

August 9, 2017

Mr. Brad Anderson
Principal Planner
Planning and Economic Development
Regional Municipality of Durham
PO Box 623
605 Rossland Road East
Whitby, ON
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RE: CARRUTHERS CREEK WATERSHED PLAN
COMPLETION OF PHASE 1 TECHNICAL STUDIES PEER REVIEW

Dear Mr. Anderson

I am writing to confirm that third party peer reviews of the Carruthers Creek Watershed Phase 1 technical studies have been completed and that my independent review of those studies confirms that the resulting reports provide a comprehensive and technically sound basis for proceeding to the next phase of the watershed plan development process. I understand that TRCA has recently provided you with a finalized copy of each report.

In the paragraphs that follow I will explain the processes followed by TRCA, the subject matter peer review experts, and myself in getting to this point.

1) Initial Drafting of Technical Study Reports

Individual subject matter reports in the key watershed characterization disciplines were prepared by TRCA staff and, in a few cases, by their consultants based on an assessment of background data from earlier studies, analyses of results of field monitoring and inventorying carried out in 2015-2016, compilation of complementary data (e.g. meteorology) obtained from other agencies, and the application of analytical approaches and tools designed to characterize current health, to examine spatial and temporal variations and trends in environmental indicators and, where possible, to attribute those differences and changes to evolving land uses and land use practices and to other drivers such as weather and climate.

The suite of characterization reports includes:

- Terrestrial Habitat and Communities
- Aquatic Habitat and Communities
- Aquatic Crossings and Barriers
- Headwater Drainage Features
- Surface Water Quality
- Hydrogeology

- Fluvial Geomorphology

The field data collection and analytical practices used by TRCA throughout Phase 1 are guided by well-established and well-documented protocols that represent a leading-edge approach to the characterization phase of the watershed planning process. These protocols were developed in cooperation with other conservation authorities and provincial agencies.

Completion of a separate report dealing with watercourse hydrology is being deferred to Phase 2 to allow for the development of the necessary rating curves associated with the ongoing collection of streamflow measurements. Notwithstanding this gap, initial characterization of the creek's hydrology, its interaction with the groundwater regime and its influence on aquatic health, surface water quality, and stream stability are touched upon in the other reports. Preliminary discussion of links between land uses and land use practices and runoff hydrology and flood potential is also provided.

2) Identification and Selection of Peer Reviewers and the Role of Peer Review Advisor

For each subject area third party reviewers were selected based on their demonstrated expertise and experience, their ability to provide unbiased analysis of the study reporting, and their commitment to confidentiality. Their names and affiliations are identified in the following table.

Study Report	Peer Reviewer
Terrestrial Habitat & Communities	Aviva Patel, Senior Manager, Landscape Science, Inventory & Monitoring, Credit Valley Conservation (CVC) Dawn Renfrew, Natural Areas Inventory Coordinator, CVC
Aquatic Habitat & Communities	Jack Imhof, Director of Conservation Ecology, Trout Unlimited Canada
Aquatic Crossings and Barriers	Jack Imhof, Director of Conservation Ecology, Trout Unlimited Canada
Headwater Drainage Features	Liam Marray, Senior Mgr, Planning Ecology, CVC
Surface Water Quality	Amanjot Singh, Water Quality Engineer, CVC
Hydrogeology	Ryan Post, Lead Hydrogeologist, Nottawasaga Valley CA
Fluvial Geomorphology	Mark Peacock, Director, Watershed Services, Ganaraska Region CA

My role as an independent Peer Review Advisor has been one of process oversight from the perspective of someone with an extensive background in integrated watershed planning and management acquired through 30+ years of related provincial, conservation authority and private practice service. I assisted in the selection of the peer reviewers, in the supplementary evaluation of peer review comments, and in the recommendation of cross-referencing additions to individual reports aimed at strengthening and integrating the technical analyses.

3) Peer Review and Report Editing Process

Peer review and subsequent actions followed an iterative process involving draft report review, preparation of an overview statement on the report's acceptability, incorporation of 'track changes' commentary in the original documents, referral of the reviewer's questions and suggestions back to the report authors, detailed and standardized tabulation of all peer review comments and author responses, and preparation of the finalized documents. Copies of the finalized report and tabulated author responses were shared with each peer reviewer.

4) Findings and Concluding Comments

As a testament to the quality of the original documents all peer reviewers indicated that the reports were “acceptable with minor revisions”. In one case, the original report was deemed “acceptable as is”. At a more detailed level it is worth noting that all authors incorporated the large majority of the peer reviewer’s recommended changes and additions to their documents. In cases where the author wasn’t comfortable with making certain changes he/she provided a fullsome explanation of their rationale. From my perspective the changes made in arriving at the finalized reports have contributed to a strengthened overall outcome of the Phase 1 inventorying process.

As a concluding comment, I commend TRCA’s Carruthers Creek project managers for developing and following this peer review process. While other examples of conservation authority led peer reviews of certain watershed study components have emerged in recent years the more comprehensive and formalized approach seen here can readily be viewed as a value-added addition to watershed planning initiatives. This would include consideration of its possible extension to other phases in the watershed planning and management process.

I would be happy to respond to any questions you may have regarding the peer review process and my findings. This could be done over the phone or in-person at your convenience.

Sincerely,



John Kinkead, P. Eng.
President