

# Ontario Municipal Board

IN THE MATTER OF an appeal by Friends of the Greenspace Alliance

**Witness Statement of Ted Cooper, M.A.Sc., P. Eng.**

**November 23<sup>rd</sup>, 2009**

## Introduction

1. I am a Professional Engineer, as designated by Professional Engineers Ontario. I work in the Infrastructure Services and Community Sustainability Department of the City of Ottawa, where my job title is 'Infrastructure Planner'. I have been employed by the City of Ottawa since 2002, but provide this testimony as a private citizen. I have 22 years of experience in water resources and municipal engineering, both in the public and private sectors. I have extensive professional experience in the planning of many undertakings that required approval under the Municipal Engineers Association Municipal Class Environmental Assessment (MCEA) process and / or *Environmental Assessment Act*. A copy of my Curriculum Vitae is included as **Exhibit 1**.
2. For nearly twenty years I have been active as a private citizen in local environmental issues, whether it was serving as a member or Chairperson of advisory committees of Council in the City of Cambridge or as a member of environmental groups in Renfrew County, and at Lake Clear near Eganville where my home is located. I have previously volunteered thousands of hours of time for residents near Lake Simcoe who were negatively affected by bad drainage planning that was reported in an annual report of the Environmental Commissioner of Ontario. I have been an appellant in four different appeals to the Ontario Municipal Board. One Appeal concerned development on Lake Clear, a highly sensitive lake. Three other Appeals in the City of Ottawa have been related to floodplain development issues. I filed a Part II Order Request with the Minister of Environment related to the Carp River Restoration Plan that eventually resulted in an Order being issued by the Minister. I reported concerns to the City of Ottawa's Fraud and Waste Hotline that resulted in an audit report in which a number of findings and recommendations were made by the City of Ottawa's Auditor General related to floodplain development plans in the Carp River watershed. I have also written to agencies seeking the proper enforcement of environmental legislation in the Carp River watershed and elsewhere

in the Province of Ontario. My involvement in these various committees, organizations, and cases has originated from my personal interest and commitment to serving the public's interest by offering and applying my educational and work experience on sometimes complex and challenging environmental issues and projects.

3. In my capacity as Infrastructure Planner for the City of Ottawa, I was asked by my supervisor to review the May 2009 Draft Fernbank Master Servicing Study (Fernbank MSS) primarily from a high level wastewater planning perspective. Based on this review, my finding was that additional effort should have been undertaken in the Fernbank MSS investigating approaches to servicing parts of the Fernbank development area by the yet to be designed or constructed Kanata West pump station which is to be located about 1000m north of Hazeldean Road, opposite the Fernbank development area. Reducing the amount of the Fernbank development area to be serviced by the Hazeldean pump station would provide the City of Ottawa with greater flexibility in accommodating future development and intensification in the south Kanata and Stittsville areas. I submitted comments to this effect, which were responded to by the Fernbank consultant, however there was not agreement on my part that a fair and complete evaluation of alternatives other than servicing the entire Fernbank development by the Hazeldean pump station had been attempted in the Fernbank MSS. Given that City Council approval of the Fernbank Official Plan Amendment was scheduled to occur before the end of June 2009, there was no time available for my concerns to be resolved. The Fernbank MSS was approved on the basis that the entire area was to be serviced by the Hazeldean PS.

**Issue 1 Did the City conduct the right planning and approval process for the class environmental assessment undertakings (wastewater and stormwater) in the Master Servicing Study?**

4. The City's review and approval of OPA No. 77 relies in part on recommendations contained in the Fernbank Master Servicing Study (Fernbank MSS). Section 1.1.3.9(b) of the Provincial Policy Statement (PPS) requires the City to demonstrate that infrastructure and public service facilities supporting OPA No. 77 have been planned or are available and that they "are suitable for the development over the long term and protect public health and safety." Section 4.8 of the PPS notes that "in addition to land use approvals under the *Planning Act*, infrastructure may also require approval under other legislation and regulations, including the *Environmental Assessment Act*...."

5. The wastewater and stormwater issues involved in this Appeal arise in part as a result of the approval of the Fernbank MSS, a supporting document to OPA No. 77 that was approved on the basis that requirements of the “integration provisions” of the Municipal Engineers Association Class Environmental Assessment (MCEA) process had been satisfied. The Fernbank Environmental Management Plan (Fernbank EMP) is another supporting document to OPA No. 77 that provides additional detail about stormwater management and flood levels. The “Environmental Management Plan (EMP) has been prepared in conjunction with the Master Servicing Study. Many of the findings associated with the EMP have direct bearing on the infrastructure design....” (Fernbank MSS, Page 26).
6. The MCEA is a “parent document” approved by the Ministry of Environment that outlines the planning and approval process for a “class” of infrastructure projects typically undertaken by a municipality or by a private sector developer that are routine and have predictable impacts, the planning of which requires approval under the *Environmental Assessment Act*.
7. In the MCEA parent document, projects of varying degrees of complexity are organized onto different schedules. Projects with the least potential for environmental impacts fall into Schedule A, which lists pre-approved projects that can proceed to construction without any notice requirements under the MCEA process. Projects falling into Schedule A+ are also pre-approved, but because of their nature, public notification for the project is required to be in compliance of the MCEA requirements. Schedule B projects are more complex than Schedule A+ projects and require public consultation. Documentation must be prepared outlining the evaluation of alternative solutions to resolving a problem and the identification of the preferred solution. A formal notice of completion is required to be posted informing members of the public about the completion of the study and identification of the preferred solution(s). The notice also informs the public about opportunities to appeal the decisions of the project proponent. If the project proponent is a municipality, in most cases the appeal would be in the form of a Part II Order Request filed with the Minister of Environment. Where the project involves the planning of infrastructure in conjunction with a project requiring an approval under the *Planning Act*, there is an opportunity for the *Planning Act* and *Environmental Assessment Act* planning processes to be combined. So long as the infrastructure is self-contained within the geographical area of the *Planning Act* approval, the integration provisions of the MCEA process can be used, wherein concerns by the public must be raised through an appeal to the Ontario Municipal Board. There is no opportunity for a Part II Order Request to be filed with the MOE Minister when the integration provisions are chosen by the project proponent. There are also Schedule C projects that are more complex and require additional consultation and

documentation. The public notice for OPA No. 77, provided in **Exhibit 2**, shows the list of projects being approved concurrent with the approval of OPA No. 77 under the *Planning Act*, and that appeals related to these projects must be filed with the OMB.

8. Section A.2.9 of the MCEA parent document, provided in **Exhibit 3**, describes the “Integration with the *Planning Act*” process that enables the review and approval of Class EA projects to proceed with the approvals process under the *Planning Act*. It is important to note the following from Section A.2.9: “This Class EA recognizes the desirability of coordinating or integrating the planning processes and approvals under the EA Act and the Planning Act, as long as the intent and requirements of both Acts are met.” [emphasis added].
9. The project proponent issued the mandatory notification to review agencies and the public about the availability of the study documentation for public review and the ability to appeal the *Planning Act* decisions to the OMB. According to the October 22, 2009 letter from MOE Minister John Gerretsen, (**Exhibit 4**) the Ministry of Environment’s Kingston Regional Office received a documentation package from the project proponents, and their finding was that the Fernbank MSS had followed the appropriate planning process. No Appeal to the Ontario Municipal Board was hence pursued by the MOE or MOE Minister.
10. The Friends of the Greenspace Alliance, members of the informal group known as the Carp River Coalition, also reviewed the documentation package provided by the project proponents. The Carp River Coalition has been monitoring issues related to development plans in and around the Carp River floodplain for several years, and previously filed a Part II Order Request related to the Kanata West Class Environmental Assessments approved by the City of Ottawa using the MCEA process. Their Part II Order Request resulted in Minister Gerretsen issuing an Order to the City of Ottawa and Kanata West Owners Group under Part II of the Environmental Assessment Act on July 21, 2009 (**Exhibit 5**). Unlike the MOE Regional Office or the MOE Minister, the Carp River Coalition had concerns about the Fernbank MSS and EMP and elected to file an Appeal of OPA No. 77, following the direction given in **Exhibit 2**: “Since the City is following an integrated planning and environmental assessment process, there is no opportunity for a Part II Order under the *Environmental Assessment Act*. However, any person or public body with objections to any of the projects identified in the Plans and/or to the OPA may file an appeal to the Ontario Municipal Board.”
11. I have undertaken a review of the Fernbank MSS documentation, as well as the Fernbank EMP documentation, and it is my opinion that the planning of wastewater

and stormwater projects listed in **Exhibit 2** fail to satisfy the intent and requirements of the *EA Act* and the *Planning Act*, and hence does not constitute good planning.

12. The MCEA requires planning of infrastructure projects to be completed in their entirety to solve a specific problem. A project cannot be split-up into component parts to facilitate the planning approvals of a project. “It is inappropriate for proponents to reduce their responsibility under the EA Act by breaking up or piecemealing a larger project into smaller component parts, with each part addressed separately. Piecemealing is not in compliance with the EA Act.” (Page G-6, **Exhibit 6**).
13. **Exhibit 7** illustrates how the planning and approval process of the wastewater services required by OPA No. 77 is being piecemealed. The trunk wastewater component of the Fernbank MSS (‘Piece 1’ in **Exhibit 7**) has been planned and approved under the assumption that there is an existing trunk sewer (‘Piece 2’ in **Exhibit 7**) available to the east of OPA No. 77 that the trunk wastewater sewers (listed as a project in **Exhibit 2**) could connect to, providing an outlet for wastewater to drain to the existing Hazeldean PS (‘Piece 3’ in **Exhibit 7**). In fact this connecting trunk sewer does not exist; the property where this trunk sewer is shown in the Fernbank MSS falls outside the limits of the *Planning Act* approval (OPA No. 77)); there has been no study conducted that demonstrates that the connecting trunk sewer project can be constructed within an existing right-of-way or service corridor leading to the Hazeldean pump station; the City of Ottawa, who would be proponents of the connecting trunk sewer, has not completed any public notification as required by the MCEA process for a Schedule A+ or Schedule B project.
14. In addition to failing to solve the problem of providing the required wastewater servicing under Section 1.1.3.9 of the PPS by ensuring the availability of a planned or existing trunk sewer outlet, the Fernbank MSS does not ensure the availability of adequate pumping capacity at the Hazeldean PS either exists or has been planned in compliance with the PPS and MCEA process. Furthermore, the Fernbank MSS has failed to ensure capacity in the inlet chamber to the Hazeldean PS either exists or has been planned to safely convey increased flows into the pumping station. The Fernbank MSS has also failed to ensure an adequate emergency overflow exists or has been planned at the Hazeldean PS. It is noted that the Fernbank MSS states on Page 62 that the existing overflow is “grossly undersized”.
15. The conceptual plan of the proposed emergency overflow illustrated on page 62 of the Fernbank MSS is lacking in detail. The concept is stated to protect future homes to be constructed in the Fernbank development area, but has failed to assess the effectiveness of the overflow in protecting existing homes in the Glen Cairn area also

serviced by the Hazeldean PS. Further, the conceptual plan of the emergency overflow indicates wastewater to be flowing into a ditch leading to the Monahan Drain. There has been no Public Notice provided to property owners or members of the public who may have concerns about the health and safety risks of sewage flowing in open ditches.

16. The City has initiated the “Glen Cairn Flooding Investigation” following a flood on July 24, 2009 (i.e. one month after the approval of OPA No. 77) in which 500 or more homes in the Glen Cairn community were flooded with stormwater and sewage. This was the third flooding incident in Glen Cairn in 13 years. The Terms of Reference for the Glen Cairn Flooding Investigation (**Exhibit 8**) indicate the level of service provided to residents by the stormwater and wastewater systems in the area is being investigated. This includes examining capacity requirements of the Hazeldean PS, including its emergency overflow. The investigation is also investigating constraints on the stormwater system that are imposed by water levels in the Glen Cairn stormwater pond (Glen Cairn SWM pond). The Glen Cairn Flooding Investigation is following Phases 1 and 2 of the MCEA process, and is planned to be complete in August 2010. According to the MCEA (Page A-28) “If the proponent concludes that the problem as originally defined is no longer valid and has been re-defined, then the planning process shall revert to Phase 1 with a new problem statement.” The City has redefined the problem of the design of the Hazeldean PS and its overflow since the approval of OPA No. 77. The City has not posted any public notification related to upgrades of the Hazeldean PS and overflow. Because the MCEA does not allow projects to be piecemealed, I have to conclude the planning of a wastewater outlet for the Fernbank MSS must also revert to Phase 1 with a new problem statement.
17. The land use designations approved in OPA 77 rely in part on the sale of publicly owned land (Mississippi Valley Conservation) in the area of the Glen Cairn SWM pond (**Exhibit 9** – from Document 2 of Fernbank EMP). According to Table 2.2.1 of the Carp River Subwatershed Plan (**Exhibit 10**), the SWM Pond is “probably undersized”. Since the Glen Cairn Flood Investigation is investigating possible undue constraints imposed by water levels in the Glen Cairn SWM pond, the sale of publicly owned lands at the Glen Cairn SWM pond in advance of the completion of the Flooding Investigation is premature.
18. The three stormwater ponds in the Carp River watershed approved in the Fernbank MSS outlet to the Carp River within 300m of the outlet of the Glen Cairn SWM pond. The Carp River Third Party Review documented flood level increases over existing conditions at the Glen Cairn Pond – and this assessment did not factor the post-development runoff condition of the Fernbank development. Based on runoff volumes calculated from computer listing files provided in Volume 2 of the Fernbank

EMP (**Exhibit 11**), the pre-development runoff volume is greater than the value used in the Carp River Third Party Review. Therefore baseline (pre-Fernbank development) flood level conditions will be even higher than those documented in the Third Party Review. The additional runoff volume generated under a post-development Fernbank condition will add further to the increase in flood levels, compared to existing conditions.

19. The flood standard in Eastern Ontario pursuant to the Ministry of Natural Resources Technical Guide River & Stream Systems: Flooding Hazard Limit (MNR 2002) is the 100-year flood. Two of the three SWM ponds in the Carp River watershed have been approved in the Fernbank MSS with controls only up to the 10-year event. If not coordinated with the Flooding Investigation underway, the increase in flood levels at the outlet of the Glen Cairn SWM pond could result in additional undue constraints being imposed on the Glen Cairn storm sewer system - and sanitary sewer system, since the emergency overflow from the Hazeldean PS outlets to a storm sewer that discharges to the Glen Cairn SWM Pond.
20. Approving the three SWM ponds in the Fernbank MSS could adversely affect flood levels in the Glen Cairn SWM pond – that the Carp River Subwatershed Plan indicated is probably undersized. According to Section 1.1.1 c) of the PPS, “Healthy, liveable and safe communities are sustained by avoiding development and land use patterns which may cause environmental or public health and safety concerns”. Section 2.2.1 of the Provincial Policy Statement states: “Planning authorities shall protect, improve or restore the quality and quantity of water by: a) using the watershed as the ecologically meaningful scale for planning”. Until the Glen Cairn Flood Investigation is completed, and until floodplain analysis has been completed that considers the hydrologic and hydraulic impact of all changes proposed in the Carp River watershed, it is inappropriate to approve the three SWM facilities in the Fernbank development, two of which provide control of no more than the 10-year flood that outlet to the Carp River just downstream from the Glen Cairn SWM pond.
21. Based on the points above,
  - i) **It is my opinion that the planning of the wastewater outlet is incomplete, and is being piecemealed, which is inconsistent with the requirements of the Environmental Assessment Act. According to the MCEA Document “If the component parts are dependent on each other, then all of the components must be combined and dealt with as a single project.”**
  - ii) **It is my opinion that the planning and approval of the connecting trunk sewer on City owned property east of OPA No. 77 that would provide an outlet for the Fernbank trunk sewer does not exist, nor**

has it been planned consistent with requirements of the MCEA process.

- iii) It is my opinion that the planning and approval of the required Hazeldean PS pump and inlet chamber upgrades are incomplete, and are being piecemealed.
- iv) It is my opinion that planning and approval of the Hazeldean PS overflow is incomplete and that all of the component parts required to provide wastewater services to the Fernbank community have not been planned and approved as a single project, as required by the MCEA.
- v) It is my opinion that the City has redefined the problem of planning wastewater upgrades to the Hazeldean PS to include factors involving the level of service provided to all residences serviced by the Hazeldean PS, not just future residents planned in the Fernbank community. Because the problem definition has changed, it is my opinion that the planning process for the Fernbank wastewater services must revert to Phase 1 with a new problem statement and that the study be coordinated with the Glen Cairn Flooding Investigation.
- vi) It is my opinion that the proposed land use designations in OPA 77 in areas affecting the present size of publicly owned land at the Glen Cairn SWM pond is not in the public interest until the findings of the Glen Cairn Flooding Investigation become available, and establish that the lands are not required to reduce undue constraints posed by flood levels in the Glen Cairn SWM pond.
- vii) It is my opinion that the planning and approval process for the three SWM ponds in the Carp River watershed was inappropriate because it failed to recognize the watershed as being the ecologically meaningful scale for planning.
- viii) Based on the above, the Fernbank MSS and Fernbank EMP have failed to demonstrate that infrastructure and public service facilities supporting OPA No. 77 have been planned or are available and that they are suitable for the development over the long term and protect public health and safety, as is required by Section 1.1.3.9 of the PPS.
- ix) Based on the above, it is my opinion that the planning of stormwater and wastewater projects proposed in the Fernbank MSS and Fernbank EMP approved in OPA No. 77 do not satisfy the requirements of the Integration Provisions of the MCEA process.
- x) Based on the above, the proposed projects documented in the Fernbank MSS and Fernbank EMP have satisfied neither the requirements of the MCEA process or the PPS, and therefore it is my opinion that the appropriate planning and approval process for infrastructure required to service OPA No. 77 has not be fulfilled.

**Issue 2 Are the conclusions and recommendations of the six studies:**

- Terry Fox Drive Extension Class Environmental Assessment
- Hazeldean Road Expansion Class Environmental Assessment
- Fernbank Master Servicing Study –SWM Ponds #1,#2,#3, & associated storm sewers;
- Kanata West Class EAs –Carp River Restoration Plan; Maple Grove Road Widening; Kanata West Pump Station; SWM Facilities P1, P2, P3, P4, P5, P6 & associated storm sewers;
- Broughton Subdivision –Amended C of A No. 3333 – 7SDLAT; C of A No. 327-7STKDW
- The Carp River Third Party Review (2009)

**relevant to the process? If so, were they properly considered in the City’s review and approval of Official Plan Amendment No. 77?**

22. Many of the projects listed in Issue 2 are illustrated on **Exhibit 12**, showing their approximate location within or near the Carp River floodplain.
23. Section 2.2.1 of the PPS indicates that the watershed is “the ecologically meaningful scale for planning”. Each of the projects listed in Issue 2 are located in the Carp River watershed, and affect directly or indirectly the runoff volume, the conveyance capacity and flood levels of the Carp River.
24. The Third Party Review (TPR) has been completed following a Terms of Reference prepared by City Management in response to the Audit of the Carp River Watershed Plan and Related Projects undertaken by the City of Ottawa’s Auditor General. The Auditor General states at page 31 of his report (**Exhibit 13**): “It is not clear why the Fernbank development was not taken into consideration in the calculation of the future land use conditions in the Flood Characterization studies done in 2005 and 2006 or in subsequent studies and design work. In our opinion, the effect of this development should have been taken into account in the calculations, particularly as it was designated as Future Urban Area as shown in the 2001 [sic] Official Plan Schedule B – Urban Policy Plan as a result of an OMB Order in August 2005.”
25. The Third Party Review is referenced in the Order issued by the MOE Minister to the City of Ottawa and the Kanata West Owners Group (KWOG) under Section 16 of the *Environmental Assessment Act* (**Exhibit 5**). While municipal Class EA projects approved under the *EAA* must follow the process documented in the MCEA parent document, and *Planning Act* approvals must be consistent with the PPS, the TPR has followed a Terms of Reference prepared by City management that was not approved under the *Planning Act* nor approved under the *Environmental Assessment Act*.

26. The Staff Report prepared for OPA No. 77 identified the TPR as one of the 'milestones' in the preparation of the Fernbank Community Design Plan. The TPR has had to consider the impact of the listed projects in Issue 2 during the review of the computer modeling in order to tabulate the flood levels in Table 3.6 of the TPR (**Exhibit 14**). Changes that have occurred to flood levels that are tabulated in the right-hand column of Table 3-6 establish new design constraints that should be factored into the design of the various projects. For example, the design of the Maple Grove Road Widening project would need to take into account the fact that the 100-year flood level had changed (risen) by 0.25m at the upstream side of the bridge and risen 0.22m at the downstream side of the bridge. Similarly, the Hazeldean Road Expansion Class EA would need to take into account the fact that the 100-year flood level had changed (risen) by 0.05m at the upstream side of the bridge and risen 0.18m at the downstream side of the bridge (and that the impact of urbanization of the Fernbank lands that is upstream of the Hazeldean Road bridges is not accounted for in these flood level increases).
27. MOE Minister Gerretsen commented in **Exhibit 4** that the MOE considers the Hazeldean Road Widening Class EA approved and that "It is the proponent's responsibility to determine whether an addendum is required."
28. The TPR makes a number of conclusions and recommendations. At Conclusion 14, the TPR states:

"A comparison of flood water levels between existing conditions and future conditions with the development of the Restoration Plan. A 10 cm range of flow level change should be acceptable for comparison purposes. This is valid only if there is no existing flood risk previously identified at the particular location. Water level changes greater than 10 cm could be supported with field data to indicate there is no flood risk. MVC will require field confirmation for any changes in water level to support the change."

The flood level increases at Hazeldean Road exceed the 10cm threshold set by the TPR consultant. Because the Hazeldean Road Widening project was still at the design stage, changes could still be made to the design of the bridges before the project is constructed. Should changes be made to the design of the bridges, the impacts of those changes could affect the flood levels upstream and downstream of Hazeldean Road. Changes to the hydraulic model would need to be made to reflect those changes to keep the model current, and to facilitate a coordinated impact assessment of subsequent changes made in the Carp River watershed, such as the impact of OPA No. 77. **Exhibit 4** was copied to managers at the City of Ottawa, the proponent of the Hazeldean Road Widening project. The Hazeldean Road Widening proceeded to construction in early November 2009. No Class EA Addendum was completed. It is unknown if or how changes in flood levels documented in the TPR have been considered in the design of the bridges now under construction. It is noted that the City's design consultant for the Hazeldean Road Widening project is the same consultant who authored the Fernbank MSS and EMP.

29. The impact of flood level changes on the other projects listed in Issue 2 need to be factored into their design, and in-turn, the resulting changes need to be incorporated into the computer modeling (in a similar fashion to that described in paragraph 28

concerning the Hazeldean Road Widening project) to ensure the impact assessment throughout the Carp River watershed is kept up-to-date. Most of these projects are illustrated in Exhibit 12. Without ensuring the impact assessment has been undertaken on a watershed basis, as identified in Section 2.2.1 of the PPS, it can become a challenging assignment to keep on top of all of the changes and to ensure that all of the projects remain coordinated.

30. The TPR provided direction to the City of Ottawa for consideration in the approval of the Fernbank OPA application (see **Exhibit 15**). The TPR established conditions under which the post-development condition of the Fernbank lands would not need to be coordinated with the impact assessment of other projects currently in the planning and design stage. The primary condition was that the increase in runoff volume from the portion of OPA No. 77 in the Carp River watershed did not exceed the baseline / pre-development condition calculated in the TPR by 40,000 m<sup>3</sup>. The TPR findings, such as the flood levels documented in Table 3.6 (**Exhibit 14**) are based on a pre-development runoff volume of 226,000 m<sup>3</sup>.
31. As summarized in **Exhibit 11**, OPA No. 77 as reviewed and approved by the City of Ottawa, was based on a land use and stormwater management plan that resulted in a runoff volume that exceeded the TPR's baseline condition by 74,937 m<sup>3</sup>, which is nearly double the target set by the TPR.
32. OPA No. 77, therefore, was approved:
  - i) Contrary to the position of the Auditor General that the post-development condition of the Fernbank development should have been considered in the impact assessment in the Kanata West Class EAs;
  - ii) On the basis of post-development runoff conditions that do not satisfy the criteria established in the TPR; and
  - iii) Contrary to Section 2.2.1 of the PPS "Planning authorities shall protect, improve or restore the quality and quantity of water by: a) using the watershed as the ecologically meaningful scale for planning".
33. At page A-21 of the MCEA document, the following comments are made about traceability:

"The planning and design process shall be undertaken in such a way as to allow a reviewer to trace each step of the process. In particular, the documentation should explain the reasons for the criteria used to identify and assess the alternatives...."

To ensure that the planning and design process is easily traceable, the proponent shall ensure:

  - The analysis is understandable to the reasonable lay observer;
  - All conclusions drawn from the analysis follow logically from the information gathered and presented; and
  - A reasonable lay observer is able to replicate the conclusions on the information presented."

There is no basis from which a lay observer could understand the origin of the 40,000 m<sup>3</sup> excess runoff volume established in the Third Party Review. On the other hand, given that the Carp River Subwatershed Plan was initiated in 2000, and that the OMB Decision that allowed the Fernbank Development into the urban boundary occurred in August 2005, there has been nearly one decade to collect flow monitoring data to calibrate the Carp River models, and there have been more than four years available to factor in the post-development condition of the Fernbank development area in the impact assessment undertaken to on Carp River flood levels and to set stormwater management criteria. There has been more than adequate time available to collect sufficient flow monitoring data to prepare a reasonably calibrated model of existing conditions and one consistent model of post-development runoff and water level conditions that would enable a traceable impact assessment that was completed on a watershed basis consistent with Section 2.2.1 of the PPS, that a lay person could understand.

34. The Third Party Review narrows the criteria when considering the impact of flood level increases to “flood risk”. The PPS has policies that encompass a much broader consideration of protecting public health and safety issues. For example, at Section 1.1.1, the PPS states

Healthy, liveable and safe communities are sustained by:

- c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;

Clearly the intent of the PPS is for safe and orderly development that avoids public health and safety concerns, rather than quantitative assessments of potential increases in risk, particularly in a watershed where there have been three significant flooding incidents in the last 13 years.

35. Based on the points above,

- i) **It is my opinion that list of projects in Issue 2 are relevant to the planning and approval process for OPA No. 77;**
- ii) **It is my opinion that the review and approval of OPA No. 77 failed to meet the conditions established in the Third Party Review;**
- iii) **It is my opinion that the TPR criteria established for the Fernbank development are inconsistent with Section 2.2.1 of the PPS**
- iv) **It is my opinion that the review and approval of OPA No. 77 failed to consider the watershed as the appropriate scale to conduct planning as identified in Section 2.2.1 of the PPS;**
- v) **It is my opinion that the Fernbank MSS and Fernbank EMP have failed to satisfy the requirements of the MCEA that requires the intent and requirements of the *Environmental Assessment Act* and *Planning Act* to be met;**
- vi) **It is my opinion that the review and approval of OPA No. 77 is inconsistent with of Section 1.1.3.9(b) of the PPS because the**

**Fernbank MSS and Fernbank EMP have failed to establish that infrastructure has been planned or is available that are suitable for the development over the long term and protects public health and safety.**

**Ted Cooper, M.A.Sc., P.Eng.**

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