the Project. CN intends to operate the Project far beyond the next 25 years – it represents a permanent change to this area of Milton.

2. Based on expert input, the Halton Municipalities predict that this Project is likely to cause overlapping, cumulative and significant adverse environmental effects on more than 30,000 Milton residents. These effects will result from Project changes to the "environment," particularly to ambient noise and air quality levels, and from the effects of these changes on "health," including premature deaths, hospitalizations and health attacks such as asthma.

3. The affected residents live within a community planned for more than 130,000 Milton residents north of Britannia Road east of Tremaine as well as those who live, work and visit the greater Halton Region. Planning for this community began in the 1990s and includes multiple government approvals – provincial, regional and local.

4. In 2000, CN proposed an intermodal facility on lands south of Britannia Road, east of its rail line. CN never advanced this proposal. In 2008, CN renounced this intermodal plan and worked with the Region to have the Region's land use plan expand Milton's urban boundary to include hundreds of hectares of CN lands, designate these lands "employment" in place of "agriculture", and subject these lands to high-density employment to meet provincial targets and finance new infrastructure.

5. The current Project repudiates CN's 2008 commitments and conflicts with all three pillars of provincial and municipal planning – social, economic, and environmental.

6. Supported by expert input, the Halton Municipalities say that the Project's proposed changes to CN lands are likely to result in significant adverse effects on land use compatibility, on-site employment, and off-site traffic congestion, municipal infrastructure, and municipal finances. Further, no proposed mitigation prevents these SAEEs on people or socio-economic conditions.

7. The key SAEEs are:

(a)	Social:	Human health
		Ambient air quality
		Ambient noise levels
		Night-time light levels
		Land use compatibility for residential land uses
(b)	Economic:	On-site employment
		Off-site traffic congestion
		Water and wastewater infrastructure implementation
		Road maintenance and reconstruction costs
		Municipal finance
(c)	Environmental:	Species at risk mortality
		Species at risk habitat
		Migratory bird mortality
		Migratory bird habitat

PART 2 THE PROPOSED PROJECT

2.1 The Project Extends into Residential Neighbourhoods North of Britannia Road

8. This Project engaged CEAA because it proposes a "Rail Yard" with a total track length of 20km or more.[1] Two of the six proposed yard tracks[2] extend approximately 1.5 km north of Britannia Road to just south of Louis St. Laurent Avenue.[3] These tracks would thus be surrounded by existing and approved residential land uses, as shown in the diagram immediately below.

[1] As set out in the *Regulations Designating Physical Activities*, the Project triggered CEA Agency review and screening because it involves the "construction, operation, decommissioning and abandonment of a new:…(b) railway yard with … a total track length of 20 km or more;" see SOR/2012-147, Schedule, s.25.

[2] CTA application, at para. 22; also, Environmental Impact Statement Main Report, ("CEAR # 57"), December 7, 2015, s.3.3.1. Note that the following definitions from the EIS are also helpful:

- Service tracks: type of yard tracks used to hold railcars; where railcars are staged for their next movement.
- Switching: A mechanical action that enables trains to be guided from one track to another.
- Yard tracks: Tracks branching off from the mainline and located within the rail/terminal yard; comprised of pad tracks and service tracks; used for switching, making up trains, or storing railcars

[3].CN Information Request Response Package 2 ("CEAR 592"), August 31, 2017, IRR2.26-1.

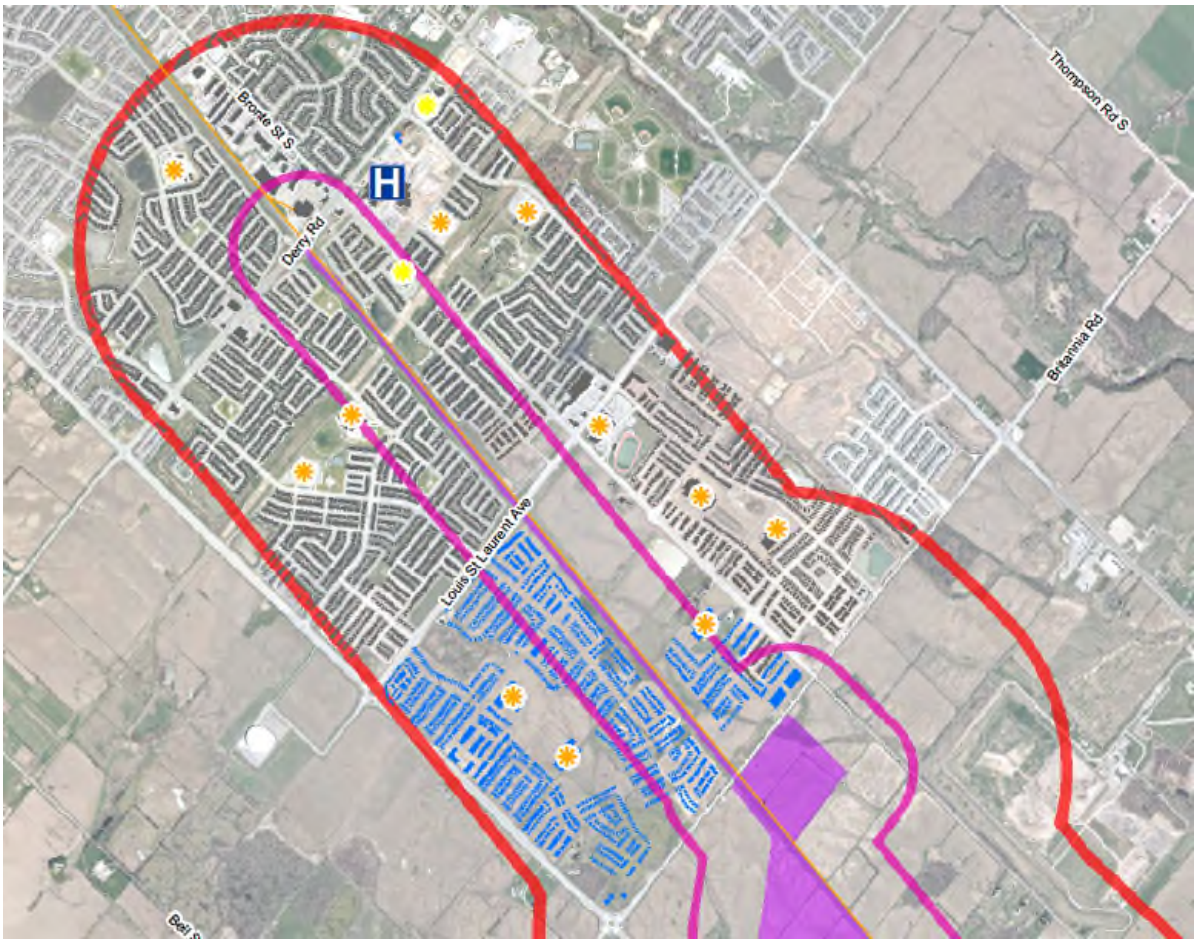

Figure 1: Crop of Halton Municipalities' Map 2, "CN Intermodal Side Milton - Number of Sensitive Receptors", Visuals Package, CEAR #800

9. Yard tracks form part of the Rail Yard. According to CN's EIS, the above-noted yard tracks ***will support the intermodal operation***, including tracks to accommodate the loading and unloading of intermodal railcars (pad tracks) and tracks to hold and switch railcars (service tracks)."[4]

[4] CEAR #57, EIS, December 7, 2015, s. 3.3.1. Note that the following definitions from the EIS are also helpful:

- Service tracks: type of yard tracks used to hold railcars; where railcars are staged for their next movement.
- Switching: A mechanical action that enables trains to be guided from one track to another.
- Yard tracks: Tracks branching off from the mainline and located within the rail/terminal yard; comprised of pad tracks and service tracks; used for switching, making up trains, or storing railcars.

10. Yard Tracks 1 and 2 are the longest. Attachment IR.2.26-1 identifies Yard Tracks 1 and 2 and sets them out in red. The figure also sets out the proposed mainline track in red. The Figure shows that CN proposes 3 new railway lines north of Britannia Road to supplement its existing single main line track This Figure also shows that these two yard tracks merge into the new mainline track just south of the Town's Louis Saint Laurent Avenue.

11. Given the extent of Yard Tracks 1 and 2 and their support of the intermodal operation, the Project extends 1.5 km north of Britannia Road. The geographic extent of the proposed "rail yard" component of the Project is relevant to the assessment of effects as this impacts, for example, the location of the impact zone for noise effects.

12. CN's expert, Mr. Reynolds, agreed during the hearing that trains would make two or three moves north of Britannia Road.[5]

2.2 This Project is Proposed as Permanent

13. CN has made clear that, once constructed and operational, this Project is intended to continue in perpetuity: "There are no expectations that the Project will ever be decommissioned".[6] The Panel is therefore considering a Project that will exist permanently, not just for ten or twenty years. This demands careful consideration of the long-term effects of this Project on the adjacent residential communities and the growth of this urban area.

[5] Transcript of Hearing ("Tr Hr"), 708:3-13, June 25, 2019
[6] CEAR #57, EIS, s. 3.4.4, p. 67

2.3 Container Throughput Is Likely to Increase beyond 450,000 containers annually

14. There is no impediment to CN increasing container throughput beyond the currently-stated capacity of 450,000 containers per year to accommodate the forecasted growth in Southern Ontario for the foreseeable future – defined as 20 years – and beyond.[7]

15. As part of assessing SAEEs for each VC, the Halton Municipalities considered an increased additional throughput of approximately 1 million containers per year. This work was led by the internationally-renowned intermodal expert, Mr. John Vickerman who opined that "any intermodal terminal enhancement that reduces the overall terminal container dwell time, for the entire MIT facility, will increase its overall throughput capacity". [8]

16. Mr. Vickerman found that the proposed Project footprint could accommodate a sustainable capacity of approximately 1 million containers per year, by applying progressive adjustments to CN's proposal without substantial intermodal capital and equipment costs and generally within the same terminal footprint parameter. He also found that there is sufficient acreage to accommodate a redesigned layout and modern intermodal equipment and thereby go well beyond 1 million containers annually[9]

17. On May 29, 2019, CN submitted a report (the Mott McDonald ("MM") report) that provides (1) an independent estimate of the throughput capacity of the proposed Project, and (2) a peer review of Mr. Vickerman's analysis.[10]

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[7] Tr Hr, 105:3-18; 118:2-19, 207:9-22, June 19, 2019.
[8] Tr Hr, 762:13-17, June 25, 2019.
[9] Sustainable Capacity Analysis and Estimate for CN's Proposed Milton Logistics Hub ("V&A Capacity Report") dated April 8, 2019, pp. 4-10 located at DeAngelis, Lisa, Transportation Issues on the CN Milton Logistics Hub Project ("DeAngelis CEAR #800") May 29, 2019 Appendix 5.
[10] Milton Logistics Hub Capacity Analysis and Estimate ("MM Report, CEAR 799"), May 29, 2019, p. 1.

18. There is no material difference in the Vickerman and MM analyses where they cover the same topics. Despite MM using an allegedly more accurate simulation software based on CN data that is claimed to be "commercially sensitive and proprietary to CN"[11] (and thus not available to the Halton Municipalities for a peer review) the outputs of the two analyses' of the Project's intermodal capacity were within 10% of each other. [12] Unlike Mr. Vickerman's work, however, the MM report did not consider alternative ways the Project could be upgraded by way of design or advanced technology within the footprint of the proposed Project, in the future.[13]

19. Another important limit on comparing the reports is that, although the MM report claims to have modeled the same scenarios as Mr. Vickerman,[14] the MM report does not provide the terminal capacity results for the increased container throughput Scenario B and Scenario C.[15]

20. Perhaps the most important shortcoming of the MM report is that it conflates the concept of intermodal terminal capacity and forecasted market demand/levels of service.[16] Terminal capacity and market demand/levels of service are independent variables.[17] Levels of service can still be met with a more efficient design and technology in order to achieve increased capacity at the site.

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[11] MM Report, CEAR #799, May 29, 2019, p. 9.
[12] V&A Capacity Report, p. 5; MM Report, CEAR 799, May 29, 2019, p. 20; Tr Hr, 759:7-15, June 25, 2019.
[13] Tr Hr, 735:18-25; 736:11-16, June 25, 2019.
[14] MM Report, CEAR #799, May 29, 2019, p. 28.
[15] MM Report, CEAR #799, May 29, 2019, p. 28-31.
[16] MM Report, CEAR #799, May 29, 2019, at p. 24 concludes that "there is not sufficient demand for expansion contemplated in the V&A Capacity Report". See also: Tr Hr, 118:9-19, June 19, 2019; Tr Hr, 810: 9-21, June 25, 2019.
[17] Tr Hr, 755:6-11, 760: 2-10, June 25, 2019. As John Vickerman explained: "The determination of intermodal terminal capacity, in my opinion, is independent of forecasted market demand and intermodal container forecast. Market forces are relevant to terminal facility needs, but do not play a role in determining terminal capacity of an intermodal facility… MM conflates the concept of intermodal capacity and forecasted market demand. With the PRISM model, the terminal components are not linked directly to, or limited to, forecasted market demand. The proposed project footprint has sufficient space, in my opinion, to permit future terminal redesign and enhancements, increasing intermodal yard storage and perhaps, increasing gate complex capabilities."

21. CN's response to the concerns of the Panel and various participants that the site will not handle more than 450,000 containers based on level of service,[18] is thus circular and non-responsive. It is also contrary to CN's response to IR2.17 where CN provides that alternative lift operations can increase intermodal terminal capacity:

> In terms of throughput, the Project would be considered a moderate-volume terminal on CN's network with volumes that can be easily and efficiently managed with a reach stacker operation. While a gantry cranes operation could increase the capacity of the Project, increasing the capacity at Milton is not expected to be required after BIT is returned to a more optimal operational efficiency with both terminals in operation.[19]

22. Overall, careful review of CN and MM statements identifies no physical constraints limiting intermodal terminal capacity of the Milton Logistics Hub.

23. Further support for concern that container throughput at the Milton Logistics Hub would increase is CN's sole available document on its intermodal capacity in Southern Ontario. The key slide for CN's market forecast shows that the actual containers served by the Brampton Intermodal Terminal ("BIT") in 2018 is 1 million containers. Much of the CN documentation and testimony, as well as the testimony of participants such as the Brampton Board of Trade,

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[18] See, e.g. questions from the Panel at Tr Hr, 116:17-24 to 120:1-3, June 19, 2019. See, e.g. questions from Halton Region at Tr Hr, 733:3-19, 734:22-24, 737:8-14, June 25, 2019. See, e.g. questions from local resident John Meyer at Tr Hr, 1471: 17-25, June 26, 2019 and questions from Ms. Rita Vogel Post on behalf of Milton Residents Affected by Intermodal Lines at Tr Hr, 405:11-24, June 20, 2019: "There are several hundred acres of land surrounding the proposed site location, which CN owns and currently has no identified purpose. What measures are being taken to prevent CN from doubling or tripling the transfer station footprint in years to come? Will we end up with an 800 acre intermodal yard with 4,000 or more trucks per day?... We need someone looking out for us, someone to protect our community and to have our best interests."
See also the discussion of Ms. Vogel Post with CN and the Panel at Tr Hr, 425: 14-25 to 429:1-9, June 20, 2019, culminating in the following exchange:
Mr. Lerner: "…So the terminal was designed to produce 450,000 containers, but at the same time produce the level of service we're looking for. If we were to try to exceed that level of service that would have a detrimental impact on the other components in the project, and it would see a deterioration in service. So it's really been designed as a 450,000-container capacity.
Member McMURRAY: Does that respond in part to your concerns?
Ms. Vogel Post: Not at all. It's totally avoiding the issue. The issue is your final application in 40 years, 30 years, is it still going to be a 400-acre terminal? From what you're telling me, the answer is no. You're looking to see what will happen in the future, and you may develop it further. And that is of great concern to the community because we don't need a 400-acre intermodal terminal there, nor do we need an 800- or 1,200-acre intermodal terminal."
[19] August 31, 2017, IRR 2.17, p. 74. CN Information Request Response Package 2 ("CEAR #592).

states that the BIT is at or nearing capacity.[20] CN has also agreed that the Milton Logistics Hub and the BIT will together cover the Southern Ontario market,[21] and that some of the overcapacity at the BIT will be shifted to the proposed Project upon its opening.[22]

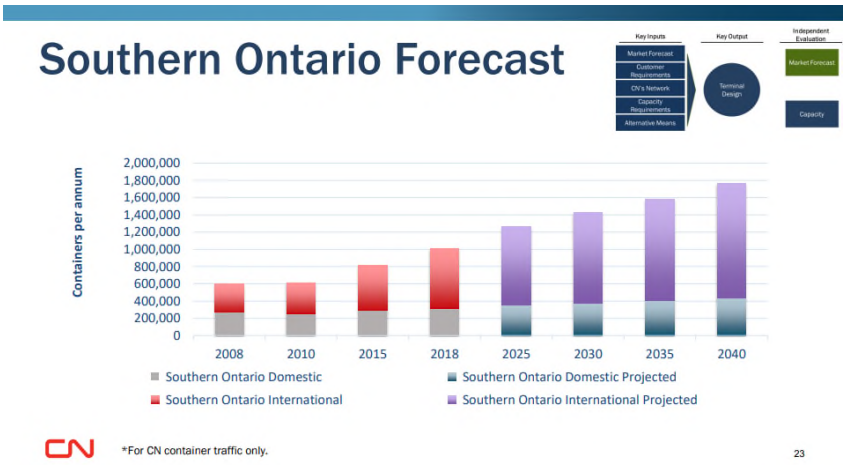

Figure 2 Slide 23, CN Project Description & Railway Operations and Services Presentation

24. CN's predicted 450,000 containers for the Milton Logistics Hub and the 1 million containers at Brampton suggests the two terminals will reach the predicted capacity of approximately 1.4 million containers in 2030.[23] At the hearing, CN changed its position on the capacity of the BIT. It advised that the BIT was not at capacity at 1 million containers. This change in position is logically required by CN for it to maintain that the maximum design capacity for the

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[20] In the following CN Documents, CN discussed the rationale for increasing intermodal capacity based on need and growing demand: CN Project Description of a Designated Project ("CEAR #4"), March 23, 2015, s. 2.1.1, p. 2.1; s. 2.1.2, p. 2.4; CEAR# 57, EIS, December 7, 2015, Executive Summary, p. i; s. 1.2, p. 2; s. 2.1, p. 23-24; s. 3.1, p. 43; CEAR# 57, EIS, Appendix E.11 – Planning Justification Report regarding the Milton Logistics Hub, December 7, 2015, s. 2, p. 2; s. 2.1, p. 3; CEAR# 57, EIS, December 7, 2015, Appendix E.12 – Technical Data Report, Socio-Economic Baseline, s. 1.1, p. 1; CEAR# 57, EIS, December 7, 2015, Appendix F – CN Site Selection Study, Executive Summary, p. i; s. 1.1, p.2; s. 3.4, p. 8; s. 6, p. 31; s. 5, p. 17-18. See a summary of these references in Vickerman Report, March 10, 2017, located at Halton Municipalities Sufficiency Review ("CEAR #549"), March 27, 2017, Volume 2, s. 3.2.1.1, p. 11-13. See also several instances where CN cited the need for the Project and/or a growing demand during the hearing, including the following: Tr Hr, 59:24-25 to 60:1-3; 220:14-25 to 221:1-8, June 19, 2019; Tr Hr, 679:11-13, June 25, 2019.

[21] CN, Project Description, Alternative Means, and Railway Operations and Services Presentation, Milton Logistics Hub Review Panel Public Hearing, ("CN Project Description Presentation, CEAR# 843"), June 25, 2019, Slide 23; Tr Hr, 764:3-10, June 25, 2019. See also the remarks of the CEO of the Brampton Board of Trade, Tr Hr, 3361:17-21 and 3366:10-12, July 12, 2019.

[22] Tr Hr, 105:10-18, June 19, 2019; Tr Hr, 732:11-15, June 25, 2019.

[23] Tr Hr, 764:11-20, June 25, 2019 (per Vickerman); CN Project Description Presentation, CEAR# 843, June 25, 2019, Slide 23.

proposed Project is 450,000 containers; however, there is nothing else holding CN to this 450,000 limit.[24]

25. Halton is concerned that federal law will not hold CN to its putative 450,000 container limit. CN admits that it could expand the proposed Project including its footprint, but contends that it would "follow whatever regulatory process was available at the time in order to expand the terminal."[25] Based on current federal law, an expansion would not necessarily trigger any public notice,[26] environmental screening or assessment,[27] or other federal regulatory process.

26. CN has ample room to expand. CN owns 1200 acres of land surrounding the proposed Project. The proposed Project footprint is 400 acres and its terminal operating footprint is 146 acres.[28] As the Panel Chair rightly noted to CN, "You do have more land than you require."[29]

27. Many VCs would be affected by increased container throughput. These include geology and geochemistry, surface water bodies, surface water quality, ambient air quality, noise, light, migratory birds use of area, migratory birds mortality, SAR distribution and mortality, human health, human safety, rural settings, transportation movement on roadways (urban settings), active transportation (urban settings), municipal infrastructure (urban settings), municipal finance (urban settings), and residential land use.[30]

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[24] If CN takes the position that the BIT is not at capacity at 1 million containers, then based on their maximum design capacity for the proposed Project of 450,000 containers, CN does not need the proposed Project until approximately 2030, when the BIT reaches its capacity and it requires 450,000 containers to reach the southern Ontario forecast between 1.75 and 1.8 million containers by 2040.
[25] Tr Hr, 812: 3-24, June 25, 2019; See also Tr Hr, 1473: 8-22, June 26, 2019.
[26] This would contrast with the current situation where there was public notice because of the CEAA trigger and screening process. It is not clear what notice is or could be required by other federal regulators such as the CT Agency for a future change to the facility in relation to the railway lines covered by s.98.
[27] Under current law, federal environmental assessment regulations do not apply to an expansion, so EA could only occur by project-specific order of the Minister.(under CEAA 2012 and the new IAA).
[28] Undertaking 13-B "Milton Terminal Characteristics" ("CEAR #922"), July 3, 2019.
[29] Tr Hr, 811: 12–25; 812: 1- 6, June 25, 2019.
[30] Tr Hr, 771: 21-25 to 772: 1-19, June 25, 2019. See the Halton Municipalities' assessment of the effect of alternative container throughput on VCs as follows: Halton Municipalities' Brief on Significant Adverse Environmental Effects, ("Brief CEAR #800"),

PART 3 REGULATORY FRAMEWORK

28. This environmental assessment is principally federal, but includes several similarities with Ontario planning law and important recognition of municipal and provincial laws, policies and other standards. This recognition is consistent with constitutional law.

3.1 Federal Framework

3.1.1 CEAA requires planning that promotes sustainable development

29. CEAA is, at heart, a planning statute. Environmental assessment is, "in its simplest form, a planning tool that is now generally regarded as an integral component of sound decision-making".[31] The EIS Guidelines for this Project recognize this reality as a "guiding principle".[32] The Act, as the Supreme Court recently held, "provides a process for integrating environmental considerations into planning and decision making".[33] Integral to this planning effort is consideration of "the potential consequences for a community's livelihood, health and other social matters from environmental change".[34]

30. CEAA planning considers the long-term impacts of development from a multitude of perspectives, with two central goals: (i) the promotion of sustainable development, and (ii) the protection of the environment and human health.

May 29, 2019, Vol. 1, Geology and geochemistry, p. 38, 46; Surface water bodies, p. 59, 66-67; Surface water quality, p. 71, 76-77; Ambient Air Quality, p. 81, 99-100; Noise, p. 105, 128; Light, p. 132, 149; Migratory birds mortality, p. 181, 196; Migratory birds use of area, p. 199, 212-213; SAR distribution and mortality, p. 216, p. 232; Human health, p. 255, 263-264; Human safety, p. 269, 287, 300-301, 330, 342-343, 362; Rural settings, p. 366, 385-386; Transportation movement on roadways (urban settings), p. 392, 412-413; Active transportation (urban settings), p. 417, 434; Municipal infrastructure (urban settings), p. 439, 462; Municipal finance (urban settings), p. 466, 478-479; and Residential land use, p. 483, 488.

[31] *Friends of the Oldman River Society v. Canada (Ministry of Transport)*, 1992 CarswellNat 1313 (SCC), at para 47 [*Oldman River*].

[32] Guidelines for the Preparation of an Environmental Impact Statement, Milton Logistics Hub, Canadian National Railway Company, ("CEAR #12") July 2015, p. 2, s. 2.1.

[33] *MiningWatch Canada v. Canada (Minister of Fisheries & Oceans)*, 2010 SCC 2 at para 14.

[34] *Oldman River*, at para 103.

31. These goals are also central to Ontario land use planning under the *Planning Act*.[35] Under Ontario law and policy, all five Halton Municipalities are planning authorities tasked with advancing sustainable development and implementing planning broadly and cooperatively for all projects and development within their boundaries.

3.1.2 CEAA seeks to protect the environment, people, and socio-economic conditions

32. CEAA 's planning framework is organized around environmental effects. Section 5 of the Act defines “environmental effects” for the purpose of deciding what might be a “significant adverse environmental effect.” Its two subsections each address effects on the environment, people and socio-economic conditions. Section 19 sets out the “factors” of the environmental assessment, including factors related to cumulative effects, mitigation, significance of effects, and alternatives. This section requires that all “environmental effects” be taken into account in the environmental assessment, subject to any scoping provided by s.19(2). Here, scoping is provided through the EIS Guidelines.

33. The proposed railway yard will change the “environment” as defined by CEAA. Its construction will permanently change land and water features. Its operation will change air quality, ambient noise levels, and night-time lighting. These changes will have "effects" on human health and safety, and socio-economic conditions in the Town and Region.

34. CEAA seeks to prevent significant adverse environmental effects.[36] Prevention of significant effects requires a broad range of effects to be considered.

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[35] Planning Act, RSO 1990, c P13, s1.1 a) lists one of the purposes of the Planning Act as "to promote sustainable economic development in a healthy natural environment within the policy and by the means provided under this Act"; also, s.2(h) recognizes provincial interests in the orderly development of safe and healthy communities and 2(o) recognizes the provincial interest in the protection of public health and safety..

[36] See the long title of CEAA: “An Act respecting the environmental assessment of certain activities and the prevention of significant adverse environmental effects.”

35. Ontario planning law and policy is similar in applying a broad approach to effects to be considered in planning.[37] Throughout this process,[38] Halton has provided the panel with a detailed review of CEAA's specific provisions on "environmental effects," showing the legal basis for applying a broad view of the relevant environmental effects.

3.1.4 Importance of "Valued Components"

36. This Panel is tasked with assessing the existence of adverse effects on Valued Components of the environment ("VCs"). VCs may be a broad array of things; they are:

> environmental biophysical or human features that may be impacted by a project. The value of a component not only relates to its role in the ecosystem, but also to the value people place on it. For example, it may have been identified as having scientific, social, cultural, economic, historical, archaeological or aesthetic importance.[39]

37. To achieve CEAA's purposes, it is important to take a broad view of what constitutes a valued component ("VC") of the environment. Failing to take a broad view of what components might be valued means that the Panel may miss key significant effects on those components. If an effect is not identified as a VC, then it will not be assessed for significance.

38. The EIS guidelines support taking a broad view of what constitutes a VC. They do not provide a closed list of effects or of VCs. For example, the EIS guidelines do not limit the types of socio-economic components of the environment that may be considered – rather, this category is broadly defined, with examples provided.[40] Similarly, section 6.1 of the Guidelines expressly states that other VCs may be identified "during the conduct of the EA". The EA is still being conducted, given review panels are appointed for the purpose of "conducting an

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[37] See February 1, 2017 letter from Jane MacCaskill to the panel, pp.1-6, CEAR #455.
[38] Detailed review of "environmental effects" can be found in: (1) the December 2016 Brief, (2) the April 2019 Sufficiency Brief on SAEEs, and (3) the May 2019 Brief on SAEEs.
[39] CEAR #12, July 20, 2015, p. 5.
[40] CEAR #12, July 20, 2015, p. 26, s 2.3.5.

EA".[41] This means that the process of identifying VCs did not begin and end with CN's Environmental Impact Statement.

39. Beginning in December 2016, Halton identified VCs based on

(a) the VCs listed in s. 6.3 of the EIS guidelines;

(b) the features of the environment s. 6.2 of the EIS Guidelines; and

(c) the components of the environment set out in s. 6.1 (e.g., health conditions), for which CN was required to assess baseline conditions.

40. Halton's identification of VCs was also informed by its particular interests. As such, Halton has identified 18 biophysical VCs and 8 human VCs. It has assessed each of these VCs for the likelihood of SAEEs.

41. CN did not identify any VCs outside of those listed in s. 6.3 of the EIS Guidelines, nor did CN explain the basis for its extremely narrow approach to assess effects on socio-economic conditions. CN did not assess all VCs listed in s. 6.3 – its EIS, notably, does not consider land use as a VC. As a result, CN has not adequately assessed Project effects on residential and employment land use.

3.1.5 Importance of Standards to Assessing SAEEs

42. The EIS Guidelines require this Panel to consider applicable "environmental standards, guidelines or objectives".[42] Considering a broad scope of standards is a longstanding practice

[41] CEA Agency, Practitioners Glossary for the Environmental Assessment of Designated Projects Under the Canadian Environmental Assessment Act, 2012, p.17.
[42] CEAR #12, July 20, 2015, p 28.

in Environmental Assessment, and the SAEE Reference Guide describes this approach as the most common basis to address significance.[43]

43. As recognized by the SAEE Reference Guide, relevant standards may be established by international bodies and federal, provincial, or municipal departments, ministries, and agencies. According to the SAEE Reference Guide, if the level of an adverse environmental effect exceeds the limit of, or is otherwise inconsistent with an applicable provincial or municipal standard, this is an indication that the adverse effect could be significant.

44. This Panel is not constrained by constitutional law in considering information that it believes is relevant to its mandate. Under s.44 of CEAA, the panel is statutorily empowered to use any available information. Further, as set out in Halton's December 2016 Brief, federal bodies such as this panel have broad powers to gather information. [44]

45. Legal and constitutional concerns with regulating a project do not apply to the power to gather information. In *Quebec (Attorney General) v. Canada (National Energy Board),*[45] the Supreme Court of Canada addressed a challenge to the jurisdiction of the National Energy Board (NEB). The NEB sought to gather information on the environmental effects of future James Bay hydroelectric facilities for the purpose of assessing the merits of a proposed international power line at the Quebec-U.S. border. Although the NEB did not have jurisdiction to regulate the future upstream facilities, the Court found that the NEB did have jurisdiction to gather information on the upstream effects.

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[43] Canadian Environmental Assessment Agency, Reference Guide for the Canadian Environmental Assessment Act, Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects, 1994 ("SAEE Reference Guide 1994"), pp.190-1.
[44] Halton Municipalities Brief: Municipal Land Use Standards relevant to assessing the Project for SAEEs ("CEAR# 405"), December 13, 2016, pp. 15-16.
[45] *Quebec (Attorney General) v. Canada (National Energy Board),* [1994] 1 SCR 159.

46. Similarly, a federal regulatory authority may consider "local" impacts even if it lacks jurisdiction to regulate those effects. The CT Agency follows this approach in requiring consideration of the "interests of the localities" under a s. 98 CTA approval. CEAA also follows this approach: it authorizes the Minister to require an EA to take into account any other matter relevant to the EA. Here, the Minister has required that this EA take into account various local effects including present and future land uses.

47. Halton has provided this panel with detailed reference to municipal and provincial standards relevant to the assessment of environmental effects in its December 2016 Brief. These standards address effects for the six categories of matters identified by the panel to be of specific interest in April 2019: water, natural heritage, transportation, agriculture, residential, and employment matters.[46] In the April *Sufficiency Brief on SAEEs,* Halton provided the panel with details on all standards it considered relevant to assessing adverse effects on VCs. In the May 2019 SAEE Brief, Halton provided the panel with its assessment of compliance with relevant standards. Compliance with standards was treated as a major component of the assessment of virtually all SAEEs.

48. By contrast, CN has considered standards inconsistently. Though it has relied on provincial standards to consider the significance of effects, it has not done so consistently. To the contrary, most CN assessments of significance do not reference any standards.

3.1.6 Limits on Mitigation

[46] Panel letter to Jane MacCaskill April 25, 2019, ("CEAR #752"), p.2

49. Federal EA has a long record of interest in ensuring that mitigation is considered ***before*** reaching conclusions on SAEEs. Equally, CEAA contains several provisions to ensure that no mitigation be "considered" unless it can and will be implemented and enforced.

50. This panel requested input from the CEA Agency on conditions. This input identified four limits on mitigation:

(a) Mitigation cannot substitute for assessment: there is no power to defer assessment of an effect to after the EA decision;

(b) Mitigation must be under the control of the project proponent to implement;

(c) Mitigation must be enforceable federally: it cannot be delegated to another jurisdiction; and

(d) Mitigation must be stated in terms that allow its effectiveness to be monitored and evaluated.

51. Halton accepts these four limits on mitigation, but submits that CEAA provides at least one further limit on mitigation. This limit arises from the CEAA's distinction between s.5(1) effects and s.5(2) effects. This distinction is repeated in s.52 and s.53. The input provided to the panel by the CEA Agency does not distinguish between these two categories of effects in its approach to mitigation or conditions. However, this distinction is explicit in the Act.[47] It is also a new distinction not provided by the previous CEAA. It must have meaning.

[47] Sections 6 and 99(1) of CEAA expressly authorize direct enforcement of effects set out in s. 5(1) only. On the other hand, s. 53(2) of the Act requires that conditions addressing s. 5(2) effects be "directly linked or necessarily incidental" to the exercise of a power by a federal authority. S. 53(3) underscores the limited scope of conditions under s. 53(2).

52. Halton submits that this distinction limits the scope of mitigation related to s.5(2) effects and s.53(2) conditions. In particular, by these terms, CEAA limits mitigation to mitigation that is within federal regulatory powers under federal law.

53. Put simply, CEAA provides no power to the Minister or CEA Agency to regulate s.5(2) changes and effects that are beyond the authority of any federal regulator acting under its statute.

54. The Federal Court has previously held that it is an error to rely on enforcement initiatives that are beyond enforcement or control by federal authorities.[48] And, significantly, the 2012 amendments to CEAA removed provisions that, previously, had permitted consideration of mitigation measures that would be implemented by another person or body.[49]

3.2 Municipal Interests

55. The Regional Municipality of Halton is the regional or upper-tier municipal government for a rapidly growing area of southwestern Ontario that is comprised of four lower-tier municipalities, with a combined population of over half a million. The Corporation of the Town of Milton is a town within the Region, where CN owns lands along a railway line. The Corporation of the City of Burlington, the Corporation of the Town of Halton Hills and the Corporation of the Town of Oakville are the other three lower-tier municipalities within the Region. Burlington and Oakville are geographically close to the proposed Project. Halton Hills is located between the proposed Project and CN's existing road-rail intermodal terminal

[48] *Environmental Resource Centre v Canada*, 2001 FCT 1423, at paras 154-157.
[49] The former s.37(2.1), now removed, provided as follows: "Mitigation measures that may be taken into account under subsection (1) by a responsible authority are not limited to measures within the legislative authority of Parliament and include
(a) any mitigation measures whose implementation the responsible authority can ensure; and
(b) any other mitigation measures that it is satisfied will be implemented by another person or body.

in Brampton, and would be affected by new truck and rail traffic between the two locations. All five municipalities are affected by the Project.

56. Halton and Milton have important regulatory responsibilities, including:

(a) Maintaining land use compatibility in the area having regard for nearby existing and approved residential communities and the new rail lines, facilities, and proposed 24/7 rail, handling, and truck operations;

(b) Maintaining municipal financial sustainability when this Project will add new infrastructure costs and reduce municipal revenues for the Project lands and nearby lands compared to the planned future land uses approved in ROPA 38;

(c) Adherence to municipal design standards;

(d) Compliance with Ontario and municipal environmental assessment requirements for changes to regional and local road infrastructure;

(e) Prevention of adverse effects to human health and the environment through adherence to Ontario and municipal standards for (i) air quality, (ii) noise emissions, stormwater discharge quality and quantity, (iv) water takings, (v) river improvements, and (vi) endangered species and their habitat;

(f) Protection of public safety and the environment arising from increased carriage, handling, and storage of toxic and other harmful substances and products;

(g) Protection to public health and safety arising from increased road and rail traffic associated with the Project; and

(h) Ensuring that, in light of the above, this Project design and location is the preferred means of meeting CN's stated purpose for the Project in comparison to alternatives that also meet this purpose and have fewer and lower impacts.[50]

57. Halton is deeply concerned about the effect the proposed Project will have on its citizens and its planning. That concern began in 2015 when, contrary to its prior statement that it would not place an intermodal facility on this site, CN advised the Region and Town of Milton that (1) an intermodal facility would be installed and (2) CN considered the Project be constitutionally exempt from any municipal or provincial requirements.

58. At this time, it was also CN's position that the Project was exempt from s.98 railway line approval under the *Canada Transportation Act* and would not require any federal environmental assessment. In short, as far as CN was concerned, there would be no regulatory oversight over this project. Nor was it necessary to take into account the concerns or needs of the community in which the project would exist in perpetuity. Construction was to begin in Fall 2015.

3.3 Governmental Cooperation

59. In 2008, when it proposed a rail-based industrial development on its lands, CN accepted Region authority to establish and regulate land use on CN lands. This resulted in a cooperative approach to advancing CN objectives by amending the Regional Official Plan.

60. By contrast, from the outset of its presentation of this Project to the Region and Town in 2015, CN has adopted a very different approach. Instead of cooperation, CN has advocated its immunity from any municipal (or provincial) approval.

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[50] CEAR #455, February 1, 2017, at p. 6.

61. On July 12, 2019, the panel received an important submission from the Federation of Canadian Municipalities on constitutional issues. The crux of this submission is that courts do not support granting private undertakings like this Project constitutional “immunity” from one or more levels of government; instead, courts favour limiting immunity claims to existing precedents and instead allowing concurrent government action, subject only to narrow tests of conflict. The submission also notes that railways have never enjoyed immunity from municipal by-laws, citing the 1896 case of the Privy Council – Canada’s highest court of appeal at the time – in *Canadian Pacific Railway Company v. Corporation of the Parish of Notre Dame de Bonsecours* [1899] UKPC 22.

62. As stated by the Privy Council, the constitution "does not declare that the railway shall cease to be part of the provinces in which it is situated, or that it shall, in other respects, be exempted from the jurisdiction of the provincial legislatures".[51]

63. In 1995, Canadian Pacific sought to advance a similar argument that Ontario’s Environmental Protection Act did not apply to adverse effects on residents caused by its operations. That argument was summarily rejected by the Supreme Court of Canada, citing the *Notre Dame* precedent.[52]

64. Overall, there is no constitutional impediment to municipal and provincial regulators addressing the effects of a railway (such as the discharge of contaminants by railway) through laws and by-laws. Further, the application of municipal and provincial laws to railway effects is sensible, given that municipal and provincial regulators are constitutionally responsible (and best-placed) to address matters of a local nature. Indeed, there are no relevant federal laws

[51] *Canadian Pacific Railway v Notre Dame de Bonsecours (Parish)*, 1899 CarswellQue 40 (Priv Counc), at para 7.
[52] *R v Canadian Pacific Ltd*, 1995 CarswellOnt 7238 (SCC).

applicable to some of the key effects of this Project, such as adverse impacts on roads, impacts on floodplains, use of groundwater, and air quality. All of these matters are subject to provincial or municipal laws.

65. Though not cited by the FCM, in 2008, the Supreme Court of Canada provided support for governmental cooperation as it addressed a relatively recent dispute involving the Vancouver Port Authority and the City of Vancouver. In *B.C. (A.G.) v. Lafarge Canada* [2007] 2 SCR 86, the Court reviewed several instances of different levels of government working in isolation or at cross-purposes and offered the following conclusion:

> The potential for conflict in mixed land use development along urban waterfronts is considerable. In Hamilton, bouts of litigation between the City and the Hamilton Harbour Commissioners over jurisdiction to regulate land use in the harbour area lasted almost as long as the Thirty Years War, beginning in the 1960s with the Hamilton harbour dredging scandal (whose criminal aspects were eventually dealt with in Canadian Dredge & Dock Co. v. The Queen, [1985] 1 S.C.R. 662). More recently, the City of Mississauga, expressing frustration because its development procedures were being disregarded in the enlargement of Toronto's Pearson Airport, threatened to withhold emergency fire services; see Greater Toronto Airports Authority v. Mississauga (City) (2000), 50 O.R. (3d) 641 (C.A.), leave to appeal refused, [2001] 1 S.C.R. ix. On the other hand, as the now virtually abandoned airport at Mirabel and the aborted mega-airport project at Pickering show, the federal ability to implement transportation infrastructure without provincial cooperation is seriously circumscribed. Federal-provincial-municipal cooperation in such matters is not unconstitutional. It is essential.(p.111)

In sum, although the development of new railway lines is a federal undertaking under the Constitution and is regulated by the CT Agency under the Canada Transportation Act, these railway lines are subject to effects-based controls imposed by provincial, regional and municipal laws and regulatory regimes, unless they conflict with federal law.

66. The EIS Guidelines for this Assessment expressly promote an inclusive approach to municipal concerns, requiring consideration of the effects of the Project on:

(a) existing municipal and regional land use planning, including present and approved land uses;

(b) human safety in relation to motor vehicle safety and pedestrian/bicycle safety; and

(c) human health, including potential changes in air quality, drinking water quality, and noise exposure in the Project vicinity.[53]

PART 4 SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS

67. The driving force for the unprecedented municipal involvement in this federal EA is the shared concern of all five Halton Municipalities that this Project would affect a broad array of municipal interests.

68. This Panel has before it extensive evidence that this Project will cause significant harm to each pillar of *Sustainable Halton*[54] - social, economic, and environmental – including the evidence Halton and its teams of experts have submitted during the course of the sufficiency review and this hearing. The Halton Municipalities will use these three pillars to present its findings on SAEEs:

(a) Social – Significant harm to Milton residents;

(b) Economic – Significant harm to Milton socio-economic conditions;

(c) Environmental – Significant harm to Regional natural heritage.

4.1 Social – Significant harm to Milton residents

[53] CEAR# 12, July 20, 2015, s. 6.35.
[54] *Sustainable Halton* is Halton's growth management and land use plan, which reflects Provincial Policy and led to the creation of Halton's Regional Official Plan Amendment 38.

69. This panel is asked to address an unprecedented degree of harm to residential communities. The Project will harm more than 30,000 residents who will live within 1,000 m of the proposed facility. It will also harm the residents who will work, study and play within 1,000 m of the proposed facility. Many others will be impacted by the trucks using the haul routes from the Project to the highway.

70. Previous federal panels have had to address serious harm to major residential communities from airport noise.[55] However, no federal panel has ever had to address serious harm to major residential communities from toxic air pollution.[56]

71. Nor has any previous federal panel been asked to approve and enable a major new facility to come so close to a dense urban community. The airport panels addressed the expanded use of existing airports, not proposals for new airports.

72. Ontario planning demands attention to sustaining "Healthy, livable and safe communities."[57] Province-wide, Ontario seeks to avoid "development and land use patterns which may cause environmental or public health and safety concerns".[58]

73. There is no question that Ontario law prohibits adverse effects on the more than 30,000 residents that will live within 1,000 m of this facility. It is foundational to Ontario law and policy to prevent the emission of contaminants from causing "adverse effects". Adverse effects include harm to the health of any person, material discomfort to any person, and any

[55] See Panel Report 41 (August 1991) Vancouver International Airport Expansion; Panel Report 43, Air Traffic Management in Southern Ontario (November 1992). Note the 1992 panel conclusion that project noise effects on specific residential communities were unacceptable (p.65).
[56] In the 2013 Jackpine joint federal-provincial EA review, the panel considered a situation where modelling predicted exceedances of ambient air quality objectives but predicted no increase due to project emissions (para.274).
[57] See CEAR #405, December 2016, Appendix B, p.29.
[58] Province of Ontario, Provincial Policy Statement, 2014, Part V, 1.1.1(d).

interference with the use and enjoyment of property.[59] This standard applies "notwithstanding" compliance with any other legal standard provided in law or regulation and applies to railways, and even railway lines.[60] Further, this standard applies to any person and has protected small numbers of people.[61]

74. Using the methodology of federal EA to assess the significance of adverse effects, the Halton Municipalities conclude that there will be five related SAEEs on Milton residents:

(a) SAEEs on air quality;

(b) SAEEs on human health;

(c) SAEEs on ambient noise experienced by residents;

(d) SAEEs on night-time light levels; and

(e) SAEEs on land use by residents at their homes.

75. These remarks focus on the first three effects.

4.1.1 Project Emission of Air Pollutants are likely to Cause Significant Harm to the Health of Residents

76. This Project will release several pollutants into the air. The EIS Guidelines focused attention on Contaminants of Potential Concern ("COPCs"). Project construction and operation will

[59] Ontario ranks the first two effects as "very serious" and the third effect as "serious." Undertaking 30, "Guideline for Implementing Environmental Penalties (Ontario Regulations 222/07 and 223/07), ("CEAR #962"), July 12, 2019, p.17.
[60] See *Ontario v. Canadian Pacific* [1995] 2 SCR 1031 where the Supreme Court of Canada dismissed the railway argument for exemption from this standard following oral argument only: see pp.1061 and 1063 relying on the 1899 case of *Canadian Pacific Railway Co. v. Corporation of the Parish of Notre Dame de Bonsecours,* [1899] A.C. 367 before the Privy Council (Canada's ultimate appeal court at that time) that railway lines were subject to municipal by-laws providing standards of general application to prevent off-site effects like flooding.
[61] The 1992 case of *R. v. Commander Business Furniture Inc.* (1992), 9 CELR (NS) 185 (OCJ) showed Ontario successfully prosecuting a company for causing adverse effects through odours on the evidence of six of seven residents before the Court.

change air quality by increasing ambient air concentrations for ten COPCs, including $PM_{2.5}$, Diesel Particulate Matter ("DPM"), benzo(a)pyrene ("B(a)P"), carbon monoxide, nitrogen oxides, naphthalene, benzene, acrolein and 1,3–Butadiene.[62] It is undisputed that, for several COPCs, the increase will exceed health-based standards with respect to air quality.

77. Most strikingly, for several COPCs, any increase will cause adverse health effects. There is no safe threshold. For these pollutants, any increase in ambient air levels will cause serious acute (short-term) and chronic (long-term) health effects. The health effects from these pollutants are not simply long-term cancer effects. The principal no-threshold pollutants are PM_{10} (also known as inhalable particulate matter) and $PM_{2.5}$ (also known as respirable particulate matter).[63] The names from these pollutants derive from their size in microns. Further, the smaller the size, the more serious the health effects as the smaller particulate may move deeper into the body and past the protective internal mechanisms that block larger particulates.[64]

78. According to Dr. George Thurston, the Halton Municipalities' international expert on epidemiology for air pollution health effects, anticipated levels of $PM_{2.5}$ for the Project would translate to:

(a) a 1.7% increase in local residents' lifetime risk of death from a heart attack.[65] This will be equal to an increase of approximately 2 heart attack deaths per 100,000 affected residents per year;[66] and

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[62] Brief CEAR# 800, June 3, 2019, Volume 1, p. 79-80.
[63] These pollutants also include DPM.
[64] Tr Hr, 2402:1-4, 20-25, July 8, 2019.
[65] Brief CEAR# 800, June 3, 2019, Volume 2, p. 256.
[66] Halton Municipalities, Ambient Air Quality and Human Health, Milton Logistics Hub Review Panel Public Hearing ("Ambient Air Quality and Human Health Presentation, CEAR # 903"), July 8, 2019, slide 25.

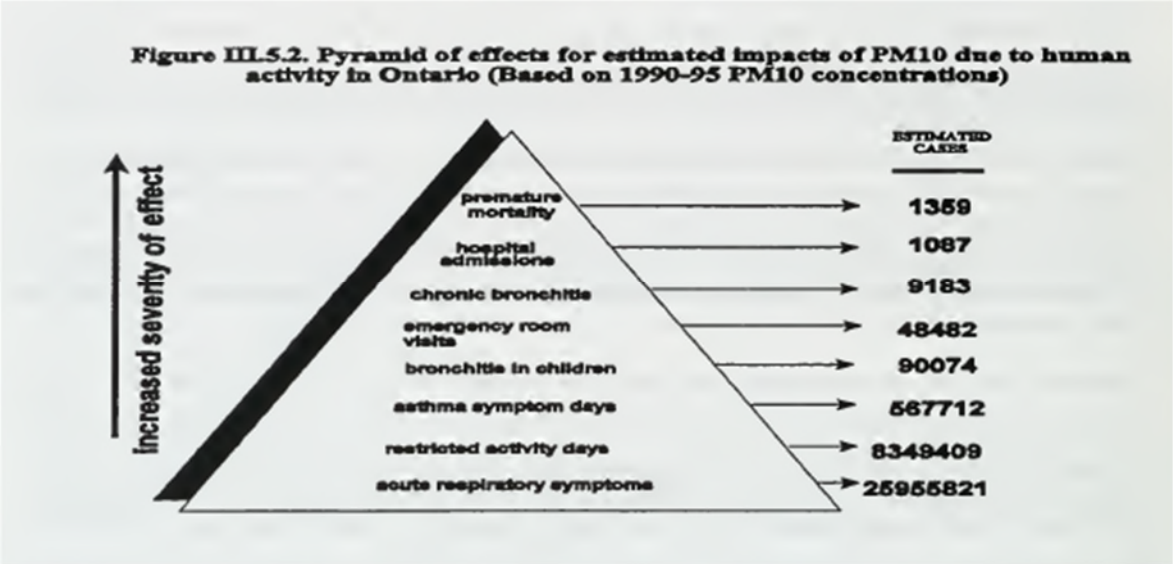
(b) approximately 3.2 new asthma cases per 1000 local child residents between 10-14 years of age.[67]

79. Importantly, PM_{10} and $PM_{2.5}$ also cause a myriad of other serious health effects, including cancer, asthma, Chronic Obstructive Pulmonary Disease, and cardiovascular disease.[68]

80. In 1999, Ontario published a Compendium of then-current information on the less dangerous of these two pollutants: PM_{10}. This Compendium included a quantitative pyramid of health effects. It showed a vast array of human health effects, including increased hospitalization, respiratory events, and asthma attacks.[69] Many of these health effects, including all of those listed in the Province of Ontario's pyramid of estimated effects, were not quantitatively assessed by CN:

Exhibit 7 - Pyramid of Impacts CEAR #924

[67] Brief CEAR# 800, June 3, 2019, Volume 2, p. 256.
[68] Tr Hr, 2402:5-14, July 8, 2019.
[69] See Exhibit 7, Figure III.5.2 Pyramid of effects for estimated impacts of PM10 due to human activity in Ontario (Based on 1990-1995 PM10 concentrations), ("CEAR 924") excerpt from A Compendium of Current Knowledge on Fine Particulate Matter in Ontario, Prepared by the Ontario Ministry of the Environment for the Ontario Smog Plan Steering Committee, March 1999.



81. The Project is likely to increase ambient air concentrations of five other COPCs beyond accepted numeric limits, including limits for DPM, benzo(a)pyrene ("B(a)P"), benzene, acrolein, and crystalline silica.[70] The Halton Municipalities detailed these exceedances of standards in their May 2019 assessment of the significance of Project and cumulative effects on air quality.[71]

82. For DPM, B(a)P and benzene, increased ambient air levels result in increased rates of cancer. Dr. Thurston opined that the predicted increase in these chemicals would exceed acceptable federal and Ontario standards for long-term harm, namely 1 in 100,000 lifetime risk (federal) and the more onerous 1 in 1,000,000 lifetime risk (Ontario).[72]

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[70] Brief CEAR# 800, June 3, 2019, Volume 1, p. 80, 90, 93-95, 97.
[71] Brief CEAR# 800, June 3, 2019, Volume 1, p. 80-81.
[72] Brief CEAR# 800, June 3, 2019, Volume 1, p.256. See Canadian Cancer Society, Canadian Cancer Statistics, 2018, http://www.cancer.ca/en/cancer-information/cancer-101/canadian-cancer-statistics-publication/?region=on; Health Canada, 2004, Contaminated Sites Program, Federal Contaminated Site Risk Assessment in Canada, Part I: Guidance on Human Health Preliminary Quantitative Risk Assessment (PQRA), p1., http://www.publications.gc.ca/collections/Collection/H46-2-04-367E.pdf.

83. For DPM, Dr. Thurston used CN data to undertake a quantitative assessment of significant adverse effects on human health for residents living in close proximity to the Project, he found that, based on the California Respiratory Cancer Risk Central Estimate,[73] the Project's estimated DPM cancer risk would be:

(a) 17 times the Canadian government's *de minimis* risk level,[74] and

(b) 170 times the Ontario Province *de minimis* risk level.[75]

84. Since lung cancer results in high rates of mortality within 5 years (90%), this outcome is of particular concern.[76]

85. Similarly, increases in formaldehyde alone causes individual increases in cancer risk to the local population that are well beyond the federal *de minimis* levels.[77] The Project will also increase the emissions of other known carcinogens, including 1,3-Butadiene and acetaldehyde.[78]

86. The Halton Municipalities detailed these predicted effects in their May 2019 assessment of the significance of Project effects on human health.[79]

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[73] CN Information Request Response Package 3, Cal EPA Hazard Assessment, May 2019: (http://oehha.ca.gov/media/downloads/crnr/appendixa.pdf), as discussed by CN at ("CEAR# 613"), IRR3.7.
[74] Canadian Cancer Society, Canadian Cancer Statistics, 2018, http://www.cancer.ca/en/cancer-information/cancer-101/canadian-cancer-statistics-publication/?region=on.
[75] Health Canada, 2004, Contaminated Sites Program, Federal Contaminated Site Risk Assessment in Canada, Part I: Guidance on Human Health Preliminary Quantitative Risk Assessment (PQRA), p1: "*Provincial regulatory agencies across Canada offer differing guidance on many aspects of risk assessment. For example, definitions of acceptable cancer risk vary (BC, Alberta, and the Atlantic provinces accept an incremental lifetime cancer risk of 1 x 10^{-5}, while Ontario targets 1 x 10^{-6}*.", http://www.publications.gc.ca/collections/Collection/H46-2-04-367E.pdf.
[76] Brief CEAR# 800, June 3, 2019, Volume 2, p. 256.
[77] Tr Hr, 2406:1-9, July 8, 2019.
[78] Brief CEAR# 800, June 3, 2019, Volume 2, p. 257.
[79] Brief CEAR# 800, June 3, 2019, Volume 2, p. 255.

87. CN's predictions of effects before the panel are not reliable. Beginning in April 2017 and concluding with the April 2019 Sufficiency Brief, the Halton Municipalities provided several examples of CN's air quality predictions missing or understating $PM_{2.5}$ inputs, thereby underestimating changes to ambient air quality. Of particular concern, CN underestimated the levels of $PM_{2.5}$ expected to be generated as a result of the Project.[80] Appropriate assessments of road dust could result in an up to 25% in predicted increase of $PM_{2.5}$ levels.[81] In addition, a more realistic estimate of trucks idling onsite – closer to the queue length of 140 trucks – would raise $PM_{2.5}$ levels by approximately 30%.[82]

88. At this hearing, residents provided the panel with several scientific studies on the health effects of air pollution from intermodal facilities.[83] These studies provide clear evidence that the health effects on residents reach far beyond 1 km zone modeled by CN.[84] Since the planned density of Milton's residential population extends well beyond the 1 km zone, it is likely that all estimates of human health effects presented above understate the number of residents that will actually be affected by Project air emissions.

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[80] Brief CEAR# 800, June 3, 2019, Volume 1, p. 88-90.
[81] Tr Hr, 2389:17-23, July 8, 2019.
[82] Tr Hr, 2390:1-10, July 8, 2019.
[83] Exhibit 3, Studies presented by Milton Says No at the June 25 session – Studies on Effects of Various US Intermodal Facilities ("CEAR #880). See Ex. 3 ("CEAR 880", June 26, 2019 and the study by A. Hricko entiled, "Global Trade, Local Impacts: Lessons from California on Health Impacts and Environmental Justice Concerns for Residents Living near Freight Rail Yards" Int. J. Environ. Res. Public Health 2014, 11, 1914-1941. At p. 1916, the study references the California Air Resources Board (CARB) guideline that ""We recommend doing everything possible to avoid locating sensitive receptors within the highest risk zones at ports and rail yards… Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches." This excerpt is from California's Air Quality and Land Use Handbook: A Community Health Perspective; California Environmental Protection Agency, 2005. The Hricko article also references a CARB study on diesel cancer risks around 18 rail yards. For one yard, a cancer contour line showed increased 100 in one million cancers for residents within 2 miles of the facility and elevated 10 in one million cancer rates for residents within 4 miles of the facility.
[84] Ibid.

89. CN has not offered any credible mitigation measures. The Halton Municipalities identified the deficiencies with CN then-identified mitigation in their April 2019 Sufficiency Brief.[85] More recently, after more than four years of opportunity to prepare relevant information and the expiry of two panel deadlines for filing relevant information, CN filed a July 2019 presentation on human health that introduced a number of general and non-specific mitigation measures that it claims will decrease $PM_{2.5}$ emissions by 50%.[86] CN has not provided any evidence to support this claimed effectiveness for its proposed mitigation.

4.1.2 Project Noise Emissions are likely to Cause Significant Harm to Residents

90. This Project will cause noise emissions from railway and non-railway sources. The sources of railway noise are passing trains and rail yard activities. Compared to noise from passing trains, rail yard noises are "frequent and of longer duration including shunting of cars, idling locomotives, load cell testing of locomotives, wheel and brake retarder squeal, clamps used to secure containers, bulk loading/unloading operations, shakers, and many others."[87] The facility will also generate additional noise from 1,600 daily trips from heavy container trucks.

91. The noise impact zone for the Project will be 1,000 m from the site, which will include more than 30,000 residents by 2031.[88]

92. Health Canada has identified adverse health effects caused by emissions noise, including: (1) annoyance, (2) sleep disturbance, and (3) interference with speech. Health Canada

[85] Halton Municipalities' Sufficiency Brief on Significant Adverse Environment Effects ("Brief CEAR# 742"), April 9, 2019, p. 66-67.
[86] Tr Hr, 2105:20-22, July 8, 2019; CN, Air Quality and Human Health Presentation, Milton Logistics Hub Review Panel Public Hearing, ("CEAR # 910"), July 8, 2019, slide 24
[87] Exhibit 5, Railway Association of Canada/Federation of Canadian Municipalities, Guidelines for New Development in Proximity to Railway Operations ("CEAR # 875"), June 26, 2019, p. 19
[88] Brief CEAR# 800, June 3, 2019, Volume 1, p. 122.

requires that an environmental assessment to examine these effects[89] using the following criteria: (1) changes in the percentage of the population which may be highly annoyed by the noise ("percent highly annoyed, or %HA")[90]; (2) sleep disturbance, based on continuous noise and noise from infrequent events[91]; and (3) interference with speech comprehension.[92]

93. Several standards regulate noise levels and effects. The Project is a stationary source of sound, as defined by the CTA,[93] the Federation of Canadian Municipalities (FCM), Railway Association of Canada (RAC),[94] and the Ontario Ministry of Environment, Conservation & Parks (MECP).[95]

94. As a stationary source of sound, all activities within the facility property lines, such as truly stationary equipment (e.g., fans, ventilation equipment, generators) and moving equipment (e.g., trucks, stackers, trains) must be measured.[96] Sounds generated at the proposed intermodal would include exhaust fans, ventilation equipment, idling trucks, vehicle movement within facility, and impulsive noises (high levels, short duration) such as dropping of bins and containers, rail car "knuckle thumps" and moving vehicles with back-up beepers.[97]

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[89] See "Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise" (Draft), 2011 ("CEAR #533"), March 10, 2017, p. 5-9. Final version published in 2016 as: Health Canada (2016). Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.
[90] CEAR #533, March 10, 2017, p. 8.
[91] CEAR #533, March 10, 2017, p. 6-7.
[92] Draft 2011 Version used in the assessment. Final version published in 2016 as: Health Canada (2016). CEAR #533, March 10, 2017, p. 6.
[93] Canadian Transportation Agency, "Railway Noise Measurement and Report Methodology", (2011), p 25.
[94] CEAR # 875, June 26, 2019, p 84.
[95] MECP Guideline D-6 (1995), p 3; MECP Publication NPC-300 (2013), p 19 located at Undertaking 30, Use of Section 14 of the Ontario Environmental Protection Act, ("CEAR #962).
[96] Halton Municipalities, Ambient Noise Levels, Milton Logistics Hub Review Panel Public Hearing ("Ambient Noise Levels Presentation, CEAR #905"), July 9, 2019, slide 5; Brief CEAR# 800, June 3, 2019, Volume 1, p. 121.
[97] Ambient Noise Levels Presentation, CEAR #905, July 9, 2019, slide 5.

95. Sound levels from stationary source facilities are required to be assessed on an hourly basis (Leq (1-hr) sound levels, in dBA).[98] Hourly assessments capture daily fluctuations in sound levels, particularly variations between daytime and night-time noise levels that are essential to assess sleep disturbance."[99]

96. When assessed as a stationary source, the Project will likely cause predicted and measured sound levels exceeding the applicable MECP standards set out in NPC-300 (sound level limits) at many points of reception.[100] The NPC-300 stationary source sound limits are stricter during the night-time period in order address potential for increased annoyance and sleep disturbance.[101] For urban areas, the guideline limits are the higher of 50 dBA during the daytime, 45 dBA at night, or the background ambient sound level due to road traffic.

97. CN did not complete an assessment of sleep disturbance;[102] however, as the NPC-300 stationary source limits are not met, it is likely that annoyance due to noise and sleep disturbance will occur.[103] There are likely to be more than 10 to 15 events per night that exceed 60 dBa.[104] At the hearing, CN stated that it would conduct a sleep disturbance study as part of the detailed design phase;[105] however, this does not replace the requirement to complete such study as part of the environmental assessment.[106] As discussed above, future plans for mitigation are not true mitigation under CEAA 2012.

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[98] Railway Noise Measurement and Report Methodology, p 25; Railway Association of Canada/Federation of Canadian Municipalities, "Guidelines for New Development in Proximity to Railway Operations" 2013, p 85-86.
[99] Tr Hr, 2603:3-8, July 9, 2019.
[100] Brief CEAR# 800, June 3, 2019, Volume 1, p. 103-104.
[101] Undertaking 30, CEAR #962, July 12, 2019, p.45-50
[102] CN acknowledged in the hearing that it had not completed this assessment, and in fact, did not have the data to complete this assessment: see Tr Hr, 2659:1-3, July 9, 2019; Tr Hr, 2662:1-6, July 9, 2019.
[103] Brief CEAR# 800, June 3, 2019, Volume 1, p.104; Tr Hr, 2587:1-5, July 9, 2019.
[104] Tr Hr, 2589:18-23, July 9, 2019.
[105] CN acknowledged in the hearing that it had not completed this assessment, and in fact, did not have the data to complete this assessment: see Tr Hr, 2659:1-3, July 9, 2019; Tr Hr, 2662:1-6, July 9, 2019.
[106] Brief CEAR# 800, June 3, 2019, Volume 1, p. 121; "Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise" (Draft), 2011, p. 6.

98. Notwithstanding any noise standards, noise effects on residents are also "adverse effects" under Ontario law and policy. In particular, noise can affect the health of any person – particularly through sleep disturbance – as well as the "loss of enjoyment of normal use of property."[107]

99. CN has under-estimated the potential noise impacts from the Project by incorrectly assessing operational noise from the facility as a transportation noise source rather than a stationary source of sound.

100. In addition, CN's noise mitigation measures are deficient. CN does not specify which mitigation recommendations will be implemented for the operation phase of the Project, nor does CN assess the full implementation of such mitigation.[108] For example, as explained by Scott Penton, noise expert for the Halton Municipalities,

> "…the assessment does rely, as we just heard extensively through questioning from Mr. McMurray, on developer sound barriers that are not existing and may not be installed until the development takes place, and that would affect the extent of noise impacts that were shown in those example figures that were discussed in depth previously…The mitigated sound levels would look much different."[109]

101. Therefore, the proposed mitigation is insufficient to ensure that the applicable noise guidelines are met.

102. In summary, CN has under-estimated various potential operational noise impacts (1) by using inadequate guidelines in the assessment; (2) applying inadequate noise modelling and noise measurement assumptions used in its analysis; (3) relying on insufficient and potentially contaminated baseline ambient noise monitoring; (4) failing to assess sleep disturbance and

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[107] *Environmental Protection Act*, R.S.O. 1990, c. E.19, s. 1(1)(g) and 14.
[108] Tr Hr, 2603:9-18, July 9, 2019.
[109] Tr Hr, 2603:10-18, July 9, 2019.

(5) applying insufficient mitigation measures. As a result, it is likely that applicable noise guidelines will not be met, which will likely result in significant adverse effects on residents, including sleep disturbance, noise complaints and annoyance.

103. Mr. Penton also considered the noise effects on residents of the planned and approved major roadway upgrades on Tremaine Road and Britannia Road in the area of the Project. He concluded that the road upgrades would increase the cumulative noise impact by up to 5 dBA, and will therefore combine with predicted Project effects on noise to cause significant cumulative adverse environmental effects on residents.[110]

4.1.3 The Project is likely to have combined effects on residents that are significant

104. While the Project's effects on air quality, noise, and human health are significant in isolation, due to the Project's proximity to residents, the Project will also cause combined effects on residents. Three examples merit attention.

105. The first example is night-time effects. While night-time noise from the Project is a significant effect, it is not simply noise levels that are likely to affect residents at night-time. The Project will also dramatically change night-time light levels. Existing night-time light is low - so low that CN could not identify the existing level. The proponent was unable to identify existing light levels because they were so low.

106. The proposed lighting for this facility will change three aspects of the night-time light environment: it will send light off-site – described as light trespass; it will be intense – causing glare; and it will highly visible – causing change to the night-time sky up to 8 km away.

[110] Brief CEAR# 800, June 3, 2019, Volume 1, p. 103.

107. The clearest example of the change will be proposed light fixtures: they will be mounted on 30 metre-high stands and will have a brightness of 550,000-600,000 lumens.[111] These attributes may be contrasted with the future lighting of Britannia Road, which according to existing Region standards, will be mounted on 7-10 metre-high stands and have a brightness of approximately 11,000 lumens.[112]

108. The second example of combined effects is residential land use. A future resident using his or her home is going to experience the combined effects of noise and dust all the time. Additionally, though not seeing it, the resident is going to incur the health effects of breathing invisible, but toxic particulate matter.

109. The third example is effects on quality of life. Milton is planned to be a complete community – a place where all things – home, work, services & amenities – are close at hand within walking and cycling range. This panel can see evidence of this comprehensive vision of planning in Milton's urban structure plan, its systems of natural heritage and open space, and its facilities and plans for active transportation. All activities within 1,000 metres of this facility will be impacted by its noise. A broader zone will suffer from its dust. A still broader zone will see its night-time glare.

110. For at least 30,000 residents, none of these combined effects will enhance their health, enjoyment of place, or quality of life. To the contrary, all of these residents will suffer multiple adverse effects continuously and permanently.

111. Provincial policy provides that,

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[111] Tr Hr, 2737:1-9, July 9, 2019.
[112] Halton Municipalities, Ambient Night-Time Light Levels, Milton Logistics Hub Review Public Hearing ("Ambient Night-Time Light, CEAR #904"), July 3, 2019, slide 19.

> "Major facilities and sensitive land uses should be planned to ensure they are appropriately designed, buffered and/or separated from each other to
>
> prevent or mitigate adverse effects,
>
> minimize risk to public health and safety, and
>
> "ensure the long-term viability of major facilities."[113]

112. There is no doubt that the proposed intermodal/ railway yard is a major facility in provincial policy and federal law.[114] The railway yard is on the CEAA list of projects that trigger project screenings by the CEA Agency. Further, the yard is what triggered CEAA in 2015.

113. Equally, there is no doubt that by 2015, this facility was coming to a neighbourhood that had been subject to almost two decades of planning and development to create a modern residential community.

114. Longstanding planning has provided the existing rail line with a separation distance of 30 m. That buffer reflects longstanding consensus and is evident in existing approved plans.

115. By contrast, the establishment of a new railway yard is a different facility with much greater impacts. In particular, since 2004, the Railway Association of Canada, with the full participation of CN, focusing on noise issues only, has concluded that a new railway yard merits a 300 m separation distance from residential uses - a ten times greater separation distance than a railway line. It has also recognized a noise impact zone of 1,000 m – more than three times greater than the noise impact zone for a single railway line. Importantly, none of this railway guidance reflects the then-existing evidence[115] that many railway facilities

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[113] Ibid., slide 29.
[114] CEAR #405, December 2016, Appendix C, p.5 "major facilities"; p.7, "rail facilities"
[115] For example, based on such evidence, the federal government declared each of PM10 and PM2.5 to be a "toxic substance" under the *Canadian Environmental Protection Act* (CEPA) in 2001.

contribute to toxic air pollution – evidence that should increase separation distances and impact zones.

116. In sum, beyond individual adverse effects, the combined effects of this Project will cause additional adverse effects on thousands of residents lawfully occupying lands planned for residential development before CN proposed this Project in 2015. This is a further significant adverse environmental effect.

4.2 The Project Will Have Significant Adverse Effects on Milton and Halton Socio-Economic Conditions

117. The Town of Milton is one of Canada's fastest growing communities. Planning Milton growth for the 25-year period of the Growth Plan, (2006-2031), the Region targeted Milton to grow from just over 50,000 residents to almost 230,000 residents. The Region also targeted Milton to provide one job for every two residents, growing from just over 27,000 jobs in 2006 to almost 115,000 jobs by 2031.[116] This Project conflicts with these plans. It is a job killer, not a job creator. It also causes serious harm to municipal finances, particularly for the Town.

118. The Halton Official Plan provides the regional foundation for its growth. In 2009, during Halton's planning process to implement the Growth Plan targets, CN intervened to specifically repudiate its 2001 intermodal proposal. CN requested that Halton include CN lands in Milton's expanded urban boundary, and assign intense employment levels for these lands. The request was based on CN's proposal for rail-based industrial development.

119. Once Council adopted the amendments required to implement the Growth Plan in 2009, the Region commenced the multi-tiered approach to ensuring that growth was integrated with all

[116] Best Planning Estimates, Halton Region (June 2011), located at Benson, Curt, Submission on the Land Use Planning Framework in Halton, ("Benson CEAR #800"), May 29, 2019, Attachment 2, p.8.

urban infrastructure, and required municipal finance and taxation plans. This work included 2011 Best Planning Estimates to provide the detailed geography for allocating all employment and residential targets across each local municipality such as the Town of Milton. It included the development of infrastructure master plans. It also included the completion of required studies to authorize levels of development charges for required Region and Town infrastructure.

120. All of this Regional planning, implementation, and financial work by the Region to meet the Province's ambitious growth targets is put in question by CN's proposed Project. This Project, in this location, creates two sets of socio-economic problems: (1) it is not what CN promised Halton in 2008 and what Halton and the Town need to meet provincial growth standards; and (2) it is incompatible with what Halton and Milton have planned for this area.

121. CN's 2008 rail-serviced industrial proposal is very different from this Project.[117] One difference is their status under municipal land use planning. The 2008 proposal was unquestionably subject to municipal land use planning whereas the current Project is allegedly exempt from municipal land use planning.[118]

122. A more fundamental difference is how the two proposals fit with Milton's community vision and urban structure. Prior to 2015, Milton and its residents envisioned the southwest corner of Milton as the location for the new economy, centred around the education village. The 2008 Concept proposed by CN for rail-serviced industrial development was compatible with that

[117] For further details on these differences, see letter in Appendix XXXX.
[118] On occasion, CN asserts that the Project is "infrastructure" and not "development"; however, under the terms of the Regional Official Plan, the current Project is not "infrastructure" because it is not a "public capital" facility: " INFRASTRUCTURE means the collection of public capital facilities including highways, transit terminals and rolling stock, municipal water and wastewater systems, solid waste management facilities, storm water systems, schools, hospitals, libraries, community and recreation centres, and any other public projects involving substantial capital investment. It includes not only the provision of new facilities but also the maintenance and rehabilitation of existing ones."

vision: high-density employment would produce skilled jobs, work interactively with the nearby education village for job training and innovation, and support a complete community for nearby residences, amenities, and services. It would thus take advantage of Milton's status as the fifth most educated work force in the Province.[119]

123. By contrast, as CN presents this Project, it is an enclave removed from municipal planning, objectives, and accountability. CN will not participate in municipal infrastructure planning and it will not financially support municipal infrastructure and services regardless the heavy use CN will make of municipal roads. The enclave will use old technology and provide a small number of low-skill jobs, and thereby engender limited innovation or training. Additionally, the proposed enclave will act as a magnet for new warehouses nearby that will also involve low-skill jobs and limited innovation or training. Low skill and low density will beget more low skill and low density employment.

124. But the change in proposals also changes the effects of the Project, not just the planning vision for the area. As set out in the *SAEE Brief*, CN's decision to change the use of its lands from industrial development to an intermodal transportation hub is likely to cause significant adverse effects on:

1. employment levels;
2. water supply for fire protection;
3. water and wastewater infrastructure planning;
4. water and wastewater infrastructure financing;
5. regional road transportation financing; and
6. traffic congestion.

125. These remarks will focus on three significant socio-economic effects:

(a) Employment levels on these lands;

[119] Tr Hr, 238:23-25 to 239:6-11, June 21, 2019.

(b) The location, scale and financing of municipal infrastructure & services; and

(c) traffic congestion on Town and regional roads.

126. To understand these SAEEs it is important to understand the planning and policy background that establishes (1) employment targets and (2) employment locations.

4.2.2 The Project's anticipated 90% reduction in employment levels is a significant adverse effect

Provincial standards on employment land use and densities

127. Provincial policy demands that economic development fit together with residential communities and protection of natural heritage systems. In 2006, as the Region commenced planning for *Sustainable Halton*, provincial law[120] required that the Region ensure that its plan was consistent with the 2004 Provincial Policy Statement (the "PPS"), the 2005 Greenbelt Plan, and the 2006 Growth Plan.[121] All three provincial documents included specific direction and policy on economic, social and environmental matters.[122]

128. While all three documents apply to the CN lands, the PPS and the Growth Plan are the most relevant.

129. The PPS protects prime agricultural areas. Prior to ROPA 38, the CN lands were part of the agricultural area because of the high quality of their soil and location in a rural area. The PPS

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[120] Benson CEAR# 800", May 29, 2019, p.8 re 2005 changes to *Planning Act* standard regarding the PPS. See 2016 Brief (CEAR #405) re 2006 change to s.3 of the *Planning Act* to require "conformity" with provincial plans like the Greenbelt Plan and the Growth Plan.

[121] Issued by cabinet pursuant to and under the *Planning Act*, the *Greenbelt Act*, 2005, and the *Places to Grow Act*, 2005, respectively. *Planning Act*, s.3, as amended in 2006 to require "conformity" with provincial plans, not just "consistency" with the PPS: see 2016 Brief (CEAR #405), page 5., Appendix B, p.1, note 5. As set out in Part III of the 2005 PPS: "The provincial policy-led planning system recognizes and addresses the complex interrelationships among environmental, economic and social factors in land use planning. The Provincial Policy Statement supports a comprehensive, integrated and long-term approach to planning, and recognizes linkages among policy areas." (page 1).

[122] Benson CEAR# 800, May 29, 2019, pp.12-13.

also provides the process for urban boundary expansion, which the Region used to expand the Milton urban boundary to include some CN lands for employment purposes.

130. The 2006 Growth Plan provided targets for residential and job growth, while recognizing the Province's permanent Greenbelt and natural heritage system. The Growth Plan set out two employment targets relevant to the CN lands. First, at a municipal level, the Growth Plan assigned specific employment targets to the Region to be achieved by 2031. It then required the Region to allocate this future employment among its lower-tier municipalities, including the Town of Milton.[123] That is not what CN is proposing here.

131. Second, regarding "designated greenfield areas," which include the CN lands, the Growth Plan required that "new development taking place in designated greenfield areas will be planned to achieve a minimum density target that is not less than 50 residents and jobs combined per hectare." It further required that designated greenfield areas be built as "dense, transit-supportive communities."[124]

132. Very recently, in May 2019, the Province amended the Growth Plan to remove the greenfield target set out above (para.130). This amendment does not affect, however, the employment targets assigned to upper and lower-tier municipalities.[125] This amendment therefore does not relieve the Town of its responsibility to meet its share of the Province's and Region's employment targets.

Development of *Sustainable Halton* to meet provincial employment standards

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[123] See CEAR# 405, December 13, 2016 Appendix B, p.37, excerpting Growth Plan policy 2.2.3.6.
[124] See CEAR# 405, December 13, 2016, Appendix B, p. 37, excerpting Growth Plan policies 2.2.7.1c), 2.2.7.2, and 2.2.2.1. (emphasis added).
[125] This result was confirmed by the Province's planner familiar with Halton Region and the 2019 Growth Plan amendments. See Hr Tr, 1246:19-24, June 26, 2019.

133. The economy is the second pillar of *Sustainable Halton*. Employment is a key component of that pillar. The Region developed and the Province approved ROPA 38 to provide economic development that is compatible with residential quality of life and Halton's natural heritage system. Pursuant to ROPA 38, land designated to support employment growth has already been assigned throughout the Region. In contrast to the designation of lands north of Britannia Road for major residential development back in the 1990s, the designation of the CN lands for employment occurred only during the ROPA 38 process.

134. The process to develop and approve ROPA 38 was lengthy, transparent, and disciplined. It included: (a) a series of wide-ranging technical background studies, directions, and a draft Official Plan by experts on topics of public interest; (b) extensive public and agency consultation on the results of these documents; (c) analyses by staff of the public's and agencies' comments on these documents, presented to Council; and (d) based on these analyses and further input by delegations to Committee and Council, adoption by Council, with necessary modifications, of the Official Plan.[126]

135. The geographic limits of Halton Region (and of each municipality within it) impose a further planning challenge. There is no "free" land – land that is unassigned and available for future designation. Thus, the exercise of assigning land uses across the Region is a "zero sum" framework – "all land has an identified planning function, and any change to the planned function of land that engages a loss or impact to the planned function of another land use category, represents a cumulative effect."[127]

[126] Benson CEAR# 800, May 29, 2019, at p 12.
[127] Benson CEAR# 800, May 29, 2019, p.15.

136. This challenge applies to the allocation of any new lands to “settlement areas” – any expansion to the settlement area must involve a loss to the rural and agricultural area or the natural heritage system. This challenge also applies to the allocation of lands and targets within the settlement areas – any loss of employment land or a failure to meet employment targets in one area must involve changes to other lands in other areas to make up the difference.

4.2.3 The Basis for Finding that the Project is Likely to Cause a Significant Adverse Effect on Employment Levels

137. CN’s proposed Project will not meet the employment density targets that have been set for its lands. This disrupts a top-down provincial planning mandate, and entails a significant adverse effect that cannot be compensated for without entailing additional negative impacts.

138. ROPA 38 comprehensively set employment targets out to 2031. Appropriate locations for all residential and employment growth across the Region have already been identified for this time-frame.[128] As Mr. Benson, Halton's Director of Planning, testified before this Panel, it is not appropriate to infer that Halton could simply “plan around” the interference with ROPA 38 that this Project creates.[129]

139. The employment targets set in ROPA 38 were applied to the CN lands at CN’s request and following its stated abandonment of its 2001 plan for an intermodal facility on the proposed site. Regional and local municipal planning occurred on that basis. As discussed below, if this Project goes ahead, it could force the Halton Municipalities to undo their planning in order to

[128] Hr Tr, 1257:23-25 to 1258:1-5, June 26, 2019.
[129] Hr Tr, 1256:21-25 to 1257:1-12, June 26, 2019.

account for a large, high-impact, low-density intermodal facility that was not supposed to go where proposed.[130] As Milton Mayor Gordon Krantz stated in his presentation to the panel:

> The proposed location of the Intermodal Logistics Hub does not fit with our plans for a complete community[…] This project would be detrimental and undermine many years of careful, thoughtful community building by Milton and Halton Region.[131]

140. In 2011, after bringing the CN Lands into the urban boundary, the Region and Town planned for the area based on Best Planning Estimates ("BPEs"). BPEs are carefully constructed, detailed expectations about land use for an area, including density.[132] These careful estimates are then used as the basis for further planning decisions, such as infrastructure development. The Region and Town's BPEs included the CN Lands as a rail serviced industrial area, generating 1,500 direct jobs by 2021 and 1,900 direct jobs by 2031.

141. In contrast, in 2015, CN advised the Region that it would be establishing an intermodal hub on 400 acres of the CN Lands. CN estimates that the Project would generate only 130 direct jobs. This is a loss of almost 1,800 jobs by 2031. The proposed Project would therefore be developed at a density well below what is needed to contribute to the Provincial and Regional employment targets. It is noted that in 2019 the Province removed the minimum target for greenfield development, but this does not alter the role of the Project in relation to the Town-wide employment target.[133]

142. CN has identified no measure under its control that could mitigate this SAEE. Low-density employment on the CN Lands cannot be mitigated by growth elsewhere in the Region or by

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[130] Tr Hr, 1263:18-25 to 1264:1, June 26, 2019.
[131] Tr Hr, 240:19-25 to 241:1, June 20, 2019.
[132] Tr Hr, 1268:23-25, 1269:1, June 26, 2019.
[133] ROP Table 2, pg. 18, Minimum overall development density ig DGA per gross hectare =58

off-site indirect jobs, because those jobs are not net new jobs to Halton.[134] There is no basis to say that they would occur only because of the proposed Project. In addition, any indirect jobs that rely on municipal incentives that are by definition outside the control of CN cannot be considered mitigation under CEAA.

143. This Project effect is also likely to cause a cumulative SAEE. Milton's job density targets will not decrease if this Project goes ahead. Low density development on the CN lands will result in the need for the Region or Town to designate additional employment lands elsewhere that would not otherwise be proposed for designation.[135] Such designation is likely to result in the loss of all or part of an existing agricultural area (through a necessary expansion of Milton's urban boundary). Contrary to CN's assertion, there is not a surplus of 200 hectares of employment land in the Region. As Planner and Land Economist Russell Matthew testified in his presentation, a change in land use elsewhere to make up for the lost jobs on the Project site:

> … is not a small amendment. It's not just a technical amendment related to the CN property itself, but rather affects the land uses that occur on other lands elsewhere in the town, it affects the value of those lands, it does all sorts of things.[136]

4.2.4 Project development is likely to cause significant adverse effects on the location, scale and financing of municipal infrastructure & services

144. CN proposes to build a large-scale development on employment lands within the urban boundary in disregard of provincial and municipal standards that require urban development be on municipal water and wastewater servicing where it is available. CN also claims exemption from municipal development charges that pay for new infrastructure.

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[134] Tr Hr, 1271:22-25, June 26, 2019.
[135] Tr Hr, 1267:17-25 to 1268:1-7, June 26, 2019.
[136] Tr Hr, 1267:25 to 1268:1-4, June 26, 2019.

SAEEs on the location and scale of municipal water/wastewater infrastructure & services

145. The provision of municipal infrastructure and services is an important role for local and regional municipalities. The Town of Milton is responsible for emergency fire response services. The Region is responsible for water infrastructure and services, wastewater infrastructure and services, provision and maintenance of the arterial road system, police services and paramedic services.

146. Despite being within the urban boundary, CN does not plan to connect to the municipal water and wastewater infrastructure that will be available in 2021 to service the site. This would lead to insufficient water supply for fire protection at the Project site and would render the municipal infrastructure planning process inefficient and thus more time-consuming and costly.

147. CN claims that its Project will only use a limited amount of municipal infrastructure and services. Instead, CN seeks torely on private water and wastewater systems, use a private waste management contractor, and use its own police service.[137] However, it is difficult to rely on these claims.

148. First, CN has been unclear on whether they will ultimately connect to the municipal water and wastewater system. In response to IRR 7.11 on August 20, 2018, CN stated that it was aware that the "water and sanitary systems have been installed along Britannia Road between Tremaine Road and Regional Road 25"[138]. However, when asked if it would prefer to connect to these services if they were available instead of remaining reliant on trucking water and

[137] Community Services & Infrastructure (including financing) Presentation, Milton Logistics Hub Review Panel Public Hearing, ("Community Services & Infrastructure Presentation, CEAR# 914"), July 10, 2019, slide 20.
[138] CN Information Request Response Package 7 ("CEAR# 680"), August 20, 2018, IRR 7.11, p. 44.

wastewater in and out of the site, CN then stated that they have “no plans to connect to these facilities”.[139]

149. On this basis, it is not clear why, at the hearing, CN stated that the information on the current availability of water and wastewater connections “is new to us”.[140]

150. Nor is it clear why CN also stated at the hearing the following new position on connecting to these facilities stating, “I think we'd have it look at that in more detail as that time approached. Certainly we would consider it, if it was made available by the region, yeah. We would consider that... But I couldn’t say today yes or no.”[141] Subsequently, CN failed to respond to Undertaking 34 that required CN to provide information on the pros and cons of using an independent system or connecting to municipal services by July 12, 2019.[142]

151. Whether or not CN connects, there will be consequences for the Region’s municipal water and wastewater system planning. The existing and future infrastructure for this area was sized based on the BPEs that included CN’s 2008 proposal. Since this infrastructure was not sized to accommodate the proposed Project, it is the wrong size and likely oversized for the Project. Modifying the infrastructure to accommodate the Project will impose costs on the Region. However, the exact amount is undetermined because CN has not yet provided details on what the site would require or whether it is planning to connect.

152. Furthermore, CN’s current plan not to connect leads to an SAEE related to fire protection. With its current proposed water supply, CN can provide only 3,600 L/min (60 L/s) of water for 30 minutes to fight a fire. This level of service is below Region standard for employment areas

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[139] CEAR# 680, August 20, 2018, IRR 7.11, p. 44.
[140] Tr Hr, 3012:19, July 10, 2019.
[141] Tr Hr, 3008:17-25, July 10, 2019.
[142] List of Undertakings – Public Hearing, (“CEAR #882”) June 27, 2019 (updated July 15, 2019).

of 15,000 L/min (250 L/s) for 3 hours.[143] This puts the Project site and neighbouring communities at unacceptable risk of fire impacts.

153. Taken together, CN's proposal results in a disruptive and costly break in the chain good of planning for this rapidly expanding area.[144] CN's 2015 substantive change of plans goes against the aim of planning and would entail up to a decade of work and further planning to address Project changes issues to municipal infrastructure and services As described next, there would also be adverse effects on municipal financing not capable of being mitigated. If this Panel authorizes CN's Project, years of effort in establishing a complex, integrated plan for one of the fastest-growing areas in Canada would be undone by CN's unilateral decision to build this Project without proper regard for the planning of municipal infrastructure and services.

154. Second, despite CN's claim that "[n]o need for other changes or upgrades to roadways infrastructure have been identified" besides three roadway elements relating directly to the functionality of the Project site[145], CN's proposed Project will result in impacts on roadways throughout the regional network. In particular, the Project will entail increased wear and tear on several main thoroughfares, increased need for congestion relief measures and upgrades to intersections, increased maintenance and replacement of roadway assets in the form of the Base Line underpass, and increased traffic monitoring in the vicinity of the Project due to

[143] Halton Municipalities, Community Services & Infrastructure (Including Financing) – Urban Settings, Milton Logistics Hub Review Panel Public Hearing, ("Community Services & Infrastructure Presentation, CEAR #908"), July 10, 2019, slide 15.
[144] See the planning chain described in Community Services & Infrastructure Presentation, CEAR #908, July 10, 2019, slide 8.
[145] Community Services & Infrastructure Presentation, CEAR# 914, July 10, 2019, slide 13.

the added traffic.[146] CN's proposed Project will therefore entail substantial impacts on the Region's responsibility to provide adequate roadway infrastructure.

155. Third, CN's own police force and employees are insufficient emergency resources for a Project with the potential for large-scale accidents. These resources will not diminish the need for the Town and Region's own emergency services to be trained and properly equipped to deal with an event at the site. Municipal first responders are obligated to respond under the *Ambulance Act* and the *Fire Protection and Prevention Act, 1997.*[147] Therefore, CN's proposed Project would likewise entail an impact on the provision of municipal emergency services.

SAEEs on municipal financing

156. CN has stated that it will not pay development charges for the Project notwithstanding that the Project will inevitably use municipal infrastructure. This is contrary to the Region's long-standing policy that "growth pays for growth".[148] CN will also be paying over $7 million less in annual property taxes than what was planned according to its 2008 Concept.[149]

157. CN justifies its position by claiming that its Project will use only a limited amount of municipal infrastructure and services, as described above.

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[146] Community Services & Infrastructure Presentation, CEAR #908, July 10, 2019, slide 35.
[147] RSO 1990, c A. 19 and SO 1997, c 4.
[148] See Halton Regional Official Plan, September 28, 2015 Interim Office Consolidation ("ROP"), ss. 77(15), 77(17), and 201(6).
[149] CN stated, for the first time in its presentation on Land Use, Planning and Economic Issues given on June 26, 2019, that it would pay approximately $1 million in annual property taxes. See CN, Land Use, Planning and Economic Issues Presentation, Milton Logistics Hub Review Panel Public Hearing, ("Land Use, Planning and Economic Issues Presentation, CEAR #845"), June 26, 2019, slide 37. However, it was later clarified that this number represented the total from all CN property that generates property taxes for the Town and Region, not simply the contribution of the Project at issue. See Tr Hr, 2935:11-21, July 10, 2019.

158. In reality, CN's Project will entail the following substantial costs for municipal infrastructure and services:

- The cost of over- or under-sizing municipal water and wastewater infrastructure. This would entail either a loss of investment in over-sized but underused water and wastewater piping that would create functional problems related to stagnant water, or it would require re-building elements of the water and wastewater system to accommodate greater throughputs, at additional disruption and cost. While CN has provided insufficient details to estimate the cost of either outcome, for context, the pieces of infrastructure to service the area are a value of $36 Million.;[150]

- The cost of emergency services and preparedness: CN's own police force and employees are insufficient emergency resources for a Project with the potential for large-scale accidents. These resources will not diminish the need for the Town and Region's own emergency services to be trained and properly equipped to deal with an event at the site. Municipal first responders are obligated to respond under the *Ambulance Act* and the *Fire Protection and Prevention Act, 1997.*[151] In sum**,** CN's police services and on-site response personnel will not diminish the cost to the Town and Region's emergency services in being trained and prepared to respond, and doing so in the event of an incident;

- The cost of accelerated road deterioration and related maintenance. In particular, the Project will entail increased wear and tear on several main thoroughfares, increased need for congestion relief measures and upgrades to intersections, increased

[150] Tr Hr, 2958:3-7, July 10, 2019.
[151] RSO 1990, c A. 19 and SO 1997, c 4.

maintenance and replacement of roadway assets in the form of the Base Line underpass, and increased traffic monitoring in the vicinity of the Project due to the added traffic.[152] It will cost the Region in the vicinity of $11,000 per kilometer to replace road infrastructure earlier, $8,000 per kilometer to resurface the road sooner, and $7,800 per lane kilometer to maintain added lanes;

- The cost of increased roadway asset management. For example, the cost of eventually replacing the Base Line Underpass – a responsibility that will burden the Town – would cost $15 Million in 50 years, requiring Town to set aside approximately $300,000 a year towards the replacement;

- The cost of increased monitoring of traffic movement and roadway functioning due to the added truck activity in the vicinity of the Project.[153]

159. CN's position therefore causes a substantial gap in funding in the millions of dollars. This gap was not anticipated as the Town and Region had a reasonable expectation that development of these employment lands would generate the following revenue:

  - Development charges consisting of:

    - $49 Million in development charges given what was proposed, anticipated, and planned to be on the site given CN's 2008 Concept.

    - Failing that, $379,955 that CN ought to be paying for its current development; and

  - Property Taxes of over $8 Million annually.

[152] Community Services & Infrastructure Presentation, CEAR #908, July 10, 2019, slide 35.
[153] Community Services & Infrastructure Presentation, CEAR# 914, July 10, 2019, slide 35.

160. Based on expert input, Halton finds that this Project will financially burden the Town and Region. Further, CN's failure to acknowledge this gap and contribute its fair share will increase the tax burden on Halton ratepayers and businesses. Likely costs include:

- A loss of almost $49 Million in opportunity costs from lost development charges due to the lands having been planned for Prestige Industrial development; and
- A loss of $379,955 in development charges that CN will not pay for its current development; and
- A loss of over $7 Million annually in property taxes that would have otherwise been generated by the site.

161. Halton Region is a particularly cautious and detailed municipality when it comes to financial planning and has an AAA credit score. This makes the substantial gap caused by CN more pronounced and problematic: the Region goes to great lengths to keep existing residents sheltered from footing the bill for new development. This Project will undo that work.

4.2.5 The Project-related heavy truck traffic is likely to cause significant traffic congestion

162. The proposed Project will add an additional 1600 heavy truck trips per day, every day.[154] This degree of heavy truck usage was not anticipated. Even though the Region was carrying out a major environmental assessment of Britannia Road improvements beside the Project site, CN declined all opportunity to advise the Region of any new plans for its lands.[155] As Lisa De Angelis, Director of Infrastructure of Planning and Policy at Halton Region explained,

[154] Halton Municipalities Presentation re Traffic and Road Safety, ("CEAR 838"), June 26, 2019, at slide 6; Transcript of Hearing ("Tr Hr"), 1385:9-12, June 26, 2019.
[155] See CEAR #800 May 29th Halton Submissions, Vol.4B-5, Attachment 8 providing CN's November 14, 2014 letter to the Region.

"planning for this community has been decades in the making and it did not anticipate an intermodal facility at this site".[156] The likely truck haul routes indicate that heavy trucks will be routed through sensitive land uses. CN's proposal ignores Halton Region's lengthy and systematic processes to plan transportation infrastructure to support growth.[157]

163. These processes include widespread Region use of traffic modelling to support its planning and its assessment of the traffic impacts of new developments. The Region is responsible for reviewing and peer reviewing development proposal applications that meet its own guidelines, the *Transportation Impact Study Guidelines*.[158] It is also accountable to its residents for traffic concerns on its roads.

164. Halton Municipalities retained EllSo Consulting ("EllSo") to conduct independent modelling and review of transportation issues.[159] EllSo found that CN does not have practical haul routes considering:

(a) the time and length of travel along arterial roadways required to access highways (the shortest route is 7 km);

(b) intersection movement performance and avoidance behaviour;

(c) road capacity and timing of road improvements;

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[156] Tr Hr, 1385:14-17, June 26, 2019.
[157] Traffic and Road Safety presentation, CEAR# 838, June 26, 2019, at slide 6; De Angelis CEAR# 800, at p. 3. See: Tr Hr, 1386 to1388, June 26, 2019 for more details on the rigorous planning process for the regional road network.
[158] Region of Halton, "Transportation Impact Study Guidelines", January 2015, https://www.halton.ca/The-Region/Regional-Planning/Regional-Official-Plan-(ROP)/About-Regional-Official-Plan-(ROP)/Regional-Official-Plan-Guidelines.
[159] Milton Logistics Hub Project Haul Route Assessment by EIISo Consulting, May 27, 2019 (Appendix 1 to De Angelis CEAR# 800).

(d) route logic to reach markets based on employment forecasts;[160] and

(e) impacts to sensitive land use adjacent to considered haul routes.[161]

165. Further, the Halton Municipalities retained Cima+ to model impacts of increased truck traffic.[162] The Cima+ studies found that the Project will increase traffic, primarily in the form of heavy transport trucks to and from the Project site and surrounding vicinity. As Dr. Ali Hadayeghi demonstrated at the hearing, "large trucks occupy [a] significant role and maneuvering space".[163] As a result, large trucks are "the equivalent of four passenger cars for the purposes of defining their impact on the roadway",[164] which translates into an equivalent of "6,400 passenger cars…travelling in and out of the site each day."[165]

166. The increased volume of trucks will have significant impacts on the level of service of intersections. For example, considering the new truck traffic associated with the Project in 2021, Cima+ found that the intersection of Britannia Road and First Line would fail (a 103.4 second delay as opposed to 25.1 second delay without the Project).[166] Overall, the results of the analysis of Cima+ "show increased delay to all road users and accompanying queuing and congestion".[167]

167. These adverse traffic effects worsen over time, even if planned road improvements are in place, and cannot be mitigated by CN. CN's proposal to install various traffic control

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[160] Employment Forecasts for Haul Route Analysis for Proposed CN Milton Logistics Hub (Hemson Consulting), May 27, 2019 (Appendix 6 to De Angelis CEAR# 800).
[161] Milton Logistics Hub Project Haul Route Assessment by EIISo Consulting, May 27, 2019 (Appendix 1 to De Angelis CEAR# 800), at p. 1; Hr Tr, 1392:21-25 to 1394:1-23, June 26, 2019.
[162] Technical Memorandum, CN Milton Logistics Hub Intersection Operations Technical Memo by CIMA+, May 27, 2019 (Appendix 2 to De Angelis CEAR# 800); Technical Memorandum, CN Milton Logistics Hub- Terminal Gate Operations by CIMA+, May 26, 2019 (Appendix 3 to De Angelis CEAR# 800).
[163] Tr Hr, 1407: 1-2, June 26, 2019.
[164] Tr Hr, 1407: 2-3, June 26, 2019.
[165] Tr Hr, 1407: 6-8, June 26, 2019.
[166] Traffic and Road Safety presentation, CEAR# 838, June 26, 2019, at slide 20.
[167] Tr Hr, 407: 21-23, June 26, 2019.

measures, such as signage, would not fully address serious congestion. The significant traffic impacts could only be mitigated through major capital improvements involving additional infrastructure, land acquisition and associated impacts.[168]

168. Accordingly, the proposed Project will result in permanent, high magnitude effects to traffic delays/congestion and corresponding levels of service, which will extend off-site to Regional and Town roads. These effects will have impacts as far as the intersection of Britannia Road and Trafalgar Road, approximately 8.5km from the Project site, and on at-grade crossings north in Halton Hills, approximately 20km from the Project site.[169]

169. There should be no debate that the traffic modelling conducted by Halton Municipalities' should be accepted by the Panel over that conducted by CN. Halton Region is a public sector entity who is accountable to its residents for its transportation planning. As noted above, it is responsible for reviewing and peer reviewing development proposal applications that meet the *Transportation Impact Study Guidelines*.[170] Secondary and tertiary proposal plans require the level of traffic modelling detail that the Halton Municipalities' conducted for the proposed Project. On the other hand, CN is a private company that claims it is not required to abide by Halton Region's standards and guidelines and thus the planning objectives put in place to serve the residents.

170. Further, the Panel should also prefer the traffic modelling conducted by the Halton Municipalities' experts as it is more accurate and reliable:

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[168] Traffic and Road Safety presentation, CEAR# 838, June 26, 2019, at slide 24.
[169] Traffic and Road Safety presentation, CEAR# 838, June 26, 2019, at slide 26.
[170] Transportation Impact Study Guidelines, January 2015.

(a) Halton Municipalities' analyses were performed using more up-to-date forecasts of traffic growth based on the updated Regional Transportation Model, which reflects the 2011 Transportation Tomorrow Survey. CN acknowledges that it did not use the most up to date forecasts for all arterial road corridors, with the exception of the Britannia Road corridor.[171]

(b) Halton Municipalities' modelling projects congestion into the future – 2021, 2031 and 2041. CN only considered opening day congestion impacts to the road network, in 2021. This is not sufficient to understanding long term traffic impact of the proposed Project. CN's 2031 modelling is limited. It looks only at the Project's driveway access points and not the wider road network.[172]

(c) CN agrees that its model does not consider the updates to the schedule of Britannia Road widening and inaccurately assumes that certain proposed road improvements would be in place at the time the facility opens.[173] Moreover, CN analyzed the roundabout at Britannia Road and Tremaine Road as having three circulating lanes and three westbound approaching lanes. However, the roundabout has been constructed with two circulating lanes and two westbound approaching lanes. Thus,

[171] Letter from Halton Municipalities to Review Panel re Response from Dr. Hadayeghi re Questions on Traffic Modelling ("CEAR #935), July 9, 2019, enclosing memo from Dr. Hadayeghi to Halton Region, dated July 9, 2019, at p. 2; Letter from CN re: Response to Supplemental Evidence filed with the Panel by Halton Municipalities, July 12, 2019, enclosing memorandum from BA Group to CN, dated July 11, 2019 re: Response to… Response from Dr. Hadayeghi to Panel Questions on Modelling at p.2-4 ("CEAR #964"), s. 1, p. 2-3; Memorandum from Dr. Hadayeghi to Lisa De Angelis, dated July 16, 2019, Appendix #
[172] Letter from Halton Municipalities to Review Panel re Response from Dr. Hadayeghi re Questions on Traffic Modelling ("CEAR #935), July 9, 2019, enclosing memo from Dr. Hadayeghi to Halton Region, dated July 9, 2019, at p. 2; Appendix #
[173] CEAR 881, "Exhibit 6 - Document presented by Halton Municipalities at the June 26 Session - Defining Major Transit Requirements in Halton", June 26, 2019, at Slide 1.

CN assumed much higher system capacity on opening day, leading to an underestimate of congestion should the facility open in 2021 or 2022.[174]

(d) CN's consultant, BA Group, intentionally set factors (such as the Peak Hour Factor of 1.00 in the individual capacity analyses)[175] to generate the more "optimistic" (i.e. lower) levels of congestion. More realistic and conservative Peak Hour Factors are necessary to accurately predict future traffic conditions beyond what would be used in planning applications.[176]

(e) By assuming lower background volumes and higher than planned road capacities, CN underestimated the expected level of congestion for the proposed Project opening. As a result, CN allocated traffic to routes with fewer "pinch points" so that the overall road network condition could be deemed to be satisfactory or better.[177] CN's response to this criticism is that level of service "is not the industry standard for evaluating the performance of signalized intersections."[178] This is not correct. Both the Halton Municipalities and CN's traffic studies were based on the Highway Capacity Manual (HCM), which states that the Level of Service is the primary indicator of quality of service at both signalized and signalized intersections.[179]

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[174] Letter from Halton Municipalities to Review Panel re Response from Dr. Hadayeghi re Questions on Traffic Modelling ("CEAR #935), July 9, 2019, enclosing memo from Dr. Hadayeghi to Halton Region, dated July 9, 2019, at p. 2-3; Appendix #
[175] Used in all of the individual intersection analyses in IR 2.33.
[176] Letter from Halton Municipalities to Review Panel re Response from Dr. Hadayeghi re Questions on Traffic Modelling ("CEAR #935), July 9, 2019, enclosing memo from Dr. Hadayeghi to Halton Region, dated July 9, 2019, at p. 3; Appendix #
[177] Letter from Halton Municipalities to Review Panel re Response from Dr. Hadayeghi re Questions on Traffic Modelling ("CEAR #935), July 9, 2019, enclosing memo from Dr. Hadayeghi to Halton Region, dated July 9, 2019, at p. 3;
[178] Letter from CN to re: Response to Supplemental Evidence filed with the Panel by Halton Municipalities, July 12, 2019, enclosing memorandum from BA Group to CN, dated July 11, 2019 re: Response to… Response from Dr. Hadayeghi to Panel Questions on Modelling at p.8 ("CEAR #964")
[179] Appendix #

171. The Halton Municipalities' traffic modelling is more credible, thorough and nuanced. The Halton Municipalities have considered this analysis to conclude that there will be an SAEE in respect of traffic congestion and adverse effects on road safety. The Halton Municipalities predict that increases in container throughput beyond 450,000 containers per year are likely to increase traffic congestion. This may result in a further, significant adverse environmental effect on human safety.[180]

4.3 The Project will have a Significant Adverse Environmental Effect on Species at Risk

4.3.1 CN Failed to Take a Systems Approach

172. The third pillar of *Sustainable Halton* is the environment. Like the CEAA definition of the "environment," ROPA 38 applies a systems approach to natural heritage. The systems approach is the provincially mandated method to consider elements of the natural environment.

173. The systems approach supports the establishment and understanding of the preserved terrestrial environment in a holistic context, focusing on the role each element plays within Halton Region's natural heritage system and the 38 environmentally sensitive areas that system contains. These elements are considered in the context of reasonable accommodations to be included in approved developments and infrastructure projects, to preserve the continued functioning of the natural heritage system in an urbanizing environment.[181]

[180] Traffic and Road Safety presentation, CEAR# 838, June 26, 2019, at slide 6.
[181] Tr Hr, 1943:23 to 1947:6; 1948:6 to 1949:13; 1987:1-14; 1989:4-24, June 28, 2019.

174. Halton's experts detailed how a development such as the Project should proceed in a manner that (1) preserves land form permanence (one of Halton Region's fundamental tenets in its planning), and (2) reasonably achieves the goals of the project.

175. Planning for development should begin with a proper characterization of the natural heritage features of the area, its inhabitants and their needs throughout their life cycles. Planning then assesses possible configurations to preserve habitat connections and wildlife corridors. These features could then be balanced with the needs of the development.

176. CN did not adopt a systems approach to the environment and natural heritage. It considered features in isolation, not the natural systems surrounding them. Equally, rather than study the environment first and determine what may work within that environment, CN imposed the Project footprint and is now "mitigating around the edges",[182] causing greater potential adverse effects to species at risk.

177. During the hearing, the Panel noted that there is significant urbanization pressure in the Milton area. At first glance, this urbanization appears to be in inherent conflict with the natural heritage system. However, as the Halton Municipalities' experts outlined, use of the systems approach is the key to satisfying both needs.

178. By adopting a systems approach, the impacts of any land use in Halton Region, whether it be for the presently proposed intermodal project, CN's 2008 rail yard proposal, or for other employment land uses, can be minimized so that the local natural heritage system is accommodated as much as possible. The following exchange between the Halton Municipalities' expert, Mr. Dougan, and Panel Member McMurray is instructive:

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[182] Tr Hr 2001:23-2003:22; 1994:11-1995:7, June 28, 2019.

> **Panel Member McMurray:** … "Could you give me some examples where the requirement or the need for urban development was balanced with your desire to respect the natural heritage system? . . .
>
> **Mr. Dougan:** Yes . . . there's a number of issues that affected the Sherwood lands. They have tributaries to Sixteen Mile Creek, including major ones as well as minor ones. And those had to be examined and studies and the linkages and all the woodlots and wetlands that were in the system. And approaches had to be developed to provide buffers and enhanced channels . . . that was done through a multi-disciplinary approach looking at all the potential water functions as well as stream functions, fish habitat and terrestrial connectivity.
>
> So the standards for protection have advanced even since then. That work was done around 2004, it was completed, and is now pretty much built out. And the standards that then went on to be employed in Boyne and Derry Green have been further advanced. . .
>
> **Panel Member McMurray:** So you mentioned that the Sherwood area is now essentially built out. . . Ultimately, did the various levels of government and the developer, did they accomplish their development goals?
>
> **Mr. Dougan:** Certainly, in terms of the quality of the communities that were created. I mean, Mattamy Homes played a large part in the development and contributed a lot in terms of the development of the open space system, and the channels that were created that are quite substantial."[183]

179. To conclude, the use of a systems approach and a consideration of the terrestrial environment in context, as has been required of other developers in Halton Region, is key to integrating any new development with the natural heritage system so that the negative impacts of urbanization are minimized. Lessons learned from past developments can also be used to guide future developments.[184] However, as the Halton Municipalities' experts outlined, CN did not follow this fundamental approach.

180. Although CN advised that it did consider "linkages",[185] use of the systems approach requires a far more complex assessment and mapping of existing features, baseline conditions, and

[183] Tr Hr, 2001:8-2003:8, June 28, 2019.
[184] Tr Hr, 2003:9-22, June 28, 2019.
[185] Tr Hr, 1980:13-17, June 28, 2019.

habitat needs.[186] CN's approach fell well short of the demonstrated process required to integrate developments within the regional natural heritage system.

4.3.2 Surveys for Endangered Species Were Inadequate

181. CN's failure to adopt a systems approach led to a flawed characterization of the existing terrestrial landscape and its inhabitants.[187] In a systems approach, as stated above, it is crucial to begin with a global understanding of the types of habitat, existing movement corridors, and the species that use them. CN's studies with respect to species at risk were inadequate, so its conclusions that certain species were absent are not reliable. CN did not provide a comprehensive baseline review of existing conditions.[188]

182. Even for species at risk confirmed to be present, such as the Snapping Turtle, CN performed inadequate characterization of habitat to understand the location of this turtle's various and widely separated habitat needs over its life cycle in the Project Site and Project Neighbourhood. These deficiencies carried over to CN's further work. As a result, many of CN's proposed mitigation measures were not suitable, not sufficiently thought out,[189] and, according to Halton's terrestrial experts, doomed to be ineffective.

4.3.3 Endangered Species Habitat Loss would be Unprecedented

183. The destruction of terrestrial habitat associated with the Project as currently proposed constitutes a significant adverse environmental effect, particularly for endangered grassland birds such as the bobolink and eastern meadowlark.

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[186] Tr Hr, 1947:7-1949:13, June 28, 2019.
[187] Tr Hr, 1965:19-22, June 28, 2019.
[188] Tr Hr, 1967: 18-25 to 1968:1-7, June 28, 2019.
[189] Tr Hr, 1955:17-1957:3; 1962:11-1963:9; 1967:25-1968:3, June 28, 2019.

184. If carried out as proposed, this Project would result in the largest single removal of bobolink and eastern meadowlark habitat by any undertaking in the GTA.[190] It would also represent the largest removal of grassland habitat for any individual project in Halton Region, since these species were listed.[191] CN will clear at least 50.9 hectares of grassland habitat, of which 40.7 hectares will be permanently removed from Halton Region, without compensating habitat in the Region.[192] Instead, CN proposes to locate future compensation habitat at Luther Marsh, far from the region. [193] This is of great concern given that, as explained by Environment and Climate Change Canada, these grassland birds are experiencing marked decline across North America.[194]

185. CN has characterized the Project Site as "disturbed" but, in fact, the Project site hosts a diverse variety of species of birds, as explained by Halton Municipalities' experts.[195] Fifty-seven species of breeding birds were detected at the Project Site, totaling 407 breeding pairs that will be displaced. Relatively high numbers of endangered birds such as the barn swallow, eastern meadowlark and bobolink were also detected.[196]

186. Like other survey work, CN's surveys for endangered grassland birds like the bobolink and the eastern meadowlark were inadequate, particularly in the northern half of the Project site. This makes it impossible to understand the full extent of habitat loss and individuals affected.[197]

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[190] Tr Hr, p. 2071:6-19, June 28, 2019.
[191] Tr Hr, p. 2071:6-19, June 28, 2019.
[192] Tr Hr, 2041:16-21, June 28, 2019.
[193] Tr Hr, 1958:6-14, June 28, 2019.
[194] Tr Hr, 2071:6-2073:7, June 28, 2019; Undertaking 23, From the ECCC: The State of Canada's Birds, "Grassland Birds are Running Out of Time: Birds that depend exclusively on native grasslands for breeding and wintering have declined dramatically by 87%, and even the other species that can tolerate agricultural landscapes have declined by 39%," July 3, 2019, p. 5.
[195] Tr Hr 1971:1-7, June 28, 2019
[196] Tr Hr 1971:21-1972:4, June 28, 2019.
[197] Tr Hr, 1957:8-15, June 28, 2019.

187. Fundamentally, CN's assessment of the terrestrial environment started with a flawed and fragmented approach. It failed to consider and apply the systems lens that is required to properly integrate any development within Halton Region's natural heritage system. In addition, habitat was insufficiently surveyed. As a result, losses for species at risk are likely greater than what has been presented. As noted above, that loss will be unprecedented.

PART 5 CN'S PROPOSED MITIGATION IS INADEQUATE TO PREVENT A FINDING OF SAEES

5.1 Framework

188. Environmental assessment provides information to guide federal decisions on designated projects. In all instances, CEAA requires at least three related federal decisions. The first two decisions involve section 52(1). Based on the EA information, the Minister must decide under s.52(1) whether, taking into account the implementation of appropriate mitigation measures, the designated project is or is not likely to cause any SAEEs in relation to first, section 5(1) effects and, second, section 5(2) effects.[198]

189. CEAA requires that each mitigation measure:

(a) be effective to prevent an SAEE;

(b) be within the mandate of the proponent to implement; and

(c) be enforceable by the federal authority.

190. As stated in the EIS Guidelines:

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[198] For this EA, the panel terms of reference mandate the panel with also providing information on whether, if the project is likely to cause SAEEs, these SAEEs are "justified in the circumstances." For this EA, the panel terms of reference also require that the EA contain all information required to make a section 98 decision under the CTA as to whether or not the project location is reasonable.

> The EIS will identify who is responsible for the implementation of these measures and the system of accountability.
>
> Where mitigation measures are proposed to be implemented for which there is little experience or for which there is some question as to their effectiveness, the potential risks and effects to the environment should those measures not be effective will be clearly and concisely described.[199]

191. CN's proposed mitigation measures will not prevent or eliminate the significant adverse environmental effects associated with the proposed Project. First, many of the mitigation measures are not "mitigation" within the meaning of CEAA because they are not within the care and control of CN, do not involve meaningful commitments and firm plans, or are not otherwise "technically or economically feasible".

192. Second, those mitigation measures within CN's control are not adequate to fully mitigate the adverse effects of the Project. As such, the Panel cannot conclude that CN's mitigation will reduce or avoid significant adverse effects.

5.2 Many proposed CN mitigation measures are not within its care and control

193. Many proposed CN mitigation measures are not in their care and control and so cannot constitute "mitigation measures" under CEAA, 2012. Mr. Steve Chapman, on behalf of the CEAA agency, emphasized the importance of the "care and control" requirement in his presentation to this Panel.[200]

194. In *Environmental Resource Centre v. Canada (Minister of Environment)*, the Federal Court held that a responsible authority has a non-delegable statutory duty under CEAA to ensure the implementation of mitigation measures and so cannot rely on provincial measures outside of its control. The Federal Court found the Minister of Environment erred in relying upon a

[199] EIS Guidelines, at p. 29.
[200] Tr Hr, 3122:19-25 to 3123: 1-12, June 11, 2019.

provincial environmental control strategy as a mitigation measure when making her decision that the project was not likely to result in SAEEs as the Minister had "no legislative control" over the provincial process.[201] The Court held that relying on provincial regulatory powers, provincial initiatives and industry-based initiatives that are beyond the enforcement or control of the federal authorities amounts to a misinterpretation of the Minister's duty to consider mitigation factors when making a determination of significance pursuant to CEAA.[202]

195. The Federal Court also found that DFO compounded the Minister of Environment's error when he issued *Fisheries Act* authorizations based on the Minister's significance determination. The Court held that a responsible authority must also take into account the implementation of mitigation measures when exercising any power to allow a project to proceed. Reliance on the provincial and industry-led strategies as mitigation measures was misplaced and unreasonable.[203]

196. Although the *Environmental Resource Centre* case was decided under the former CEAA, the requirements regarding mitigation remain the same. Just as in the former Act, CEAA 2012 requires consideration of measures that are "technically and economically feasible".[204]

197. And, significantly, the 2012 amendments to CEAA removed provisions that, previously, had permitted consideration of mitigation measures that would be implemented by another person or body.[205]

201

202 *Environmental Resource Centre v Canada*, 2001 FCT 1423, at paras 153-154
203 *Environmental Resource Centre v Canada*, 2001 FCT 1423, at paras 158-159
204 CEAA, 2012, s. 19(1)(d).
205 The former s.37(2.1), now removed, provided as follows: "Mitigation measures that may be taken into account under subsection (1) by a responsible authority are not limited to measures within the legislative authority of Parliament and include
(a) any mitigation measures whose implementation the responsible authority can ensure; and
(b) any other mitigation measures that it is satisfied will be implemented by another person or body.

198. The case law aligns with Mr. Chapman's presentation to the Panel:

> **One of the other questions we would need to ask ourselves is whether or not the mitigation measure is in the care and control of the proponent. And that's an important point, because the decision statement is only issued to the proponent.** We cannot bind any other party through the decision statement, and so the conditions that are established in the decision statement are those for the proponent to comply with and not other parties.
>
> So if there is a mitigation measure identified by the Panel that another party might be implicated in, a Panel could provide a recommendation to the government with respect to the importance or urgency of that. And the government could look at exist being programs or mechanisms to see how that would be implemented. **But, if it's not in the care and control of the proponent we would not be able to entrench that into the decision statement as a condition**.[206] [Emphasis added]

199. Clear examples of proposed CN mitigation measures that are not within its care and control include proposed CN mitigation measures on or beside Regional roadways, including signage and changes to intersections. There measures apply to Regional and Town public roads, not CN private roads. They are thus not within the care and control of CN, but within the control of Halton Region and the Town of Milton.

200. Likewise, CN advised that Great Gulf, a developer building residential homes north of Britannia Road, should mitigate the noise effects from the Project. This is not mitigation for the purposes of CN, and as Great Gulf pointed out, would "externalize" the proponent's responsibilities:

> CN should not be permitted to externalize the mitigation of the environmental effects from its recently proposed intermodal hub onto a residential community that's been meticulously planned and approved for the past two decades through an extensive public process…
>
> The proponent shall be responsible on its own lands to mitigate its own noise impacts in order to prevent adverse environmental effects on the approved residential community

[206] Tr Hr, 3122:19-25 to 3123: 1-12, June 11, 2019.

and that the approved residential community to the north shall not be responsible for mitigating noise impacts from the proposed facility.[207]

201. The Panel may only consider mitigation that is both "technically" feasible for CN to complete, and that CN has agreed to complete itself. Where CN creates a situation where other parties must mitigate its Project's effects, residual adverse environmental effects persist.

5.3 Many proposed CN mitigation measures are "vague" and are not capable of implementation and objective measurement

202. The courts have held that a mitigation measure cannot be "vague" hopes for future measures. Mitigation must be part of a concrete plan that is capable of implementation and objective measurement. Many proposed CN mitigation measures fall short of these requirements. Likewise, Mr. Chapman on behalf of the Canadian Environmental Assessment Agency concurred that a condition must be "outcome based and enforceable".[208]

203. In *Pembina Institute for Appropriate Development v. Canada (Attorney General)*, the Federal Court held that the legal duty to consider mitigation measures under *CEAA* required more than "vague hopes for future technologies".[209] The Court held that "in the context of a Panel assessment, the possibilities of future research and development do not constitute mitigation measures".[210]

204. In *Pembina*, while the Court upheld mitigation measures involving firm commitments to implement concrete plans described in the EA report, it rejected proposed mitigation that

[207] Tr Hr 3243:11-25 to 3244:1-14, July 11, 2019.
[208] Tr Hr, 3123: 15-16, June 11, 2019.
[209] *Pembina Institute for Appropriate Development v. Canada (Attorney General)*, 2008 FC 302, at para. 25.
[210] *Pembina Institute for Appropriate Development v. Canada (Attorney General)*, 2008 FC 302, at para. 25.

proposed further studies of an at-risk bird population to determine future mitigation strategies.[211]

205. Recalling Mr. Chapman's point that CEAA mitigation and conditions must be "outcome based and enforceable",[212] CEAA does not generally approve forward-looking plans as mitigation to be included in decision statements.[213] Further, Mr. Chapman advised that the CEA Agency:

> Does not rely on plans in a fulsome way in our decision statements, because the plans themselves cannot serve as a mitigation measure. It's the detail in the plan that the agency would point to and the condition that would serve partially as a mitigation measure.[214]

206. Many of CN's proposed mitigation measures do not meet the above-described requirements.

207. In particular, CN has frequently indicated it will consider specific mitigation measures, such as environmental and emergency management plans, at the time of the "detailed design" phase.[215] As Great Gulf Homes explained, this is problematic because detailed design occurs after approval. It is not a true commitment to a certain mitigation measure, but to potentially consider mitigation in the future.[216] This is not outcome based or enforceable.

208. CN's promises to undertake further studies, such as sleep disturbance studies in respect of Project noise are not mitigation. In the words of Mr. Chapman, these further studies "cannot serve as a mitigation measure". Even CN recognized that it could not "speculate" on whether additional mitigation measures implemented following this study would allow the Project to meet Health Canada criteria.[217] Just as *Pembina* held that studies of an at-risk bird population

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[211] *Pembina Institute for Appropriate Development v. Canada (Attorney General)*, 2008 FC 302, at para. 69.
[212] Tr Hr, 3123: 15-16, June 11, 2019.
[213] Tr Hr, 3124: 24-25 to 3125:1-2, June 11, 2019.
[214] Tr Hr, 3125: 4-10, June 11, 2019.
[215] Tr Hr, 90:19-21 and 91: 12-16, June 19, 2019; Tr Hr, 835:2-5, June 25, 2019.
[216] Tr Hr 3244:15-18, July 11, 2019.
[217] Tr Hr, 2654:4-8, 2657: 2-18, July 9, 2019.

to determine future mitigation measures was not mitigation, CN's further studies are not mitigation.

209. The Panel cannot rely on any of these vague mitigation measures or promises for future study when assessing the significance of Project effects.

5.4 Proposed mitigation is also practically and technically inadequate

210. CN's mitigation meets the above-noted, that mitigation must be adequate to eliminate the residual adverse environmental effects of the Project. Many of CN's proposed measures fail this test because they lack proof of efficacy in relation to SAEEs.

211. Consideration of mitigation is a complex process. CN must persuade the Panel of the merits of its mitigation so that the Panel may, in turn, fully explain its conclusions on mitigation in its report to the Minister. Importantly, the Court in *Pembina* held "it was incumbent upon the Panel to provide a justification for its recommendation" that a proposed mitigation measure would reduce potentially adverse effects to a level of insignificance".[218]

5.4.1 Findings

212. The Halton Municipalities have considered proposed mitigation in two 2019 briefs: (1) the April 2019 *Sufficiency Brief on SAEEs*; and (2) the May 2019 *Brief on SAEEs.*

213. This section reviews proposed mitigation using the framework set out above. It also identifies those SAEEs where there is no identified mitigation. It summarizes all findings in the following three tables. The tables show whether the specific mitigation measures CN has proposed can

[218] *Pembina Institute for Appropriate Development v. Canada (Attorney General)*, 2008 FC 302, at para. 79.

be federally enforced. The Halton Municipalities' detailed position on the conclusions summarized below are set out the May 2019 Brief on SAEEs.

Table A – Residential SAEEs and Mitigation

Table A: Summary of Residential SAEEs and Mitigation								
Y=Yes, N=No, P=Partial, some mitigation measures meet criteria while others do not								
VC	SAEE	Mitigation proposed by CN	Mitigation clearly described by CN	Mitigation within CN's control	Mitigation likely to be effective	Enforcement of mitigation		
						Federal	Provincial	Municipal
C.1	Air quality[219]	Y	N	Y	N	P[220]	Y	Y
C.2	Noise[221]	Y	N	Y	N	P[222]	P	P
C.3	Night-time light[223]	Y	N	Y	N	P[224]	Y	Y
G.1	Human health[225]	N	N	N	N	N	N	N[226]
G.5	Residential land use[227]	N	N	N	N	N	N	Y

214. As set out in Table A, none of CN's proposed mitigation meets all CEAA tests for consideration as mitigation. Therefore, the CN mitigation does not alter the findings that there are the following 8 SAEEs on Milton residents: ambient air quality, ambient noise levels on residences, human health, residential land use and ambient light effects, including increase in light trespass, increase in glare and increase in sky glow.

215. For example, in respect of air quality, CN has alleged a number of general and non-specific mitigation measures that it claims will decrease $PM_{2.5}$ emissions by 50%.[228] CN has not

[219] CEAR# 800, June 3, 2019, at p. 83-86.
[220] Undertaking 28 ("CEAR 959"), July 12, 2019. Health Canada provided examples of CEAA conditions of approval that use CAAQS as part of follow-up and monitoring.
[221] CEAR# 800, June 3, 2019, at p. 107-111.
[222] Train noise regulated under the *CTA*, truck noise regulated municipally and provincially.
[223] CEAR# 800, June 3, 2019, at p. 132-133.
[224] The CTA may be able to enforce some mitigation measures, such as pole height.
[225] CEAR# 800, June 3, 2019, at p. 258.
[226] CN has proposed no mitigation for Human Health and so there are no mitigation conditions to be enforced.
[227] CEAR# 800, June 3, 2019, at p. 483-484.
[228] Tr Hr, 2105:20-22, July 8, 2019.

provided any evidence to support how this percentage was calculated nor does it provide any quantifiable measure of the effectiveness of its proposed mitigation measures. Thus, SAEEs in respect of $PM_{2.5}$ remain. Air quality is also not federally enforceable.

216. Likewise, noise mitigation measure proposed by CN for noise are deficient as many of the mitigation measures for noise are geared towards construction and not Project operations.[229] However, this will be a permanent Project, with effects remaining throughout its operations.[230] For the remaining noise mitigation measures, CN does not assess the full implementation of such mitigation.[231] As a result, CN's noise mitigation measures are insufficient to ensure that the applicable noise guidelines are met. Further, although train noise is regulated federally under the CTA, truck noise is regulated municipally and provincially.

217. As for human health, CN has proposed no mitigation for human health and so there are no mitigation conditions to be enforced.

Table B – Socio-economic SAEEs and Mitigation

Table B: Summary of Socio-economic SAEEs and Mitigation								
Y=Yes, N=No, P=Partial, some mitigation measures meet criteria while others do not								
VC	SAEE	Mitigation proposed by CN	Mitigation clearly described by CN	Mitigation within CN's control	Mitigation likely to be effective	Enforcement of mitigation		
						Federal	Provincial	Municipal
G.3	Rural settings: Loss of Agricultural Land[232]	N	N	N	N	N	Y	Y

[229] Brief CEAR# 800, May 29, 2019, Vol. 1, p. 103.
[230] EIS, CEAR #57, s. 3.4.4, p. 67.
[231] Tr Hr, 2603:9-18, July 9, 2019.
[232] CEAR# 800, at p. 367-370.

Table B: Summary of Socio-economic SAEEs and Mitigation								
Y=Yes, N=No, P=Partial, some mitigation measures meet criteria while others do not								
VC	SAEE	Mitigation proposed by CN	Mitigation clearly described by CN	Mitigation within CN's control	Mitigation likely to be effective	Enforcement of mitigation		
						Federal	Provincial	Municipal
G.4	Urban Settings: Traffic delays[233]	Y	N	P[234]	P[235]	P[236]	Y	Y
G.4	Urban Settings: Fire water supply[237]	Y	N	Y	N	P[238]	N	Y
G.4	Urban Settings: Water/ wastewater planning[239]	Y	Y	P[240]	P[241]	N	N	Y
G.4	Urban Settings: Water/wastewater financing[242]	N	N	N	N	N	N	N
G.4	Urban Settings: Development charge revenue[243]	N	N	N	N	N[244]	N	N
G.4	Urban Settings: Annual tax revenue[245]	Y	Y	Y	N	N	Y[246]	N

[233] CEAR# 800, June 3, 2019, at p. 393-402.
[234] On-site driveway, speedgate, construction activities, CNTL trucks on 407, lower base line underpass under CN control, non CNTL trucks, operational control measures of road authority, roadway regulations all not under CN control.
[235] On-site driveway and speedgate effective, other measures ineffective.
[236] Lower base Line underpass enforceable through CTA or Railway Safety Act.
[237] CEAR# 800, June 3, 2019, at p. 440-445.
[238] Federal jurisdiction over Emergency Response Plan, Provincial and Municipal jurisdiction over municipal water servicing
[239] CEAR# 800, June 3, 2019, at p. 440-445.
[240] Control for most measures except for reliance on government departments, public agencies, and private sector companies that provide infrastructure to monitor ongoing demand for infrastructure.
[241] Wastewater System Monitoring would be partially effective.
[242] CEAR# 800, June 3, 2019, at p. 440-445.
[243] CEAR# 800, June 3, 2019, at p. 467-469.
[244] CN has taken the position that it is not required to pay any Development Charges.
[245] CEAR# 800, June 3, 2019, at p. 467-469.
[246] CN changed its position during the hearing and has agreed to pay Property Tax in accordance with section 30 of the *Assessment Act* (Tr Hr, 2904:12-21, July 10, 2019). The loss of annual taxation revenue is still an effect because they are paying less tax than the 2008 proposal would have generated for the municipalities. Under the 2008 proposal, the 400 acres would not have been taxed as railways but as industrial. So, the municipalities are still going to take in less property tax revenue. In this regard, the mitigation does not result in the municipalities being made whole.

Table B: Summary of Socio-economic SAEEs and Mitigation								
Y=Yes, N=No, P=Partial, some mitigation measures meet criteria while others do not								
VC	SAEE	Mitigation proposed by CN	Mitigation clearly described by CN	Mitigation within CN's control	Mitigation likely to be effective	Enforcement of mitigation		
						Federal	Provincial	Municipal
G.4	Urban Settings: Road capital costs[247]	Y	N	N	N	N[248]	N	N
G.4	Urban Settings: Road maintenance costs[249]	Y	N	N	N	N[250]	N	N
G.6	ICI Employment land use[251]	Y	N	N	N	N	N	N[252]
I.1	Cultural heritage[253]	Y	N	Y	P[254]	N	Y	Y

218. As summarized in Table B, there are two SAEEs for which proposed mitigation is likely to be wholly or partly effective: wastewater planning and cultural heritage. However, neither of the mitigation strategies for these VCs are federally enforceable. Therefore, the CN mitigation does not alter the findings that there are four 11 SAEEs on Milton socio-economic conditions.

219. Further, even those traffic mitigation measures that are (1) within CN's care and control and (2) sufficiently specific would still not fully address the serious congestion the Project will cause. The Halton Municipalities' experts have found that significant traffic impacts could only

[247] CEAR# 800, June 3, 2019, at p. 467-469.
[248] The Emergency Response Plan is federally enforceable through the *CTA* but does not effectively address capital costs overall.
[249] CEAR# 800, June 3, 2019, at p. 467-469.
[250] The Emergency Response Plan is federally enforceable through the *CTA* but does not effectively address capital costs overall.
[251] CEAR# 800, June 3, 2019, at p. 492-493.
[252] CN has suggested that off-site indirect job creation will mitigate the low employment levels and densities, surrounding employment has already been accounted for in Halton's planning for employment growth and does not constitute mitigation.
[253] CEAR# 800, Jun 3, 2019, at p. 502-510.
[254] Ineffective except removal of shed at 5269 Tremaine Road.

be mitigated through major capital improvements involving additional infrastructure, land acquisition and associated impacts.[255]

220. As well, low density employment on the CN Lands cannot be mitigated by growth elsewhere in the Region or by off-site indirect jobs because those jobs are not net new jobs to Halton.[256] They would have occurred without the proposed Project. In addition, any indirect jobs that rely on municipal incentives cannot reasonably be considered mitigation.

Table C – Natural Heritage SAEEs and Mitigation

Table C: Summary of Natural Heritage SAEEs and Mitigation								
Y=Yes, N=No, P=Partial, some mitigation measures meet criteria while others do not								
VC	SAEE	Mitigation proposed by CN	Mitigation clearly described by CN	Mitigation within CN's control	Mitigation likely to be effective	Enforcement of mitigation		
						Federal	Provincial	Municipal
A.1	Topography and soil[257]	Y	N	Y	N	N	N	Y
B.2	Drainage basins[258]	Y	N	Y	Y	N	Y	Y
B.3	Surface water bodies[259]	Y	N[260]	Y	Y	N	Y	Y
B.4	Surface water quality[261]	Y	Y	Y	P[262]	N[263]	Y	Y
E.1	Migratory bird mortality[264]	Y	Y	Y	N[265]	N[266]	Y	N

[255] Traffic and Road Safety presentation, CEAR# 838, June 26, 2019, at slide 24.
[256] Tr Hr, 1271:22-25, June 26, 2019.
[257] CEAR# 800, June 3, 2019, at p. 29-31.
[258] CEAR# 800, June 3, 2019, at p. 50-52.
[259] CEAR# 800, June 3, 2019, at p. 59-63.
[260] Reliant on a future spill management plan not yet developed.
[261] CEAR# 800, June 3, 2019, at p. 71-73.
[262] General mitigation measures effective but residual project effect of increased levels of total suspended solids remains.
[263] Except for deleterious discharges during construction to an open water features, regulated by Fisheries and Oceans Canada.
[264] CEAR# 800, June 3, 2019, at p. 182-190.
[265] Only effective mitigation is to limit site flood lighting during migration periods, use bird deterrents, and develop spill response plan, other 5 measures ineffective.
[266] Despite capacity for Federal Enforcement on this issue, there is no indication from CN that they will engage mitigation that can be enforced.

Table C: Summary of Natural Heritage SAEEs and Mitigation								
Y=Yes, N=No, P=Partial, some mitigation measures meet criteria while others do not								
VC	SAEE	Mitigation proposed by CN	Mitigation clearly described by CN	Mitigation within CN's control	Mitigation likely to be effective	Enforcement of mitigation		
						Federal	Provincial	Municipal
E.2	Migratory bird use of area[267]	Y	Y	Y	N	N[268]	Y	Y
F.1	SAR mortality[269]	Y	Y	Y	N	N[270]	Y	N
F.2	SAR habitat[271]	Y	P[272]	Y	P[273]	N[274]	Y	Y

221. As set out in Table C, none of CN's proposed mitigation meets all CEAA tests for consideration as mitigation. Therefore, the CN mitigation does not alter the findings that there are eight SAEEs on Milton natural heritage.

222. Even more importantly, CN's mitigation strategy for natural heritage resources was flawed. CN imposed its Project footprint, without considering a layout that would best preserve natural heritage, while reasonably achieving the goals of the Project. CN's attempt to "mitigate around the edges" [275] of its chosen footprint cannot now preserve habitat connections and wildlife corridors sufficiently to alleviate significant adverse environmental effects to species at risk.

223. In sum, CN's proposed mitigation measures would not adequately mitigate or compensate the significant effects on residents, species at risk, Halton's transportation network, and employment lands. No mitigation measures meet all of the tests of clarity, control,

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[267] CEAR# 800, June 3, 2019, at p. 200-207.
[268] Despite capacity for Federal Enforcement on this issue, there is no indication from CN that they will engage mitigation that can be enforced.
[269] CEAR# 800, June 3, 2019, at p. 217-225.
[270] Despite capacity for Federal Enforcement on this issue, there is no indication from CN that they will engage mitigation that can be enforced.
[271] CEAR# 800, June 3, 2019, at p. 236-242.
[272] No clear description of new Barn Swallow nesting structure.
[273] Not effective with the exception of Wildlife habitat enhancements for the Monarch Butterfly and the new Barn Swallow nesting structure, which still lacks clear description but could be effective if properly designed and implemented.
[274] Despite capacity for Federal Enforcement on this issue, there is no indication from CN that they will engage mitigation that can be enforced.
[275] Tr Hr, 2001:23-2003:22; 1994:11-1995:7, June 28, 2019.

effectiveness, and enforceability. Accordingly, mitigation does not alter the Halton Municipalities' findings that this project is likely to cause numerous SAEEs.

PART 6 THE SIGNIFICANT ADVERSE EFFECTS ARE NOT JUSTIFIED IN THE CIRCUMSTANCES

6.1 The issue of need is only relevant to justification

224. "Need" for the Project is not relevant when considering SAEEs. CN's arguments regarding the "need" for the Project has no relevance when determining whether or not environmental effects are significant. Unlike its predecessor legislation, the current CEAA does not even refer to this topic. Nor does the agreement or the EIS Guidelines.

225. Similarly, s.98 of the CTA does not require this Panel to consider "need." In *Sharp v Canadian Transportation Agency*, 1999 CarswellNat 1072 [Attachment 2], the Court interpreted the Agency's mandate in relation to section 98:

> **I am unable to accept the Appellant's contention that section 98 requires an assessment of need**. Subsection 98(2) requires the Agency to focus on whether the "location of the railway line is reasonable". It is significant that although the application is for approval to construct a railway line, the Agency is not mandated to consider whether the construction of the line is reasonable. That may have imported a needs test. On the contrary, it is apparent that Parliament distinguished between construction and location, limiting the Agency's role to considering only the reasonableness of the location of the line. **There is no needs test implied in a consideration of the reasonableness of the location of the line**.[276] [Emphasis added.]

226. The Panel therefore, may not consider "need" for the Project when assessing SAEEs and the reasonableness of the location of the Project. Instead, the "need" for the Project is only a consideration for the Cabinet if this Panel concludes there are SAEEs and the Cabinet is considering whether the SAEEs are "justified in the circumstances."

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[276] *Sharp v Canadian Transportation Agency*, 1999 CarswellNat 1072, at para. 6.

227. While the agreement setting out the terms of reference for this panel makes provision for the panel to address "justification," this only occurs after the panel concludes the Project is likely to cause SAEEs.[277]

6.2 The Project is not needed and it is not justified in the circumstances.

228. CN's case for justification rests on the asserted need for an intermodal facility in southern Ontario.

229. However, CN's own evidence suggests an intermodal facility is not yet needed. Slide 23 from CN's first technical presentation to this panel entitled, "Southern Ontario Forecast." The slide provides CN's projected need for container throughput from today to the year 2040. The slide also provides CN's projected allocation of throughput between its existing facility and the proposed Milton intermodal.

230. As this Panel knows, the Halton Municipalities, based on expert input from John Vickerman, are skeptical of CN's claim that the proposed Milton facility will not receive more than 450,000 containers per year for at least the duration of this slide to 2040.

231. The consequence of this CN claim is evident in this slide. If the Milton site is limited to 450,000 containers per year from now to 2040, then the Brampton site will receive all other containers. In 2040, the total container volume is just below 1,800,000 containers annually. Subtracting the Milton quota, this means that, in 2040, Brampton will process close to 1,350,000 containers annually.

[277] Agreement to establish a joint process for the Review of the Milton Logistics Hub Project between the Minister of Environment and Climate Change and the Chair of the Canadian Transportation Agency" ("CEAR 391") s. 5.19.

232. The further implication is that the Milton facility is not needed until total container capacity for the area reaches 1,350,000 containers annually. According to this slide, that does not appear likely to happen before the year 2029.

233. The proposed Milton Project is not needed now. Indeed, it is not needed for another decade.

234. The Halton Municipalities predict that this Project is likely to cause SAEEs immediately following approval, with more SAEEs arising from construction, and still more SAEEs likely to arise from operation. As such, there is no basis to conclude that these SAEEs are "justified in the circumstances" due to need for the Project.

235. To the contrary, the presence of SAEEs combined with the absence of need brings forward another aspect of this EA – the requirement to assess alternative locations. Given the SAEEs likely to arise at Milton, CN has more than 10 years to find an alternative location where SAEEs are not likely. It is also worth remembering that, when CN first met with the Region and Town in early 2015 to present this intermodal proposal, it advised them that it planned to move from initial notice to construction before the end of that year.

PART 7 CN NON-COMPLIANCE

7.1 CN failure to assess all VCs

236. CN's EIS makes the identification of "valued components" (VCs) foundational to its assessment of SAEEs. If the EIS does not identify a valued component of the environment as a "VC", the EIS does not assess the significance of effects on that component of the environment. The EIS identifies all VCs in section 6.0, "Effects Assessment," and, in particular, within section 6.5, "Predicted Effects on Valued Components." Table D below summarizes the VCs identified in section 6.5. It identifies nine biophysical VCs and 5 socio-economic VCs.

Table XX: Effects identified by the EIS as VCs[278]	
Biophysical	**Socio-economic**
Fish and fish habitat (6.5.1) Change in fish habitat Change in fish movement, migration and fish passage Change in fish mortality Change in water quality **Migratory Birds (6.5.2)** Change in migratory bird mortality Change in migratory bird habitat Sensory disturbance **Species at Risk (6.5.3)** Change in species at risk mortality Change in species at risk critical habitat and residences	**Human Health (6.5.4)** Change in human health **Socio-Economic Conditions (6.5.5)** Change in demand for community services and infrastructure Change in the quantity and quality of land and resource use **Archaeological and Heritage Resources (6.5.6)** ·Unauthorized disturbance or destruction of part or all of an archaeological site or sites ·Unauthorized disturbance or destruction of part or all of a cultural heritage resources site(s)

237. CN's assessment of effects for significance was limited to the fourteen VCs identified above. By contrast, in the 2016 Brief, the Halton Municipalities identified 18 biophysical VCs and 13 socio-economic VCs.

238. Further, no CN document prepared after the 2015 EIS expands the number of VCs or the number of effects assessed for significance. In particular, neither CN's responses to the 2016 federal "compliance review" nor its responses to panel "information requests" from 2017 to 2019 expand the EIS list of VCs or the Project effects assessed for significance.

7.1.2 Failure to address the VCs set out in the EIS Guidelines

239. Section 6.3 of the EIS Guidelines addresses "Predicted Effects on Valued Components." (p.24) The Table E below summarizes its guidance.

[278] CEAR# 57 EIS, December 7, 2015, p.186 re B.1 to B.4; p.182 re D.5; pp. 289 re I.1, I.2; p.230 re G.1; pp.373-5 re G.3, G.4 transportation, G.5 cycling

Table E: Effects identified by the EIS Guidelines as VCs[279]

Biophysical	Socio-economic
Fish and fish habitat (6.3.1) ·Serious harm to fish, including geomorphological changed and their effects on hydrodynamic conditions and fish habitats, modifications of hydrological and hydrometric conditions on fish habitat and fish species life cycle activities, potential impacts on riparian areas that could affect aquatic biological resources and productivity, and any imbalances in the food web in relation to baseline ·Effects of changes to the aquatic environment on fish and their habitat, including changes in the composition and characteristics of fish species including shell fish and forage fish, modification in migration or local movements, any reduction in fish populations as a result of potential overfishing due to increased access, and any modifications and use of habitats by federally or provincially listed fish species Migratory Birds (6.3.2) ·Direct migratory bird mortality ·Collision risk of migratory birds ·Indirect effects caused by increased disturbance, relative abundance movements and changes in habitat ·Indirect effects caused by Project site lighting	Aboriginal peoples (6.3.4) Current uses of lands and resources for traditional purposes Effects to human health Effects to socio-economic conditions Effects to physical and cultural heritage Other Socio-economic Conditions and Heritage Resources (6.3.5) ·Effects to human health, including changes in air quality, drinking water quality and noise exposure ·Effects to human safety in relation to motor vehicle safety, and pedestrian/bicycle safety within the entry point of the site ·Effects to socio-economic conditions, including but not limited to the use of navigable waters for recreational purposes, commercial and recreational activities including tourism, fishing, hunting and gathering activities ·Effects to existing and regional land use planning, including present and approved land uses; ·Effects to physical and cultural heritage, and structures, sites or things of historical, archaeological, paleontological or architectural significance to local heritage, including but not limited to the loss or destruction of physical and cultural heritage, changes to access to physical and cultural heritage, and changes to the cultural value or importance associated with physical and cultural heritage

[279] CEAR# 57, EIS, December 7, 2015, p.186 re B.1 to B.4; p.182 re D.5; pp. 289 re I.1, I.2; p.230 re G.1; pp.373-5 re G.3, G.4 transportation, G.5 cycling

Species at Risk (6.3.3) Effects on species at risk Effects on critical habitat	

240. For the Halton Municipalities, the two most important examples of CN's failure to address the VCs set out in the EIS Guidelines concern (a) effects to human safety and (b) effects to land use.

241. As set out in the Table above, the EIS Guidelines set out this VC as "effects to existing municipal and regional land use planning, including present and approved land uses;" (p.26)

242. This requirement supplements additional references to land use in the EIS Guidelines. Section 1.3 of the EIS Guidelines requires the description of the Project Location to include information on current land use in the area (p.12). Section 1.4 on the "Regulatory framework and the role of government" requires the EIS to identify: "any relevant land use plans, land zoning, or community plans; "(p.13). Section 3.1 requires that the EIS include "maps, at the appropriate scale, of the project location, …adjacent land uses…" (p.14).

243. CN's EIS considers only those socio-economic VCs set out in section 6.5.5. In particular, under "Rationale for VC Selection," s.6.5.5.1 sets out two VCs as effects on "socio-economic conditions". Both of these VCs are set out in Table 6.31, reproduced below. Table 6.31 identifies two "potential environmental effects" for "socio-economic conditions". This Table also sets out the relevant "effect pathway" and the "measurable parameter(s) and units of measurement."

Figure 6.31 Potential Environmental Effects, Effects Pathways and Measurable Parameters for Socio-Economic Conditions

Potential Environmental Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in demand for community services and infrastructure	Construction of the grade separation on Lower Base Line may affect traffic flow for road users (e.g., motor vehicle operators, cyclists and others).	• Overlap between Project construction activities and Lower Base Line.
Change in the quantity and quality of land and resource use	Site preparation and changes in access to the PDA may reduce the area available for agriculture. Removal of page-wire fences will improve navigability of Indian Creek and increase potential for recreational resource use. Emissions and changes in viewscapes may affect the quality of the experience of land and resource users, including recreational users (e.g., cyclists).	• Agricultural area (ha) overlapped by Project. • Level of disturbance from atmospheric (light, dust and other contaminants) and acoustic emissions. • Changes to viewscapes. • Change in ability to navigate watercourses.

244. The CN response to undertaking 14 confirms that the EIS identifies only these two VCs to address effects on socio-economic conditions. This response references only s.6.5.5 of the EIS and the two VCs set out above.

245. This effort to focus on the CN VCs is important because it directs what CN did to assess the significance of adverse environmental effects (SAEEs). The EIS limited its assessment of socio-economic effects to these two VCs. CN concludes s.6.5.5 with a summary of the residual effects of the Project on "socio-economic conditions." The EIS captures this summary in Table 6.36 which considers the same two VCs as Table 6.31. Further, the EIS concludes section 6.5.5 with its conclusions that Project effects on these two VCs are "not significant." (p.245).

246. The Halton Municipalities note that the CN response to undertaking 14 contains several pages of additional references that are not responsive to the undertaking. These additional references do not alter the EIS position in s.6.5.5 that (1) there are only two VCs to assess Project effects on socio-economic conditions, and (2) the assessment of SAEEs for Project effects on socio-economic conditions is limited to these two VCs. There are no other CN tables that replace or expand on Tables 6.25 or 6.31.

247. For similar reasons, the April 11, 2019 CN response to the SAEE Sufficiency Brief is also irrelevant: none of the pages of materials referenced in this response expand or alter (i) the VCs set out in the EIS or (ii) the EIS assessment of the significance of effects on these VCs. Therefore, this response is irrelevant to the focus of the Sufficiency Brief on SAEEs.

248. Returning to the topic of land use, the EIS references provided above confirm that the EIS did not completely ignore land use. However, the EIS consideration of land use was limited to "agricultural lands." see Table 6.25 row 1, column 3. Thus, the EIS consideration of land use did not identify residential land use or employment land use as VCs. It equally did not follow the direction in the EIS Guidelines to identify present and approved land uses for either of these VCs. Thirdly, the EIS failed to apply the guidance provided in the EIS Guidelines to use the reference criteria and applicable standards to assess the significance of Project effects on these VCs. Indeed, the EIS failed to carry out any assessment of the significance of Project effects on these VCs.

7.2 CN failure to assess compliance with all standards

249. The EIS Guidelines reference standards as the 7th criterion to be used to assess the significance of effects:

> The following criteria should be used in determining the significance of residual effects:

- magnitude;
- geographic extent;
- duration;
- frequency;
- reversibility;
- ecological and social context; and
- existence of environmental standards, guidelines or objectives for assessing the impact.

250. Regarding this 7th criterion, the EIS Guidelines provide that "In assessing significance against these criteria, the proponent will, where possible, use relevant existing regulatory documents, environmental standards, guidelines, or objectives such as prescribed maximum levels of emissions or discharges of specific hazardous agents into the environment. The EIS will contain a section which explains the assumptions, definitions and limits to the criteria mentioned above in order to maintain consistency between the effects on each VC. (pp.28-9)

251. It is clear from this guidance that the applicable standards are not limited to federal standards.

252. The December 2015 EIS is the sole source for all CN assessments of the significance of effects. It is therefore also the key document to understand whether and how CN addressed this seventh criterion for each VC.

253. The failure of the EIS to address standards is easily demonstrated. Fish and fish habitat VCs are the only VCs where the EIS makes reference to standards in its assessment of significance (EIS, pp.170-1). For all for all VCs under the following five headings, the EIS assessment of significance contains no reference to any standard:

Table F: VCs where assessment of significance references no standards [280]	
CN Valued Component	**Standards**
Migratory Birds (6.5.2) Change in migratory bird mortality Change in migratory bird habitat Sensory disturbance	Table 6.20 (pp.192-3)
Species at Risk (6.5.3) Change in species at risk mortality Change in species at risk critical habitat and residences	Table 6.24 (pp.208-9)
Human Health (6.5.4) Change in human health	Table 6.28 (pp.221-2)
Socio-Economic Conditions (6.5.5) Change in demand for community services and infrastructure	Table 6.32 (pp.235-6)
Change in the quantity and quality of land and resource use	Table 6.38 (pp.250-1)
Archaeological and Heritage Resources (6.5.6) ·Unauthorized disturbance or destruction of part or all of an archaeological site or sites ·Unauthorized disturbance or destruction of part or all of a cultural heritage resources site(s)	

254. It is notable that this omission arises even though the EIS provides repeated reference to standards for most VCs.

255. It is also notable that there is only one VC – human health – where the EIS fails to reference standards from other jurisdictions. In particular, the EIS references (a) the Provincial Water Quality Objectives for the VCs for fish and fish habitat (p.169), (b) the Ontario Provincial Policy Statement (2014) for the VCs for migratory birds, (c) the Ontario Endangered Species Act, 2006 for the VCs for species at risk (p.206), (d) the Town of Milton Boyne Secondary Plan, the Halton Region Official Plan, and the Greenbelt Plan for, the VCs for socio-economic conditions (p.232), and (e) the Ontario Heritage Act, for the archaeological VC (pp.246-7).

[280] CEAR# 57, EIS, December 7, 2015, p.186 re B.1 to B.4; p.182 re D.5; pp. 289 re I.1, I.2; p.230 re G.1; pp.373-5 re G.3, G.4 transportation, G.5 cycling

256. Thirdly, it is notable that, for the one example where the EIS makes reference to standards in its assessment of significance, the referenced standards include non-federal CCME standards as well as Ontario Provincial Drinking Water Quality Objectives (p.169).

257. As concerns the other EIS references to Ontario standards, the EIS provides only one example where it claims that it did not apply the standard because it is “not applicable to federal railway approvals.” (p.189). This standard was the Provincial Policy Statement considered for migratory birds. The EIS does not explain the basis for considering this land use standard inapplicable for the migratory bird VCs, but considers without similar objection the Milton Secondary Plan, the Halton Region Official Plan, and the Greenbelt Plan in its discussion of the regulatory framework for the VCs respecting socio-economic conditions.

258. Thus, the EIS is approach to standards does not comply with the EIS Guidelines. This non-compliance constrains the panel from discharging its responsibility to gather all information relevant to assessing the significance of adverse environmental effects. On the other hand, beginning in 2016, the Halton Municipalities have provided the panel with three briefs that each provide the panel with detailed review of applicable standards to assessing SAEEs.

7.3 CN Failure to Assess Cumulative Effects

259. The EIS Guidelines set out a test for applying this requirement to each VC, and also reference general guidance on how to carry out any required cumulative assessment of effects (CAEs).

260. The EIS Guidelines require assessment of the cumulative effects of the Project on each VC where the EIS predicts the Project will result in any residual change or effect. Importantly, where CN has concluded that there is no residual effect, it has not assessed cumulative effects.

261. Based on its submitted information, CN predicts that the Project will result in no residual effects for the majority of VCs, in particular, 9 of 18 biophysical VCs and 6 of 9 socio-economic VCs. The Table below sets out those VCs that CN assessed for cumulative effects.

Table G: VCs Assessed for Cumulative Effects[281]

Biophysical	Socio-economic
Air, Noise, Light	Health and Socio-Economic Conditions
C.1 Ambient air quality	G.1 Human health conditions
C.2 Ambient noise levels on residences	G.3 Rural settings
C.3 Ambient night-time light levels	G.4 Urban settings
Fish	*Transportation
D.1 Fish populations	
D.3 Fish habitat location and functions	
Migratory Birds	
E.1 Migratory bird species in area	
E.2 Migratory bird use of area across all seasons	
Terrestrial Species at Risk	
F.1 Species at risk in project vicinity	
F.2 Habitat for species at risk	

[281] CEAR# 57, EIS, December 7, 2015, p.186 re B.1 to B.4; p.182 re D.5; pp. 289 re I.1, I.2; p.230 re G.1; pp.373-5 re G.3, G.4 transportation, G.5 cycling

262. CN did not consider cumulative effects for the residential and employment land use VCs, or the VCs respecting municipal infrastructure planning, services, and financing.

PART 8 CONCLUSION

263. The Project, as an intermodal terminal and railway yard that will operate 24 hours per day, 365 days per year, represents a permanent change to this area of Milton. It will adversely affect those who live, work and visit the greater Halton Region. It is likely to cause overlapping, cumulative and significant adverse environmental effects and conflict with all three pillars of provincial and municipal planning – social, economic and environmental.

264. CN has not identified any mitigation that will prevent the identified SAEEs.

265. Finally, the SAEEs are not justified in the circumstances. According to CN's own information on the capacity of the Brampton Intermodal Terminal, the proposed Milton Project is not needed now. Indeed, it is not needed for another decade. In light of the Project's SAEEs, CN has more than 10 years to find an alternative location where SAEEs are not likely.

266. Thus, the Halton Municipalities ask the Panel to conclude that the Project will cause SAEEs that cannot be mitigated, that CN has not demonstrated that every other potential location will cause SAEEs, and that the SAEEs associated with this location are justified in the circumstances.

APPENDIX “A”

TO	:	Lisa De Angelis, Halton Region
FROM	:	Ali Hadayeghi, Ph.D., P.Eng.
DATE	:	July 16, 2019
SUBJECT	:	B000609 CN Milton Logistics Hub – Response to a Submission from CN Dated July 11, 2019, titles "Milton Logistics Hub – Response to Supplemental Evidence filed with the Panel by the Halton Municipalities"

CIMA+ prepared a memorandum titled "B000609 CN Milton Logistics Hub – Comparison: Halton Municipalities Traffic Congestion Assessment Compared to that Submitted by BA on Behalf of Canadian National" on July 9, 2019 to provide a written response to a question from the Review Panel on how the Panel was to reconcile the two competing traffic modelling analyses. This memorandum will be referred to as "CIMA+ July 9 Memo" throughout this document.

CN submitted a response to the Review Panel on July 12, 2019 titled "Milton Logistics Hub - Response to Supplemental Evidence Files with the Panel by the Halton Municipalities". The CN submission had a memorandum attached to it with subject of "Response to a Submission from Halton Municipalities Dated July 11, 2019 Captioned Milton Logistics Hub Project – Response from Dr. Hadayeghi to Panel Questions on Modelling" prepared by BA Group. The BA Group memorandum will be referred to as "BA Group July 11 Memo". This memorandum provides CIMA's response to the BA Group July 11 Memo. Specifically, this memorandum provides clarification on the factors contributing to the differences between traffic congestion assessment conducted by BA Group on behalf of CN and the traffic analyses conducted by CIMA+ on behalf of the Halton Municipalities, and provides insight into why the two studies are different from a technical point of view.

1 Background Data/Date of Data Used

As discussed in the CIMA+ July 9 Memo and confirmed by the BA Group July 11 Memo, the **CN traffic analysis is based on an older version of the Regional Transportation Model (i.e. based on the 2006 Transportation Tomorrow Survey)**. Halton Region updated its Transportation Model based on 2011 Transportation Tomorrow Survey. The Halton Municipalities traffic analysis is based on results of the updated Regional Transportation Model. This is one of the factors contributing to the differences between the two traffic studies.

2 Horizon Year for Analysis

Based on the Halton Region Transportation Impact Study Guidelines, study horizon year depends "on the development size and phasing periods" and should be determined by Halton Region. It must be a minimum of five years and for large developments, depending on the development size and phasing periods, ten (10) years is an option at the Region's discretion. Given the magnitude of this project, a ten-year horizon would have been a probable condition. As discussed in the CIMA+ July 9 Memo, the only detailed intersection movement analyses conducted by CN were for 2021, (except the main entrance onto Britannia). **CN did not update their 2017 analyses for the 2019 panel presentation, so given the project timing, these have essentially become opening day estimates, not future projections.**

The BA Group July 11 Memo states that an intersection capacity analysis for the 2031 horizon year for Terminal Access Road at Britannia Road was conducted, and the memo suggests that the proportion of trucks is highest at this location, which would have the greatest impact. The CN assertion, that it is sufficient to conduct 2031 intersection assessment for only one intersection since it would experience the greatest impact, contradicts standard practice of traffic impact studies. First, Terminal Access Road at Britannia Road is not likely to experience the greatest impact since there is no significant volume of general traffic on the north-south road; at other locations where Britannia Road intersects with other major Regional roads, the impact of trucks is expected to be the greatest. Second, traffic will affect all intersections along the routes, and it is standard practice to assess traffic operations at all intersections that are likely to be impacted.

Since the CN analysis does not include detailed traffic analysis for either 2031 nor 2041, it is not possible to rely on CN's analysis to understand long term traffic impacts of the project.

3 Road Network Improvements

As discussed in the CIMA+ July 9 Memo and confirmed by the BA Group July 11 Memo, **the CN analysis does not consider the updates to the schedule of Britannia Road widening and assumes that all proposed road improvements would be in place at the time the facility opens.** This resulted in higher system capacity leading to an underestimate of congestion should the facility open in 2021 or 2022.

Moreover, CN analyzed the roundabout at Britannia Road and Tremaine Road as having three circulating lanes and three westbound approaching lanes. However, the roundabout has been constructed with two circulating lanes and two westbound approaching lanes.

4 Model Parameters

The BA Group July 11 Memo refers to Peel Region and Region of Waterloo Traffic Impact Study Guidelines to justify use of peak hour factor of 1.0 for traffic analysis. However, there are other guidelines such as City of Toronto Guidelines for using Synchro 9 that suggests using a peak hour factor of 0.9 to 0.95 for different movement types. Moreover, BA Group, in its past traffic impact studies conducted for other developments in Halton Region, has often utilized peak hour factors of less than 1 for future analyses. CN, in the July 11 memo, implies that a PHF of 1.0 should be used for planning applications; however, in this case the purpose is not to plan road capital programs but to determine as accurately as possible the actual future congestion conditions. A more realistic PHF provides this insight.

While CN analysis adopts guidance from Peel Region and Region of Waterloo for peak hour factor, it disregards their guidance regarding saturation flow rate in the same documents. Peel Region guidelines

suggest using a saturation flow rate of 1900 vehicles/lane/hour and Region of Waterloo guidelines suggests using a saturation flow rate of 1750 to 1900 vehicles/lane/hour for exclusive lanes. A saturation flow rate of 2000 to 2100 vehicles/lane/hour was adopted in CN traffic analysis for the intersection of Derry Road / Trafalgar Road.

5 Overall Congestion Assessment

The BA Group July 11 Memo suggest that "the level of service is not the industry standard for evaluating the performance of signalized intersections". **It should be noted that both traffic studies conducted by CN and Halton Municipalities are based on the Highway Capacity Manual (HCM) which is the most widely used manual in traffic operation studies in North America.** The HCM, for each facility type, defines quality of service using appropriate indicators. Based on HCM, "the concept of level of service (LOS) is a quantitative stratification of a performance measure or measures representing the quality of service". LOS for a given facility is defined by one or more service measures (out of available performance measures) that "1) best describe operations, 2) best reflect the traveler perspective, and 3) are useful to roadway operating agencies." Given that delay is the most relevant indicator for travelers, HCM defines level of service for both signalized and unsignalized intersections based on intersection delay. Therefore, **based on HCM, LOS is the primary indicator of quality of service at both signalized and unsignalized intersections**. We, however, understand that volume-to-capacity ratio is also a useful indicator of intersection capacity that should be interpreted in conjunction with level of service. However, CN's assertion that the level of service is not relevant in the assessment of signalized intersections is in contradiction with Highway Capacity Manual and travelers' expectations.

APPENDIX “B”

Planning Opinion

Provided to the Review Panel for the proposed Milton Logistics Hub Project

Prepared by:

Curt Benson, MCIP RPP
Director of Planning and Chief Planning Official
Halton Region for the Halton Municipalities

July 17, 2019

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1. Background

On May 29, 2019, I provided the Review Panel with the "Submission on the Land Use Planning Framework in Halton" as part of the Halton Municipalities written submissions identified as CEAR# 800.

In part, the May 29th submission was provided in response to the Review Panel's letter to the Halton Municipalities dated April 25, 2019, inviting the Halton Municipalities to attend the public hearing to present their views and analysis in relation to the proposed CN Milton Logistics Hub Project (the "Project"). The Review Panel asked the Halton Municipalities to present their technical review of the potential significant adverse environmental effects ("SAEEs") of the Project, proposed mitigation measures and follow-up programs. In addition, the Review Panel invited the Halton Municipalities to present any other relevant information and recommendations related to their expertise and mandate.

In its April 25th letter, the Review Panel referenced its interest in receiving input and expertise related to the following:

- The magnitude, geographic extent, timing, frequency, duration, reversibility, and ecological and social context of the Project's anticipated adverse environmental effects;
- the predicted effectiveness of the proposed mitigation measures,
- the appropriateness of the proposed follow-up programs,
- the extent to which concerns raised by Halton Municipalities during their review of the proposed project have been addressed, and
- recommendations as to how best to address any uncertainty regarding the predicted project effects and the effectiveness of proposed mitigation measures, as well as any remaining concerns.

Additionally, and specific to Halton Municipalities, the Review Panel has asked that the Halton Municipalities provide expertise related to municipal interests and standards in water, natural heritage, transportation, agriculture, residential, and employment matters.

The majority of the information pertinent to addressing this request for information can be found in each of the following documents filed with the Review Panel by the Halton Municipalities:

- The Halton Municipalities Brief from December 2016 [CEAR 405]
- The Halton Municipalities Brief on Sufficiency from March 2017 [CEAR 549]
- The Halton Municipalities Brief on Sufficiency related to SAEEs from April 2019 [CEAR 742]
- The Halton Municipalities Brief on Significant Adverse Environmental Effects from May 2019 [CEAR 800]

In particular, the Halton Municipalities Brief from December 2016 [CEAR 405] provides very specific information related to municipal interests and standards in water, natural heritage, transportation, agriculture, residential, and employment matters and is an important reference for those matters discussed in this Planning Opinion. As set out in the *2016 Brief,* each of these six topics aligns with the *Canadian Environmental Assessment Act,* 2012 ("CEAA") framework, but also engages policies and standards of specific concern to Ontario's provincial and municipal governments. In the main *2016 Brief* as well as Appendices B and C, these six topics provide the organizing framework for showing how the provincially-approved Regional Official Plan (ROP) includes numerous effects-based standards of general application.

More recently, the Halton Municipalities have also provided the panel with details on how and why the ROP provides a framework to assess not just Project effects, but also cumulative effects under CEAA. My contribution to the May 29th submission goes into more specific detail on this point.

My present opinion follows my participation in the Public Hearing convened by the Review Panel and review of information provided during that hearing. As with other participants for the Halton Municipalities – staff and expert – my objective was to assist the Review Panel by highlighting pertinent information and providing my relevant expertise and information to allow the Review Panel to fulfill its mandate.

2. Purpose and Scope of the Planning Opinion

The purpose of this Planning Opinion is to address four key questions that are within the mandate of the Review Panel:

1. Can the ROP framework assist the panel with identifying and assessing cumulative effects?
2. If yes, what mitigation is applicable to assessing whether any cumulative effects are likely to result in SAEEs?
3. Where there are SAEEs, has the panel received information that demonstrates there are no alternatives that would avoid these SAEEs?
4. If there are SAEEs, are these SAEEs justified in the circumstances?

As well, though not within the panel mandate, this opinion also seeks to address a question that arises only if the Project is approved under CEAA. That question is whether the project location reasonable under the terms of s.98 of the *Canada Transportation Act*?

The information provided in this Planning Opinion flows from my May 29th submission that presented a framework for a planning opinion. This current submission represents my professional planning opinion on the matters identified above. To date, I have not provided the Review Panel with an opinion relative to the merits of the Project. In my view, it was important to participate in the Public Hearing process, to understand the perspectives and opinions of participants and technical experts and to assist the Review Panel in gaining a better understanding of the nature of the Project's predicted effects.

3. Can the ROP framework assist the Panel with identifying and assessing cumulative effects?

CEAA provides specific direction concerning what to assess when considering cumulative effects.

The EIS Guidelines state that cumulative effects may result if:

(i) implementation of the Project being studied may cause direct residual adverse effects on the valued components ("VCs"), taking into account the application of technically and economically feasible mitigation measures; and

(ii) the same VCs may be affected by other past, present or reasonably foreseeable physical activities[1].

A project's cumulative effects must be assessed with respect to each VC for which an EIS predicts a residual change or effect. The EIS Guidelines provide general guidance on undertaking any required cumulative effects assessment with respect to the Project.

Based on its submitted information, CN predicted that the Project would not result in residual effects for the majority of the VCs. For each VC that CN predicted there would not be a residual effect, it did not undertake a cumulative effects assessment.

It is my opinion that the ROP can provide this Panel with assistance in identifying and assessing cumulative effects.

For several assessments of cumulative effects, it does not appear necessary to consider the ROP. As demonstrated through the submissions and presentations from the independent technical experts retained by the Halton Municipalities, this Project will result in non-adherence to standards[2] that will result in many residual effects. The technical experts predict that cumulative effects will be prevalent with respect to:

- Migratory bird mortality;
- Migratory bird use of area;
- Species at Risk distribution and mortality;
- Species at Risk habitat;
- Air quality;
- Light;
- Noise;
- Human health;
- Rural settings;
- Transportation; and
- Land Use.

Additionally, however, my May 29th submission provides my opinion that the ROP represents a cumulative effects or 'zero-sum' framework where all land has an identified planned function. Any change to the planned function of land that results in an impact to the planned function of another land use category, represents a cumulative effect.

This test for cumulative effects thus arises where proposed development does not conform with the ROP and amending the ROP to provide that conformity will also require changes to other planned, proposed, or future activities. The cumulative effect is that addressing a change for one use of land triggers the requirement to change other uses of land or otherwise change the situation of other users of land (e.g., ratepayers).

To illustrate this point relative to the land use VC, this Project will only provide 130 jobs on lands planned to achieve 1500 jobs. The Project is land consumptive with low employment density. In addition, the Project will attract similar types of warehousing and logistics uses. By their nature,

[1] Other physical activities might include development of a planned neighbourhood nearby, for example
[2] As provided in my May 29th Submission, the Halton Municipalities' Brief (CEAR#405) used six general effects-based headings to set out the key municipal land use standards applicable to this Project, drawing on provincial plans and the applicable Provincial Policy Statement.

warehousing and logistics uses are land consumptive and coupled with low employment density. This will result in a series of cumulative effects that have not been assessed or accounted for by CN. These effects include:

- The Region and Town will not be able to meet its provincially mandated employment growth forecasts and densities;
- In not achieving the provincially mandated employment growth forecasts and densities, other options will need to be explored, for example, conversion of lands identified for long-term protection for agricultural uses to employment uses through the next comprehensive review of the ROP;
- The types of jobs offered by the CN facility and related uses are not jobs well aligned to the young and educated workforce in the Town of Milton;
- The existing and planned infrastructure intended to support the employment area where the Project is located will need to be re-evaluated;
- CN's refusal to pay development charges will result in greater costs to other landowners and developers.

It is my opinion that these cumulative effects constitute a SAEE.

4. CN cannot mitigate cumulative effects on the designated employment lands and are likely to result in a significant adverse environmental effect

As highlighted above, approval of the Project will cause a SAEE on the Region's integrated plan for the employment area. In general, the ROP accommodates most development to 2031[3]. When development, such as the Project, is not accommodated in the ROP, it triggers the need for a Regional Official Plan Amendment ("ROPA") to bring lands into conformity. However, additionally, for several matters, the required ROPA will require changes to other lands and other designations and policies. Thus, this kind of ROPA will have broader impact on lands and land uses beyond CN. However, any such ROPA is outside of CN's control. Therefore, according to the guidance received by the panel, CN cannot rely on a future ROPA as mitigation for cumulative effects from the Project. As such, the cumulative effects of the Project are likely to result in a SAEE.

5. Where there are SAEEs, has the panel received information that demonstrates there are no alternatives that would avoid these SAEEs?

CEAA and the EIS Guidelines require identification and consideration of alternative means of carrying out the Project that are technically and economically feasible. The EIS Guidelines also specify the procedural steps for addressing the alternative means which are:

- Identify the alternative means to carry out the Project;
- Identify the effects of each technically and economically feasible alternative means;

[3] There are many similarities between the ROP and the CEAA framework. According to the EIS Guidelines, "*Environmental Assessment (EA) is a planning tool used to ensure that projects are considered in a careful and precautionary manner in order to avoid or mitigate possible environmental effects and to encourage decision makers to take actions that promote sustainable development*". The ROP contains similar objectives focused on sustainable development and protection of the environment and human health.

- Select the approach for the analysis of alternative means (i.e., identify a preferred means or bring forward alternative means); and
- Assess the environmental effects of the alternative means. (p.13 of the EIS Guidelines).

The EIS Guidelines require that the above analysis address at least five Project components. Those Project components are:

- Project site location;
- approved transportation corridors and routes for truck traffic for vehicles owned and operated by the proponent;
- access points to the Project site;
- location of key Project components; and
- water supply (p.14 of the EIS Guidelines).

In this Planning Opinion, I will address the Project site location and access points.

5.1 Project Site Location

According to CN, the Project location was chosen following a site selection process that identified potential options for alternative locations based largely on criteria established by CN. The Cushman & Wakefield study commissioned by CN and endorsed by CN before this panel included the following criterion for excluding or disqualifying lands: "*planned or designated residential use (based upon approved municipal Official Plans) is located within 300m of the corridor*".

As the Review Panel heard through the Public Hearing process, this criterion raises some key questions. First, the project development area for the Project is well within 300m of an existing and approved residential community. Therefore, CN cannot meet this criterion at this Project location as currently designed.

CN has confirmed that there will need to be rail yard tracks installed north of Britannia Road to enable train movements to position trains along pad tracks. The train movements that occur north of Britannia to position trains along the pad tracks are different from movements expected on the mainline. This distinction is important as the effects from rail yards are considered differently from rail lines and there are different planning approaches when dealing with rail yards.

The 300m separation requirement is consistent with the minimum distance separation between sensitive land uses and rail yards in accordance with the Provincial D-6 Land Use Compatibility Guidelines and implements key directions of the ROP and Provincial Policy Statement. Separation of incompatible land uses is the most effective way to avoid land use conflicts, from two perspectives:

1. To prevent adverse effects from industrial noise, odour, dust and/or air emissions on sensitive land uses or receptors (people, homes, schools etc.); and
2. To ensure that operators of industrial land uses can operate under normal conditions without being encumbered by complaints from nearby residents.

Separating conflicting land uses is a fundamental and basic principle of planning and in my opinion, has not been appropriately considered by CN in its site selection analysis.

Based on the above, it is my opinion that the Project does not adhere to the exclusion criteria as it falls within 300m of an existing and approved residential community.

5.2 Project Access Points

Britannia Road is a controlled access arterial under the Region's jurisdiction. Therefore, the Region makes the final determination in regard to whether proposed access points comply with the Region's Road Access By-law and Access Management Guidelines.

CN's proposed access point for trucks is off Britannia Road at a location east of the existing mainline crossing at Britannia Road. The entrance will be located east of Halton Region's proposed Britannia Road overpass.

Prior to and during this hearing, the panel received information showing several concerns with this location. First, CN has not established that access from First Line which is a local road, is not feasible. This is contrary to the by-law that requires demonstration that access from local roads is not feasible before access to an arterial road can be granted. Second, the proposed truck access intersection is only 250 metres from the nearest intersection with First Line. This is contrary to the guidelines that require 300 to 400 metres between full movement intersections, depending on the speed limit of the roadway, traffic signal coordination and storage capacity for left turning vehicles. Third, the proposed access contributes to existing safety/operational requirements that encourage unsafe maneuvers. The proposed full movement intersection is immediately adjacent to a road over rail grade separation to the west. Fourth, CN has not demonstrated through adequate analysis the impact on the pedestrian and cycling environment from the proposed access on Britannia. Fifth, the access is proposed to encroach onto lands designated for natural heritage given the watercourse and related features and functions. This location is also outside of the Urban Area Boundary and encroaches onto land protected for Agricultural uses. CN information does not address these concerns and therefore does not meet Region requirements for access.

6. Where there are SAEEs, are they justified in the circumstances?

If the Review Panel determines that the Project will result in SAEEs, its mandate makes provision for the Panel to then consider whether the SAEEs are justified in the circumstances.

CN's case for justification of the Project relies on their assertion that there is a need for another intermodal in southern Ontario. However, CN also claims that throughput at the site will be limited to 450,000 containers per year until 2040. Under this scenario, the Brampton Intermodal Terminal ("BIT") would process 1,350,000 containers annually until 2040. If BIT's capacity is 1,350,000, it will not reach capacity until 2029 and a new intermodal is not needed for another decade. Accordingly, there is no basis for concluding that the SAEEs are justified under the circumstances. In addition, CN has considerable time (10 years) to find another location where SAEEs are not likely. I note that in 2015 CN believed it required less than 1 year to proceed from notifying the Region and Town of its plans in January to project construction.

7. If the Project is approved under CEAA, is the Project location reasonable under s.98 of the CTA?

The substance of s.98 is different than CEAA. CEAA focuses on significant effects. Therefore, even if, contrary to the findings of the Halton Municipalities, the Project effects are not significant or are significant, but justified, different considerations apply to the s.98 CTA approval.

My opinion is that the interests of the Halton Municipalities demonstrate a broad range of concerns that cannot be addressed by approving this Project at this location.

Further, as set out above, CN has not demonstrated any immediate need for this Project in the next 10 years. Nor has CN demonstrated that this location is reasonable. This is so for many reasons set out by the Halton Municipalities throughout this process.

This is so even according to CN criteria of reasonableness. On this point, I note again that the Cushman & Wakefield study commissioned by CN and endorsed by CN in its submissions to this Panel involved a screening criterion that should have screened out this site because it is too close to existing and planned residential development.

8. Conclusion

My overall planning opinion is that the Project is likely to result in cumulative effects for which CN either has not, or cannot provide appropriate mitigation. Without mitigation, it is likely that the Project will cause SAEEs.

It is also my opinion that CN has not demonstrated to the Review Panel that the SAEEs are justified in the circumstances.

Finally, it is my opinion that CN's failure to adequately consider alternative Project locations not within 300 metres of residential uses and selection of a truck access point that does not comply with the Region's Road Access By-law and Access Management Guidelines render both actions unreasonable.

Respectfully Submitted,

Curt Benson, MCIP, RPP
Director of Planning Services and Chief Planning Official
Halton Region for the Halton Municipalities

APPENDIX “C”

CN'S LACK OF COOPERATION UNDERMINES THE PANEL'S FACT-FINDING MANDATE

CN changed its evidence throughout the hearing

1. In addition to shifting its statement that the Brampton Intermodal Terminal ("BIT") is at capacity, as explained in the legal submissions of the Halton Municipalities, CN shifted its evidence at the hearing on other issues as well, a tactic that reduced opportunities for meaningful analysis of effects. For example, CN repeated throughout the years leading up to the hearing that the footprint of the proposed Project would be 400 acres. In the course of the hearing, CN completely changed this key fact about the proposed Project, introducing previously undisclosed Project footprints of alternatively 150 acres[1] and 146 acres.[2] CN did not clearly delineate the Project footprint in visual form until the submission of Undertaking 13-B on July 3, 2019,[3] almost 4 years after the preparation of the Project Description.

2. This shift artificially limits CN's intermodal capacity and incorrectly reduces the area of impact of the proposed Project, which in reality is much larger.

CN's lack of disclosure of relevant information

3. CN did not provide all relevant information in a timely manner or at all throughout the Panel's information-gathering process leading up to and including the public hearing.

4. For example, the intermodal container terminal capacity of the proposed Project is an important consideration for the Panel and for participants to have understood from the very beginning of this process, as it directly impacts the finding of SAEE. On many occasions, the

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[1] The first time the 150 acre number was used to describe some part of the project development area was on Tuesday, June 25, 2019 when CN put that number to Halton Region's expert, Mr. Vickerman: Transcript Hearing ("Tr Hr"), 777:8-25 to 778:1-11, June 25, 2019.

[2] Undertaking 13-B ("CEAR 922"), July 3, 2019.

[3] Undertaking 13-B ("CEAR 922"), July 3, 2019. CN did not offer up this information voluntarily. The Halton Municipalities had to ask for this information twice before it was finally provided: Tr Hr, 997:1-25 to 998:1-4, June 25, 2019; Tr Hr, 1753:2-18, June 28, 2019.

Panel requested clarity on the maximum container capacity of the proposed Project.[4] CN's answers to these requests were unresponsive:

> The Milton Logistics Hub is being designed in the most efficient manner to handle the container volumes CN expects to handle at it. Based on the additional capacity of 450,000 containers that the Project will add to CN's intermodal network in the GTHA market area, CN's intermodal capacity in the GTHA will be sufficient for the foreseeable future.[5]
>
> …
>
> As noted in CN's response to IR 2.30, the Milton Logistics Hub is being designed in the most efficient manner to handle the expected additional customer demand anticipated in the GTHA. Based on the additional capacity of 450,000 containers that the Project will add to CN's intermodal network in the GTHA market area, CN's intermodal capacity in the GTHA will be sufficient for the foreseeable future.[6]

5. Yet, despite the repeated requests by the Panel and the Halton Municipalities for its support for 450,000 containers per year as the proposed Project's intermodal capacity, CN provided its intermodal capacity report almost 3.5 years after CN's EIS, on May 29, 2019.[7]

6. Similarly, CN repeatedly linked ultimate/maximum Project capacity to market demand throughout this process[8] but refused to provide the market container volume forecasts that substantiate its claims on the basis that it is "competitively sensitive data, the public disclosure

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[4] CEAR 549, IR 2.30, March 13, 2017. The Panel's rationale for IR 2.30 was as follows: "In its EIS, CN stated that the Brampton Intermodal Terminal is approaching capacity and the Project is designed to handle approximately 450,000 containers per year. The maximum capacity of the Brampton Intermodal Terminal and whether the Project could exceed 450,000 container per year is not clear […]"; Panel IR 2.30(d): "Based on the response to 2.44, and if the Project is capable through redesign or efficiencies, of handing more than 450,000 containers annually, provide an estimate for the maximum number of trucks that would be required to serve the Project's ultimate capacity." Panel IR2.44 Rationale: "Throughout the EIS, CN stated that the Project is forecasted to handle approximately 350,000 containers annually at the start of operation and up to 450,000 containers annually at full operation…The potential build-out of the Project, as well as peak traffic flows is unclear." Panel IR 2.44(a): "General describe design changes and efficiencies that were applied at the Brampton Intermodal Terminal. Provide an analysis of whether these, or other measures, could be applied to the Project, if market demands require an increase in the capacity of the Project beyond the anticipated maximum of 450,000 containers per year. If so, provide an estimated ultimate capacity of the Project given any improvements that could be undertaken."

[5] CEAR 592, August 31, 2017, CN IR Response to IR 2.30(d)

[6] CEAR 592, August 31, 2017, CN IR Response to IR2.44(a)

[7] The Mott McDonald Report,"CEAR #799", May 29, 2019

[8] CEAR 592, August 31, 2017, CN Response to IR 2.30(c); CN Response to IR 2.32(a)

of which would cause direct and substantial harm to CN."[9] Yet again, CN only provided its Southern Ontario Market Forecast on June 14, 2019, as part of its technical presentation on the Project during the public hearing.[10]

7. Another example of CN's lack of disclosure relates to an undertaking that CN agreed to fulfill during the hearing. CN was asked through the Panel during the public hearing to provide a map for both the BIT and the proposed Project, and to include such information as the "number of pad tracks, the number of service tracks and the length of those, the number of reach stackers, area for the storage yard, how many entrance-exit lines there are and the number of inbound and outbound gates".[11] Despite agreeing to an undertaking to fulfill this request,[12] CN first only provided this information in respect of the BIT,[13] and even when specifically asked,[14] only provided some of this information in respect of the proposed Project.[15] When the Halton Municipalities followed up on these outstanding responses,[16] CN tried to avoid the question saying that comparisons between the BIT and the proposed Project were irrelevant.[17] As the BIT is the only other CN intermodal project in Ontario, and the proposed Project is intended, in part, to alleviate the overcapacity at the BIT, it is hard to understand what other Project could be more relevant.[18] Importantly, as the purpose of these requests was for our expert to do a comparison between the intermodal container capacity of

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[9] CEAR 656, June 15, 2018, CN Response to IR 4.6
[10] CN Technical Presentation on Project Capacity, CEAR 843, June 17, 2019, slide 23.
[11] Undertaking 13-B ("CEAR 922"), July 3, 2019.
[12] Tr Hr, 997:1-25 to 998:9-24, June 25, 2019; Tr Hr, 1753:21-22, June 28, 2019.
[13] Undertaking 13 ("CEAR 882"), June 27, 2019.
[14] Tr Hr, 1753:2-18, June 28, 2019.
[15] Undertaking 13-B ("CEAR 922"), July 3, 2019.
[16] Letter from Gowling WLG to Darren Reynolds, CN re "CN's Response to Undertakings at Milton Logistics Hub Project Review Panel Process", July 9, 2019, attached to this Appendix.
[17] Letter from Darren Reynolds to Gowling WLG re "Responses to Undertakings at Milton Logistics Hub Project Review Panel Process", July 12, 2019, attached to this Appendix.
[18] CN has taken an inconsistent position on the BIT. CN used the BIT for comparative purposes when it was beneficial to CN. For example, CN, in its traffic modelling, used origin/destination patterns based on the BIT, even though this approach did not reflect market conditions in Milton. See: Traffic and road safety presentation, CEAR 838, June 26, 2016, at p. 30.

the BIT and MIT, it necessarily included the quantity of BIT's lift operations. CN's failure to provide this information results in the Panel not having vital information about the capacity of the proposed Project.

8. Lastly, CN has withheld important human safety information, despite repeated requests of the Panel and parties. Importantly, the Panel requested that CN provide "information on the anticipated type and **quantity** of transported materials, including a breakdown of dangerous goods" in IR 2.37.[19] CN has never provided this information.

9. In response to the original Panel request, CN only provided a list of the types of dangerous goods moved through the BIT, which had no information on the quantity of dangerous goods and did not address the estimated dangerous goods for the MIT.[20] Without quantities of the dangerous goods, a quantitative risk analysis could not be completed, an issue repeatedly raised by the Halton Municipalities.[21]

10. Then, during the hearing, on June 28, 2019, CN agreed to provide information on the container volumes of 20 dangerous goods moved through the BIT, which were of concern to the Halton Municipalities due to their potential for offsite hazardous effects. [22] Although CN stated it could fulfill this undertaking, namely to complete the table provided by the Halton Municipalities, and provided its response half a week after it promised to do so, CN provided no information about the container volumes of the DGs.[23] Again, without information on the

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[19] CEAR 563, May 5, 2017, IR 2.37.
[20] CEAR 592, August 31, 2017, Attachment 2.37-2.
[21] CEAR 667, July 16, 2018, p. 29; CEAR 742, April 9, 2019, at p. 202, 214, 240, 252; Presentation of Dr. Frank Bercha on behalf of the Halton Municipalities re Human Safety ("CEAR 839"), June 17, 2019, at Slide 7.
[22] Tr Hr, 1751 21-25, June 28, 2019; Tr Hr, 2089:3-6, July 8, 2019.
[23] Undertaking 26 (CEAR 932), July 9, 2019.

container volumes, even a preliminary quantitative risk assessment could not be prepared for the Panel to have all of the information required to assess human safety effects.

CN's pattern of criticizing Halton Municipalities' experts after they presented

11. The Panel provided the parties opportunities to make oral presentations, and allowed parties and participants to ask questions of presenters after each presentation. This procedure would have allowed for meaningful dialogue about the environmental effects at issue to assist the Panel in fulfilling its fact-finding mandate.

12. CN chose not to engage in the procedure established by the Panel. Instead, CN followed a pattern of not engaging with presenters and experts following their presentations, and then criticizing these presenters after they had left and were unable to respond.

13. In particular, CN's closing submissions were meant to be an opportunity for CN to summarize "what it heard or what it said during the day".[24] Instead, for the first week and a half of the hearing, CN used its "closing submissions" to attack experts and presenters who were no longer before the Panel. For example, during closing remarks for June 25, 2019, CN raised new criticisms of Dr. Bercha's statistics, which were not raised directly after Dr. Bercha's presentation through a question, comment or otherwise.[25] As a result, the Panel directed the parties as follows:

> The Panel is here in part to allow for a meaningful discussion of issues of concern to all interested parties. The discussions between the technical experts have been valuable so far, and we encourage that during the sessions, where that discussion can happen, and not just at the end of the day or the end of the hearing, when we're no longer able to get to the bottom of the issue.[26]

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[24] Tr Hr 1892:25 to 1893:1-3, June 28, 2019.
[25] Tr Hr, 1134–1135, June 26, 2019. Note that CN's delivered its closing remarks for June 25, 2019 on June 26, 2019.
[26] Tr Hr, 1891:9-21, June 28, 2019.

14. The Panel thus ruled that CN's daily closing remarks "will not be an opportunity to offer additional response or new information".[27]

15. Further, as part of its response to Undertaking 15, CN included a cover memorandum, which took issue with our expert, Mr. Almuina's, presentation when those issues could have clearly been taken up with Mr. Almuina during his presentation by way of questioning.[28]

16. Although the Panel allowed our experts to respond to CN's criticisms by way of letters to the Panel to correct CN's attempt to prevent a two-way discussion of key issues, CN still took the opportunity to file a response to those responses at the last hour in order to get the last word.[29] Again, this back and forth letter-writing procedure does not allow the Panel to get to the "bottom of the issue".[30]

CN did not allow for unresponsive undertakings or follow-up questions to be addressed with the Panel as directed

17. During the public hearing, the Halton Municipalities requested guidance on how the Panel would like to handle the situation where a participant is dissatisfied with the content of a response to an undertaking in terms of how they should bring that to the Panel to be most effective and efficient. The Panel's response was as follows:

> So the first thing the Panel would like to say is that, where possible, we would encourage parties to speak to each other, to see if in fact there may be a misunderstanding, or it may be something fairly simple. Please, we will encourage you to speak to each other and see if you can resolve the matter without bringing it to the Panel. That would be wonderful.

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[27] Tr Hr, 1893:3-6, June 28, 2019.

[28] Despite that the fact that the Panel ruled that the cover memorandum was to be excluded as part of the response to Undertaking 15, this cover memorandum containing new technical information, interpretation of the 2008 BA Report and criticisms of the Halton Municipalities' expert opinions, was accepted as Exhibit #10 (CEAR 937) to the record.

[29] Letter from CN re: Response to Supplemental Evidence filed with the Panel by Halton Municipalities, July 12, 2019, enclosing memorandum from BA Group to CN, dated July 11, 2019 re: Response to… Response from Dr. Hadayeghi to Panel Questions on Modelling at p.2-4 and Letter from Darren Reynolds to the Review Panel Chair re: Response from Dr. Frank Bercha to CN remarks regarding accident and malfunctions, dated July 12, 2019 ("CEAR #964")

[30] Tr Hr, 1893:3-6, June 28, 2019.

> Failing that, though, this is the procedure we'd like to ask, we would like, if a participant has something they want to bring to the Panel, we are asking for a written list -– this can be short -– a written list that indicates which undertakings they are concerned about, very briefly explains what the issue is for each of those, and then -– and this is very important –- please, again, briefly explain why you believe that it's important to revisit the undertaking, or the response to the undertaking to explain what the relevance of that would be to the Panel's conclusions and recommendations. Because that's what we're here for and that's what we really care most about.[31]

18. Following that guidance, the Halton Municipalities wrote to CN on the next day, July 9, 2019, requesting additional information for three undertakings, and asking for a response by Thursday, July 11, 2019.[32]

19. CN did not provide its response until Friday, July 12th at 6:00 p.m.,[33] which did not allow the Halton Municipalities adequate time to review and raise the issues with the Panel and for the Panel to provide its decision on the undertakings 5, 6 and 13, as directed. The lack of information has thus been discussed throughout the closing remarks. The Halton Municipalities maintains its position that undertakings 5, 3 and 13 are unresponsive.[34]

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[31] Tr Hr, 2148:22-5 to 2149:1-18, July 8

[32] Letter from Gowling WLG to Darren Reynolds, CN re "CN's Response to Undertakings at Milton Logistics Hub Project Review Panel Process", July 9, 2019, attached to this Appendix.

[33] Letter from Darren Reynolds to Gowling WLG re "Responses to Undertakings at Milton Logistics Hub Project Review Panel Process", July 12, 21019, attached to this Appendix.

[34] Tr Hr, 3479:25 to 3495:8, July 12

July 9, 2019

Natalie Rizkalla-Kamel
<contact information removed>

Darren Reynolds, MLH Project Director
Canadian National
61 James Snow Parkway, Suite 202
Milton, ON L9E

By email: <email address removed>
CEAR registry 80100

Dear Mr. Reynolds:

RE: CN's Response to Undertakings at the Milton Logistics Hub Project Review Panel Process

On behalf of the five Halton Municipalities, and pursuant to the Panel Chair's direction on July 8, 2019, we write with respect to CN's responses to certain undertakings. In particular, we ask CN to address the following comments and questions related to undertakings 5, 6, and 13.

Undertaking #5

This undertaking required CN to provide additional information on the options and factors that may influence CN's decision to divert trains between BIT and MIT. In response to this undertaking, CN stated "CN looked at all traffic movements and determined what origins and destinations would work best. CN considers a logical segment of traffic that will reduce the rail transit time to get to the final destination and the reliability of the train service to get in and out of the terminal."

It is Halton Municipalities' view that this answer is insufficient to allow participants and the Panel to understand how trains would be diverted from BIT to MIT. We thus ask CN to provide the additional information on the **options and factors** considered, as requested by the Panel Chair.

Undertaking #6

This undertaking required that CN provide an example of a contract between CN and a CNTL truck operator. This was to determine whether the contract contains provisions similar to the Vancouver Fraser Port Authority licensing system that was being referred to when the undertaking was given. This undertaking was due on June 25, 2019.

CN did not produce a full contract. Rather, on June 24, 2019, CN provided an agreement between CNTL and the union representing CNTL owner/operators regarding truck specifications, and a copy of

Schedule C to CNTL's standard contract with Owners/Operators that provides information about rules and regulations that apply to all CNTL Owners/Operators (CEAR #878).

Where CN cannot provide the full contract and for the assistance of the Panel and the participants, we ask CN to confirm that the remainder of the standard contract between CN and a CNTL truck operator does not contain:

- An opacity testing requirement;
- Approved emissions reduction measures for older trucks;
- GPS to be installed on trucks; or
- A requirement for heavy trucks to take certain routes.

Undertaking #13

As part of CN's response on July 3, 2019, it provided the number of reach stackers at the Brampton Intermodal Terminal. The purpose of the Halton Municipalities' question was to be able to have the required information to do a comparison between the intermodal container capacity of the Brampton Intermodal Terminal and the proposed Project. When Halton Municipalities requested the number of reach stackers at the Brampton Intermodal Terminal, the request necessarily included the quantity of any lift operations. Accordingly, we ask CN to clarify whether there are any other lift operations, other than reach stackers, at the Brampton Intermodal Terminal e.g. Rubber Tired Gantry cranes (RTGs), and if so, the quantity in operation at the Brampton Intermodal Terminal.

We look forward to your response by the morning of Thursday July 11, 2019 or earlier.

Sincerely,

Gowling WLG (Canada) LLP
<Original signed by>

Natalie Rizkalla-Kamel

NRK

Canadian National

Darren Reynolds
Project Director

61 James Snow Parkway
Milton, Ontario Canada
L9E 0H1

July 12, 2019

Natalie Rizkalla-Kamel
Gowling WLG (Canada) LLP
Suite 1600, 1 First Canadian Place
100 King Street West
Toronto ON
M5X 1G5 Canada

By email
Dear Rizkalla-Kamel:

RE: Responses to Undertakings at the Milton Logistics Hub Project Review Panel Process

I am writing in response to your letter from July 9, 2019 regarding your request for additional information on Undertakings 5, 6 and 13.

With respect to Undertaking #5, regarding the factors that would influence CN's decision to handle traffic in Milton versus Brampton. There are several operational and customer service factors that Mr. Lerner covered during his presentation. For example, we would consider factors such as distance to market (example Chicago), historical schedule performance, transit time (example Halifax or Montreal), impact to existing train service, volume (for example Alberta, Saskatchewan or Manitoba), import/export balance, and customer requirements for origin/destination, to name a few.

With respect to Undertaking #6, the contract that was provided is an example of how truck requirements have been addressed in a contract. The mitigation measure to route trucks along a specific route would be a unique mitigation measure associated with the Milton Logistics Hub project and as such would not be within an existing contract with CNTL. CN equips all CNTL trucks with GPS units. In Ontario, all heavy duty diesel vehicles must undergo annual emissions testing for registration renewal. You will note in the contract Schedule C provided that all truck drivers must comply with this standard.

With respect to Undertaking #13, as mentioned several times throughout the hearing, CN is not trying to replicate the Brampton Intermodal Terminal (BIT). The proposed layout and operation of BIT is different than that which is proposed for the Milton Logistics Hub. The Undertaking requested that CN provide the number of reach stackers and we respectfully disagree that the Undertaking was to outline lift operations. Through our material, we have described the amount of new capacity required in the Southern Ontario area and how the Milton Logistics Hub will address this need. BIT is not the project that is being assessed and this type of information is not supportive in assessing the project at hand. I would like to reiterate, CN is not looking to replicate the BIT facility and, as such, this would not be a reasonable comparison to make.

Thank you for your consideration of this additional information.

Sincerely,

<Original signed by>

Darren Reynolds
Project Director

APPENDIX “D”

APPENDIX D - REASONABLENESS OF LOCATION

1. If the Minister or the Cabinet approves the Project, the Canadian Transportation Agency (**"CT Agency"**) must determine whether to approve the construction of any new railway line, and may grant such approval "if it considers that the location of the railway line is reasonable, taking into consideration requirements for railway operations and services **and the interests of the localities that will be affected by the line**".[1]

2. In *Sharp v Canadian Transportation Agency*[2] the Court established the CT Agency's mandate in relation to section 98:

> ¶5 Section 98 requires a railway company to obtain Agency approval before a line of railway is constructed, unless the line is within an existing line or close to an existing line and not more than 3 km in length. The Agency may grant approval if it considers that the location of the line is reasonable, considering requirements for railway operations and services and the interests of the affected localities….
> […]
> ¶6 Subsection 98(2) requires the Agency to focus on whether the "location of the railway line is reasonable". […] it is apparent that Parliament distinguished between construction and location, limiting the Agency's role to considering only the reasonableness of the location of the line…
> […]
> ¶8 …. What is contemplated is localities bringing to the attention of the Agency their concerns respecting the location of the line and the Agency having regard to those concerns in determining whether the location is reasonable. It is, of course, open to the Agency to determine that a location is not reasonable, in which case it will not grant approval for the construction of the line.

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[1] Section 98 of the *Canadian Transportation Act*.
[2] *Sharp v Canadian Transportation Agency*, 1999 CarswellNat 1072 [Attachment 2].

3. Compared to its predecessors, CN's current proposal is fundamentally incompatible.

4. Put simply, in the face of intensified residential development, CN's 2015 proposal presents the greatest incompatibility with residents.

5. Further, as set out in detailed submissions to this Panel, and the attached planning opinion of the Region's Chief Planning Official, Curt Benson, the Halton Municipalities find that, taking mitigation into account, the proposed CN Milton Logistics Hub Project is likely to cause many significant adverse environmental effects (**"SAEEs"**). These include SAEEs on the health and quality of life of tens of thousands Milton residents. These also include cumulatively significant adverse environmental effects on approved residential and employment land uses, regional road use, and municipal planning, servicing, and finances.

6. This Project is likely to cause these SAEEs because this location fails basic tests of land use compatibility and conformity. The most serious incompatibility arises from adverse effects on off-site residents and sensitive land uses planned more than 30 years ago . The most serious source of non-conformity is this Project's failure to provide employment at levels that meet employment targets CN agreed to with the Region more than 10 years ago.

7. Beyond SAEEs, the fundamental problem with this Project is the absence of any CN accountability. The degree of growth planned for Halton and Milton demands the comprehensive and integrated planning directed by the Province and implemented by Halton Region and the Town of Milton. By contrast, since changing course in 2015, CN has insisted on its own unilateral planning, upended its prior commitments, and denied the need to comply with any provincial and municipal laws or standards. CN's position, in effect, is that the interests of the affected localities has no bearing on this Project. That position ought to be of serious concern to the CT Agency.

APPENDIX “E”

APPENDIX E - ALTERNATIVE METHODS

1. It is necessary to consider alternative means of carrying out a project where that project will cause significant adverse effects. Jurisprudence on CEAA explains the relationship between SAEEs and alternative means of carrying out a project. According to this jurisprudence, CEAA does not require that a proponent choose the alternative that has the least environmental impact. It simply requires that the proponent avoid causing SAEEs.

2. This principle was established in *Inverhuron District Ratepayers v. Ontario Hydro*:

> The broadest of the appellant's arguments is an implicit attack upon the use of any significance threshold for radiation effects. The appellant raises the so-called ALARA ("As Low As Reasonably Achievable") principle, arguing that the only appropriate design for the project was the one which caused the least environmental effect at a reasonable cost. For the purposes of the argument before us, it says that the reference design was the appropriate choice since its effects would be less than the final design and they could be achieved at a reasonable cost.
>
> The appellant claims that the spirit of the ALARA principle is incorporated into subs. 16(2)(b) of the Act, which requires that a comprehensive study include a consideration of alternative means of carrying out a project that are technically and economically feasible and of their environmental effects. There is no question that this provision mandates consideration of alternatives with respect to cost and environmental impact. However, there is equally no question in my mind that it does not go as far as to mandate that the alternative with the least environmental impact be selected. To do so would be to contrary to the scheme of the legislation. The approach of the Act is to require a finding that the alternative chosen not be likely to cause significant adverse environmental effects in order for it to proceed.

3. If the proponent's preferred option avoids SAEEs, then it is irrelevant that there is an alternative with lower impacts. By contrast, if a panel concludes that a proponent's preferred

option is likely to cause an SAEE, then it is necessary to review alternatives that may avoid SAEEs.

4. On the basis of the predictions of many SAEEs, the Halton Municipalities submit that alternative locations for the project's location should be reviewed.

5. Two points merit particular attention. First, according to assessment carried out by Cushman & Wakefield and endorsed by CN in 2015, there were over 20 alternative locations in the area that merited consideration. Second, Cushman & Wakefield's assessment used "Planned or designated residential use (based upon approved municipal Official Plans) is located within 300m of the corridor" as a screening criterion for excluding sites from further consideration:

> First, the project development area for the Project is well within 300m of an existing and approved residential community. Therefore, CN cannot meet this criterion at this Project location as currently designed.
>
> CN has confirmed that there will need to be rail yard tracks installed north of Britannia Road to enable train movements to position trains along pad tracks. The train movements that occur north of Britannia to position trains along the pad tracks are different from movements expected on the mainline. This distinction is important as the effects from rail yards are considered differently from rail lines and there are different planning approaches when dealing with rail yards.
>
> The 300m separation requirement is consistent with the minimum distance separation between sensitive land uses and rail yards in accordance with the Provincial D-6 Land Use Compatibility Guidelines and implements key directions of the ROP and Provincial Policy Statement. Separation of incompatible land uses is the most effective way to avoid land use conflicts, from two perspectives:
>
> 1. To prevent adverse effects from industrial noise, odour, dust and/or air emissions on sensitive land uses or receptors (people, homes, schools etc.); and

2. To ensure that operators of industrial land uses can operate under normal conditions without being encumbered by complaints from nearby residents.

   Separating conflicting land uses is a fundamental and basic principle of planning and in my opinion, has not been appropriately considered by CN in its site selection analysis.[1]

6. Based on this input, the Halton Municipalities submit that the proponent has failed to demonstrate that the proposed location should even be considered as one of the various alternative locations for this Project.

7. Equally, the proponent has <u>not</u> demonstrated that there is no other reasonable location for this facility, especially given the SAEEs arising from this specific Project location.

8. CN has also failed to demonstrate the merits of the proposed location of its access onto Britannia Road. The Region has longstanding criteria for such access – now implemented by Region by-law. CN has simply ignored these criteria as well as the natural heritage designation provided by the Region in its official plan. The planning opinion of Curt Benson and Lisa De Angelis the June 25th presentation to the Panel provides greater details on these points.

[1] See Appendix B, Planning Opinion of Curt Benson, at p. 7.