



Wendy Walberg LL.B., LL.M., *C.S.

City Solicitor

Legal Services

55 John Street

Stn. 1260, 26th Flr., Metro Hall

Toronto ON M5V 3C6

Tel. (416) 392-8047

Fax (416) 397-5624

** Certified by the Law Society as a Specialist
in Municipal Law: Local Government*

Reply To: NICHOLAS ROLFE

Tel: (416) 392-7246

Fax: (416) 397-5624

Email: nicholas.rolfe@toronto.ca

January 24, 2020

Ontario Energy Board
2300 Yonge Street, 27th floor
P.O. Box 2319
Toronto, ON M4P 1E4
Attn: Kirsten Walli, Board Secretary

Sent by courier and by email to: boardsec@oeb.ca

Dear Ms. Walli:

**Re: Imperial Oil Limited Application Number EB-2019-007 for Leave to Construct –
Waterdown to Finch Project (the "Project")**

Please find enclosed two copies of the submissions of the City of Toronto, including a confidential attachment.

Copies of Toronto's submissions (without the confidential attachment) will be provided electronically to the parties and filed on RESS.

Pursuant to the Practice Direction on Confidential Filings, Toronto will make the confidential attachment available to the OEB only. We would be pleased to provide the confidential attachment to any party(s), if so directed.

Yours truly,

A handwritten signature in black ink, appearing to read "Nicholas Rolfe".

Nicholas Rolfe
City of Toronto, Legal Services

**Imperial Oil Limited
Construction of the Waterdown to Finch Project**

**Application under section 90(1) of the *Ontario Energy Board Act, 1998*
OEB File Number EB-2019-0007**

City of Toronto – Submissions

Table of Contents

A.	Summary	3
B.	Rigorous Conditions of Approval are Needed	4
B.1	Oil Pipelines Need More Rigorous Conditions than Gas Pipelines	4
B.2	The Provincial Policy Statement Requires Rigorous Conditions	5
B.3	Conditions Should Address Unresolved Municipal, Aboriginal, and OPCC Concerns	6
B.4	Rigorous Conditions are Needed Due to Gaps in the Environmental Report	7
C.	OEB Review is not Ousted by TSSA Review	9
D.	General Conditions	9
E.	Construction Matters	10
F.	Financial Assurances	10
F.1	Environmental and Landowner Concerns Require Financial Assurances	11
F.2	Authorities Support Requiring Financial Assurances	12
G.	Emergency Preparedness and Response	13
G.1	Thorough Emergency Preparedness is Needed	14
G.2	The Provincial Policy Statement and Environmental Guidelines Support the Requested Conditions	15
H.	Source Water Protection	16
H.1	Protecting Drinking Water Must be Mandatory	16
H.2	The PPS and Environmental Guidelines Support LO-PIPE-1 Compliance	17
I.	Project Impacts	18
I.1	Sensitive Sites Need Trenchless Installation	19
I.2	Coordination and Restoration is Needed for Parks	19
I.3	Conditions are Needed to Protect Municipal Infrastructure	20
I.4	Conditions are Needed to Protect Allotment Gardens	20
I.5	The Provincial Policy Statement and OEB Environmental Guidelines Require Minimizing Project Impacts	21
J.	Conclusion	21
	Appendix A: Proposed Conditions and Supporting Provisions	23
	Appendix B: Provincial Policy Statement, 2014 Extracts	36
	Appendix C: LO-PIPE-1 Policy	42
	Appendix D: Confidential Attachment	(Submitted Separately)

A. SUMMARY

1. Toronto's interest in this Project is focussed on protecting residents, the environment and businesses. These matters fall within the Ontario Energy Board's consideration of environmental and landowner concerns.

2. The pipeline will travel through multiple municipalities, with a combined population of approximately 6,675,585 people. Toronto submits that the pipeline must be built and operated so as to be compatible with dense urban surroundings, natural areas, municipal infrastructure, and the 88 watercourses that it crosses.

3. Oil pipelines pose greater risks than gas pipelines. They are a significant issue across Canada, garnering increasing public awareness and attention. This comes in the wake of events such as the 2010 Enbridge Line 6B spill in Marshall, Michigan. That spill released approximately 3.2 million litres of oil and caused at least \$1.2 billion U.S. dollars in damages.

4. Toronto is agreeable to the Project, provided that it is subject to conditions proportionate to the impacts and risks it poses. Toronto respectfully requests conditions pertaining to:

- a. construction matters, to minimize impacts from building the pipeline;
- b. financial assurances, to guarantee that Imperial will compensate and remediate damage from spills, explosions, *etc.*,
- c. emergency preparedness and response, e.g. ensuring that Imperial will respond rapidly to spills or leaks, and that Toronto's first responders are given the tools they need to address pipeline emergencies;
- d. source water protection, and;
- e. pipeline impacts, to minimize negative effects on Toronto's key infrastructure.

5. A liaison group of governments and regulators, including the Regional Municipality of Halton, the City of Mississauga, the Regional Municipality of Peel, the City of Toronto, and the Toronto and Region Conservation Authority, has collaborated regularly on this Application. These agencies share similar concerns and have worked collaboratively to advance common interests. Toronto adopts and relies on the submissions of the intervening municipalities, with the exception of submissions specific to those municipalities

B. RIGOROUS CONDITIONS OF APPROVAL ARE NEEDED

6. Toronto seeks conditions pertaining to construction, financial assurances, emergency response, and pipeline impacts. These matters fall within the ambit of "public interest" under section 96 of the *Ontario Energy Board Act*, which includes the Ontario Energy Board ("OEB")'s examination of landowner, environmental, and design and safety impacts.¹ As with other intervening municipalities, Toronto is a major landowner with billions of dollars of infrastructure along the pipeline route, and responsibilities for emergency services and clean drinking water.

7. Standard conditions of approval are inappropriate. This is a non-standard application, for four reasons:

- a. The pipeline will transport oil, not gas;
- b. it will pass through Canada's largest population centre;
- c. there are significant unresolved intervenor, aboriginal, and Ontario Pipeline Coordinating Committee ("OPCC") concerns, and;
- d. there are major omissions in Imperial's Environmental Report.

B.1 Oil Pipelines Need More Rigorous Conditions than Gas Pipelines

8. Toronto's proposed conditions are more extensive than those in recent gas pipeline decisions.² Toronto respectfully submits that rigorous conditions are appropriate given that oil pipelines' greater risks³. Toronto's proposed conditions aim to address the risks arising from a pipeline travelling through dense, heavily populated urban areas, and near to the drinking water source of millions of residents.

9. With respect to both landowner and environmental impacts, the OEB has recognized (in the context of the Energy East crude pipeline proposal) that oil pipelines pose far more profound risks than gas pipelines.⁴ The National Energy Board has similarly recognized oil pipelines as riskier than gas pipelines.⁵

¹ See e.g. EB-2017-0118, p 4.

² See e.g. EB-2018-0263.

³ Ontario Energy Board, [Giving a Voice to Ontarians on Energy East: Report to the Minister](#), dated August 13, 2015, pp 8, 58, City of Toronto Evidence Tab 1 [Energy East].

⁴ *Ibid.*

⁵ *TransCanada PipeLines Ltd (Re)*, 2005 LNCNEB 13, p 64.

10. Toronto submits that the closest precedent is the National Energy Board's Line 9 decision.⁶ That pipeline carried oil, and ran through Toronto and other densely populated areas⁷. The National Energy Board set out highly prescriptive requirements, including for environmental protection, emergency management, training, watercourse crossing requirements, geohazard management, noise consultation, and ongoing consultation.⁸

11. The decisions cited by Imperial Oil in its Argument-in-Chief are for gas pipelines, and are largely for rural areas. As such, they are distinguishable and less relevant to this Application.

B.2 The Provincial Policy Statement Requires Rigorous Conditions

12. OEB decision-making must be consistent with the Provincial Policy Statement ("PPS"). This is set out in section 3(5) of the *Planning Act*,⁹ section 4.2 of the PPS,¹⁰ and in the OEB's Environmental Guidelines for Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario ("Environmental Guidelines").¹¹ In a judicial review, the Divisional Court held that "consistent with" requires following the PPS, not merely taking it into account.¹²

13. PPS compliance requires a rigorous set of conditions for this oil pipeline. PPS imperatives include protecting natural features and areas, prohibiting or restricting development adjacent to natural areas, minimizing potential negative impacts to water quality, and restricting on site alteration to protect municipal drinking water. Specific PPS provisions are mapped to Toronto's requested conditions at Appendix A.

14. The PPS supports securing municipal concerns:

A coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, across lower, single and/or upper-tier municipal boundaries, and with other orders of government, agencies and boards...¹³

⁶ *Enbridge Pipelines Inc (Re)*, 2014 LNCNEB 4.

⁷ *Ibid*, paras 43-44, Figure 2-1.

⁸ *Ibid* at Appendix IV.

⁹ RSO 1990, c P13.

¹⁰ Provincial Policy Statement, 2014.

¹¹ Environmental Guidelines, p 28.

¹² *R & G Realty Management Inc v North York (City)*, [2009] OJ No 3358, paras 20-21.

¹³ PPS, s 1.2.1.

This applies to natural heritage, water, and cultural heritage, infrastructure development, energy transmission, watershed, and Great Lakes issues.¹⁴

15. The PPS supports the coordinated and efficient development of infrastructure, including pipelines. This is consistent with Toronto's support for the Project, if it is subject to conditions satisfying PPS requirements for protecting natural features, water quality, *etc.* Section 4.2 of the PPS provides that it is to "be read in its entirety and all relevant policies are to be applied to each situation".

B.3 Conditions Should Address Unresolved Municipal, Aboriginal, and OPCC Concerns

16. Rigorous conditions are necessary due to the significant and unresolved concerns of the municipal intervenors. Toronto provided its proposed Conditions of Approval (found at Appendix A of these submissions) to Imperial on December 10, 2019, and asked for Imperial's position on same. Imperial's response, delivered the day before Toronto's submissions were due, was that these conditions were not "appropriate or proper".

17. *Per* the Environmental Guidelines, "[i]f matters are not resolved by the completion of the record and if the issue is within OEB's authority, the OEB may impose related conditions to its leave to construct and other related approvals".¹⁵

18. From Imperial's submissions, it appears that the Huron-Wendat Nation also has outstanding concerns.¹⁶ Imperial indicates that its consultation efforts have not been endorsed by the Ministry of Energy, Northern Developments, and Mines.¹⁷ Similarly, Imperial is proposing not to follow the recommendations of the OPCC.¹⁸

19. Imperial has not presented any settlement agreements in this Application. In its Reply to Interrogatories, it indicated that no permanent easements and only 3.37% of temporary workspace had been acquired.¹⁹

¹⁴ *Ibid.*

¹⁵ Environmental Guidelines, p 9.

¹⁶ Imperial Oil Argument-in-Chief, paras 66-68.

¹⁷ Imperial Oil Argument-in-Chief, para 84.

¹⁸ Imperial Oil Argument-in-Chief, para 89.

¹⁹ Imperial Oil Reply to Interrogatories, pp 85-86 of 168.

20. OEB decisions routinely consider the presence or absence of unresolved intervenor, landowner, aboriginal, and/or OPCC concerns.²⁰ All four sets of concerns are present here.

B.4 Conditions Are Needed Due To Gaps In The Environmental Report

21. Imperial's Environmental Report has three major omissions:

- a. it has next to no analysis of post-construction impacts, and glosses over the effects of a pipeline spill;
- b. it has a narrow study area that excludes downstream and Great Lakes impacts, and by extension ignores risks to drinking water sources for millions of Ontarians, and;
- c. it has minimal quantification of risks and impacts, contrary to the Environmental Guidelines.

22. Toronto respectfully submits that rigorous conditions are necessary given the Environmental Report's omissions. This is consistent with OEB precedent, which evaluates compliance with the Environmental Guidelines.²¹

23. Imperial must either comply with the Environmental Guidelines, or show why strict compliance is not practical or in the public interest.²² It has done neither.

24. The Environmental Guidelines:

- a. set out that the OEB considers environmental impacts, "broadly defined to include impacts on all components of the environment";²³
- b. require an applicant to "[p]redict potential environmental impacts expected to occur during construction and operation of the project";²⁴
- c. note the likelihood of off-site impacts, such as areas downstream of a water crossing, and require minimizing impacts on municipal water supplies;²⁵

²⁰ See e.g. EB-2017-0118, p 7; EB-2018-0188, pp 9-10.

²¹ EB-2012-0226/EB-2012-0227, p 6

²² Environmental Guidelines, p 2

²³ *Ibid*, pp 3-4.

²⁴ *Ibid*, p 27 [emphasis added].

²⁵ *Ibid*, pp 23, 37.

- d. require describing all reasonable mitigation and enhancement measures for each potential impact, and;²⁶
- e. require that all reasonable efforts be made "to quantify effects and impacts (e.g. distances, number and duration of occurrences, noise levels, traffic volumes, dust concentrations)".²⁷

25. The Environmental Report concedes that it "primarily addresses the potential effects and mitigation to be applied during pipeline construction".²⁸ Of its 243 pages, less than a page discusses the impacts of a spill and associated mitigation measures, and simply states that "in the unlikely event of a spill, the net effects to surface water, groundwater and soil quality can vary"²⁹. This is insufficient.

26. The Environmental Guidelines require describing all relevant environmental and social impacts from construction and operation, defined by significance and not merely likelihood.³⁰ The failure to comprehensively address a contingency as significant as an oil spill in Canada's most populous region is a red flag that warrants stricter Conditions of Approval.

27. The study area for the Environmental Report is incomplete. It excludes surface waters more than 500 meters downstream of watercourse crossings.³¹ This is despite Imperial's acknowledgement that the pipeline route "transects twelve major watersheds, which all drain into Lake Ontario".³² Imperial further acknowledges that "most of the households within the Greater Toronto and Hamilton Area are connected to municipal water supply systems with water supply from Lake Ontario".³³ The study area disregards socioeconomic impacts more than 250 meters away from the pipeline, and cultural heritage features more than 62.5 meters away from it.³⁴

²⁶ *Ibid*, p 26.

²⁷ *Ibid*, p 27.

²⁸ Imperial Oil, Waterdown to Finch Project Environmental Report, dated February 2019, p 2-13 [Environmental Report].

²⁹ *Ibid*, pp 5-34 to 5-35.

³⁰ Environmental Guidelines, p 27.

³¹ Environmental Report, *supra* note 28, p 4-2.

³² *Ibid*, p 4-9.

³³ *Ibid*, p 5-6.

³⁴ *Ibid*, p 4-2.

28. These omissions—for a proposed pipeline through the largest population centre in Canada—invite strict scrutiny and rigorous conditions of approval. This is particularly so given the past spill on an adjacent section of Imperial pipeline.³⁵

C. OEB REVIEW IS NOT OUSTED BY TSSA REVIEW

29. TSSA review is complementary to the OEB's consideration of environmental and landowner concerns. Imperial has repeatedly represented in consultations that the "major regulatory process will be the filing of the leave to construct application with the OEB".³⁶

30. In an October 25, 2019 letter, the TSSA indicates that it will be reviewing technical aspects of the pipeline, such as material specification, wall thickness, and valve spacing. This review is welcome. It is distinct from the conditions that Toronto is requesting, which go to environmental and landowner concerns outlined in the Environmental Guidelines.

31. An analogy can be made to the OEB's treatment of OPCC recommendations (which include those of the TSSA):

The OPCC's position on a project's environmental impacts does not preclude any intervenor, or OEB staff, from raising environmental concerns at the hearing. The OEB will take OPCC and all intervenor recommendations into account, but always has the final decision.³⁷

D. GENERAL CONDITIONS

32. Toronto requests standard conditions that Imperial:

- a. cause the Project to be designed, planned, constructed, and operated in accordance with its evidence and commitments in this Application;
- b. obtain all necessary authorizations for the design, planning, construction and operation of the Project, and;
- c. file and update a commitments tracking table to enable the transparent review of its adherence to its obligations.

³⁵ Imperial Waterdown to Finch Project: Proponent's Response to Information Requests on the Waterdown to Finch Pipeline Application, dated August 2019, p 13 of 168 [Response to Interrogatories].

³⁶ Waterdown to Finch Project Indigenous Consultation Logs Backup Documentation to January 2019, Tab 2, Schedule 2, p 10 of 33; Tab 2, Schedule 3, p 7 of 30; Tab 2, Schedule 3, p 25 of 30; Tab 2, Schedule 5, p 3 of 40; Tab 2, Schedule 5, p 36 of 40.

³⁷ Environmental Guidelines, p 8 [emphasis added].

33. These conditions are consistent with the Environmental Guidelines, which provide that:

pipeline construction and restoration of the land must be according to the evidence presented at the relevant hearing. This is a standard condition of approval as part of the OEB order approving the project.³⁸

34. They are similarly consistent with section 1.2.1 of the PPS, which mandates a coordinated approach between municipalities, other orders of governments, and agencies and boards.

E. CONSTRUCTION MATTERS

35. In its materials filed with the OEB, Imperial notes a 1989 spill in a section of the Sarnia Products Pipeline.³⁹ Avoiding and minimizing such contingencies is crucial. Once constructed, the pipeline can be expected to be in place for over 60 years.⁴⁰

36. Toronto requests further conditions to ensure that the pipeline is suitably built and operated. These include Imperial:

- a. building and operating the pipeline in compliance with CSA-Z662-15;
- b. developing plans for safe horizontal directional drilling and related contingencies, and;
- c. filing detailed design and construction information with Toronto in advance of construction, to avoid interfering with municipal infrastructure and operations.

F. FINANCIAL ASSURANCES

37. Imperial must have sufficient financial resources to be able to cover all of the costs arising from a spill in an area as densely populated as the Greater Toronto Area. Even if Imperial is currently well capitalized, no business is immune to economic and market changes. Imperial has recognized it has "the potential to incur substantial financial liabilities", and that the pipeline imposes inherent risks.⁴¹

³⁸ *Ibid*, p 64.

³⁹ Response to Interrogatories, *supra* note 35, p 13 of 168.

⁴⁰ Response to Interrogatories, *ibid*, p 30 of 168.

⁴¹ Response to Interrogatories, *ibid*, p 47 of 168.

38. To that end, Toronto requests four conditions to ensure that the risk of pipeline contingencies is borne by Imperial, and not by municipalities or their residents. Specifically, Toronto requests that Imperial be required to:

- a. provide an indemnity for costs, claims, *etc.* Toronto incurs as a result of construction and operation of the proposed pipeline or the deactivated pipeline;
- b. compensate Toronto for increased costs it will incur in relation to currently-planned infrastructure projects near the proposed pipeline;
- c. make Toronto an additional insured under Imperial's insurance policies covering the proposed and deactivated pipelines, and;
- d. provide a report explaining how adequate financial resources are in place to address all pipeline contingencies (including severe spills).

F.1 Environmental and Landowner Concerns Require Financial Assurances

39. The pipeline poses significant risks and necessitates correspondingly higher financial assurances. Risks and sensitive sites include:

- a. dense residential and commercial areas;
- b. threats to the drinking water of a population of 6,675,585;⁴²
- c. 88 watercourses which drain into Lake Ontario;⁴³
- d. daycares, schools, hospitals and medical clinics, and;⁴⁴
- e. 19 significant woodlands⁴⁵ and five Provincially Significant Wetlands.⁴⁶

40. Toronto's water infrastructure serves 3.6 million residents and businesses.⁴⁷ It has an estimated value of \$28.6 billion.⁴⁸ Toronto has four water filtration plants, which use water from

⁴² Statistics Canada, [Census Profile, 2016 Census, Toronto](#), City of Toronto Evidence Tab 2; Statistics Canada, [Census Profile, 2016 Census, Hamilton](#), City of Toronto Evidence Tab 3.

⁴³ Environmental Report, *supra* note 28, pp 4-9.

⁴⁴ For example, the Environmental Report identifies 11 schools and learning centres and 24 religious institutions within its Local Study Area, which is in itself narrowly-defined: see pp 4-31 to 4-32.

⁴⁵ Environmental Report, *supra* note 28, pp 4-16 to 4-17.

⁴⁶ *Ibid*, p 4-14.

⁴⁷ City of Toronto, [Budget 2019: Toronto Water Budget Notes](#), p 1, City of Toronto Evidence Tab 4.

⁴⁸ *Ibid*, p 39.

Lake Ontario.⁴⁹ The Credit Valley-Toronto and Region-Central Lake Ontario Source Protection Plan identifies pipelines as a specific threat to municipal drinking water.⁵⁰

41. The costs associated with a pipeline spill would be immense. The 2010 Enbridge Line 6B spill in Marshall, Michigan cost at least \$1.2 billion U.S.⁵¹ This occurred in a primarily rural area of Michigan.⁵² The costs of a similar spill in Canada's largest population centre would be considerably higher. They would include evacuating residents, emergency response and containment costs, disruption to homes and businesses, providing emergency drinking water, remediating petroleum contamination, fines and penalties, and third party claims.

42. The pipeline will create workaround and/or relocation costs for Toronto's infrastructure. These costs can be significant. For the British Columbia Lower Mainland municipalities that may host a portion of the expanded TransMountain pipeline, they are estimated to be \$93 million over 50 years.⁵³

43. Toronto has existing infrastructure, planned projects, and future infrastructure needs near the pipeline route. Where the pipeline creates potential conflict with Toronto's existing or currently-planned works, Toronto asks that Imperial be responsible for the workaround costs Toronto may incur as a result of the Project. Toronto's taxpayers should not bear this burden in these circumstances.

F.2 Authorities Support Requiring Financial Assurances

44. Financial assurances promote the OEB's mission of protecting the public interest.⁵⁴ The Environmental Guidelines identify factors to be considered in the analysis of the public interest, including social and environmental impacts of the Project.⁵⁵ Environmental impacts "are broadly

⁴⁹ *Ibid*, p 1.

⁵⁰ CTC Source Protection Region, [Approved Source Protection Plan: CTC Source Protection Region](#), dated July 28, 2015, p 146, City of Toronto Evidence Tab 5 [Source Protection Plan].

⁵¹ United States Securities and Exchange Commission, [Form 10-Q, Enbridge Energy Partners, L.P.](#), p 66, City of Toronto Evidence Tab 6.

⁵² National Transportation Safety Board, [Enbridge Incorporated Hazardous Liquid Pipeline Rupture and Release: Marshall, Michigan](#), adopted July 10, 2012, p 57, City of Toronto Evidence Tab 7 [Marshall Report].

⁵³ Surrey, Coquitlam, Abbotsford, Burnaby & Township of Langley, [Cost Impacts of the TransMountain Expansion on Lower Mainland Municipalities](#), dated May 2015, p i, City of Toronto Evidence Tab 8.

⁵⁴ Environmental Guidelines, p 3.

⁵⁵ *Ibid*.

defined to include all components of the environment".⁵⁶ Authority for financial assurances is provided by section 23(1) of the *Ontario Energy Board Act, 1998*:

The Board in making an order may impose such conditions as it considers proper, and an order may be general or particular in its application.⁵⁷

45. Environmental and landowner concerns require ensuring that Imperial has the financial resources to pay for emergency or clean-up costs arising from a spill or other incident related to its pipeline. This approach was supported in the OEB's Energy East report, which evaluated that project according to the policy that "economic and environmental risks and responsibilities, including remediation, should be borne exclusively by the pipeline compan[y]", which must "provide financial assurance demonstrating [its] capability to respond to leaks and spills".⁵⁸

46. The need to ensure companies maintain an appropriate amount of financial resources to pay for potential liability associated with an approved pipeline has also been recognized in the *Canadian Energy Regulator Act*.⁵⁹ Financial assurances to ensure rapid and thorough spills remediation are consistent with the PPS, which requires protecting natural areas and water quality, and minimizing adverse effects from contaminants.⁶⁰

G. EMERGENCY PREPAREDNESS AND RESPONSE

47. Toronto requests conditions securing detailed, site-specific emergency response plans, thorough information sharing, and training for contingencies. The pipeline will transport large volumes of hazardous products through densely populated areas and vulnerable watersheds.

48. Toronto requests the following emergency preparedness and response conditions, which are particularized at Appendix A:

- a. Imperial shall maintain sufficient emergency response capacity to, with the requisite equipment, arrive at the site of the pipeline emergency within two hours;

⁵⁶ *Ibid* at pp 3-4.

⁵⁷ SO 1998, c 15, Sched B [*OEBA*].

⁵⁸ *Energy East*, *supra* note 3, p 14.

⁵⁹ SC 2019, c 28, s10, ss 137(5), 138(1).

⁶⁰ See *e.g.* PPS ss 1.2.6.1, 1.5.1(d), 2.1.1, 2.1.2, 2.2.1.

- b. Imperial shall provide detailed pipeline design and emergency response information to Toronto within 30 days of the in-service date;
- c. Imperial shall provide a Project and site-specific Emergency Response Plan;
- d. Imperial shall provide a Project and site-specific Spill Prevention and Control Plan, with modelling of spill plumes, extreme weather, *etc.*, and;
- e. training and coordination requirements, including Imperial funding any training and equipment necessary for Toronto and TRCA staff to respond to pipeline emergencies.

G.1 Thorough Emergency Preparedness is Essential

49. Thorough emergency preparedness ultimately benefits Imperial, government agencies, the public, and the environment. In its Environmental Report, Imperial indicates that it will develop a Spill Prevention and Response Plan and an Emergency Response Plan.⁶¹ Effective plans must take into account local conditions. Toronto proposes conditions to secure this.

50. Based on Imperial's evidence, there may be significant delays before its crews arrive on scene. Imperial indicates that its local operations team, based in Waterdown "may arrive at the site within 30 minutes to one hour". Imperial also indicates that its QM Environmental contractor, based in Stoney Creek, "may arrive with support personnel and equipment within one to two hours".⁶² Imperial has not specified if this accounts for busy Greater Toronto Area traffic or travel during severe weather. The inventory at Waterdown appears quite limited (gloves, shovels, wrenches, *etc.*).⁶³ Imperial's response capacity is thus questionable.

51. Between when an emergency is identified and when Imperial response teams and personnel arrive, it will fall to local emergency staff to respond. As stated in Imperial's Response Principles and Key Tactics, "In every fire situation, the first action should always be to call your Fire Department."⁶⁴

52. Climate change is an increasing concern. Imperial's emergency planning must anticipate increased extreme weather events. On its own website, Imperial recognizes that climate change

⁶¹ Environmental Report, *supra* note 28, p 5-34.

⁶² Response to Interrogatories, *supra* note 35, p 51 of 168.

⁶³ *Ibid* at Appendix 7, p 2 of 6.

⁶⁴ *Ibid* at Appendix 4, p 59 of 299.

risks warrant action.⁶⁵ Response times not based on worst case scenarios may create delays and larger spills, with severe consequences to residents, the environment, and businesses.

53. Toronto's first responders will need the appropriate training and equipment to prepare for pipeline emergencies. While Toronto Fire Services staff have equipment and receive general training for various hazards and emergencies, specific training is also required for a pipeline. The costs of this should be borne by Imperial.

54. The need for this training is underscored by the findings in the National Transportation Safety Board report on the Marshall, Michigan pipeline spill. The report noted safety issues including "[t]he inadequacy of Enbridge's facility response plan to ensure adequate training of the first responders and sufficient emergency response resources allocated to respond to a worst-case release."⁶⁶

G.2 The PPS and Environmental Guidelines Support the Requested Conditions

55. The PPS and Environmental Guidelines support Toronto's proposed emergency response conditions. The PPS requires protecting natural areas and water quality, minimizing impacts to protected areas, and minimizing adverse effects from contaminants.⁶⁷

56. The Environmental Guidelines require:

- a. predicting environmental effects during construction and operation, and describing all reasonable mitigation measures;⁶⁸
- b. assessing social impacts and impacts to parks and natural areas, including effects downstream of watercourse crossings, and;⁶⁹
- c. preparing hydrocarbon spills contingency plans.⁷⁰

⁶⁵ Imperial Oil, [Climate Change](#), undated, City of Toronto Evidence Tab 9.

⁶⁶ National Transportation Safety Board, Enbridge Incorporated Hazardous Liquid Pipeline Rupture and Release: Marshall, Michigan, dated July 25, 2010, p xiii [Marshall Report].

⁶⁷ See e.g. PPS ss 1.2.6.1, 1.5.1(d), 2.1.1, 2.1.2, 2.2.1.

⁶⁸ Environmental Guidelines, p 13.

⁶⁹ Environmental Guidelines, pp 23, 26.

⁷⁰ Environmental Guidelines, p 59.

H. SOURCE WATER PROTECTION

57. Toronto's residents and businesses rely on clean water for drinking, a healthy environment, and recreation. Ontario has seen the devastation that can occur when drinking water is compromised. In 2000, over 2,300 people become ill and seven people died as a result of bacterial contamination of municipal drinking water in Walkerton.⁷¹ Toronto requests conditions protecting drinking water by:

- a. ordering Imperial to comply with the LO-PIPE-1 policy;
- b. requiring the disclosure of spills maps and risk analyses, which are also crucial for emergency responders, and;
- c. mandating a minimum 8 meter pipeline depth below water crossings.

H.1 Protecting Drinking Water Must be Mandatory

58. Imperial advises that its Operational Emergency Response Plans are "consistent with the intent" of the policies and procedures of the LO-PIPE-1 policy.⁷² Full and unambiguous compliance is necessary. Toronto therefore requests a condition of approval mandating compliance.

59. The provincial government enacted the *Clean Water Act, 2006* ("CWA") in response to a recommendation that was made as a result of an inquiry into the Walkerton tragedy.⁷³ The CWA requires source water protection plans.⁷⁴ The Approved Source Protection Plan: CTC Source Protection Region (the "Source Protection Plan") was developed pursuant to the CWA, and approved by the provincial government in 2015.⁷⁵ Toronto City Council has endorsed the policies contained in the Source Protection Plan.⁷⁶

⁷¹ Ontario Ministry of the Attorney General, [Report of the Walkerton Inquiry: The Events of May 2000 and Related Issues – Part One: A Summary](#), dated 2002, p 3, City of Toronto Evidence Tab 10.

⁷² Response to Interrogatories, *supra* note 35, p 58.

⁷³ Source Protection Plan, *supra* note 50, p 2.

⁷⁴ *Clean Water Act, 2006*, SO 2006, c 22, s 22 [CWA].

⁷⁵ *Supra* note 50, p 13.

⁷⁶ [City of Toronto, Agenda Item History - 2012.PW19.6](#), dated November 27, 2012, p 1, City of Toronto Evidence Tab 11.

60. Existing and new pipeline are considered significant drinking water threats, since a pipeline spill could impact water treatment plant intakes on Lake Ontario.⁷⁷ Liquid hydrocarbon pipelines are also prescribed as drinking water threats by regulations to the CWA.⁷⁸ The Source Protection Plan includes the LO-PIPE-1 policy to address the potential threat of petroleum spills reaching a tributary of Lake Ontario.⁷⁹ The Environmental Report acknowledges that a spill could pollute drinking water supplies.⁸⁰ LO-PIPE-1 is reproduced at Appendix C of these submissions.

61. The LO-PIPE-1 policy favours maintaining sufficient cover over watercourse crossings.⁸¹ Imperial has already committed to an 8 meter depth in general terms.⁸² Toronto requests a condition specifically requiring this depth of cover. This will benefit all parties by:

- a. reducing the risk of a spill or leak;
- b. reducing the risks from long-term erosion, and;
- c. extending the service life of the pipeline.

H.2 The PPS and Environmental Guidelines Support LO-PIPE-1 Compliance

62. The PPS requires, or alternatively supports, mandating LO-PIPE-1 compliance. The PPS requires coordination between agencies, boards, and governments, including municipalities and conservation authorities.⁸³ It likewise requires preventing or mitigating adverse effects from contaminants,⁸⁴ minimizing risks to public safety,⁸⁵ and protecting natural features and water quality.⁸⁶ Similarly, the Environmental Guidelines support avoiding or minimizing water quality threats. For example, "water crossings must be conducted to minimize negative effects on water quality".⁸⁷

⁷⁷ Source Protection Plan, *supra* note 50, pp 145-146.

⁷⁸ O Reg 287/07: GENERAL, ss 1.1(1)(22).

⁷⁹ Source Protection Plan, *supra* note 50, p 146.

⁸⁰ Environmental Report, p 4-8

⁸¹ Source Protection Plan, *supra* note 50, p 146.

⁸² Response to Interrogatories, *supra* note 35, p 64 of 168.

⁸³ PPS, s 1.2.1.

⁸⁴ *Ibid*, s 1.2.6.1.

⁸⁵ *Ibid*.

⁸⁶ *Ibid*, ss 1.5.1(d), 2.1.1, 2.1.2, 2.2.1.

⁸⁷ Environmental Guidelines, p 52.

I. PROJECT IMPACTS

63. The pipeline will cross or approach municipal roads, 23 parks,⁸⁸ two allotment gardens,⁸⁹ 88 watercourses,⁹⁰ recreation centres,⁹¹ a subway tunnel,⁹² sewers and watermains,⁹³ and 130 roads.⁹⁴ Imperial proposes pipeline depths as shallow as Toronto as 1.2 meters.⁹⁵ Toronto requests conditions to minimize the Project's impacts on these assets, including requiring that Imperial:

- a. use trenchless technology for sensitive sites including parks, allotment gardens, and major watercourse crossings;
- b. consult and coordinate with Toronto on the planning, construction, and operation of the Project so as to avoid interfering with Toronto's parks, facilities, and infrastructure;
- c. prepare a restoration plan and restore all affected lands within one year;
- d. use Toronto's standard forms of agreements for access to and use of lands for the Project owned by or subject to an interest in favour of Toronto, including paying fair market value for such access and use;
- e. avoid construction at Stouffel Allotment Garden and Four Winds Allotment Garden within the growing season, and;
- f. comply with the Toronto Transit Commission ("TTC")'s Technical Review procedure requirements where the existing or proposed pipeline crosses or approaches subway stations, tunnels, or other significant TTC infrastructure.

64. These conditions are consistent with commitments made by Imperial, namely that it would:

- a. respect landowners' property and seek to minimize disruptions, and;⁹⁶
- b. work with landowners, permitting authorities and different levels of government so construction impacts are as limited as possible.⁹⁷

⁸⁸ Environmental Report, *supra* note 28, p 4-33.

⁸⁹ *Ibid.*

⁹⁰ *Ibid.*, p 4-9.

⁹¹ *Ibid.*, 4-32.

⁹² *Ibid.*, Appendix B, p 12 of 16.

⁹³ *Ibid.*, p 5-31.

⁹⁴ *Ibid.*, p 4-32.

⁹⁵ Imperial Oil, Waterdown to Finch Project Application for Leave to Construct, dated April 2019, Exhibit E, Tab 1, Schedule 3, p 1 of 2 [Application].

⁹⁶ Imperial Oil, Waterdown to Finch Project Indigenous Consultation Logs Backup Documentation to January 2019, Tab 2, Schedule 3, p 13 of 40.

⁹⁷ *Ibid.*, Tab 2, Schedule 2, Page 2 of 33; Tab 2, Schedule 5, p 15 of 40; Tab 2, Schedule 6, p 10 of 31, p 28 of 31.

I.1 Sensitive Sites Should be Installed Using Trenchless Methods

65. The pipeline should be built using trenchless technology for sensitive sites, including parks, allotment gardens, and major watercourse crossings. Imperial has only partially committed to this.⁹⁸ Trenched excavation is highly disruptive. It requires clearing vegetation, removing topsoil, digging a trench, and backfilling.⁹⁹ Imperial has recognized that trenchless excavation reduces environmental, social, and infrastructure disturbance.¹⁰⁰

66. Watercourses in Toronto feed into Lake Ontario. Where the pipeline crosses them, the installation must be conducted in a manner that avoids impacting the watercourse. The TRCA advised that:

...a portion of the pipeline installation will traverse through an environmentally sensitive area that will require multiple watercourse and wetland crossings through Berry Creek, West Humber River, Main Humber River, Emery Creek and Black Creek, in the City of Toronto. Our staff has identified this area as a technically challenging area for pipeline installation due to the multiple crossings, topography and environmentally sensitive features.¹⁰¹

I.2 Coordination and Restoration is Needed for Parks

67. Imperial's pipeline will run through or near municipal parks. This risks interfering with municipally-run or permitted events. For example, the pipeline will travel through Centennial Park, which hosts numerous events and activities.¹⁰² Toronto asks that Imperial be required coordinate construction activities in or near municipal parks and allotment gardens with Toronto staff.

68. If lands affected by the Project are only returned to their pre-construction condition (where feasible) within Imperial's proffered one to three years, Toronto lands, services and facilities could be seriously impacted. Toronto submits that affected lands should be fully remediated within one year. Close consultation with Toronto staff is required to address these concerns.

⁹⁸ See e.g. Environmental Report, *supra* note 28, p 5-12.

⁹⁹ Environmental Report, *supra* note 28, p 2-2.

¹⁰⁰ *Ibid*, p 2-6.

¹⁰¹ Application, *supra* note 95, p 57 of 128.

¹⁰² Environmental Report, p 4-33.

I.3 Conditions are Needed to Protect Municipal Infrastructure

69. Imperial's work may conflict with Toronto's planned construction and maintenance activities. Imperial states that it will plan its Project to avoid simultaneous construction activities by several parties in the same location, if possible.¹⁰³ Toronto asks that Imperial be required to coordinate work on its Project with Toronto's capital and maintenance activities.

70. Since the pipeline will cross a subway tunnel owned by the TTC, Toronto requests a condition that Imperial meet the TTC's Technical Review procedure requirements, and implement all conditions that may be reasonably required by the TTC. The purpose of this review is to reduce or eliminate impacts on TTC operations and facilities, and protect public safety.

71. Where the pipeline will be installed on Toronto's lands, other than public highways, easements will be required. Toronto requests that a condition requiring Imperial to use Toronto's standard form real estate agreements. Toronto asks that Imperial be required to pay fair market value for access and use of Toronto lands.¹⁰⁴

72. Municipal utilities line the pipeline route. These include sanitary trunk sewers largely located in valleylands and a large, new stormwater management facility near the confluence of Emery Creek and the Humber River.¹⁰⁵ To ensure the continued safe operation and maintenance of these utilities, Toronto requests a condition mandating consultation and coordination with Toronto staff on the depth of Imperial's pipe and minimum separation distances.

I.4 Conditions are Needed to Protect Allotment Gardens

73. Imperial proposes digging trenches at or near Stouffel Allotment Garden (in the area of Martin Grove Road and Dixon Road) and Four Winds Allotment Garden (near Keele Street and Finch Avenue West).¹⁰⁶ Municipally-run allotment gardens are used by residents to grow food for

¹⁰³ *Ibid*, p 6-4.

¹⁰⁴ Toronto is not permitted to sell lands to Imperial for below-market value, *per* section 82(1) of the *City of Toronto Act, 2006*, S.O. 2006, c. 11, Sched. A.

¹⁰⁵ Response to Interrogatories, *supra* note 35, p 65 of 185.

¹⁰⁶ *Ibid*, p 67 of 168.

themselves and their families. These gardens are an important part of a thriving urban agriculture movement in Toronto, and help cultivate a healthier and more sustainable city.¹⁰⁷

74. The main growing season is between May and October. To avoid interrupting the activities of the permit holders of these gardens, Toronto requests that Imperial be required to perform its work between October and May in the vicinity of these gardens, and that trenchless construction be used to minimize damage. Once Imperial's work in the area of the allotment gardens is done, the lands should be restored to their original condition. Toronto asks that Imperial be required to prepare notification letters to permit holders, who may use their allotment gardens between October and May in preparation for the next growing season.

I.5 The PPS and Environmental Guidelines Require Minimizing Project Impacts

75. Eliminating or mitigating Project impacts on parks, gardens, and infrastructure is consistent with the PPS. PPS imperatives include mitigating adverse environmental effects, protecting public health and safety, and protecting water and natural areas.¹⁰⁸

76. The Environmental Guidelines likewise support Toronto's proposed conditions. They require or encourage minimizing environmental, social, and landowner impacts, including on utilities, transportation infrastructure, parks, and recreation areas.¹⁰⁹ They require developing vegetation and landscape plans with the consent of municipal authorities,¹¹⁰ and easement rehabilitation to the reasonable satisfaction of concerned agencies.¹¹¹

J. CONCLUSION

77. Toronto respectfully asks that the OEB set strong conditions on the pipeline to:

- a. address environmental and landowner concerns, and;
- b. manage the risks and minimize the impacts inherent to the pipeline.

¹⁰⁷ City of Toronto, [Staff Report: Update on Progress of Community Garden Action Plan](#), dated July 29, 2014, p 2, City of Toronto Evidence Tab 12.

¹⁰⁸ See e.g. PPS ss 1.2.6.1, 1.5.1(d), 2.1.1, 2.1.2, 2.2.1, 3.1.7.

¹⁰⁹ Environmental Guidelines, p 29.

¹¹⁰ *Ibid*, p 30.

¹¹¹ *Ibid*, p 62.

78. Proposed Conditions of Approval are listed in Appendix A, cross-referenced to PPS and Environmental Guideline provisions.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

January 24, 2020



Nicholas Rolfe
City of Toronto Legal Services

Appendix A

Proposed Conditions and Supporting Provisions

	Condition	Provincial Policy Statement Reference & Provision Summary	Environmental Guidelines Reference & Provision Summary
General			
1	Imperial Oil ("Imperial", which term shall include its subsidiaries, affiliates, related companies and partnerships) shall design, plan, construct, decommission and operate the Waterdown to Finch Project (the "Project") and restore all impacted lands in accordance with the Ontario Energy Board ("OEB")'s Decision and Order in EB-2019-0007 and these Conditions of Approval.	1.2.1 Adopt a coordinated approach between municipalities, other orders of governments, and agencies and boards, including for natural heritage, water, infrastructure, watershed and Great Lakes issues, and natural and human-made hazards	Page 2: applicants are expected to comply with these Guidelines for the necessary regulatory approvals to undertake such construction, or to establish that strict adherence is impractical or not in the public interest
2	Imperial shall cause the Project to be designed, planned, constructed, and operated in accordance with the specifications, standards, commitments made and other information referred to in its Application (including its Environmental Report and all recommendations and directives identified by the Ontario Pipeline Coordinating Committee review), its responses to interrogatories and in its submissions (collectively, the "Imperial Commitments").	1.2.6.1 Major facilities and sensitive land uses should be designed, buffered, and/or separated from each other to prevent or mitigate adverse effects from contaminants, and to minimize risk to public health and safety 1.5.1(d) Minimize impacts to protected areas	Page 63: applicants must adhere to commitments made in the evidence and recommendations made in the Environmental Report Page 64: The pipeline construction and restoration of the land must be according to the evidence presented at the relevant hearing. This is a standard condition of approval as part of the OEB order approving the project
3	Imperial shall obtain all necessary authorizations for the design, planning, construction and operation of the Project, including without limitation all necessary permits, easements and other authorizations from the municipalities and conservation authorities through whose jurisdictions the Project will pass.	2.1.1 Protect natural features and areas for the long-term 2.1.2 Protect the diversity, connectivity, and ecological function of natural features, recognizing linkages between natural heritage features, surface water, and groundwater	

4	<p>Imperial shall file with the OEB and post on its company Web site, at least 30 days prior to commencing construction of the Project, a Commitments Tracking Table listing all Imperial Commitments, including reference to:</p> <ul style="list-style-type: none"> a. the specific documentation in which reference to the Imperial Commitment is made; b. the person or entity responsible for implementing each commitment, and; c. the timelines for the fulfillment of each commitment. 	<p>2.2.1 Protect, improve or restore the quality and quantity of water, including by restricting site alteration to protect all municipal drinking water supplies</p>	
5	<p>Imperial shall update the status of the Imperial Commitments on the Commitments Tracking Table on its company Web site until such time as all the Imperial Commitments have been fulfilled, and shall advise the OEB in writing of such updates where the status of any commitment has changed.</p>		
Construction			
6	<p>Imperial shall cause the Project to be designed, planned, constructed, and operated in accordance with CSA-Z662-15.</p>	<p>1.2.1 Adopt a coordinated approach between municipalities, other orders of governments, and agencies and boards, including for natural heritage, water, infrastructure, watershed and Great Lakes issues, and natural and human-made hazards</p> <p>1.2.6.1 Major facilities and sensitive land uses should be designed, buffered, and/or separated from each other to prevent or mitigate adverse effects from</p>	<p>Page 13: predict potential environmental impacts during construction and operation, and describe all reasonable mitigation measures</p> <p>Page 23: consider social impacts and impacts to natural areas, including traffic disruptions and effects downstream of watercourse crossings</p>
7	<p>Imperial shall file with the OEB, at least 30 days prior to the date construction commences, a schedule identifying key construction activities for the Project, and shall notify the OEB of any modifications to the schedule as such modifications occur.</p>		
8	<p>Imperial shall maintain at its construction office(s) copies of all permits, approvals and</p>		

	authorizations for the Project issued by federal, provincial, municipal or other permitting authorities, which include environmental conditions or site-specific mitigation or monitoring measures.	contaminants, and to minimize risk to public health and safety	Page 26: consider impacts on recreational areas and people who use them
9	Imperial shall prepare and file with the OEB, at least 30 days prior to the start of construction, an Environmental Protection Plan describing all environmental protection procedures, mitigation and monitoring commitments, as set out in the Application or other Imperial Commitments.	1.5.1(b) Provide publicly-accessible built and natural settings for recreation, including parklands 1.5.1(d) Minimize impacts to protected areas	Page 29: consider impacts on utilities, transportation facilities, recreation areas, parks and conservation areas
10	Imperial shall file with the OEB, at least 30 days prior to the date construction commences, the results of its geotechnical feasibility studies for undertaking horizontal directional drilling.	2.1.1 Protect natural features and areas for the long-term	Page 30: consider future planned capital works
11	Imperial shall file with the OEB, at least 30 days prior to the start of construction, a Project-specific Traffic Management Plan.	2.1.2 Protect the diversity, connectivity, and ecological function of natural features, recognizing linkages between natural heritage features, surface water, and groundwater	Page 37: consider impacts to water intakes for municipal drinking water
12	Imperial shall regularly monitor the effects of any slope instability and other observable geotechnical effects on those portions of the pipeline route and adjacent lands in Toronto affected by Imperial's proposed and existing pipelines, and report any irregularities to the City of Toronto ("Toronto") and the Toronto and Region Conservation Authority ("TRCA") within 15 days of their discovery, including confirming remediation efforts to be taken.	2.1.8 Site alteration shall not be permitted on adjacent lands to natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 (e.g. significant wetlands and significant woodlands) unless it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions 2.2.1 Protect, improve or restore the quality and quantity of water, including by	Page 45: consider mitigation techniques including the scheduling of construction (e.g. winter), and modified construction techniques Page 46: measures to address social impacts include a compensation framework and a decision-making process to resolve issues as they arise Page 52: water crossings must be conducted to minimize negative effects on water quality and water quantity

13	Imperial shall place pipeline valves outside of floodplains and any slope hazards, and in areas that do not pose a risk of erosion.	restricting site alteration to protect all municipal drinking water supplies	Page 57: site-specific watercourse crossing plans are required for sensitive crossings
14	Imperial shall file with the OEB, at least 30 days prior to commencing construction, alignment sheet drawings for the relevant portion of the pipeline providing information related to the pipeline, construction footprint and access roads proposed for the Project	3.13, 3.1.7 Site alteration is permitted in areas subject to flooding or erosion only if public safety risks are minor and no adverse environmental impacts will result	<p>Page 59: A hydrocarbon spills contingency plan must be developed for every liquid hydrocarbon pipeline</p> <p>Page 68-69: monitoring programs and monitoring reports are typically required</p>
Financial Assurances			
15	<p>Imperial shall save, defend and keep harmless and fully indemnify Toronto from any and all claims, actions, causes of action, complaints, demands, orders, suits or proceedings of any nature or kind, and all loss, liability, judgments, costs, charges, damages, liens and expenses (including, without limitation, all legal and other professional fees and disbursements, interest, liquidated damages and amounts paid in settlement, whether from a third person or otherwise) which Toronto may sustain, incur, or be put to by reason or arising out of or in consequence of:</p> <p>a. the construction of Project, including any activities ancillary thereto;</p> <p>b. the operation of the Project, including any activities ancillary thereto;</p>	<p>1.2.6.1 Major facilities and sensitive land uses should be designed, buffered, and/or separated from each other to prevent or mitigate adverse effects from contaminants, and to minimize risk to public health and safety</p> <p>1.5.1(d) Minimize impacts to protected areas</p> <p>2.1.1 Protect natural features and areas for the long-term</p> <p>2.1.2 Protect the diversity, connectivity, and ecological function of natural features, recognizing linkages between natural</p>	<p>Page 13 predict potential environmental impacts during construction and operation, and describe all reasonable mitigation measures</p> <p>Page 29: consider impacts on utilities, transportation facilities, recreation areas, parks and conservation areas</p> <p>Page 46: measures to address social impacts include a compensation framework</p>

	<p>c. the decommissioning of the existing pipeline, including any activities ancillary thereto; d. the exercise by Imperial of any right or obligation under the Decision or the Order, or; e. any breach by Imperial of the OEB Decision or the Order</p> <p>Imperial's indemnity set out in this section expressly extends to all acts and omissions of Imperial's employees, officers, contractors, and agents.</p>	<p>heritage features, surface water, and groundwater</p> <p>2.2.1 Protect, improve or restore the quality and quantity of water</p>	
16	<p>Without limiting the generality of the foregoing, Imperial shall fully indemnify Toronto for all workaround costs caused by, attributable to, or connected with constructing or maintaining Toronto infrastructure that was existing or planned as of the date of the commencement of construction of the Project.</p>		<p>See above</p>
17	<p>Within 30 days of the completion of construction of the Project, and upon any material changes, Imperial shall prepare and file with the OEB a report explaining how adequate financial resources are in place to address all costs arising in the event of a spill, emergency, or other contingency arising from the new pipeline or the existing pipe, and how financial security has been set aside to cover all such costs related to the Project.</p>		
18	<p>Imperial shall maintain, at its sole expense, property insurance and liability insurance</p>		

	<p>(including coverage for environmental damage from spills or other incidents) in amounts that are reasonable and customary for companies of comparable size and activity, covering the construction, operation, and decommissioning of the proposed pipeline and the decommissioning of the existing pipeline, including any activities ancillary thereto (the "Imperial Insurance"), and naming Toronto as an additional insured.</p>		
19	<p>Imperial shall provide Toronto with certificates of insurance in respect of the Imperial Insurance recording Toronto as an additional insured. Thereafter, Imperial shall provide Toronto with evidence of all renewals of the Imperial Insurance in a certificate of insurance form reasonably acceptable to Toronto.</p>		
20	<p>Toronto shall not be liable for any premiums or deductibles relating to policies under the Imperial Insurance.</p>		
21	<p>The policies under the Imperial Insurance shall provide:</p> <ul style="list-style-type: none"> a. that they are primary insurance which will not call into contribution any other insurance available to Toronto except to the extent of claims arising from the negligence of Toronto and those for whom Toronto is responsible in law, and; b. that the Imperial Insurance shall not be cancelled, without the insurer providing at least thirty (30) business days' notice to Toronto by registered mail. 		

See above

See above

Emergency Response and Planning			
22	Imperial shall maintain sufficient emergency response capability to, with the requisite equipment, arrive at the site of the pipeline emergency within a maximum of two hours.	1.2.6.1 Major facilities and sensitive land uses should be designed, buffered, and/or separated from each other to prevent or mitigate adverse effects from contaminants, and to minimize risk to public health and safety	Page 13 predict potential environmental impacts during construction and operation, and describe all reasonable mitigation measures
23	<p>Imperial shall provide to Toronto, at least 30 days prior to the in-service date, the following information, and shall provide additional updates to Toronto in response to material changes to same:</p> <ul style="list-style-type: none"> a. detailed as-built maps, including digital maps, of the pipeline route, including its depth below and/or height above ground surface; b. the location and 24-hour contact information of Imperial's Emergency Spill Response Team and any emergency response contractors within the Greater Toronto Area; c. the location, types and quantity of equipment that Imperial and its Emergency Spill Response Team and contractors have on hand to deal with pipeline spills; d. the location and specifications of all valves, including automated shut-off valves and options should there be a power failure; e. information regarding redundancy that is built into the system and accessible to municipal first responders, and; f. Imperial's anticipated response times in Toronto, taking into account local conditions such as traffic. 	<p>1.5.1(d) Minimize impacts to protected areas</p> <p>2.1.1 Protect natural features and areas for the long-term</p> <p>2.1.2 Protect the diversity, connectivity, and ecological function of natural features, recognizing linkages between natural heritage features, surface water, and groundwater</p> <p>2.2.1 Protect, improve or restore the quality and quantity of water, including by restricting site alteration to protect all municipal drinking water supplies</p>	<p>Page 23: consider social impacts and impacts to natural areas, including traffic disruptions and effects downstream of watercourse crossings</p> <p>Page 26: consider impacts on recreational areas and people who use them</p> <p>Page 29: consider impacts on utilities, transportation facilities, recreation areas, parks and conservation areas</p> <p>Page 59: A hydrocarbon spills contingency plan must be developed for every liquid hydrocarbon pipeline</p>
24	Imperial shall prepare and file with the OEB, at least 30 days prior to the date construction		

	<p>commences, a Project-specific Emergency Response Plan that shall be implemented during the construction phase, and which accounts for local conditions, including providing comprehensive site-specific contingency measures that would be taken in response to spills.</p>		
25	<p>Imperial shall prepare and file with the OEB, at least 30 days prior to the in-service date, a Project and site-specific Spill Prevention and Control Plan that provides for:</p> <ul style="list-style-type: none"> a. watershed-based planning and articulating the impact of a refined fuel product spill on the environment and watercourses, including local sensitive habitats and data; b. scenario modelling of spill plumes under a variety of hydraulic conditions; c. identifying storm sewers that have direct connections to watercourses and valleys; d. identifying emergency access points for spill clean-up; e. identifying storage and staging areas for spill clean-up; f. timely notification of municipal emergency responders to facilitate a rapid and coordinated response to a spill or other emergency; g. timely notification to potentially impacted municipal water utilities in the event that a spill may have occurred; h. planning for quick containment of spills, using modelling that accounts for worst-case 	<p>See above</p>	<p>See above</p>

	<p>scenarios including extreme and severe weather events;</p> <ul style="list-style-type: none"> i. developing restoration strategies specific to local conditions for the restoration phase of any required clean-up of a spill, leak or other incident, and; j. maintaining, for Toronto's emergency responders, a direct contact line, 24 hours a day, 7 days a week to enable immediate contact with Imperial, should the need arise. 		
26	<p>Imperial shall:</p> <ul style="list-style-type: none"> a. send, when a spill or other pipeline contingency occurs, and on request by Toronto, a technical specialist to Toronto's Emergency Operations Centre ("EOC") to assist in coordination of the Toronto response to a pipeline emergency. This individual shall be identified in advance to the EOC Director; b. provide to Toronto, when a spill or other pipeline contingency occurs, and on request by Toronto, a communications staff person/public information officer to assist in public communications coordination; c. provide appropriate Imperial staff or contractors, on request by Toronto, to meet annually with Toronto staff to review Toronto's emergency plans with a focus on the Project, and; d. share details of, and invite Toronto staff to observe and/or participate in, its Project-related training exercises. 	See above	See above

27	Imperial shall pay for any training and equipment necessary for Toronto and TRCA staff to respond to emergencies related to Imperial's proposed and existing pipes, including any retraining reasonably required when Imperial makes changes to its pipeline equipment and/or plans.		
Source Water Protection			
28	Imperial shall meet the requirements of the Approved Source Protection Plan: CTC Source Protection Region's LO-PIPE-1 Policy ("LO-PIPE-1") in Imperial's construction and operation of the Project and its decommissioning of the existing pipeline.	1.2.1 Adopt a coordinated approach between municipalities, other orders of governments, and agencies and boards, including for natural heritage, water, infrastructure, watershed and Great Lakes issues, and natural and human-made hazards	Page 13: predict potential environmental impacts during construction and operation, and describe all reasonable mitigation measures
29	<p>Imperial shall:</p> <ul style="list-style-type: none"> a. provide to Toronto and the Region of Peel, comprehensive documentation demonstrating that the planning, design, construction, and operation of the Project, including all associated plans, complies with LO-PIPE-1; b. establish and advise Toronto as to how Imperial intends to keep updated the notification protocols and contacts required pursuant to LO-PIPE-1 provisions (d), (e), and (f); c. establish, and advise Toronto of, a set frequency of reviews of ground cover required pursuant to LO-PIPE-1 provision (i), and; d. provide to the Toronto Region Source Protection Authority the pipeline design and operational best management practices required pursuant to LO-PIPE-1 provision (k), 	<p>1.2.6.1 Major facilities and sensitive land uses should be designed, buffered, and/or separated from each other to prevent or mitigate adverse effects from contaminants, and to minimize risk to public health and safety</p> <p>1.5.1(d) Minimize impacts to protected areas</p> <p>2.1.1 Protect natural features and areas for the long-term</p> <p>2.1.2 Protect the diversity, connectivity, and ecological function of natural features, recognizing linkages between natural</p>	<p>Page 23: consider social impacts and impacts to natural areas, including traffic disruptions and effects downstream of watercourse crossings</p> <p>Page 37: consider impacts to water intakes for municipal drinking water</p> <p>Page 45: consider mitigation techniques including the scheduling of construction (e.g. winter), and modified construction techniques</p> <p>Page 52: water crossings must be conducted to minimize negative effects on water quality and water quantity</p>

	including upon any material changes to said practices.	heritage features, surface water, and groundwater	Page 57: site-specific watercourse crossing plans are required for sensitive crossings
30	Imperial shall provide to Toronto and the TRCA, forthwith and upon any material changes: a. all risk analyses for the Project, and; b. all spills maps for waterways within the City of Toronto.	2.1.8 Site alteration shall not be permitted on adjacent lands to natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 (e.g. significant wetlands and significant woodlands) unless it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions	Page 59: A hydrocarbon spills contingency plan must be developed for every liquid hydrocarbon pipeline
31	In constructing the Project, Imperial shall maintain a minimum depth of 8 meters below the stream bed at the deepest point of water crossings at Berry Creek, West Humber, Main Humber, Emery Creek, Black Creek, Mimico Creek, Elmcrest Creek, and Renforth Creek.	2.2.1 Protect, improve or restore the quality and quantity of water, including by restricting site alteration to protect all municipal drinking water supplies	
Project Impacts			
32	Imperial shall construct the Project using trenchless technology methods through all sensitive sites, including Toronto parks, allotment gardens, and at Berry Creek, West Humber, Main Humber, Emery Creek, Black Creek, Mimico Creek, Elmcrest Creek, and Renforth Creek.	1.2.1 Adopt a coordinated approach between municipalities, other orders of governments, and agencies and boards, including for natural heritage, water, infrastructure, watershed and Great Lakes issues, and natural and human-made hazards	Page 13: predict potential environmental impacts during construction and operation, and describe all reasonable mitigation measures
33	Imperial shall: a. prepare and file with the OEB a Restoration Plan at least 60 days prior to the commencement of construction; b. restore all lands impacted by the Project, within one year of the completion of construction, and;	1.2.6.1 Major facilities and sensitive land uses should be designed, buffered, and/or separated from each other to prevent or mitigate adverse effects from	Page 23: consider social impacts and impacts to natural areas, including traffic disruptions and effects downstream of watercourse crossings

	<p>c. indemnify the TRCA for the costs of restoring any TRCA-regulated areas damaged, degraded, or negatively affected by any pipeline spill, leak, or other pipeline contingency, or at the option of the TRCA restore said areas to the satisfaction of the TRCA and at the sole expense of Imperial.</p>	<p>contaminants, and to minimize risk to public health and safety</p> <p>1.5.1(b) Provide publicly-accessible built and natural settings for recreation, including parklands</p> <p>1.5.1(d) Minimize impacts to protected areas</p>	<p>Page 26: consider impacts on recreational areas and people who use them</p> <p>Page 29: consider impacts on utilities, transportation facilities, recreation areas, parks and conservation areas</p> <p>Page 30: consider future planned capital works</p> <p>P 34: develop vegetation and landscape plans with consent or cooperation of municipal authorities</p> <p>Page 37: consider impacts to water intakes for municipal drinking water</p>
34	<p>With regard to the Stouffel Allotment Garden and Four Winds Allotment Garden:</p> <p>a. Imperial shall not, absent the consent in writing of Toronto, undertake construction at or in their immediate vicinity between May 1 and September 30 of each year, and;</p> <p>b. Imperial shall prepare notification letters to allotment garden permit holders (to be distributed by Toronto staff) of the work on the Project.</p>	<p>2.1.1 Protect natural features and areas for the long-term</p> <p>2.1.2 Protect the diversity, connectivity, and ecological function of natural features, recognizing linkages between natural heritage features, surface water, and groundwater</p>	<p>Page 45: consider mitigation techniques including the scheduling of construction (e.g. winter), and modified construction techniques</p> <p>Page 46: measures to address social impacts include a decision-making process to resolve issues as they arise</p> <p>Page 52: water crossings must be conducted to minimize negative</p>
35	<p>Imperial shall:</p> <p>a. consult and coordinate with Toronto on the design, location, and depth of the pipeline in the vicinity of the Emery Creek Stormwater Management Facility (the "Facility");</p> <p>b. not place its pipeline below the Facility's pond cells, and;</p> <p>c. use minimum vertical separation depths sufficient to avoid damage to or interference with the Facility, and in particular the Facility's subsurface infrastructure.</p>	<p>2.1.8 Site alteration shall not be permitted on adjacent lands to natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 (e.g. significant wetlands and significant woodlands) unless it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions</p> <p>2.2.1 Protect, improve or restore the quality and quantity of water, including by restricting site alteration to protect all municipal drinking water supplies</p>	<p>Page 45: consider mitigation techniques including the scheduling of construction (e.g. winter), and modified construction techniques</p> <p>Page 46: measures to address social impacts include a decision-making process to resolve issues as they arise</p> <p>Page 52: water crossings must be conducted to minimize negative</p>
36	<p>Imperial shall use Toronto's standard forms of agreements for access to and use of lands for the Project owned by or subject to an interest in</p>		

	favour of Toronto, and shall pay fair market value for such access and use.		effects on water quality and water quantity
37	<p>Imperial shall coordinate and consult in a specific, meaningful, ongoing and iterative fashion with Toronto and TRCA on its planning, construction, and operation of the Project, including:</p> <ul style="list-style-type: none"> a. so as to avoid interrupting or interfering with planned events, activities, and uses at municipal parks and facilities; b. so as to avoid disrupting, damaging, or interfering with Toronto infrastructure, and; c. in drafting and updating its Emergency Response Plan and Spill Prevention and Response Plan. 	3.13, 3.1.7 Site alteration is permitted in areas subject to flooding or erosion only if public safety risks are minor and no adverse environmental impacts will result	<p>Page 57: site-specific watercourse crossing plans are required for sensitive crossings</p> <p>Page 59: A hydrocarbon spills contingency plan must be developed for every liquid hydrocarbon pipeline</p> <p>Page 62: easements must be rehabilitated to the reasonable satisfaction of the landowner and the agencies concerned. To achieve this, it is essential that a restoration plan be developed to rehabilitate the easement</p> <p>Page 68-69: monitoring programs and monitoring reports are typically required</p>
38	<p>Imperial shall on request by Toronto:</p> <ul style="list-style-type: none"> a. provide its erosion assessment and monitoring information for the Project to Toronto, including any updates thereto, and; b. require appropriate Imperial staff to meet with Toronto staff regarding same. 		
39	<p>Imperial shall comply with the Toronto Transit Commission ("TTC")'s Technical Review procedure requirements (including providing the TTC with any required site specific contingency plans), where the existing pipeline or proposed new pipeline crosses or is in proximity to TTC stations, tunnels or other significant TTC infrastructure.</p>		

Appendix B

2014 Provincial Policy Statement Extracts

Coordination

1.2.1 A coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, across lower, single and/or upper-tier municipal boundaries, and with other orders of government, agencies and boards including:

- a) managing and/or promoting growth and development;
- b) economic development strategies;
- c) managing natural heritage, water, agricultural, mineral, and cultural heritage and archaeological resources;
- d) *infrastructure*, electricity generation facilities and transmission and distribution systems, *multimodal transportation systems*, *public service facilities* and *waste management systems*;
- e) ecosystem, shoreline, watershed, and Great Lakes related issues;
- f) natural and human-made hazards;
- g) population, housing and employment projections, based on *regional market areas*; and
- h) addressing housing needs in accordance with provincial policy statements such as the Ontario Housing Policy Statement.

Land Use Compatibility

1.2.6.1 *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* from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term viability of *major facilities*.

Public Spaces, Recreation, Parks, Trails and Open Space

1.5.1 Healthy, active communities should be promoted by:

- a) planning, public streets, spaces and facilities to be safe, meet the needs of pedestrians, foster social interaction and facilitate *active transportation* and community connectivity;
- b) planning and providing for a full range and equitable distribution of publicly-accessible built and natural settings for *recreation*, including facilities, parklands, public spaces, open space areas, trails and linkages, and, where practical, water-based resources;
- c) providing opportunities for public access to shorelines; and
- d) recognizing provincial parks, conservation reserves, and other protected areas, and minimizing negative impacts on these areas.

Wise Use and Management of Resources

- 2.0 Ontario's long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits.

Natural Heritage

- 2.1.1 Natural features and areas shall be protected for the long term.
- 2.1.2 The diversity and connectivity of natural features in an area, and the long-term *ecological function* and biodiversity of *natural heritage systems*, should be maintained, restored or, where possible, improved, recognizing linkages between and among *natural heritage features and areas, surface water features and ground water features*.
- 2.1.4 *Development and site alteration* shall not be permitted in:
- a) *significant wetlands* in Ecoregions 5E, 6E and 7E1; and
 - b) *significant coastal wetlands*.
- 2.1.5 *Development and site alteration* shall not be permitted in:
- a) *significant wetlands* in the Canadian Shield north of Ecoregions 5E, 6E and 7E1;
 - b) *significant woodlands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);
 - c) *significant valleylands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);
 - d) *significant wildlife habitat*;
 - e) *significant areas of natural and scientific interest*; and
 - f) *coastal wetlands* in Ecoregions 5E, 6E and 7E1 that are not subject to policy 2.1.4(b)
- unless it has been demonstrated that there will be no *negative impacts* on the natural features or their *ecological functions*.
- 2.1.8 *Development and site alteration* shall not be permitted on *adjacent lands* to the *natural heritage features and areas* identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the *ecological function* of the *adjacent lands* has been evaluated and it has been demonstrated that there will be no *negative impacts* on the natural features or on their *ecological functions*.

Water

- 2.2.1 Planning authorities shall protect, improve or restore the *quality and quantity of water* by:
- a) using the *watershed* as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development;
 - b) minimizing potential *negative impacts*, including cross-jurisdictional and cross-*watershed* impacts;
 - c) identifying water resource systems consisting of *ground water features, hydrologic functions, natural heritage features and areas, and surface water features* including shoreline areas, which are necessary for the ecological and hydrological integrity of the *watershed*;
 - d) maintaining linkages and related functions among *ground water features, hydrologic functions, natural heritage features and areas, and surface water features* including shoreline areas;
 - e) implementing necessary restrictions on *development* and *site alteration* to:
 - 1. protect all municipal drinking water supplies and *designated vulnerable areas*; and
 - 2. protect, improve or restore *vulnerable* surface and ground water, *sensitive surface water features* and *sensitive ground water features*, and their *hydrologic functions*;
 - f) planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality;
 - g) ensuring consideration of environmental lake capacity, where applicable; and
 - h) ensuring stormwater management practices minimize stormwater volumes and contaminant loads, and maintain or increase the extent of vegetative and pervious surfaces.

Natural Hazards

3.1.2 *Development* and *site alteration* shall not be permitted within:

- a) the *dynamic beach hazard*;
- b) *defined portions of the flooding hazard along connecting channels* (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers);
- c) areas that would be rendered inaccessible to people and vehicles during times of *flooding hazards, erosion hazards* and/or *dynamic beach hazards*, unless it has been demonstrated that the site has safe access appropriate for the nature of the *development* and the natural hazard; and
- d) a *floodway* regardless of whether the area of inundation contains high points of land not subject to flooding.

3.1.3 Planning authorities shall consider the potential impacts of climate change that may increase the risk associated with natural hazards.

3.1.7 Further to policy 3.1.6, and except as prohibited in policies 3.1.2 and 3.1.5, *development* and *site alteration* may be permitted in those portions of *hazardous lands* and *hazardous*

sites where the effects and risk to public safety are minor, could be mitigated in accordance with provincial standards, and where all of the following are demonstrated and achieved:

- a) *development* and *site alteration* is carried out in accordance with *floodproofing standards*, *protection works standards*, and *access standards*;
- b) vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies;
- c) new hazards are not created and existing hazards are not aggravated; and
- d) no adverse environmental impacts will result.

Implementation and Interpretation

4.2 In accordance with section 3 of the *Planning Act*, a decision of the council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, board, commission or agency of the government, including the Municipal Board, in respect of the exercise of any authority that affects a planning matter, “shall be consistent with” this Provincial Policy Statement.

Definitions

Adjacent lands:

a) for the purposes of policy 1.6.8.3, those lands contiguous to existing or planned corridors and transportation facilities where *development* would have a negative impact on the corridor or facility. The extent of the *adjacent lands* may be recommended in guidelines developed by the Province or based on municipal approaches that achieve the same objectives;

b) for the purposes of policy 2.1.8, those lands contiguous to a specific *natural heritage feature or area* where it is likely that *development* or *site alteration* would have a *negative impact* on the feature or area. The extent of the *adjacent lands* may be recommended by the Province or based on municipal approaches which achieve the same objectives;

c) for the purposes of policies 2.4.2.2 and 2.5.2.5, those lands contiguous to lands on the surface of known *petroleum resources*, *mineral deposits*, or *deposits of mineral aggregate resources* where it is likely that *development* would constrain future access to the resources. The extent of the *adjacent lands* may be recommended by the Province; and

d) for the purposes of policy 2.6.3, those lands contiguous to a *protected heritage property* or as otherwise defined in the municipal official plan.

Adverse Effects: as defined in the *Environmental Protection Act*, means one or more of:

- a) impairment of the quality of the natural environment for any use that can be made of it;
- b) injury or damage to property or plant or animal life;
- c) harm or material discomfort to any person;
- d) an adverse effect on the health of any person;
- e) impairment of the safety of any person;
- f) rendering any property or plant or animal life unfit for human use;
- g) loss of enjoyment of normal use of property; and

h) interference with normal conduct of business

Ecological Function: means the natural processes, products or services that living and non-living environments provide or perform within or between species, ecosystems and landscapes. These may include biological, physical and socio-economic interactions.

Flood plain: for *river, stream and small inland lake systems*, means the area, usually low lands adjoining a watercourse, which has been or may be subject to *flooding hazards*.

Hazardous lands: means property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of the *Great Lakes - St. Lawrence River System*, this means the land, including that covered by water, between the international boundary, where applicable, and the furthest landward limit of the *flooding hazard, erosion hazard or dynamic beach hazard* limits. Along the shorelines of *large inland lakes*, this means the land, including that covered by water, between a defined offshore distance or depth and the furthest landward limit of the *flooding hazard, erosion hazard or dynamic beach hazard* limits. Along *river, stream and small inland lake systems*, this means the land, including that covered by water, to the furthest landward limit of the *flooding hazard or erosion hazard* limits.

Heritage attributes: means the principal features or elements that contribute to a *protected heritage property's* cultural heritage value or interest, and may include the property's built or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting (including significant views or vistas to or from a *protected heritage property*).

Infrastructure: means physical structures (facilities and corridors) that form the foundation for development. *Infrastructure* includes: sewage and water systems, septage treatment systems, stormwater management systems, waste management systems, electricity generation facilities, electricity transmission and distribution systems, communications/telecommunications, transit and transportation corridors and facilities, oil and gas pipelines and associated facilities.

Major facilities: means facilities which may require separation from *sensitive land uses*, including but not limited to airports, transportation infrastructure and corridors, *rail facilities, marine facilities*, sewage treatment facilities, *waste management systems*, oil and gas pipelines, industries, energy generation facilities and transmission systems, and resource extraction activities.

Natural heritage features and areas: means features and areas, including *significant wetlands, significant coastal wetlands, other coastal wetlands* in Ecoregions 5E, 6E and 7E, *fish habitat, significant woodlands and significant valleylands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River), *habitat of endangered species and threatened species, significant wildlife habitat*, and *significant areas of natural and scientific interest*, which are important for their environmental and social values as a legacy of the natural landscapes of an area.

Natural heritage system: means a system made up of *natural heritage features and areas*, and linkages intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. These systems can include *natural heritage features and areas*, federal and provincial parks and conservation reserves, other natural

heritage features, lands that have been restored or have the potential to be restored to a natural state, areas that support hydrologic functions, and working landscapes that enable ecological functions to continue. The Province has a recommended approach for identifying *natural heritage systems*, but municipal approaches that achieve or exceed the same objective may also be used.

Negative impacts: means

a) in regard to policy 1.6.6.4 and 1.6.6.5, degradation to the *quality and quantity of water, sensitive surface water features and sensitive ground water features*, and their related *hydrologic functions*, due to single, multiple or successive *development*. *Negative impacts* should be assessed through environmental studies including hydrogeological or water quality impact assessments, in accordance with provincial standards;

b) in regard to policy 2.2, degradation to the *quality and quantity of water, sensitive surface water features and sensitive ground water features*, and their related *hydrologic functions*, due to single, multiple or successive *development* or *site alteration* activities;

c) in regard to *fish habitat*, any permanent alteration to, or destruction of *fish habitat*, except where, in conjunction with the appropriate authorities, it has been authorized under the *Fisheries Act*; and

d) in regard to other *natural heritage features and areas*, degradation that threatens the health and integrity of the natural features or *ecological functions* for which an area is identified due to single, multiple or successive *development* or *site alteration* activities.

Significant: means

a) in regard to *wetlands, coastal wetlands and areas of natural and scientific interest*, an area identified as provincially significant by the Ontario Ministry of Natural Resources using evaluation procedures established by the Province, as amended from time to time;

b) in regard to *woodlands*, an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history. These are to be identified using criteria established by the Ontario Ministry of Natural Resources;

Site alteration: means activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site.

For the purposes of policy 2.1.4(a), *site alteration* does not include underground or surface mining of *minerals* or advanced exploration on mining lands in *significant areas of mineral potential* in Ecoregion 5E, where advanced exploration has the same meaning as in the *Mining Act*. Instead, those matters shall be subject to policy 2.1.5(a).

Watershed: means an area that is drained by a river and its tributaries.

Appendix C LO-PIPE-1 Policy

Where event based modelling has shown that a spill from a petroleum pipeline system reaching a tributary would be a significant drinking water threat, the Ministry of the Environment and Climate Change should work with facility owners and provincial and federal regulators to develop, review and recommend necessary improvements to existing spill prevention, spill management, risk reduction, and Contingency Plans to ensure the following:

- a. plans are based on the depth of ground cover at surface water crossings;
- b. spill response time frames are established;
- c. responsibilities of first responders are established to ensure a prompt unified regulatory command structure to manage the spill response;
- d. notification protocols are established jointly with the Spills Action Centre to ensure direct notification to all potentially affected water treatment plant operators and appropriate communication to the public and media;
- e. notification protocols are established for significant threat activities to ensure the water plant operators are notified appropriately for a given magnitude of spill;
- f. that information is communicated to all responsible parties (e.g., the originators of the spill, emergency response/clean-up personnel, medical officer of health, municipal water owner and water operating authority) who are responding to the spill;
- g. that there are appropriate spills response plans for each crossing;
- h. that appropriate pipeline system failure and shut down measures and policies are included;
- i. a review is undertaken on the depth of ground cover over the pipeline at each crossing, including an assessment of erosion and flood risk; that the facility owner provides assurance concerning the integrity of their infrastructure to prevent spills where these could be a significant drinking water threat;
- j. that a report on the inspection of the pipeline crossings at each tributary is provided to the Source Protection Authority;
- k. that the pipeline design and operational best management practices are in place (including potential additional design and operational best management practices);

- l. that any new or expansions or pipeline replacements are constructed to meet current best design criteria; and
- m. a provision is included in the Contingency Plan that the facility owner work with the Office of the Fire Marshal and Emergency Management to ensure that testing of the Contingency Plan is carried out within 3 years from the date the Source Protection Plan takes effect, followed by regular (frequency and priority to be determined in consultation) emergency response preparedness exercises to address the significant threats identified.