APPENDIX E
Correspondence and Meeting Notes

Conservation Authorities and MNR

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MEMO TO FILE

RE:	Mississauga Bus Rapid Transit Project	
OUR FILE:	07-3272	
PREPARED BY:	Katie Bright	
CC:	Geoff Wright, City of Mississauga Willy Ing, City of Mississauga Mike Bricks, Ecoplans Anne MacMillan, Ecoplans	Clark Gunter, Ecoplans Dale Turvey, MRC Steve Schijns, MRC Andrew Shea, MRC
DATE:	October 5, 2007	
SUBJECT:	Telephone Conversation - Mark Heaton, Area Biologist, Ministry of Natural Resources (MNR) Aurora District	

I spoke with Mr. Mark Heaton to request confirmation regarding MNR's interest in the project and in particular MNR's interest in attending the October 24, 2007 agency meeting.

Mr. Heaton inquired as to what the main environmental features are within the study area. I provided a brief description of the project and explained that although there is some vegetation and terrestrial habitat the focus for the natural environment is primarily the watercrossings. Mr. Heaton requested a list of the watercourses potentially impacted by the project and I explained that the following watercourses are within the study area:
- Cooksville Creek;
- Etobicoke Creek;
- Little Etobicoke Creek;
- Renforth Creek; and
- Elmcrest Creek.

I noted that representatives from the Toronto and Region Conservation Authority and Credit Valley Conservation are involved with the project and that part of their involvement will be providing input regarding potential fish and fish habitat impacts. I also noted that DFO is involved from a CEAA perspective.

Mr. Heaton explained that since the natural environment interests are primarily focused on water crossings MNR is satisfied that involvement from TRCA, CVC and DFO will be sufficient to address any natural environment concerns. Mr. Heaton also noted that with MNR's reduced role in relation to the *Fisheries Act* and *Lakes and Rivers Improvement Act*, MNR is becoming less involved with works related to fish, fish habitat and watercourses.

I confirm that we will make note that MNR does not wish to be involved in the project and that they do not wish to receive any correspondence regarding the project.

From: Laura James [LJames@trca.on.ca]
Sent: Friday, October 05, 2007 1:54 PM
To: LeBrun, Kim
Subject: Re: Mississauga BRT

Kim,
There is not a vast amount of fisheries information available within the area you you have requested. It was once good fisheries habitat but now is degraded. The only sensitive aquatic/terrestrial species (watersnake) occurs near the lower end of the Little Etobicoke Creek, it is all warm water habitat currently.

Sincerely,
Laura James
Planner II - Environmental Assessment Review
Planning and Development
Toronto and Region Conservation Authority
5 Shoreham Drive, Downsview, ON M3N 1S4
Tel: 416.661.6600 x 5723 Fax: 416.661.6898
ljames@trca.on.ca

From: Clayton, Jon [JClayton@creditvalleycons.com]
Sent: Friday, October 05, 2007 11:56 AM
To: LeBrun, Kim Cc: Marray, Liam; James, Phil
Subject: RE: Mississauga BRT Project

Kim:

There is not much information available for Cooksville Creek. We have a Fish Collection Record from July 6, 1995 in our database. The station was located at Rathburn Road and no fish were caught during electrofishing. The FCR doesn't say who did the sampling. The comments on the FCR are "Degraded urban stream. 3m concrete drop at Rathburn Rd. Heavy algae growth. Watercourse is enclosed downstream of Rathburn Rd.". Additional fish records are available further downstream but fish may be absent from the QEW upstream. As far as the records of redside dace from NHIC go, I didn't find any in our database and suspect they may be from the Credit. Regardless, they are all historic records and redside are not currently found in Cooksville Creek. CVC is currently in the process of developing a Cooksville Creek Subwatershed Study. Information from this study may be available once a draft has been completed. Phil James is co-ordinating this project and he may be able to provide more information on when the draft will be ready.
Please let me know if you have any further questions.

Jon Clayton, (B.Sc. Agr.) Aquatic Biologist
Credit Valley Conservation
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NOTES OF MEETING

PROJECT:	Mississauga Bus Rapid Transit (BRT) Facility		
FILE NO.:	07-3272		
DATE:	October 24, 2007	**TIME:**	9:30 a.m.
PLACE:	McCormick Rankin Corporation, Mississauga		
PRESENT:	Liam Marray	Credit Valley Conservation	
	Allan Newell	Credit Valley Conservation	
	Beth Williston	Toronto and Region Conservation Authority	
	Sharon Lingertat	Toronto and Region Conservation Authority	
	Willy Ing	City of Mississauga	
	Scott Anderson	City of Mississauga	
	Muyiwa Adebayo	GO Transit	
	Steve Schijns	McCormick Rankin Corporation	
	Darrell Wunder	McCormick Rankin Corporation	
	Anne MacMillan	Ecoplans Limited	
	Mike Bricks	Ecoplans Limited	
	Katie Bright	Ecoplans Limited	
PURPOSE:	Initial meeting to introduce the project, review potential impacts and discuss mitigation strategies.		

The following notes provide an overview of the meeting.

ITEM	PROCEEDINGS:	ACTION BY:
1.0	**Introductions**	
1.1	Roundtable introductions occurred. It was noted that Dave Gibson (Department of Fisheries and Oceans [DFO]) was invited to the meeting but due to scheduling conflicts he was unable to attend. DFO will be kept informed of the progress as it is anticipated that they will be required to provide input to Transport Canada as part of the CEAA Screening. It was noted that the Conservation Authorities will be responsible for making HADD determinations and discussing mitigation/compensation.	
2.0	**Project Overview and Status**	
2.1	M. Bricks provided an overview of the project including the completion of the original 1992 Environmental Assessment (EA) and the 2004 EA Addendum. The current project represents Phase I (approximately two-thirds by dollar value) of the capital works and includes BRT West (Winston Churchill Boulevard to Erin Mills Parkway) and BRT East (Centre View Drive to Renforth Station). The portion of the Mississauga BRT facility between BRT East and BRT West (i.e. along Highway 403) is currently operational.	

ITEM PROCEEDINGS: **ACTION BY:**

It was noted that GO Transit is responsible for the design and construction of the BRT West and the City of Mississauga is responsible for the design and construction of the BRT East; however, the City of Mississauga is coordinating the preliminary design of both sections.

M. Bricks explained that the previous EA work provided a conceptual design for BRT East and BRT West. A map showing the project limits and conceptual design is attached to these notes. The current Phase I project will bring the design for BRT East and BRT West to a preliminary design level of detail. In addition, the Project Team is pursuing a decision under the Canadian Environmental Assessment Act (CEAA). Transport Canada and Infrastructure Canada are triggered under CEAA as they are providing funding for Phase I of this project. Transport Canada is coordinating the CEAA Screening process. Other potential CEAA triggers include the Department of Fisheries and Oceans (potential Fisheries Act Authorization) and the National Energy Board (potential approval requirements for works near interprovincial pipelines).

S. Schijns provided a description of works included in the previous EA documents that will not be completed as part of the funded BRT East and BRT West works. Construction of Phase I of the project is to commence in 2009 with completion scheduled for 2012. As a result, CEAA approval and completion of preliminary design must be completed as soon as possible in 2008. Due to funding, the project schedule is not flexible.

3.0 Natural Environment Features, Potential Impacts and Mitigation Strategies

3.1 Natural environment features were reviewed with reference to the information tables distributed prior to the meeting as well as aerial photo mapping of the study area.

3.2 A. MacMillan provided a quick overview of the terrestrial features within the study area. In general, the study area is highly disturbed and effects will be limited to edge impacts to relatively minor vegetation units. It is anticipated that the terrestrial effects of the project will be fairly limited and that mitigation can be developed to address and minimize the effects.

3.3 <u>Cooksville Creek (CVC jurisdiction)</u>

A. MacMillan provided an overview of the creek features and noted that the Cooksville Creek does not directly support fish use, however it could be considered to support indirect fish habitat.

S. Schijns explained that a realignment of the Cooksville Creek will ultimately be required due to a bus layover area and other future works in the area (both the Mississauga BRT and any works resulting from the new Hurontario Transitway study). He noted that the Project Team was still sorting out what will be constructed as part of this project. M. Bricks noted that impact assessment will be based on what is proposed to be constructed as

ITEM	PROCEEDINGS:	ACTION BY:
	part of this project. If a realignment is not proposed at this time, that effect will be considered in the cumulative effects assessment. It is anticipated that the conceptual realignment of Cooksville Creek will be developed as part of the current study; however, the approach and timing for approval will need to be confirmed.	City/MRC/ Ecoplans
	The potential for the harmful alteration, disruption or destruction of fisheries habitat (HADD) was discussed. L. Marray suggested that it is likely that the realignment of Cooksville Creek would be a HADD and explained that, as with any other watercrossing, Fisheries Act Authorization could not be obtained until the realignment is designed. A. MacMillan noted that recent DFO direction regarding channel realignment is that realignment is not automatically considered HADD. Given the low sensitivity of the habitat and residual scale of negative effect, particularly if the realigned channel is the same as the original channel length, the realignment might not require authorization.	
	D. Wunder noted that it is possible that the watercourse may need to be enclosed in a culvert given the elevation of the BRT relative to the channel. W. Ing inquired if the enclosure would be considered a HADD. L. Marray explained that enclosure would be a HADD; however, A. MacMillan indicated that DFO has provided direction that enclosures may not always result in a HADD, depending again on the sensitivity of the habitat and scale of the effects.	
	It was acknowledged that it is difficult to make a preliminary HADD determination without design details. It was also noted that when considering the impacts of works in the area of watercrossings stormwater management (e.g. capacity, treatment) will also need to be addressed. It was agreed that MRC would develop addition design details to be reviewed at the next meeting. Once reviewed, formal HADD determinations could be made.	MRC
	A. MacMillan inquired about compensation opportunities along Cooksville Creek if it is determined that compensation is required. L. Marray explained that compensation would likely be focused on Cooksville Creek north of Dundas Street, where there is a barrier to fish movement. It was agreed a conceptual compensation strategy would be developed during preliminary design if it is determined that compensation is required. L. Marray explained that CVC is currently undertaking a subwatershed study for Cooksville Creek. It is anticipated that findings from the subwatershed study could assist with the development of the compensation strategy. L. Marray also explained that modelling is available for the Cooksville Creek and that the modelling will be provided to D. Wunder. A. MacMillan noted that compensation that far off-site on private property was not desirable; however, L. Marray noted the city owned lots of property along the creek.	CVC

ITEM	PROCEEDINGS:	ACTION BY:
3.4	Eastern Tributary of Cooksville Creek (CVC jurisdiction) A. MacMillan explained that only a short section of the eastern tributary of Cooksville Creek upstream of the highway is open channel; the balance of the channel further upstream, as well as through and downstream of the right-of-way is piped. S. Schijns explained that the open section of the channel will not be directly impacted during construction since the right-of-way will be extended to the south (downstream) where the channel is already enclosed. As a result, it is anticipated that standard mitigation measures (e.g. erosion and sediment control, temporary flow passage) will employed to mitigate any potential indirect impacts to the watercourse.	
3.5	Little Etobicoke Creek (TRCA jurisdiction) A. MacMillan provided an overview of the creek features and noted that the Little Etobicoke Creek provides warmwater habitat. It is anticipated that the creek can be fully spanned with a new bridge. S. Schijns explained that the new structure will most likely be at the same elevation as the existing Eastgate Parkway structure.	
	B. Williston explained that the TRCA has identified the area along the north side of Eastgate Parkway as wetland. The wetland has not been evaluated. S. Lingertat inquired if Ecoplans has received current data from TRCA. A. MacMillan explained that requests have been made but all data (including regulatory limits mapping) has not been received. S. Lingertat will ensure that Ecoplans receives all current data and mapping for the watercrossings within the study area.	TRCA
	B. Williston noted that TRCA in partnership with a local stewardship group does have plans for remedial work within the vicinity of Little Etobicoke Creek and the identified wetland. The status and progress of the remedial plans will be review by TRCA and details provided to Ecoplans.	TRCA
	B. Williston confirmed that it is likely that if the new structure fully spans the creek (including the edge of valley) the proposed works should not result in HADD; however, TRCA will need to review the proposed structure design prior to making a preliminary HADD determination. It was agreed that MRC would develop addition design details to be reviewed at the next meeting. Once reviewed, formal HADD determinations could be made. A. MacMillan noted that provided the structure spans the bankfull channel, DFO's Operational Statement for Clear-span Bridges should apply.	MRC
	S. Lingertat inquired if fluvial geomorphology reporting is available for the watercrossing. D. Wunder explained that a fluvial geomorphologist will complete an assessment as part of the current study. TRCA would like to review any reporting completed as part of the assessment. When the reporting is available, D. Wunder will provide a copy of the fluvial geomorphologist's input to S. Lingertat.	MRC

ITEM	PROCEEDINGS:	ACTION BY:
3.6	Etobicoke Creek (TRCA jurisdiction) A. MacMillan provided an overview of the creek features and noted that Etobicoke Creek provides warmwater fish habitat. S. Schijns explained that the busway will be in close proximity to the existing Eglington Avenue structure and that it is anticipated that the new structure crossing the Etobicoke Creek will be at a similar elevation as the existing structure. S. Lingertat noted that TRCA's mapping indicates that the regional floodline overtops Eglington Avenue at the existing structure. TRCA noted concerns regarding the floodline in the vicinity of the new structure. B. Williston confirmed that it is likely that if the new structure fully spans the creek (including the edge of valley) the proposed works should not result in a HADD; however, TRCA will need to review the proposed structure design prior to making a preliminary HADD determination. It was agreed that MRC would develop addition design details to be reviewed at the next meeting. Once reviewed, formal HADD determinations could be made.	MRC
3.7	Elmcrest Creek (TRCA jurisdiction) A. MacMillan provided an overview of the creek features and noted that Elmcrest Creek appears to only support indirect fish habitat, and it is quite disturbed. The proposed works at Elmcrest Creek are anticipated to require realignment of the 'creek', since it parallels the north side of the highway where works are proposed. It is also possible that the creek may have to be enclosed as part of the works rather than realigned. B. Williston explained that although TRCA regulates Elmcrest Creek, a field visit is required to confirm its character and status of the watercourse since it may just be a swale or highway ditch. B. Williston noted that determinations made based on field visit findings regarding the watercourse supersede any existing data; however, because the area is Regulated a permit will still be required under Ontario Regulation 166/06.	
3.8	Renforth Creek (TRCA jurisdiction) A. MacMillan provided an overview of the creek features and noted that Renforth Creek also appears to be a fairly minor and disturbed feature. B. Williston indicated that Renforth Creek is not mapped as being regulated within the study area; however, a field visit will be required to confirm the status.	
3.9	It was recognized that prior to the next meeting conceptual watercourse crossing designs will be required along with additional details regarding the realignment of Cooksville Creek (e.g. timing for approval).	City/MRC
	Ecoplans will update the information tables based on input from this meeting and additional details and mapping from the Conservation Authorities. The updated tables and conceptual watercrossing designs will be distributed in advance of the next agency meeting.	City/MRC/ Ecoplans

ITEM	PROCEEDINGS:	ACTION BY:
4.0	**Stormwater Management**	
4.1	D. Wunder explained that the study approach to stormwater management will be to attain an enhanced protection level. It is anticipated that bioswales (ditches) will be employed and opportunities to tie-into existing stormwater management ponds will be reviewed. D. Wunder noted that use of stormceptors will be considered where bioswales/outletting to existing stormwater management ponds will not be possible. A. Newell explained that CVC discourages the use of stormceptors. In addition, CVC requested that when stormwater management plans are developed consideration should be given to incorporate opportunities to treat areas that are currently untreated.	
5.0	**Next Steps**	
5.1	D. Wunder noted that the site visit to review stormwater management aspects should occur in the next few weeks. It was agreed that this would be a good opportunity for TRCA to complete a field visit along with members of the Project Team. S. Lingertat will provide D. Wunder a list of dates when TRCA staff can attend a field visit. D. Wunder will schedule the field visit as soon as possible. CVC requested to be informed of the field visit date and explained that CVC staff will attend if available.	TRCA MRC
5.2	It was agreed that any additional study area information to be provided by CVC and TRCA should be directed to K. Bright for distribution to the project team.	
5.3	It was suggested that opportunities to develop 'showcase' natural environment rehabilitation/enhancement projects within the study area should be reviewed as a spin-off opportunity to having key players at the same table. It was agreed that Eugene Furgiuele (City of Mississauga) should attend future agency meetings as he has invaluable knowledge and experience with the various rehabilitation/enhancement projects that the City of Mississauga has been a partner to.	
5.4	As previously noted, the updated information tables and watercrossing design details will be distributed for review in advance of the next agency meeting (date to be determined). S. Anderson explained that the Mississauga BRT is a priority project for the City and requested that all parties work towards completing this project as efficiently as possible. In particular, it would be appreciated if all attendees would review the updated information tables and watercrossing design details in advance of the next meeting.	City/MRC/ Ecoplans

The forgoing represents the writer's understanding of the major items of discussion and the decisions reached and/or future actions required. If the above does not accurately represent the understanding of all parties attending, please notify the undersigned immediately upon receiving these minutes (905-823-4988).

Minutes Prepared by:

Ecoplans Limited

Katie Bright

cc: Attendees
Dave Gibson, Department of Fisheries and Oceans
Sarah O'Keefe, Transport Canada
Geoff Wright, City of Mississauga
Dale Turvey, McCormick Rankin Corporation
Kim LeBrun, Ecoplans Limited

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TORONTO AND REGION Conservation
for The Living City

November 30, 2007

CFN: 39971
X REF CFN: 23800

BY MAIL AND EMAIL (mbricks@ecoplans.com)

Mr. Mike Bricks
Ecoplans Limited
2655 North Sheridan Way, Suite 280
Mississauga, ON L5K 2P8

Dear Mr. Bricks:

Re: Response to Vegetation and Wildlife Summary Table and Fish and Fish Habitat Summary Table
Mississauga Bus Rapid Transit (Eastgate Parkway at Highway 403 to Eglinton Avenue at Renforth Drive)
Etobicoke Creek; City of Mississauga; Regional Municipality of Peel

Toronto and Region Conservation Authority (TRCA) staff received the Vegetation and Wildlife Summary Table along with the Fish and Fish Habitat Summary Table for the above-noted project on October 19, 2007. A site visit was also conducted on November 19, 2007 with staff of TRCA (Brad Stephens, Scott Smith, Sharon Lingertat), Ecoplans (Katie Bright) and McCormick Rankin (Darrell Wunder), to examine the Regulated Areas and watercourse features within the study area.

Details of submission requirements are provided below. Additional comments pertaining to the tables and site visit are provided in Appendix A. The Requirements for Submissions under Ontario Regulation 166/06 are provided in Appendix B along with a copy of the draft Watercourse Crossing Chart, attached for your reference as the study progresses. Staff has also undertaken a review of our data in relation to this project, and will be providing this information to you in digital form under separate cover.

Submission Requirements

1. There are 5 Regulated Areas located within the project limits. In accordance with Ontario Regulation 166/06, a permit is required from TRCA for each of these areas, as follows:

   a) Permit 1 (Regulated Areas 1 and 2) – Eglinton Avenue at Explorer Drive and Eglinton Avenue at Centennial Park Boulevard
   b) Permit 2 (Regulated Area 3) – Eglinton Avenue (west of Rakely Court), Etobicoke Creek
   c) Permit 3 (Regulated Area 4) – Eastgate Parkway (Tomken Road to Dixie Road)
   d) Permit 4 (Regulated Area 5) – Eastgate Parkway (east of Cawthra Road)

2. There are 3 crossings in the project area that may impact fish or fish habitat. In accordance with the TRCA Level 3 Agreement with Fisheries and Oceans Canada (DFO), approval pursuant to Section 35 (2) of the *Fisheries Act* is required. For works which are considered a mitigable HADD, concerns with respect to Section 35 (2) of the *Fisheries Act* will be addressed through TRCA review of the permit application, on behalf of DFO. For works which are considered a HADD, *Fisheries Act* Authorization is required from Fisheries and Oceans Canada. TRCA staff undertakes the initial review of all *Fisheries Act* Applications.

3. Please note that there may be additional approval requirements for this project. Common environmental approvals other than those listed above include *Navigable Waterways Act*, *Lakes and Rivers Improvement Act*, *Public Lands Act*, *Drainage Act*, *Environmental Protection Act* and the *Ontario Water Resources Act*, as well zoning bylaws made under the *Municipal Act* and the *Planning Act*.

4. For each permit application, the following will need to be submitted to TRCA:
   a) four (4) INDIVIDUALLY folded copies of the plans
   b) four (4) copies of supporting reports or documentation
   c) signed permit application form(s)
   d) review fee(s) ($2,000, for each permit application)

Please ensure that all required information is included with your submission(s). Should you have any questions please contact me at extension 5717 or by email at slingertat@trca.on.ca.

Yours truly,

Sharon Lingertat

Sharon Lingertat
Acting Planner II, Environmental Assessments
Planning and Development

SL/

Encl. Appendix A: Preliminary Review Comments
Appendix B: Requirements for Submissions under Ontario Regulation 166/06
Draft Watercourse Crossing Chart
TRCA Post Construction Restoration Guidelines
TRCA Native Flora List
TRCA Guideline for Watercourse Crossings

BY EMAIL

cc: Willy Ing, City of Mississauga (willy.ing@mississauga.ca)
Scott Anderson, City of Mississauga (scott.anderson@mississauga.ca)
Darrell Wunder, McCormick Rankin (dwunder@mrc.ca)
Katie Bright, Ecoplans (kbright@ecoplans.com)
Carolyn Woodland, TRCA, Director, Planning and Development
Quentin Hanchard, TRCA, Manager, Development Planning and Regulations
Chandra Sharma, TRCA, Etobicoke/Mimico Watershed Specialist

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APPENDIX A

1. Digger crayfish (*Fallicambarus fodiens*) are present in the hydro corridor immediately upstream of Eastgate Parkway on Little Etobicoke Creek. Please ensure that the proposed alignment considers the fish habitat and wetland assessment so that there will be minimal impacts to the crayfish habitat.

2. Please explore all opportunities to restore fish passage at the existing Little Etobicoke Creek culverts under Eastgate Parkway, including the removal of the existing jersey barriers and weir.

3. Please review the attached TRCA Guideline for Watercourse Crossings to ensure that all information requirements (i.e. fluvial geomorphic assessment, hydraulic assessment, etc.) and design considerations are addressed. Given that the EA and Addendum provide little detail with respect to design considerations for the proposed crossings, this information will need to be included with the detailed design submission.

4. At the Little Etobicoke Creek crossing it is noted that the transitway crossing will be an extension to the existing crossing at this location. As per the above noted crossing guidelines, please ensure that the appropriate studies were conducted as part of the detailed design for the existing structure and that copies are included as part of the detailed design submission for review. If the existing structure was not sized appropriately, please consider a replacement structure that adequately addresses the appropriate range of design considerations.

5. It is noted that there is evidence of existing active erosion at the Little Etobicoke Creek Crossing. Please ensure that measures are included in the design to address this issue.

6. TRCA has records of Etobicoke Twinleaf (*Jeffersonia diphylla*) near the crossings of Etobicoke Creek at Eglinton Avenue. Please ensure the alignment of the structure at Etobicoke Creek avoids the area where Twinleaf is present.

7. Please ensure that a net ecological gain is provided for all disturbed areas. Staff has targeted Eastgate Parkway for a Habitat Implementation Plan (HIP) where a natural corridor running east-west may be established between Etobicoke Creek and the Credit Valley watershed. Please explore these opportunities at the detailed design stage.

8. Reference is made in the Fish and Fish Habitat Summary Table to the CVC/MNR Sediment Control Guidelines. Please also use the guideline recently produced for the Greater Golden Horseshoe Area Conservation Authorities (Erosion and Sediment Control Guideline for Urban Construction (2006)). This document can be downloaded at www.sustainabletechnologies.ca.

9. The tables indicate that a comprehensive stormwater management (SWM) plan will be prepared as part of the detailed design. The following TRCA SWM criteria applies to this project.

   - **Water Quality Control**: Level 1 Enhanced
   - **Water Quantity Control**: 2 to 100 year control required for Little Etobicoke Creek Watershed, quantity control not required for other areas
   - **Erosion Control**: 25 mm detention for 48 hours (or for maximum duration feasible)

   Please also note that there is an existing SWM pond on the Bell Mobility site, located just west of the proposed Etobicoke Creek crossing. There may be potential to retrofit this facility to accommodate local drainage from the transitway project.

10. a) The Vegetation and Wildlife Summary Table, EA Commitments to Future Work, states that there will be compensation for wetland loss per CVCA practice. As this area is located within TRCA's jurisdiction please revise to read, "...per TRCA practice."

    b) TRCA staff recommends reviewing the alignment such that impacts to the existing natural environment are minimized to the extent possible.

11. For direction during detailed design please reference the attached TRCA Post Construction Restoration Guidelines and the TRCA Native Flora List.

APPENDIX B
REQUIREMENTS FOR SUBMISSIONS UNDER ONTARIO REGULATION 166/06

The proponent shall submit the Ontario Regulation 166/06 permit application(s) to the TRCA Project Manager. The application shall include:

Plans and Drawings
ALL plans should be signed and stamped by a professional and should have the following information:

Construction Details
- a key map that shows the drawing numbers, chainage and watercourse crossings
- a numbering system for drawings (if possible) (i.e., Drawing 1R=Removals 1LP=Landscape Plans, 1NC=New Construction etc.) for the same chainage rather than a consecutive series of drawing numbers from 1-100. Keep the drawing numbers consistent throughout the project. If revisions are required, utilize a system like 1LPa, or 1LPb for example rather than changing the numbers
- identify chainage
- identify crossings by chainage (as opposed to numbers)
- identify site access on all lands and provide a typical cross-section

Regulatory Lines and Boundaries
- identify the extent of the construction limits (east, west, north, south)
- identify the municipal property boundary
- identify the property boundaries of lands outside the ownership of the municipality where works will be conducted and will require Land Owner Authorization
- identify TRCA lands on the plans, as required
- identify Regulation Limits and Regional Storm Floodlines

Standard Notes
- All disturbed areas will be stabilized and restored with native/non-invasive species upon completion of the work
- Should an unexpected storm arise, the contractor will remove all unfixed items from the Regional Storm Floodplain that would have the potential to cause a spill/ pollution (i.e. fuel tanks, porta-potties, machinery) or an obstruction to flow (i.e. equipment).
- If applicable, have extra pumps on site in case of failure of the main pump or a need for extra capacity.
- Sediment and erosion control measures will be implemented prior to, and maintained during the construction phases to prevent entry of sediment into the water.
- All activities, including maintenance procedures, will be controlled to prevent the entry of petroleum products, debris, rubble, concrete or other deleterious substances into the water. Vehicular refueling and maintenance will be conducted 30 m from the water.
- The contractor shall monitor the weather several days in advance of starting the project to ensure favourable weather conditions. Should a storm event occur, the contractor shall follow the contingency plan as noted on the engineering drawing.

Fisheries Act Review

For each project area identified as a Harmful, Alteration, Disruption or Destruction (HADD) of a watercourse, the proponent shall submit the following to information as part of the Ontario Regulation 166/06 permit application:

- two completed DFO Applications (see DFO website at www.dfo-mpo.gc.ca/)
- two Letters of Intent that are signed by the owner, that follow the LOI Guidelines also available of the DFO website

* Please note that at the outset of review, staff cannot always confirm if the project will be a HADD. This determination may be made through the staff review of resubmissions. As such, requirements for the above-noted DFO Applications may be confirmed as the project review proceeds.

Conservation
TORONTO AND REGION

POST-CONSTRUCTION RESTORATION GUIDELINES

JULY 2004

Restoration is required when disturbance in a natural area is unavoidable and requires clearing of vegetation. Every effort should be made to avoid these impacts, however the following guidelines should be followed in instances where this is not possible. It is critical to the success of the restoration planting that the range of site conditions be assessed as some level of site preparation will likely be required prior to planting. Site preparation is paramount as soil compaction, grading, altered hydrology, herbivory, and inadequate topsoil depths can seriously inhibit planting success of even the hardiest species and can limit the process of regeneration. There are also a suite of urban stresses that can hinder the growth of plantings including salt spray, pollution, pests, and altered micro-climate. These issues need to be dealt with on a site-by-site basis, but should be considered when developing restoration plans.

1. The proponent is responsible for ensuring that all plantings are native species and are suitable given the soil, moisture, and light conditions of the site, as well as any specific stresses. Cultivars of native species are generally not acceptable. While invasive species are not permitted, non-invasive exotic species may be used in some limited areas. Plantings should also be compatible and complementary to the existing vegetation communities.

2. Early successional species should be used alone or in concert with shade tolerant (i.e. late-seral species) to allow natural succession to ensue. Shade tolerant species can be used if conditions are favourable and in areas where a source of late-seral seed does not exist in order to promote succession.

3. In general, woody plantings should follow the standard densities of 1 metre on centre for shrubs and 5 metres on centre for trees. However, higher densities may be required depending on the situation (e.g. live staking, use of stock 100 cm or smaller, edge management, sensitive areas, or other site-specific situations).

4. Indicate that site stabilization will occur during or immediately following construction to avoid unacceptable levels of erosion. Depending on their suitability, various techniques may be employed including hydroseeding, or installing straw mulch or jute mats, etc. Although sod is acceptable as an interim measure, it will not be permitted as a permanent groundcover in natural areas and associated buffers.

5. Seeding mixtures should consist of quick-growing, non-invasive species. Manufacturers offer an assortment of mixtures that are suited to various conditions, including a slope stabilization mix, meadow mix, and wetland mix. In particularly sensitive areas, a seed mix consisting entirely of native species should be used to avoid the invasion of aggressive vegetation. Please refer to the *TRCA Seed Mix Guidelines* for further details. In areas where invasive species are a particular problem, eradication of these species may become a component of the restoration initiative.

6. Ensure that riparian planting coverage for a stream extends from the watercourse edge to a

minimum of 10 metres on either side. For a valley, coverage should include plantings within the entire feature plus an additional 10 metres. Generally, we only require restoration in areas being disturbed.

7. Riparian plantings should be installed after the spring freshet to avoid being uprooted during high flows if planted the previous autumn. Mulch application may not be appropriate in riparian zones as this material can be easily washed away during high water periods. Alternative methods of dealing with competitive vegetation should be considered, however herbicide application is not desirable.

8. The objective is to establish at least 50% woody coverage through restoration in areas where the desired vegetation community is forest.

9. When selecting vegetation for plantings, try to achieve a degree of structural and species diversity.

10. If the area is very grassy, mulch and rodent guards may be needed to protect young tree stems. Larger planting stock may be required in these areas to due to competing herbaceous vegetation. Maintenance plans should include watering during summer dry spells for the first 2-3 years after planting.

11. Other than in sites with competing herbaceous vegetation, we generally have no size requirements for vegetation to be planted. Typically, we prefer greater numbers of smaller-sized vegetation over fewer numbers of larger-sized vegetation. Planting large vegetation may cause more disturbance to the site.

12. Plans should indicate timing of the restoration works, as well as phasing if applicable.

13. Indicate how existing vegetation to be retained will be protected. Please refer to the *TRCA Edge Management Guidelines* for further detail.

14. Drawings should include a plan view showing planting locations, species and numbers, a detail showing the installation, and a note listing the species, size, and condition (i.e. bareroot, balled and burlapped, potted). The latter will ultimately dictate the season when works can be done. Bareroot stock should only be installed while dormant in spring or after leaf fall in autumn. Planting of balled and burlapped and container-grown stock can be installed at any time during the growing season if adequate water is supplied.

NB: This document is dated **July 2004** and is consistent with current policies adopted by the TRCA at this time. These guidelines are not meant to be exhaustive but present the typical requirements of the TRCA and are subject to change.

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Abies balsamea	balsam fir	L3	S5 (2000-03-31)	G5 (1983-11-03)
Acalypha virginica var. rhomboidea	three-seeded mercury	L5	S5 (2000-03-31)	G5 (1988-05-02)
Acer rubrum	red maple	L4	S5 (2000-03-31)	G5 (1984-02-09)
Acer saccharinum	silver maple	L4	S5 (2000-03-31)	G5 (1984-02-09)
Acer saccharum ssp. nigrum	black maple	L4	S4? (2000-03-31)	G5T5 (1984-02-09)
Acer saccharum ssp. saccharum	sugar maple	L5	S5 (2000-03-31)	G5T5 (1999-09-16)
Acer spicatum	mountain maple	L4	S5 (2000-03-31)	G5 (1984-02-09)
Achillea millefolium ssp. lanulosum	woolly yarrow	L5	S5	G5T?
Acorus americanus (A. calamus misapplied)	sweet flag	L3	S4 (2000-03-31	G5 (1984-01-19)
Actaea pachypoda	white baneberry	L4	S5 (2000-03-31)	G5 (1984-02-09)
Actaea rubra	red baneberry	L5	S5 (2000-03-31)	G5 (1984-02-09)
Adiantum pedatum	northern maidenhair fern	L3	S5 (2000-03-31)	G5 (1983-11-03)
Adlumia fungosa	climbing fumitory	LX	S4 (2000-03-31)	G4 (1984-03-02)
Agalinis paupercula (Gerardia purpurea v. parviflora)	small-flowered gerardia	L1	S4S5 (2000-03-31)	G5 (1984-02-09)
Agalinis purpurea	purple gerardia	LX	S1 (2000-03-31)	G5 (1984-02-09)
Agalinis tenuifolia	slender gerardia	L2	S4S5 (2000-03-31)	G5 (1984-02-09)
Agastache nepetoides	catnip or yellow giant hyssop	LX	S4 (2000-03-31)	G5 (1988-05-02)
Agrimonia gryposepala	agrimony	L5	S5 (2000-03-31)	G5 (1984-02-09)
Agrimonia pubescens	hairy or soft agrimony	L3	S4 (2000-03-31)	G5 (1988-05-02)
Agrostis perennans	upland or autumn bent grass	L3	S5 (2000-03-31)	G5 (1988-02-24)
Agrostis scabra	ticklegrass	L3	S5 (2000-03-31)	G5 (1987-10-01)
Alisma gramineum	grass-like water-plantain	L3	S3S4 (2000-03-31)	G5 (1985-04-05)
Alisma plantago-aquatica (A. triviale)	water-plantain	L4	S5?	G5
Allium tricoccum	wild leek or ramps	L3	S5 (2000-03-31)	G5 (1984-02-09)
Alnus incana ssp. rugosa (A. rugosa)	speckled or tag alder	L3	S5 (2000-03-31)	G5 (1983-11-03)
Alopecurus aequalis	short-awned foxtail	L3	S4S5 (2000-03-31)	G5 (1984-02-09)
Ambrosia artemisiifolia	common ragweed	L5	S5 (2000-03-31)	G5 (1989-06-02)
Ambrosia trifida	giant ragweed	L5	S5 (2000-03-31)	G5 (1984-02-09)
Amelanchier amabilis (A. sanguinea var. grandiflora)	large-flowered serviceberry	L3	S2S3 (200-03-31)	G?Q
Amelanchier arborea (A. canadensis misapplied)	downy serviceberry or Juneberry	L4	S5 (2000-03-31)	G5 (1983-11-20)
Amelanchier laevis	smooth serviceberry	L4	S5 (2000-03-31)	G4G5Q (1988-05-02)
Amelanchier sanguinea var. sanguinea	round-leaved serviceberry	L4	S5?	G5T5 (1999-05-21)
Amelanchier spicata	low or dwarf serviceberry	L3	S5?	G?
Amelanchier stolonifera (A. spicata var. stolonifera	running serviceberry	L2	S4? (2000-03-31)	G5 (1984-02-09)
Ammophila breviligulata	marram or beach grass	L3	S3 (2000-03-31)	G5 (1983-11-03)
Amphicarpaea bracteata	hog-peanut	L5	S5 (2000-03-31)	G5 (1984-02-09)
Anaphalis margaritacea	pearly everlasting	L3	S5 (2000-03-31)	G5 (1984-02-09)
Andromeda polifolia ssp. glaucophylla	bog rosemary	L1	S5 (2000-03-31)	G5T5 (1994-04-28)
Andropogon gerardii	big bluestem	L3	S4 (2000-03-31)	G5 (1984-02-09)
Androsace septentrionalis	pygmy-flower or northern androsace	L3	S4? (2000-03-31)	G5 (1988-02-24)
Anemone acutiloba (Hepatica acutiloba)	sharp-lobed hepatica	L3	S5 (2000-03-31)	G5 (1991-05-09)
Anemone americana (Hepatica americana)	round-lobed hepatica	L2	S5 (2000-03-31)	G5 (
Anemone canadensis	Canada anemone	L5	S5 (2000-03-31)	G5 (1984-02-09)
Anemone cylindrica	long-fruited thimbleweed	L3	S4 (2000-03-31)	G5 (1984-02-09)
Anemone multifida	red anemone	L2	S5 (2000-03-31)	G5 (1984-02-09)

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Aster oolentangiensis (A. azureus)	sky-blue or azure aster	L3	S4 (2000-03-31)	G5 (1992-04-08)
Aster pilosus var. pilosus	hairy aster	L3	S5 (2000-03-31)	G5T? (1991-04-04)
Aster pilosus var. pringle.	Pringle's or spray aster	L2	S4 (2000-03-31)	G5T5 (2000-03-24)
Aster puniceus var. puniceus	swamp or purple-stemmed aster	L5	S5 (2000-03-31	G5T? (1992-04-10)
Aster schreberi	Schreber's aster	LX	S1 (2000-03-31)	G4 (1984-02-09)
Aster umbellatus var. umbellatus	flat-topped aster	L4	S5 (2000-03-31)	G5T? (1993-03-16)
Aster urophyllus (A. sagittifolius)	arrow-leaved aster	L3	S4 (2000-03-31)	G4 (1994-08-17)
Astragalus canadensis	Canada milk-vetch	L2	S4 (2000-03-31)	G5 (1984-08-09)
Athyrium filix-femina var. angustum	northeastern lady fern	L5	S5 (2000-03-31)	G5 T5 (1991-03-18)
Aureolaria flava var. flava	yellow false foxglove	LX	S3 (2000-03-31)	G5 (1984-02-09)
Aureolaria flava var. macrantha	large-flowered yellow false foxglove	LX	S3 (2000-03-31)	G5TQ?
Aureolaria pedicularia	fern-leaved false floxglove	LX	S3 (2000-03-31)	G5 (1984-02-09)
Beckmannia syzigachne	slough grass	L3	S4 (2000-03-31)	G5 (1984-02-14)
Betula allegheniensis (B. lutea)	yellow or curly birch	L4	S5 (2000-03-31)	G5 (1984-02-14)
Betula papyrifera	paper or white birch	L4	S5 (2000-03-31)	G5 (1983-09-19)
Betula pumila (B. glandulifera)	dwarf or swamp birch	L1	S5 (2000-03-31)	G5 (1984-02-14)
Bidens cernuus	nodding bur-marigold	L5	S5 (2000-03-31)	G5 (1984-02-14)
Bidens discoideus	small beggar's-ticks	L3	S4 (2000-03-31)	G5 (1984-02-14)
Bidens frondosus	common or devil's beggarticks	L5	S5 (2000-03-31)	G5 (1984-02-14)
Bidens tripartitus (inc. B. connatus, B. comosus	three-parted beggar's ticks	L5	S5 (2000-03-31)	G5 (1994-08-17)
Bidens vulgatus	tall beggar's-ticks	L3	S5 (2000-03-31)	G5 (1987-09-29)
Boehmeria cylindrica	false nettle	L4	S5 (2000-03-31)	G5 (1984-02-14)
Botrychium dissectum	cut-leaved grape fern or moonwort	L2	S5 (2000-03-31)	G5 (1984-02-16)
Botrychium lanceolatum ssp. angustisegmentum	triangle grape fern	LX	S3 (2000-03-31)	G5 (1984-01-19)
Botrychium matricariifolium	daisy-leaved grape fern	L1	S4S5 (2000-03-31)	G5 (1991-01-31)
Botrychium multifidum	leathery grape fern	L1	S5 (2000-03-31)	G5 (1984-01-19)
Botrychium oneidense	blunt-lobed grape fern	LX	S3 (2000-03-31)	G4Q (1996-07-29)
Botrychium simplex	least grape fern or moonwort	LX	S4? (2000-03-31)	G5 (1984-07-16)
Botrychium virginianum	rattlesnake fern	L2	S5 (2000-03-31)	G5 (1984-01-19)
Brachyeletrum erectum	bearded shorthusk	L2	S4? (2000-03-31)	G5T? (1993-03-16)
Brasenia schreberi	water-shield	L1	S5 (2000-03-31)	G5 (1984-02-16)
Bromus ciliatus (B. canadensis)	fringed brome grass	L3	S5 (2000-03-31)	G5 (1984-02-16)
Bromus kalmii	Kalm's brome	LX	S4 (2000-03-31)	G5 (1986-02-19)
Bromus latiglumis	eared or tall brome	L4	S4 (2000-03-31)	G5 (1988-02-25)
Bromus pubescens	Canada brome	L2	S4 (2000-03-31)	G5 (1999-05-25)
Cakile edentula	sea-rocket	L2	S4 (2000-03-31)	G5 (1983-11-20)
Calamagrostis canadensis	Canada blue joint	L4	S5 (2000-03-31)	G5 (1984-02-16)
Calamagrostis stricta ssp. inexpansa (C. inexpansa	northern reed grass	L2	S5 (2000-03-31)	G5T5 (1994-05-24)
Calla palustris	water arum	L2	S5 (2000-03-31)	G5 (1984-02-16)
Callitriche palustris (C. verna)	water star-wort	L3		
Calopogon tuberosus (C. pulchellus)	grass pink	L1	S4S5 (2000-03-31)	G5 (1990-09-18)
Caltha palustris	marsh marigold	L4	S5 (2000-03-31)	G5 (1984-02-16)
Calypso bulbosa	calypso	LX	S4S5 (2000-03-31)	G5 (1990-06-22)
Calystegia sepium (incl. ssp. americanum, angulat	hedge bindweed	L4	S5 (2000-03-31)	G5 (1997-03-10)
Calystegia spithamaea ssp. spithamaea	low bindwind	L2	S4S5 (2000-03-31)	G4G5TQ?

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Carex gracillima	graceful sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)
Carex granularis	meadow sedge	L5	S5 (2000-03-31)	G5 (1984-02-29)
Carex grayi	Gray's sedge	L2	S4 (2000-03-31)	G4 (1988-02-11)
Carex hirtifolia	pubescent or hairy-leaved sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex hitchcockiana	Hitchcock's sedge	L3	S5 (2000-03-31)	G5 (1985-04-05)
Carex hystericina (C. hystricina,	porcupine sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)
Carex interior	inland or prairie star sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex intumescens	bladder sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)
Carex lacustris	lake-bank sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)
Carex laevivaginata	smooth-sheathed sedge	L3	S4 (2000-03-31)	G5 (1984-04-05)
Carex lasiocarpa (C. filiformis)	slender woolly sedge	L2	S5 (2000-03-31)	G5 (1984-02-29)
Carex laxiculmis var. laxiculmis	spreading or weak wood sedge	L3	S4 (2000-03-31)	G5T? (1993-03-16)
Carex laxiflora	loose-flowered sedge	L4	S5 (2000-03-31)	G5 (1985-04-05)
Carex leptalea ssp. leptalea	bristle-stalked sedge	L3	S5 (2000-03-31)	G5TQ?
Carex leptonervia (C. laxiflora var. leptonervia	few- or fine-nerved wood sedge	L3	S5 (2000-03-31)	G5 (1988-02-11)
Carex limosa	mud sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex lupulina	hop sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex lurida	sallow sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex magellanica ssp. irrigua (C. paupercula	stunted or bog sedge	L2	S5 (2000-03-31)	G5T? (1989-12-14)
Carex molesta	troublesome sedge	L3	S4? (2000-03-31)	G4 (1988-02-11)
Carex muhlenbergii var. muhlenbergi	Muhlenberg's sedge	L3	S4S5 (2000-03-31)	G5T5 (1996-11-17)
Carex normalis	tall straw sedge	L3	S4 (2000-03-31)	G5 (1984-02-29)
Carex pallescens	pale sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex pauciflora	few-flowered sedge	LX	S5 (2000-03-31)	G5 (1984-02-29)
Carex peckii (C. nigromarginata var. elliptica	Peck's sedge	L4	S5 (2000-03-31)	G4G5 (1984-10-02)
Carex pedunculata	early-flowering sedge	L4	S5 (2000-03-31)	G5 (1984-10-02)
Carex pellita (C. lanuginosa; C. filiformis var. lanugi	woolly sedge	L4	S5 (2000-03-31)	G5 (1984-04-05)
Carex pensylvanica	Pennsylvania sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)
Carex plantaginea	plantain-leaved sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex platyphylla	broad-leaved sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex prairea	prairie or fen panicled sedge	L3	S5 (2000-03-31)	G5? (1984-02-29)
Carex prasina	drooping sedge	L2	S4 (2000-03-31)	G4 (1990-09-18)
Carex projecta	necklace or loose-headed oval sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)
Carex pseudo-cyperus	pseudocyperus sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)
Carex radiata (formerly C. rosea,	stellate or straight-styled sedge	L5	S5 (2000-03-31)	G4 (1988-02-11)
Carex retrorsa	retrorse sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)
Carex rosea (formerly convoluta)	curly-styled sedge	L5	S5 (2000-03-31)	G5 (1984-02-29)
Carex scabrata	rough sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex schweinitzii	Schweinitz' sedge	L2	S3 (2000-03-31)	G3 (1986-10-15)
Carex scoparia	pointed broom sedge	L3	S5 (2000-03-31)	G5 (1984-02-29)
Carex siccata (C. foenea)	sand-bank, hillside, or hay sedge	L3	S5 (2000-03-31)	G5T5 (1998-05-05)
Carex sparganioides	bur-reed sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)
Carex sprengelii	long-beaked sedge	L4	S5 (2000-03-31)	G5? (1984-10-02)
Carex stipata	awl-fruited sedge	L5	S5 (2000-03-31)	G5 (1984-02-29)
Carex stricta	tussock sedge	L4	S5 (2000-03-31)	G5 (1984-02-29)

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Clematis occidentalis var. occidentalis (C. verticilla	purple clematis	LX	S4S5 (2000-03-31)	G5TQ?
Clematis virginiana	virgin's bower	L5	S5 (2000-03-31)	G5 (1984-02-29)
Clinopodium vulgare (Satureja vulgaris,	dogmint or wild basil	L5	S5 (2000-03-31)	G5 (1999-11-29)
Clintonia borealis	yellow clintonia or bluebead lily	L3	S5 (2000-03-31)	G5 (1984-02-29)
Coeloglossum viride var. virescens (Habenaria virid	bracted green orchid	LX	S4 (2000-03-31)	G5T5 (1988-02-11)
Collinsonia canadensis	horsebalm or richweed	L2	S4 (2000-03-31)	G5 (1984-02-29)
Comandra umbellata	comandra or bastard toadflax	L2	S5 (2000-03-31)	G5 (1984-02-29)
Comptonia peregrina	sweet-fern	L1	S5 (2000-03-31)	G5 (1983-10-11)
Conopholis americana	squaw-root	L1	S4? (2000-03-31)	G5 (1984-02-29)
Conyza canadensis (Erigeron canadensis,	horse-weed	L5	S5 (2000-03-31)	G5 (1984-12-07)
Coptis trifolia (C. groenlandica,	goldthread	L2	S5 (2000-03-31)	G5 (1984-02-29)
Corallorhiza maculata	spotted coral-root	L1	S5 (2000-03-31)	G5 (1984-02-29)
Corallorhiza striata	striped coral-root	LX	S4 (2000-03-31)	G5 (1984-02-29)
Corallorhiza trifida	early coral-root	L1	S5 (2000-03-31)	G5 (1984-02-29)
Cornus alternifolia	alternate-leaved dogwood	L5	S5 (2000-03-31)	G5 (1983-09-08)
Cornus amomum ssp. obliqua	silky dogwood	L4	S5 (2000-03-31)	G5TQ?
Cornus canadensis	bunchberry	L2	S5 (2000-03-31)	G5 (1983-09-06)
Cornus foemina ssp. racemosa (C. racemosa,	grey dogwood	L4	S5 (2000-03-31)	G5TQ?
Cornus rugosa	round-leaved dogwood	L3	S5 (2000-03-31)	G5 (1984-02-29)
Cornus stolonifera	red osier dogwood	L5	S5 (2000-03-31)	G5 (1988-01-15)
Corydalis aurea ssp. aurea	golden corydalis	L3	S5 (2000-03-31)	G5TQ?
Corydalis sempervirens	pink or pale corydalis	LX	S5 (2000-03-31)	G4G5 (1983-10-11)
Corylus cornuta (C. rostrata)	beaked hazel	L4	S5 (2000-03-31)	G5 (1984-02-29)
Crataegus apiomorpha	pear-shaped hawthorn	LX	S1S2 (2000-03-31)	G3G4Q (1997-01-29)
Crataegus calpodendror.	urn-fruited hawthorn	LX	S4S5 (2000-03-31)	G5 (1984-02-29)
Crataegus chrysocarpa var. aboriginum	round-leaved or fire-berry hawthorn	L3	S4? (2000-03-31)	G5T? (1996-05-24)
Crataegus compta	adorned hawthorn	LX	S2? (2000-03-31)	G5?Q (1996-02-29)
Crataegus conspecta	conspecta hawthorn	LX	S1 (2000-03-31)	G3G4Q (1990-05-22)
Crataegus corusca	gleaming hawthorn	L3	S2S3 (2000-03-31)	G3G5 (1994-11-08)
Crataegus dodgei (inc. vars. dodgei & flavida	Dodge's hawthorn	LX	S4 (2000-03-31)	G4 (1196-02-29)
Crataegus flabellata	fan-leaved or Bosc's hawthorn	L3	S4? (2000-03-31)	G4 (1995-12-06)
Crataegus holmesiana	thin-leaved or Holmes' hawthorn	L4	S4S5 (2000-03-31)	G5 (1984-02-29)
Crataegus intricata	Lang's or thicket hawthorn	LX	S?	G5
Crataegus macracantha (C. succulenta var. macrac	long-spined hawthorn	L4	S5 (2000-03-31)	G? (1996-07-02)
Crataegus macrosperma	variable hawthorn	L3	S5 (2000-03-31)	G5 (1984-02-29)
Crataegus pedicellata	scarlet or pedicelled hawthorn	L5	S4 (2000-03-31)	G5 (1984-02-29)
Crataegus pringlei	Pringle's hawthorn	L3	S5 (2000-03-31)	G5 (1984-02-29)
Crataegus pruinosa	waxy hawthorn	L3	S4? (2000-03-31)	G5 (1984-02-29)
Crataegus punctata	dotted hawthorn	L5	S5 (2000-03-31)	G5 (1984-02-29)
Crataegus schuettei (C. scabrida; C. basilica	rough or Schuette's hawthorn	L3	S4 (2000-03-31)	G5? (1996-11-17)
Crataegus submollis	Emerson's hawthorn	L3	S4S5 (2000-03-31)	G5 (1984-02-29)
Crataegus succulenta	long-spined or succulent hawthorn	L3	S4S5 (2000-03-31)	G5 (1984-02-29)
Cryptotaenia canadensis	honewort	L5	S5 (2000-03-31)	G5 (1984-02-29)
Cuscuta campestris	prairie dodder	L3	S2 (2000-03-31)	G5 (1984-02-29)
Cuscuta gronovii	swamp dodder	L4	S5 (2000-03-31)	G5 (1984-02-29)

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Eleocharis acicularis	needle or least spike-rush	L3	S5 (2000-03-31)	G5 (1984-04-24)
Eleocharis elliptica (E. tenuis var. borealis	elliptic spike-rush	L3	S5 (2000-03-31)	G5 (1984-04-24)
Eleocharis erythropoda (E. calva; E. palustris v. cal	creeping or red-stemmed spike-rush	L5	S5 (2000-03-31)	G5 (1988-02-11)
Eleocharis intermedia	matted or intermediate spike-rush	L3	S4 (2000-03-31)	G5 (1984-04-24)
Eleocharis obtusa	blunt spike-rush	L4	S5 (2000-03-31)	G5 (1984-04-24)
Eleocharis olivacea	olive-fruited spike-rush	LX	S4 (2000-03-31)	G5 (1984-04-24)
Eleocharis pauciflora	few-flowered spike-rush	L2	S5 (2000-03-31)	G5 (1994-07-19)
Eleocharis smallii (E. palustris,	Small's or creeping spike-rush	L3	S5 (2000-03-31)	G5? (1984-04-24)
Elodea canadensis (Anacharis canadensis,	common elodea or water-weed	L3	S5 (2000-03-31)	G5 (1984-04-24)
Elodea nuttallii	Nuttall's water-weed	L3	S4 (2000-03-31)	G5 (1984-04-24)
Elymus canadensis	Canada wild rye	L3	S4S5 (2000-03-31)	G5 (1984-04-24)
Elymus hystrix (Hystrix patula)	bottle-brush grass	L4	S5 (2000-03-31)	G5 (1992-12-23)
Elymus riparius	riverbank wild rye	L4	S4? (2000-03-31)	G5 (1984-04-24)
Elymus trachycaulus (Agropyron trachycaulum,	slender wheat grass	L2	S5? (2000-03-31)	G5 (1988-02-25)
Elymus villosus	hairy wild rye	L2	S4 (2000-03-31)	G5 (1984-04-24)
Elymus virginicus var. virginicus	Virginia wild rye	L5	S5 (2000-03-31)	G5T? (1990-09-10)
Elymus wiegandii	Wiegand's wild rye	L3	S4 (2000-03-31)	G? (1989-12-13)
Epifagus virginiana	beech-drops	L4	S5 (2000-03-31)	G5 (1984-04-24)
Epigaea repens	trailing arbutus	L1	S5 (2000-03-31)	G5 (1983-09-08)
Epilobium angustifolium	fire-weed	L3	S5 (2000-03-31)	G5 (1984-04-24)
Epilobium ciliatum ssp. ciliatum	sticky willow-herb	L5	S5 (2000-03-31)	G5T? (1984-04-24)
Epilobium coloratum	purple-leaved willow-herb	L4	S5 (2000-03-31)	G5 (1984-04-24)
Epilobium leptophyllum	narrow-leaved willow-herb	L3	S5 (2000-03-31)	G5 (1984-04-24)
Epilobium strictum	downy willow-herb	L2	S5 (2000-03-31)	G5? (1984-04-24)
Equisetum arvense	field or common horsetail	L5	S5 (2000-03-31)	G5 (1984-04-24)
Equisetum fluviatile	water horsetail	L3	S5 (2000-03-31)	G5 (1984-04-24)
Equisetum hyemale ssp. affine	scouring rush	L5	S5 (2000-03-31)	G5T5 (1991-03-18)
Equisetum palustre	marsh horsetail	L1	S5 (2000-03-31)	G5 (1985-04-05)
Equisetum pratense	meadow or thicket horsetail	L3	S5 (2000-03-31)	G5 (1990-06-22)
Equisetum scirpoides	dwarf scouring rush	L3	S5 (2000-03-31)	G5 (1990-06-04)
Equisetum sylvaticum	woodland horsetail	L3	S5 (2000-03-31)	G5 (1984-04-24)
Equisetum variegatum ssp. variegatum	variegated scouring-rush	L4	S5 (2000-03-31)	G5 (1984-04-24)
Equisetum x nelsonii (E. laevigatum x variegatum,	Nelson's horsetail	L3	S2? (2000-03-31)	HYB (1984-10-30)
Eragrostis frankii (E. erythrogona,	sandbar or Frank's love grass	L3	S4 (2000-03-31)	G5 (1984-04-24)
Eragrostis hypnoides	smooth creeping or tall love grass	L3	S4 (2000-03-31)	G5 (1984-04-24)
Erechtites hieracifolia	burnweed	L3	S5 (2000-03-31)	G5 (1992-04-08)
Erigenia bulbosa	harbinger-of-spring	LX	S3 (2000-03-31)	G5 (1985-04-05)
Erigeron annuus	annual or daisy fleabane	L5	S5 (2000-03-31)	G5 (1984-04-24)
Erigeron philadelphicus ssp. philadelphicus	Philadelphia fleabane	L5	S5 (2000-03-31)	G5T? (1993-03-16)
Erigeron pulchellus	Robin's plantain	L1	S5 (2000-03-31)	G5 (1984-04-24)
Erigeron strigosus (E. annuus ssp. strigosus	rough fleabane	L5	S5 (2000-03-31)	G5 (1984-04-24)
Eriophorum gracile	slender cotton-grass	LX	S5 (2000-03-31)	G5 (1984-04-24)
Eriophorum tenellum	rough cotton-grass	L1	S5 (2000-03-31)	G5 (1984-04-24)
Eriophorum vaginatum ssp. spissum	dense cotton-grass	L1	S5 (2000-03-31)	G5T5 (1984-04-16)
Eriophorum virginicum	tawny cotton-grass	L1	S5 (2000-03-31)	G5 (1984-04-24)

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Glyceria canadensis	rattlesnake grass	L2	S4S5 (2000-03-31)	G5 (1984-05-16)
Glyceria grandis	tall manna grass	L4	S4S5 (2000-03-31)	G5 (1984-05-16)
Glyceria septentrionalis	eastern manna grass	L3	S4 (2000-03-31)	G5 (1988-04-30)
Glyceria striata (incl. vars. striata & stricta	fowl manna grass	L5	S4S5 (2000-03-31)	G5
Gnaphalium macounii	viscid cudweed	L2	S5 (2000-03-31)	G5 (1994-03-19)
Gnaphalium obtusifolium	fragrant cudweed	L2	S5 (2000-03-31)	G5 (1984-05-16)
Goodyera pubescens	downy rattlesnake-plantain	L1	S4 (2000-03-31)	G5 (1984-04-09)
Goodyera repens var. ophioides	dwarf rattlesnake-plantain	LX	S5 (2000-03-31)	G5TQ?
Gratiola neglecta	clammy hedge-hyssop	LX	S4 (2000-03-31)	G5 (1984-05-16)
Gymnocarpium dryopteris	oak fern	L3	S5 (2000-03-31)	G5 (1986-05-23)
Hackelia deflexa (H. americana,	nodding stickseed	L4	S5 (2000-03-31)	G5 (1984-05-16)
Hackelia virginiana	Virginia stickseed	L5	S5 (2000-03-31)	G5 (1984-05-16)
Hamamelis virginiana	witch-hazel	L3	S5 (2000-03-31)	G5 (1983-10-11)
Hedeoma hispidum	rough pennyroyal	L2	S4 (2000-03-31)	G5 (1985-04-05)
Hedeoma pulegioides	American pennyroyal	L3	S4 (2000-03-31)	G5 (1984-05-16)
Hedyotis caerulea (Houstonia caerulea,	bluets	LX	SH (2000-03-31)	G5 (1990-03-12)
Hedyotis longifolia (Houstonia longifolia)	long-leaved bluets or Venus' pride	L2	S4? (2000-03-31)	G4G5 (1993-02-15)
Helianthemum bicknellii	Bicknell's frostweed	L1	S4 (2000-03-31)	G5 (1984-05-16)
Helianthemum canadense	frostweed	L1	S4 (2000-03-31)	G5 (1984-05-16)
Helianthus decapetalus	thin-leaved sunflower	L3	S5 (2000-03-31)	G5 (1988-02-09)
Helianthus divaricatus	woodland sunflower	L3	S5 (2000-03-31)	G5 (1984-12-10)
Helianthus giganteus	tall sunflower	LX	S5 (2000-03-31)	G5 (1988-04-30)
Helianthus strumosus	pale-leaved sunflower	L4	S5 (2000-03-31)	G5 (1988-02-09)
Helianthus tuberosus	Jerusalem artichoke	L5	SE5 (2000-03-31)	G5 (1984-05-16)
Heliopsis helianthoides	ox-eye	L2	S5 (2000-03-31)	G5 (1988-05-16)
Heracleum lanatum (H. maximum)	cow-parsnip	L4	S5 (2000-03-31)	G5 (1992-10-28)
Heteranthera dubia	water star-grass	L2	S5 (2000-03-31)	G5 (1984-05-16)
Hieracium kalmii (H. canadense)	Canada hawkweed	L2	SU (2000-03-31)	G5 (1993-02-14)
Hieracium scabrum	rough hawkweed	L2	S4 (2000-03-31)	G5 (1984-03-15)
Hieracium venosum var. nudicaule	rattlesnake-weed	LX	S2 (2000-03-31)	G5T4
Hierochloe odorata	sweet grass	LX	S4 (2000-03-31)	G5 (1984-04-26)
Hippuris vulgaris	mare's tail	LX	S5 (2000-03-31)	G5 (1984-05-16)
Huperzia lucidula (Lycopodium lucidulum)	shining club-moss	L2	S5 (2000-03-31)	G5 (1990-03-12)
Hydrocotyle americana	marsh pennywort	L3	S5 (2000-03-31)	G5 (1984-03-15)
Hydrophyllum canadense	Canada waterleaf	L4	S4 (2000-03-31)	G5 (1985-05-11)
Hydrophyllum virginianum	Virginia waterleaf	L5	S5 (2000-03-31)	G5 (1984-03-15)
Hypericum ascyron	great St.Johnswort	L3	S4 (2000-03-31)	G4 (1990-06-22)
Hypericum majus	larger Canada St. Johnswort	LX	S5 (2000-03-31)	G5 (1984-05-16)
Hypericum prolificum	shrubby St. Johnswort	LX	S2 (2000-03-31)	G5 (1984-06-06)
Hypericum punctatum	spotted St.Johnswort	L3	S5 (2000-03-31)	G5 (1984-06-06)
Hypoxis hirsuta	yellow star-grass	LX	S3 (2000-03-31)	G5 (1984-01-19)
Ilex verticillata	winterberry	L3	S5 (2000-03-31)	G5 (1984-10-30)
Impatiens capensis (I. biflora,	orange touch-me-not (spotted jewelweed)	L5	S5 (2000-03-31)	G5 (1988-05-02)
Impatiens pallida	yellow touch-me-not (pale jewelweed)	L4	S5 (2000-03-31)	G5 (1984-04-09)
Iris versicolor	blue flag	L3	S5 (2000-03-31)	G5 (1984-06-06)

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Liparis loeselii	fen or Loesel's twayblade	L3	S4S5 (2000-03-31)	G5 (1984-04-16)
Listera cordata	heart-leaved twayblade	L2	S5? (2000-03-31)	G5 (1984-06-07)
Lithospermum latifolium	American gromwell	LX	S3 (2000-03-31)	G4 (1996-07-22)
Lobelia cardinalis	cardinal flower	L1	S5 (2000-03-31)	G5 (1984-06-07)
Lobelia inflata	Indian tobacco	L3	S5 (2000-03-31)	G5 (1984-06-07)
Lobelia kalmii	Kalm's or brook lobelia	L1	S5 (2000-03-31)	G5 (1984-06-07)
Lobelia siphilitica	great blue lobelia	L3	S5 (2000-03-31)	G5 (1984-06-07)
Lonicera canadensis	fly honeysuckle	L3	S5 (2000-03-31)	G5 (1984-04-16)
Lonicera dioica	wild or glaucous honeysuckle	L3	S5 (2000-03-31)	G5 (1984-06-07)
Lonicera hirsuta	hairy honeysuckle	L3	S5 (2000-03-31)	G4G5 (1988-02-09)
Lonicera oblongifolia	swamp fly honeysuckle	LX	S5 (2000-03-31)	G4 (1984-06-07)
Ludwigia palustris	water purslane	L3	S5 (2000-03-31)	G5 (1984-06-07)
Lupinus perennis ssp. perennis	wild lupine	L2	S3 (2000-03-31)	G5T?
Luzula acuminata	hairy wood rush	L3	S5 (2000-03-31)	G5 (1986-04-08)
Luzula multiflora ssp. multiflora (L. campestris var.	wood rush	L3	S5 (2000-03-31)	G5T5 (1996-03-27)
Lycopodium annotinum	stiff club-moss	L1	S5 (2000-03-31)	G5 (1985-08-30)
Lycopodium clavatum	running club-moss	L2	S5 (2000-03-31)	G5 (1984-06-07)
Lycopodium dendroidium (L. obscurum v. dendroi	round-branched ground-pine	L2	S5 (2000-03-31)	G5 (1986-11-18)
Lycopodium hickeyi (L. obscurum var. isophyllum,	Hickey's ground-pine	L1	S4 (2000-03-31)	G5 (1993-05-31)
Lycopodium obscurum	ground-pine	L1	S4 (2000-03-31)	G5 (1984-04-16)
Lycopus americanus	American or cut-leaved water-horehound	L4	S5 (2000-03-31)	G5 (1986-04-08)
Lycopus uniflorus	northern water-horehound or bugleweed	L4	S5 (2000-03-31)	G5 (1984-06-07)
Lysimachia ciliata	fringed loosestrife	L5	S5 (2000-03-31)	G5 (1984-06-07)
Lysimachia quadrifolia	whorled loosestrife	L3	S4 (2000-03-31)	G5 (1985-04-10)
Lysimachia terrestris	swamp candles	L2	S5 (2000-03-31)	G5 (1984-06-07)
Lysimachia thyrsiflora	tufted loosestrife	L3	S5 (2000-03-31)	G5 (1984-06-07)
Maianthemum canadense	Canada mayflower	L4	S5 (2000-03-31)	G5 (1984-06-07)
Maianthemum racemosum ssp. racemosum (Smila	false Solomon's seal	L5	S5 (2000-03-31)	G5TQ?
Maianthemum stellatum (Smilacina stellata,	starry false Solomon's seal	L5	S5 (2000-03-31)	G5 (1984-03-16)
Maianthemum trifolium (Smilacina trifolia)	three-leaved false Solomon's seal	L2	S5 (2000-03-31)	G5 (1984-09-06)
Malaxis monophyllos ssp. brachypoda	white adder's mouth	L1	S4 (2000-03-31)	G5TQ? (1994-05-04)
Malus coronaria	wild crab-apple	LX	S4 (2000-03-31)	G5 (1986-04-08)
Matteuccia struthiopteris var. pensylvanica	ostrich fern	L5	S5	G5TQ? (1984-06-08)
Medeola virginiana	Indian cucumber-root	L2	S5 (2000-03-31)	G5 (1984-06-08)
Megalodonta beckii (Bidens beckii,	water-marigold	L1	S5 (2000-03-31)	G4G5 (1984-06-08)
Melampyrum lineare	cow-wheat	L1	S4S5 (2000-03-31)	G5 (1995-06-26)
Menispermum canadense	moonseed	L3	S4 (2000-03-31)	G5 (1983-10-11)
Mentha arvensis ssp. borealis	wild mint	L5	S5 (2000-03-31)	G5TQ?
Menyanthes trifoliata	bog buckbean	L1	S5 (2000-03-31)	G5 (1983-09-07)
Milium effusum	wood millet	L2	S4S5 (2000-03-31)	G5 (1984-04-16)
Mimulus glabratus var. jamesi	smooth monkey-flower	LX	SH (2000-03-31)	G5TQ? (1984-12-10)
Mimulus moschatus	musk-flower	LX	S2? (2000-03-31)	G4G5 (1984-06-08)
Mimulus ringens	square-stemmed monkey-flower	L3	S5 (2000-03-31)	G5 (1984-06-08)
Mitchella repens	partridgeberry	L3	S5 (2000-03-31)	G5 (1983-10-11)
Mitella diphylla	mitrewort	L4	S5 (2000-03-31)	G5 (1984-06-08)

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Panicum columbianum var. siccanum	Columbia panic grass	L3	S4 (2000-03-31)	G5T5 (1997-02-10)
Panicum flexile	wiry panic grass	L3	S4 (2000-03-31)	G5 (1997-10-06)
Panicum latifolium	broad-leaved panic grass	L1	S4 (2000-03-31)	G5 (1984-04-24)
Panicum linearifolium	narrow-leaved panic grass	L2	S4S5 (2000-03-31)	G5 (1984-04-24)
Panicum oligosanthes (Dichanthelium oligosanthes	few-flowered panic grass	L2		
Panicum villosissimum (P. praecocius)	hairy or woolly panic grass	LX	S3 (2000-03-31)	G5 (1988-08-04)
Panicum virgatum	switch grass	L3	S4 (2000-03-31)	G5 (1984-06-18)
Panicum xanthophysum	yellow or slender panic grass	L2	S4 (2000-03-31)	G5 (1984-04-24)
Parietaria pensylvanica	Pennsylvania pellitory or false nettle	L3	S4 (2000-03-31)	G5 (1984-06-18)
Parnassia parviflora	small-flowered grass of Parnassus	L1	S4? (2000-03-31)	G4 (1991-01-24)
Parthenocissus inserta (P. vitacea)	thicket creeper	L5	S5 (2000-03-31)	G5 (2000-06-06)
Parthenocissus quinquefolia	Virginia creeper	L5	S4? (2000-03-31)	G5 (1984-03-30)
Pedicularis canadensis	wood-betony or lousewort	L1	S5 (2000-03-31)	G5 (1984-06-18)
Pedicularis lanceolata	swamp lousewort	LX	S4 (2000-03-31)	G5 (1984-08-13)
Peltandra virginica	tuckahoe or green arrow-arum	L3	S2 (2000-03-31)	G5 (1984-06-18)
Penstemon digitalis	foxglove beard-tongue	L4	S4S5 (2000-03-31)	G5 (1984-06-18)
Penstemon hirsutus	hairy beard-tongue	L3	S4 (2000-03-31)	G4 (1991-04-17)
Penthorum sedoides	ditch stonecrop	L4	S5 (2000-03-31)	G4 (1984-06-18)
Petasites frigidus (P. palmatus)	palmate-leaved sweet coltsfoot	L1	S5 (2000-03-31)	G5 (1984-06-18)
Phegopteris connectilis	northern or long beech fern	L3	S5 (2000-03-31)	G5 (1984-09-06)
Phegopteris hexagonoptera	southern or broad beech fern	LX	S3 (2000-03-31)	G5 (1990-03-12)
Phlox divaricata	wild blue phlox	L2	S4 (2000-03-31)	G5 (1984-06-18)
Phryma leptostachya	lopseed	L5	S4S5 (2000-03-31)	G5 (1984-06-18)
Physalis heterophylla	clammy ground-cherry	L4	S4 (2000-03-31)	G5 (1984-06-18)
Physalis subglabrata (P. longifolia var. subglabrata	smooth ground-cherry	LX	S4?	G?
Physalis virginiana (P. longifolia var. longifolia	smooth or Virginia ground-cherry	L3	S4 (2000-03-31)	G5 (1985-04-10)
Physocarpus opulifolius	ninebark	L3	S5 (2000-03-31)	G5 (1983-10-11)
Physostegia virginiana ssp. virginiana	false dragonhead or obedient plant	L3	S4 (2000-03-31)	G5TQ?
Picea glauca	white spruce	L3	S5 (2000-03-31)	G5 (1984-10-15)
Picea mariana	black spruce	L2	S5 (2000-03-31)	G5 (1984-06-18)
Pilea fontana	spring clearweed	L3	S4 (2000-03-31)	G5 (1986-02-19)
Pilea pumila	dwarf clearweed	L5	S5 (2000-03-31)	G5 (1988-05-02)
Pinus resinosa	red pine	L1	S5 (2000-03-31)	G5 (1983-09-19)
Pinus strobus	white pine	L4	S5 (2000-03-31)	G5 (1984-06-25)
Plantago rugelii	red-stemmed or Rugel's plantain	L5	S5 (2000-03-31)	G5 (1984-06-25)
Platanthera blephariglottis var. blephariglottis (Hab	white-fringed orchis	LX	S3S4 (2000-03-31)	G4G5T? (1987-07-23)
Platanthera clavellata (Habenaria clavellata	club-spur orchid	LX	S4S5 (2000-03-31)	G5 (1995-10-30)
Platanthera flava var. herbiola (Habenaria flava...	tubercled orchid	LX	S3 (2000-03-31)	G4T4Q (1994-03-13)
Platanthera hookeri (Habenaria hookeri)	Hooker's orchid	LX	S4S5 (2000-03-31)	G5 (1984-06-25)
Platanthera hyperborea (Habenaria hyperborea	northern or tall green orchis	L2	S5 (2000-03-31)	G5 (1984-06-25)
Platanthera lacera (Habenaria lacera	ragged fringed orchis	L1	S4S5 (2000-03-31)	G5 (1984-06-25)
Platanthera obtusata (Habenaria obtusata	small northern bog orchis	L1	S5 (2000-03-31)	G5 (1994-02-08)
Platanthera psycodes (Habenaria psycodes	small purple-fringed orchis	L1	S5 (2000-03-31)	G5 (1984-03-16)
Platanus occidentalis	sycamore	L1	S4 (2000-03-31)	G5 (1984-01-25)
Poa alsodes	grove meadow grass or woodland poa	L3	S4 (2000-03-31)	G4G5 (1997-02-25)

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Potamogeton zosteriformis	eel-grass or flat-stemmed pondweed	L2	S5 (2000-03-31)	G5 (1984-06-25)
Potentilla anserina ssp. anserina	silverweed	L4	S5 (2000-03-31)	G5TQ?
Potentilla arguta var. argute	tall or prairie cinquefoil	L4	S4	G5
Potentilla palustris	marsh cinquefoil	L2	S5 (2000-03-31)	G5 (1984-06-25)
Potentilla paradoxa	bushy cinquefoil	L3	S3 (2000-03-31)	G5 (1985-04-10)
Potentilla simplex	common or old-field cinquefoil	L3	S5 (2000-03-31)	G5 (1984-06-25)
Prenanthes alba	white wood lettuce	L3	S5 (2000-03-31)	G5 (1984-06-25)
Prenanthes altissima	tall wood lettuce	L5	S5 (2000-03-31)	G5? (1984-03-29)
Proserpinaca palustris	mermaid-weed	LX	S4 (2000-03-31)	G5 (1984-06-25)
Prunus americana	wild plum	L3	S4 (2000-03-31)	G5 (1984-08-28)
Prunus nigra	Canada plum	L3	S4 (2000-03-31)	G4G5 (1988-01-15)
Prunus pensylvanica	pin cherry	L4	S5 (2000-03-31)	G5 (1984-04-16)
Prunus pumila var. susquehanae	sand cherry	LX	S4? (2000-03-31)	G5T4 (1993-05-31)
Prunus serotina	black cherry	L5	S5 (2000-03-31)	G5 (1984-08-28)
Prunus virginiana ssp. virginiana	choke cherry	L5	S5 (2000-03-31)	G5TQ?
Pteridium aquilinum var. latiusculum	eastern bracken	L4	S5 (2000-03-31)	G5 (1984-03-29)
Pterospora andromedea	pine-drops	LX	S2 (2000-03-31)	G5 (1984-08-29)
Pycnanthemum tenuifolium	narrow-leaved mountain-mint	L3	S3 (2000-03-31)	G5 (1984-08-29)
Pycnanthemum virginianum	Virginia mountain-mint	L3	S4 (2000-03-31)	G5 (1984-08-29)
Pyrola asarifolia	pink pyrola	L2	S5 (2000-03-31)	G5 (1984-04-16)
Pyrola chlorantha	green-flowered pyrola	L1	S4S5 (2000-03-31)	G5 (1984-08-29)
Pyrola elliptica	shinleaf	L3	S5 (2000-03-31)	G5 (1984-04-16)
Quercus alba	white oak	L2	S5 (2000-03-31)	G5 (1984-08-29)
Quercus macrocarpa	bur oak	L4	S5 (2000-03-31)	G5 (1983-09-06)
Quercus rubra	red oak	L4	S5 (2000-03-31)	G5 (1984-08-29)
Quercus velutina	black oak	L2	S4 (2000-03-31)	G5 (1984-08-29)
Ranunculus abortivus	small-flowered or kidneyleaf buttercup	L5	S5 (2000-03-31)	G5 (1984-08-29)
Ranunculus aquatilis var. longirostris (R. longirostri	white water crowfoot	L2	S4S5 (2000-03-31)	G5 (1984-03-16)
Ranunculus fascicularis	early buttercup	LX	S4 (2000-03-31)	G5 (1984-08-29)
Ranunculus flabellaris	yellow water crowfoot	L2	S4? (2000-03-31)	G5 (1984-03-16)
Ranunculus hispidus var. caricetorum (R. septentri	swamp buttercup	L4	S5 (2000-03-31)	G5T5 (1995-07-25)
Ranunculus hispidus var. hispidus (inc. var. marilar	hispid buttercup	LX	S5 (2000-03-31)	G5T5 (1991-05-09)
Ranunculus pensylvanicus	bristly buttercup	L3	S5 (2000-03-31)	G5 (1988-09-09)
Ranunculus recurvatus var. recurvatus	hooked buttercup	L5	S5 (2000-03-31)	G5TQ?
Ranunculus rhomboideus	prairie buttercup	LX	S3 (2000-03-31)	G4 (1992-02-07)
Ranunculus sceleratus	cursed crowfoot	L5	S5 (2000-03-31)	G5 (1984-08-29)
Rhamnus alnifolia	alder-leaved buckthorn	L3	S5 (2000-03-31)	G5 (1984-04-16)
Rhus radicans (R. radicans ssp. radicans; ssp. neg	poison ivy (vine form)	L4	S5 (2000-03-31)	G5 (1995-11-11)
Rhus rydbergii (R. radicans ssp. rydbergii	poison ivy (shrub form)	L5	S5 (2000-03-31)	G5 (1984-09-06)
Rhus typhina	staghorn sumach	L5	S5 (2000-03-31)	G5 (1984-02-28)
Rhus vernix	poison sumach	LX	S4 (2000-03-31)	G5 (1984-09-06)
Rhynchospora alba	white beak-rush	L1	S5 (2000-03-31)	G5 (1984-08-29)
Ribes americanum	wild black currant	L5	S5 (2000-03-31)	G5 (1984-02-24)
Ribes cynosbati	prickly gooseberry	L5	S5 (2000-03-31)	G5 (1983-10-11)
Ribes glandulosum	skunk currant	L3	S5 (2000-03-31)	G5 (1984-08-29)

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Sarracenia purpurea	pitcher-plant	L1	S5 (2000-03-31)	G5 (1984-09-06)
Sassafras albidum	sassafras	L4	S4 (2000-03-31)	G5 (1983-11-03)
Saxifraga virginiensis	early saxifrage	LX	S5 (2000-03-31)	G5 (1983-10-11)
Scheuchzeria palustris	bog arrow-grass	L1	S4S5 (2000-03-31)	G5 (1984-09-06)
Schizachne purpurascens ssp. purpurascens	purple or false melic grass	L3	S5 (2000-03-31)	G5T? (1988-02-04)
Schizachyrium scoparium (Andropogon scoparius)	little bluestem	L2	S4 (2000-03-31)	G5 (1984-04-09)
Scirpus acutus	hard-stemmed bulrush	L3	S5 (2000-03-31)	G5 (1984-09-06)
Scirpus atrovirens	black-fruited or dark green bulrush	L5	S5 (2000-03-31)	G5? (1984-03-29)
Scirpus cyperinus	woolly bulrush or wool-grass	L3	S5 (2000-03-31)	G5 (1984-09-06)
Scirpus fluviatilis	river bulrush	L3	S4S5 (2000-03-31)	G5 (1984-09-06)
Scirpus microcarpus (S. rubrotinctus)	barber-pole sedge or bulrush	L4	S5 (2000-03-31)	G5 (1987-10-01)
Scirpus pendulus	drooping, nodding, or red bulrush	L3	S5 (2000-03-31)	G5 (1984-09-06)
Scirpus pungens (S. americanus)	three-square or chairmaker's rush	L4	S5 (2000-03-31)	G5 (1988-04-30)
Scirpus smithii	Smith's club-rush	LX	S2? (2000-03-31)	G5? (1984-09-06)
Scirpus validus	soft-stemmed bulrush	L4	S5 (2000-03-31)	G? (1989-00-00)
Scirpus verecundus	shy bulrush or wood clubrush	L2	S1 (2000-03-31)	G4G5 (1998-06-19)
Scleria triglomerata	tall nut-rush	LX	S1 (2000-03-31)	G5 (1988-08-10)
Scleria verticillata	low nut-rush	L1	S3 (2000-03-31)	G5 (1993-05-31)
Scrophularia lanceolata	lance-leaved or hare figwort	L3	S4 (2000-03-31)	G5 (1984-09-06)
Scrophularia marilandica	carpenter's-square figwort	L3	S4 (2000-03-31)	G5 (1984-09-06)
Scutellaria galericulata (S. epilobiifolia)	common skullcap	L5	S5 (2000-03-31)	G5 (1984-09-06)
Scutellaria lateriflora	mad-dog skullcap	L5	S5 (2000-03-31)	G5 (1984-09-06)
Scutellaria parvula var. parvula	small skullcap	LX	S4 (2000-03-31)	G4T? (1992-01-21)
Selaginella eclipes	meadow spike-moss	L1	S4 (2000-03-31)	G4 (1986-11-18)
Senecio aureus	golden ragwort	L2	S5 (2000-03-31)	G5 (1984-09-06)
Shepherdia canadensis	buffalo-berry or soap-berry	L2	S5 (2000-03-31)	G5 (1984-09-06)
Sicyos angulatus	bur cucumber	L4	S5 (2000-03-31)	G5 (1988-02-10)
Silene antirrhina	sleepy catchfly	L3	S5 (2000-03-31)	G5 (1984-09-06)
Silphium perfoliatum	cup-plant	L4	S2 (2000-03-31)	G5 (1988-12-15)
Sisyrinchium montanum	blue-eyed grass	L3	S5 (2000-03-31)	G5 (1984-09-06)
Sium suave	water-parsnip	L4	S5 (2000-03-31)	G5 (1984-09-06)
Smilax herbacea	carrion-flower	L5	S4 (2000-03-31)	G5 (1984-03-29)
Smilax hispida (S. tamnoides var. hispida)	bristly greenbrier	L4	S4 (2000-03-31)	G5 (1986-04-08)
Solanum ptychanthum (S. nigrum var. americanum)	black nightshade	L5	S5 (2000-03-31)	G5 (1994-11-07)
Solidago altissima	tall goldenrod	L5	S5 (2000-03-31)	G5T5 (1994-03-04)
Solidago arguta var. arguta	sharp-leaved goldenrod	L3	S3 (2000-03-31)	G5T4
Solidago bicolor	silver-rod or white goldenrod	L2	S4? (2000-03-31)	G5 (1984-09-06)
Solidago caesia	blue-stemmed goldenrod	L5	S5 (2000-03-31)	G5 (1984-09-06)
Solidago canadensis var. canadensis	Canada goldenrod	L5	S5 (2000-03-31)	G5T? (1993-03-16)
Solidago flexicaulis	zig-zag goldenrod	L5	S5 (2000-03-31)	G5 (1984-09-06)
Solidago gigantea	late goldenrod	L5	S5 (2000-03-31)	G5 (1984-09-06)
Solidago hispida	hairy goldenrod	L2	S5 (2000-03-31)	G5 (1984-09-06)
Solidago juncea	early goldenrod	L4	S5 (2000-03-31)	G5 (1984-09-06)
Solidago nemoralis ssp. nemoralis	grey goldenrod	L5	S5 (2000-03-31)	G5T? (1989-08-01)
Solidago ohioensis	Ohio goldenrod	LX	S4 (2000-03-31)	G4 (1984-09-06)

TRCA NATIVE FLORA & RANKS (11 April 2003)[1]				
SCIENTIFIC NAME	COMMON NAME	TRCA RANK (2003)[2]	PROVINCIAL RANK (S1-S5)[3]	GLOBAL RANK (G1-G5)[3]
Trientalis borealis ssp. borealis	star-flower	L3	S5 (2000-03-31)	G5TQ? (1984-09-06)
Triglochin maritimum	seaside arrow-grass	L1	S5 (2000-03-31)	G5 (1984-09-06)
Triglochin palustre	marsh arrow-grass	L1	S5 (2000-03-31)	G5 (1984-09-06)
Trillium cernuum	nodding trillium	L1	S5 (2000-03-31)	G5 (1984-04-16)
Trillium erectum	red trillium or stinking Johnny	L3	S5 (2000-03-31)	G5 (1984-09-06)
Trillium grandiflorum	white trillium	L3	S5 (2000-03-31)	G5 (1984-09-06)
Trillium undulatum	painted trillium	L1	S5? (2000-03-31)	G5 (1984-09-06)
Triosteum aurantiacum	wild coffee	L2	S5 (2000-03-31)	G5 (1984-09-06)
Tsuga canadensis	eastern hemlock	L4	S5 (2000-03-31)	G5 (1994-07-20)
Typha latifolia	broad-leaved cattail	L4	S5 (2000-03-31)	G5 (1984-09-06)
Ulmus americana	white elm	L5	S5 (2000-03-31)	G5? (1983-09-12)
Ulmus rubra	slippery or red elm	L2	S5 (2000-03-31)	G5 (1983-11-03)
Ulmus thomasii	rock elm	L3	S4? (2000-03-31)	G5 (1986-04-08)
Urtica dioica ssp. gracilis (U. procera)	American stinging nettle	L5	S5 (2000-03-31)	G5T? (1993-03-16)
Utricularia intermedia	flat-leaved bladderwort	L1	S5 (2000-03-31)	G5 (1984-04-16)
Utricularia minor	small bladderwort	L1	S5 (2000-03-31)	G5 (1986-02-19)
Utricularia vulgaris	common bladderwort	L1	S5 (2000-03-31)	G5 (1984-09-06)
Uvularia grandiflora	large-flowered bellwort	L3	S5 (2000-03-31)	G5 (1984-09-06)
Vaccinium angustifolium	lowbush blueberry	L2	S5 (2000-03-31)	G5 (1984-09-06)
Vaccinium corymbosum	highbush blueberry	L1	S4 (2000-03-31)	G5 (1989-08-29)
Vaccinium macrocarpon	large cranberry	L1	S4S5 (2000-03-31)	G4 (1987-08-05)
Vaccinium myrtilloides	velvet-leaf blueberry	L2	S5 (2000-03-31)	G5 (1983-11-20)
Vaccinium oxycoccos	small cranberry	L1	S5 (2000-03-31)	G5 (1984-09-06)
Vaccinium pallidum	hillside or early sweet blueberry	L1	S4 (2000-03-31)	G5 (1984-09-06)
Valeriana sitchensis ssp. uliginosa (S. uliginosa	swamp valerian	L1	S2 (2000-03-31)	G4G5T4
Vallisneria americana	tape-grass or water celery	L1	S5 (2000-03-31)	G5 (1984-09-06)
Verbena hastata	blue vervain	L5	S5 (2000-03-31)	G5 (1984-09-06)
Verbena simplex	slender vervain	L2	S4	G5
Verbena stricta	hoary vervain	L2	S4 (2000-03-31)	G5 (1988-09-09)
Verbena urticifolia	white vervain	L5	S5 (2000-03-31)	G5 (1984-09-06)
Veronica americana	American speedwell or brooklime	L3	S5 (2000-03-31)	G5 (1984-09-06)
Veronica catenata (V. anagallis-aquatica ssp. ...	water speedwell (native)	L3	G5	S4
Veronica scutellata	marsh speedwell	L3	S5 (2000-03-31)	G5 (1984-03-16)
Viburnum acerifolium	maple-leaved viburnum	L3	S5 (2000-03-31)	G5 (1983-09-30)
Viburnum cassinoides	withe-rod or wild raisin	L2	S5 (2000-03-31)	G5 (1984-04-16)
Viburnum lantanoides (V. alnifolium,	hobblebush	L1	S5 (2000-03-31)	G5 (1983-11-20)
Viburnum lentago	nannyberry	L5	S5 (2000-03-31)	G5 (1984-02-14)
Viburnum rafinesquianum	downy arrow-wood	L3	S5 (2000-03-31)	G5 (1984-10-03)
Viburnum trilobum (V. opulus var. trilobum,	highbush cranberry	L2	S5 (2000-03-31)	G5 (1993-08-27)
Vicia americana	American vetch	L3	S5 (2000-03-31)	G5 (1987-10-01)
Viola adunca	hooked-spur or heath dog violet	L1	S4S5 (2000-03-31)	G5 (1984-10-03)
Viola affinis	Le Conte's violet	L3	S4? (2000-03-31)	G5 (1984-10-03)
Viola blanda (V. incognita,	sweet white violet	L3	S4S5 (2000-03-31)	G4G5 (1992-12-29)
Viola canadensis	Canada violet	L3	S5 (2000-03-31)	G5 (1984-10-03)
Viola conspersa	dog violet	L5	S5 (2000-03-31)	G5 (1984-10-03)

TORONTO AND REGION Conservation
for The Living City

Watercourse Crossing Design and Submission Requirements

(Including new and replacement structures and extensions)
September 2007

Prior to proceeding with construction of a watercourse crossing, a permit must be obtained from TRCA as these works constitute alteration to a watercourse and/or development in a regulated area. Where crossings are proposed as a component of land development or infrastructure projects, proponents should address TRCA objectives and policies with respect to crossings throughout the development process.

OBJECTIVES

1. Minimize the total number of crossings in valley and stream corridors.
2. Situate crossings, where required, at appropriate locations.
3. Improve existing watercourse crossings where possible.
4. Ensure no significant increase in upstream and downstream flooding.
5. Protect or enhance the physical and ecological function of the watercourse and valley corridor.
6. Protect all natural features to the extent possible and provide restoration where protection is not possible.
7. Implement adequate erosion and sediment control during and after construction.

SUBMISSION REQUIREMENTS

The following outlines the tasks that must be undertaken and the information that must be provided by crossing proponents, at various stages of the development process, for crossings associated with land development projects. Specific requirements for crossings not associated with land development are provided in subsequent sections.

It is recommended that proponents meet with TRCA staff prior to submission at each stage to identify pertinent issues and study requirements. The level of detail required for the submission may be adjusted at this point to reflect the project scale and degree of complexity. Meetings also provide an opportunity for TRCA staff to provide the proponent with available data for the study area.

1. Studies/reports submitted in support of secondary plan approval (i.e. OP and OPAs) and studies/reports submitted prior to draft plan approval (i.e. MESPs, FSSs, Block Plans)

i. Carry out preliminary air photo/map analysis and field reconnaissance to determine appropriate road crossing locations. Locations should be selected to avoid geomorphic constraints such as meander bends, actively eroding or unstable reaches and confluences, as well as wooded areas, wetlands, Areas of Natural and Scientific Interest and Environmentally Significant Areas. The total number of crossing should be minimized.

ii. Conduct a site walk with TRCA and municipal staff to confirm proposed crossing locations.

iii. Summarize preliminary analysis and document the crossing locations in the resulting document/report. Information to be provided includes:
- Key plan with orthophoto base illustrating location of subject lands, watercourses, natural features and proposed crossings.
- Summary of site walk observations and discussions.

- If sufficient historical data is not available, a conservative 100-year erosion limit may be determined based on a multiple of the bankfull channel width. In watercourses where there is evidence of active channel erosion and/or hydraulic analysis indicates that the bankfull flow competence (velocity and shear stress) is greater than that of the bed and/or bed materials, the 100-year erosion limit will be 10 times the bankfull channel width, offset from both sides of the bankfull channel. In watercourses where there is no evidence of active channel erosion and hydraulic analysis indicates that the bankfull flow competence is less that of the bed and bank material, the 100-year erosion will be 2 times the bankfull channel width, applied to both sides of the bankfull channel.
- If the meander belt width or 100-year erosion limit used overlaps the valley wall toe of slope, a stable slope allowance must also be provided. The stable slope analysis is determined by calculating a 3:1 slope from the outside of the meander belt width or 100-year erosion limit, or through an approved slope stability study.

Note: *It is strongly recommended that geomorphic analyses be prepared by a professional engineer or professional geoscientist qualified to practice fluvial geomorphology. Comparative analysis of air photos and maps must be performed using GIS or CAD software. All air photos, maps and surveys must be registered to a common base map and corrected for distortion if necessary.*

Aquatic Requirements

- All water crossings must address the requirements for fish and fish habitat, including maintaining groundwater upwelling and discharge, preserving biological connections between stream flow and the channel bed, including fish passage, maintain natural sediment transport processes, and to minimize disturbance to the watercourse.
- Channel realignment, hardening, or other modifications should be avoided in the design of crossing structures. If channel modifications are proposed, suitable justification must be provided.
- Should alteration to the channel be anticipated, *Fisheries Act* approvals may be required. See Fisheries Act submission requirements for more detail.

Terrestrial Requirements

- Adequate passage must be provided, either under or over crossing structures and associated earthworks, for all wildlife potentially using the valley corridor. An ecological assessment is required to identify wildlife species in the corridor and to confirm that the crossing concept design will provide the required passage.

Other Requirements

- Crossing designs must account for recreational activities and trails within valley lands, as per municipal requirements. The span and rise of the structure opening should accommodate expected recreational uses.
- Crossings must maintain navigability of the watercourse as per Transport Canada requirements and may require *Navigable Waters Protection Act* approval in this regard.

- Erosion and sediment control plan, showing location of control measures, detail drawings for control measures, construction access, notes on construction procedure and phasing, and notes on maintenance of control measures. Details for in-water works and 'working in the dry' should also be included if applicable.
- Landscape and restoration plan indicating species and quantities for trees, shrubs and seed mixes, and location, size and condition of plant material (see also TRCA Standard Restoration Guidelines).
- Tree removal/preservation plan identifying vegetation type within the work area, location of tress to be removed and preserved, and protection measures for the remaining stand.
- Letter of Intent and DFO Application for Authorization, if applicable. See Fisheries Act submission requirements for more detail.

CROSSINGS PROPOSED UNDER ENVIRONMENTAL ASSESSMENT PROCESS

New crossings proposed under the Municipal Class Environmental Assessment or full Environmental Assessment processes are required to meet the requirements listed above. EA documents should address the submission requirements under headings 1 and 2, above, while requirements under heading 3 should be addressed at the permit application/detailed design stage.

REPLACEMENT CROSSING STRUCTURES

In most cases submissions for replacement structures are not expected to address the requirements under heading 1, above, as the location of the crossing has already been fixed. However, if realignment of the roadway is proposed, those requirements must be considered in determining the new alignment.

In general, it is expected that submissions for replacement structures will consist of permit applications with a design brief and detailed design drawings. Nonetheless, submissions for replacement structures must address all of the requirements listed under headings 2 and 3 above. The proponent may make reference to existing studies (e.g. hydraulics) rather than preparing new analyses, if it can be shown that the existing studies remain relevant.

CROSSING STRUCTURE EXTENSIONS

TRCA will endeavour to achieve all of its objectives for extensions of existing structures. However, it is recognized that the objectives would in many cases require replacement of structures which is often not possible. As a result, TRCA staff will communicate requirements for structure extensions to proponents on a site-specific basis.

Toronto and Region Conservation for The Living City

DRAFT WATERCOURSE CROSSING CHART - MISSISSAUGA BUS RAPID TRANSIT

DATE CHART LAST REVISED: Friday, November 30, 2007
DATE OF SITE VISIT: Monday, November 19, 2007
PROJECT NAME: Mississauga Bus Rapid Transit
PROPONENT: City of Mississauga
TRCA PROJECT MANAGER: Sharon Lingertat
MUNICIPAL PROJECT MANAGER: Willy Ing
CONSULTANT PROJECT MANAGER Mike Bricks
TRCA FILE # 39971

Site Visit Attendees: Darrell Wunder, MRC
Katie Bright, Ecoplans
Brad Stephens, TRCA
Scott Smith, TRCA
Sharon Lingertat, TRCA

GEOGRAPHIC AREA						
TRCA to complete	Watercourse Name or Station	Location 1	Location 2	Location 3	Location 4	Location 5
	Location *(between x and y streets)*	Eglinton Ave. at Explorer Dr.	Eglinton Ave. at Centennial Park Blvd.	Eglinton Ave. west of Rakely at Etobicoke Creek	Eastgate Pkwy. (Tomken Rd. to Dixie Rd.) - Little Etobicoke Creek	Eastgate Pkwy. east of Cawthra Rd.
ONTARIO REG. 166/06 - "DEVELOPMENT, INTERFERENCE WITH WETLANDS & ALTERATIONS TO SHORELINES & WATERCOURSES".						
TRCA to complete	Within a Regulated Area	Yes	Yes (south side of Eglinton only)	Yes	Yes	Yes - on the north side of Eastgate Pkwy. only
	Within a Wetland/Area of Interference ? *(Y/N)*	No	No	No	Yes	Yes
	Within a Watercourse? *(Y/N)*	Yes	No	Yes	Yes	No
	Within a Regional Storm Floodplain*? *(Y/N)* *(<50 ha upstream drainage/>50ha* upstream drainage)* *= Regional Storm Floodplain	No	No	Yes	Yes	No
FISHERIES REVIEW						
TRCA to complete	Fish Habitat *(Direct/Indirect/No)*	Indirect	Indirect	Direct	Direct	No
	Fish Passage Within Culvert/Structure?	No	No	Yes	Yes	No
	Timing Window? (*Cold = June 15 to September 15) (Warm= July 1 to March 31)*	tbd	tbd	Warmwater	Warmwater	n/a
EXISTING STRUCTURE DETAILS						
Proponent to complete	Existing Structure *(L x W x H and type)*					
	Open or Closed Footed?					
	Has photo record of sediment in structure been recorded? No? Yes? Date?					
	Assessment of Sediment in Existing Structure- Low? Medium? High?					
	Structural Integrity of Existing Culvert?					
	Hydraulic Capacity of existing structure is *(adequate/inadequate)* to convey Regional Storm?					
PROPOSED STRUCTURE DETAILS						
Proponent to complete	Proposed Structure *(L x W x H and type)*					
	Open or Closed Footed?					
	Extension only proposed? *(Y/N)*					
	Removal, Replacement only proposed?					
	Removal, Replacement and Lengthening Proposed? *(Y/N)*					
REQUIREMENTS						
TRCA to complete	Hydraulic Analysis Required? *(Y/N)*	tbd	tbd	tbd	tbd	tbd
	Is there an existing HEC RAS model at TRCA? Yes? No?	tbd	tbd	tbd	tbd	tbd
	Meander Belt Analysis Required? *(Y/N)*	tbd	tbd	tbd	tbd	no
	100-year Erosion Limit Required? *(Y/N)*	tbd	tbd	tbd	tbd	no
	Groundwater Upwellings *(will dictate open footed culvert)* *(Y/N)*	tbd	tbd	tbd	tbd	tbd
	Open Footed Required? *(Y/N)*	tbd	tbd	tbd	tbd	tbd
	Geotechnical Report Required (to determine if spread footings or piles are needed)? *(Y/N)*	yes	yes	yes	yes	yes
	Terrestrial Passage Required? *(Y/N)*	tbd	tbd	tbd	tbd	tbd
	Embedment and substrates for Aquatic Passage Required? *(Y/N)*	tbd	tbd	tbd	tbd	tbd
	Net Benefit of Proposed crossing?	tbd	tbd	tbd	tbd	tbd
PIPE CROSSING DETAILS						
Proponent to complete	Pipe Crossing Above or Below Culvert?					
	Geotechnical Report confirms *(Open Cut/Tunnel)* for pipe crossing?					
	Distance between invert of creek and obvert of pipe (m)?					
	Minor Trench Unwatering or Major Dewatering Anticipated?					
SUMMARY OF APPROVALS REQUIRED						
TRCA to complete	"Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" permit required? *(Y/N)*	Yes	Yes - if works will take place on the south side of Eglinton Ave.	Yes	Yes	Yes
	Mit HADD? (Y/N/TBD)	tbd	tbd	tbd	tbd	tbd
	HADD (Y/N/TBD)	tbd	tbd	tbd	tbd	tbd
Proponent to complete	MNR contacted? (PROPONENT WILL FILL IN)Y? N?					
Proponent to complete	Transport Canada contacted for navigable waterway? *(Y/N)*					
ADDITIONAL NOTES						

THE TORONTO AND REGION CONSERVATION AUTHORITY
5 Shoreham Drive, Downsview, Ontario M3N1S4 (416) 661-6600 FAX 661-6898 http://www.trca.on.ca

McCORMICK RANKIN CORPORATION
DEC 17 2007
MISSISSAUGA OFFICE

ENCLOSURE

TO:	**NAME:** Mr. Mike Bricks Ecoplans Limited 2655 North Sheridan Way, Suite 280 Mississauga, ON L5K 2P8
FROM	**NAME:** Scott Smith
	PHONE: (416) 661-6600 Ext. 5758
	PROJECT: CFN 39971 - Mississauga Bus Rapid Transit
	DATE: December 11, 2007

Mr. Bricks,

Please find enclosed the Etobicoke Creek Map Sheets 7, 10, and 13 marked to show the Regional Flood Elevation cross sections. The cross sections are:

1. Eastgate between Dixie and Tomken Rd: Etobicoke Creek mapsheet #10, between cross sections 2.38 and 2.39, within Little Etobicoke Creek
2. Eglinton Ave east of Eastgate Parkway: Etobicoke Creek mapsheets #7 and 13, between cross sections 7.09 and 7.121, within Etobicoke Creek
3. Eglinton Avenue at Explorer Dr: Estimated flood plain 1012, Tributary 4, cross section 2244.567.
4. There is no mapping or hydraulic information available for the watercourse south of Eglinton, west of Centennial Park Blvd.

HEC-2 Cross Section	Regional Elevation (m)
2.38	135.70
2.39	135.87
7.09	140.30
7.10	142.24
7.11	141.66
7.12	142.55
7.121	143.86
2244.567	155.6626

Note:

1. Please be advised that the Hydraulic update is under final approval and that the above information is preliminary and the flood elevations may change. The Regional peak flow at the same location was calculated by TSH.
2. We do not have updated flood line mapping information.
3. We anticipate an increase in the Regional flood line.

An email will be sent separately with the following information:

- Regulation Limits
- Flora and Fauna
- ELC data
- Watercourses
- fish data

***The point data (sent via email) for TRCA Species of Conservation Concern (flora and fauna) and Vegetation Type is to be used only for evaluation and analysis. It is not to be displayed in any format for public viewing, including maps in reports or maps at public information centres.

The Terrestrial Natural Heritage System in the area around the airport is evaluated in the GTAA Living City Report. The findings of the report include:

- the health of the terrestrial system within the GTAA study area was evaluated as poor to very poor during in a landscape analysis; this is mainly due to the matrix influence of airport operations and transportation corridors.
- the majority of habitat patches received a poor to fair score for size and shape;
- there are serious deficiencies of natural cover in the southern portion of the study area (the area at which this EA is looking).
- connectivity is insufficient for the maintenance of terrestrial services and there is a need to improve east-west connections.

The areas adjacent to Eastgate Parkway are identified as restoration opportunities through Habitat Implementation Plans (HIP). The areas have various wetland communities; due to overhead hydro wires, the best restoration opportunities are through promoting wetland linkages in this area. Given that only 0.6% of the Etobicoke watershed features wetlands, it is important to maintain, enhance and expand these systems.

Enhancing the corridor along Eastgate Parkway would provide new wetland opportunities, an east-west connection between habitat patches, maintain the quantity of natural cover and result in an improvement in the quality of natural cover within the watershed.

Please also find enclosed a map showing HIP opportunities.

If you have any questions please give me a call.

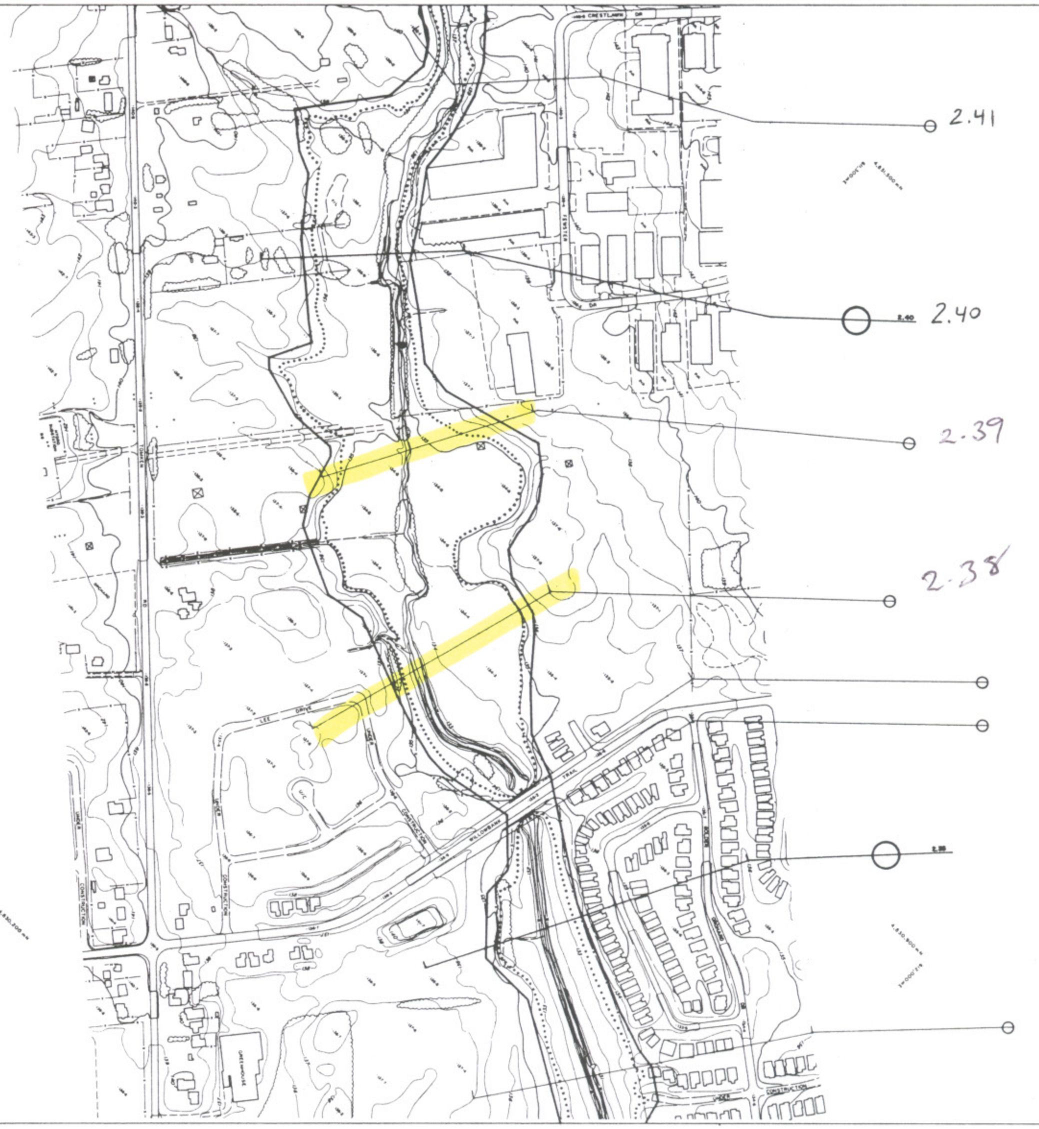
Scott Smith

SR.

Scott Smith

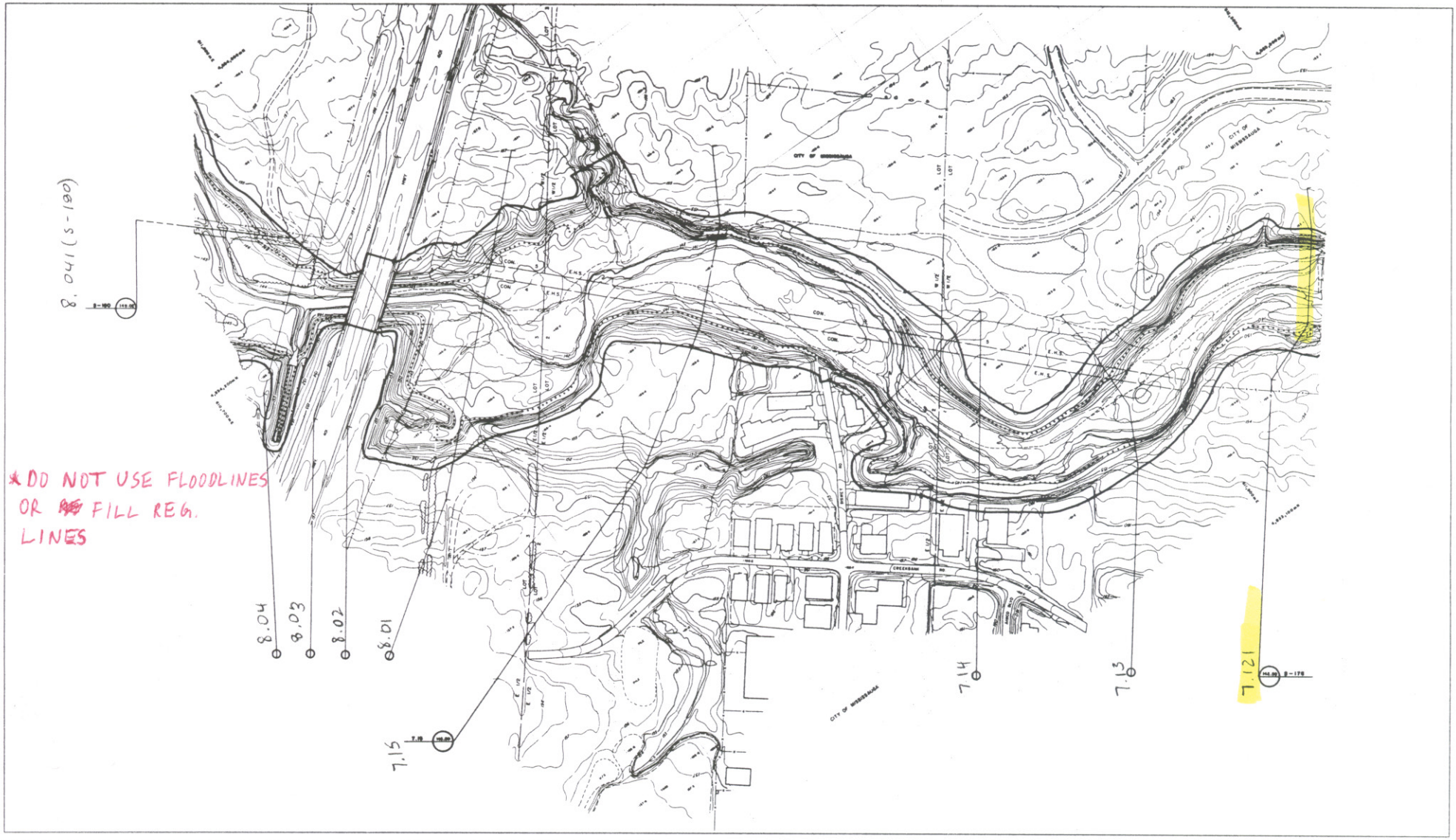

ELECTRA RD
EGLINTON AVE W
NETHERHART RD
BRITANNIA RD E
LUKE RD
ERINGATE DR
THE EAST MALL
MARTIN GROVE RD
RENFORTH DR
Generic Reg
No info
DIXIE RD
RATHBURN RD
BURNHAMTHORPE RD E
MILLARD
EVA RD
MATHESON BLVD E
TOMKEN RD
BLOOR ST W
RATHBURN RD E
BURNHAMTHORPE RD E
BLOOR ST
DUNDAS ST E
DUNDAS ST W
THE WEST MALL
N QUEEN ST
EGLINTON AVE E
DIXIE RD
THE QUEENSWAY

* DO NOT USE FLOODLINES
OR FILL REG. LINES



Page 25

FLOOD PLAIN AND FILL REGULATION LINE MAPPING	AIRMAP LTD. AIRMAP LIMITED 4534 SOUTHCLARK PLACE, R.R.#6, BOX 916, OTTAWA CANADA K1G 3N3	the metropolitan toronto and region conservation authority 5 Shoreham Drive, Downsview, Ontario M3N 1S4	CERTIFICATE I HEREBY CERTIFY THAT THIS REGULATION LINE MAP ___ IS A TRUE COPY OF MAP NO. ___ A SCHEDULE OF ONTARIO REGULATION SIGNED SECRETARY TREASURER, M.T.R.C.A.
ONTARIO REGULATION No.______ SCHEDULE No.______		Scale 1:2000 CONTOUR INTERVAL 1 METRE - AUXILIARY CONTOUR INTERVAL .5 METRES	ETOBICOKE CREEK
			SHEET No. 10 M.T.R.I-10



* DO NOT USE FLOODLINES OR ~~FILL~~ FILL REG. LINES

REVISIONS

NO.	DESCRIPTION	BY	DATE

LEGEND

This map was compiled photogrammetrically from 1:10,000 aerial photographs flown in Nov. 1976.

The vertical datum is mean sea level as established by the Geodetic Survey of Canada.

North American Datum 1927, U.T.M. 6° projection Zone 17, Central Meridian 81° W.

Grid interval 100 metres.

FLOOD PLAIN AND FILL REGULATION LINE MAPPING

ONTARIO REGULATION No.____
SCHEDULE No.____

J. D. BARNES LIMITED, Surveyors

the metropolitan toronto and region conservation authority
5 Shoreham Drive, Downsview, Ontario
M3N 1S4

Scale 1:2000

CONTOUR INTERVAL 1 METRE - AUXILIARY CONTOUR INTERVAL .5 METRES

CERTIFICATE

I, HEREBY CERTIFY THAT THIS REGULATION LINE MAP_____ IS A TRUE COPY OF MAP _____ A SCHEDULE OF ONTARIO REGULATION _____ SIGNED

SECRETARY TREASURER, M.T.R.C.A.

ETOBICOKE CREEK

SHEET No. 13
M.T.R.I-13

*DO NOT USE FLOODLINES
OR FILL REG. LINES

REVISIONS

NO.	DESCRIPTION	BY	DATE

LEGEND

This map was compiled photogrammetrically from 1/10,000 aerial photography flowned in Nov. 1975.

The vertical datum is mean sea level as established by the Geodetic Survey of Canada.

North American Datum 1927, U.T.M. 9° projection Zone 17, Central Meridian 84° W.

Grid interval 100 metres.

FLOOD PLAIN AND FILL REGULATION LINE MAPPING

ONTARIO REGULATION No.____
SCHEDULE No.____

J. D. BARNES LIMITED, Surveyors

the metropolitan toronto and region conservation authority
5 Shoreham Drive, Downsview, Ontario
M3N 1S4

Scale 1:2000

CONTOUR INTERVAL 1 METRE · AUXILIARY CONTOUR INTERVAL .5 METRES

CERTIFICATE

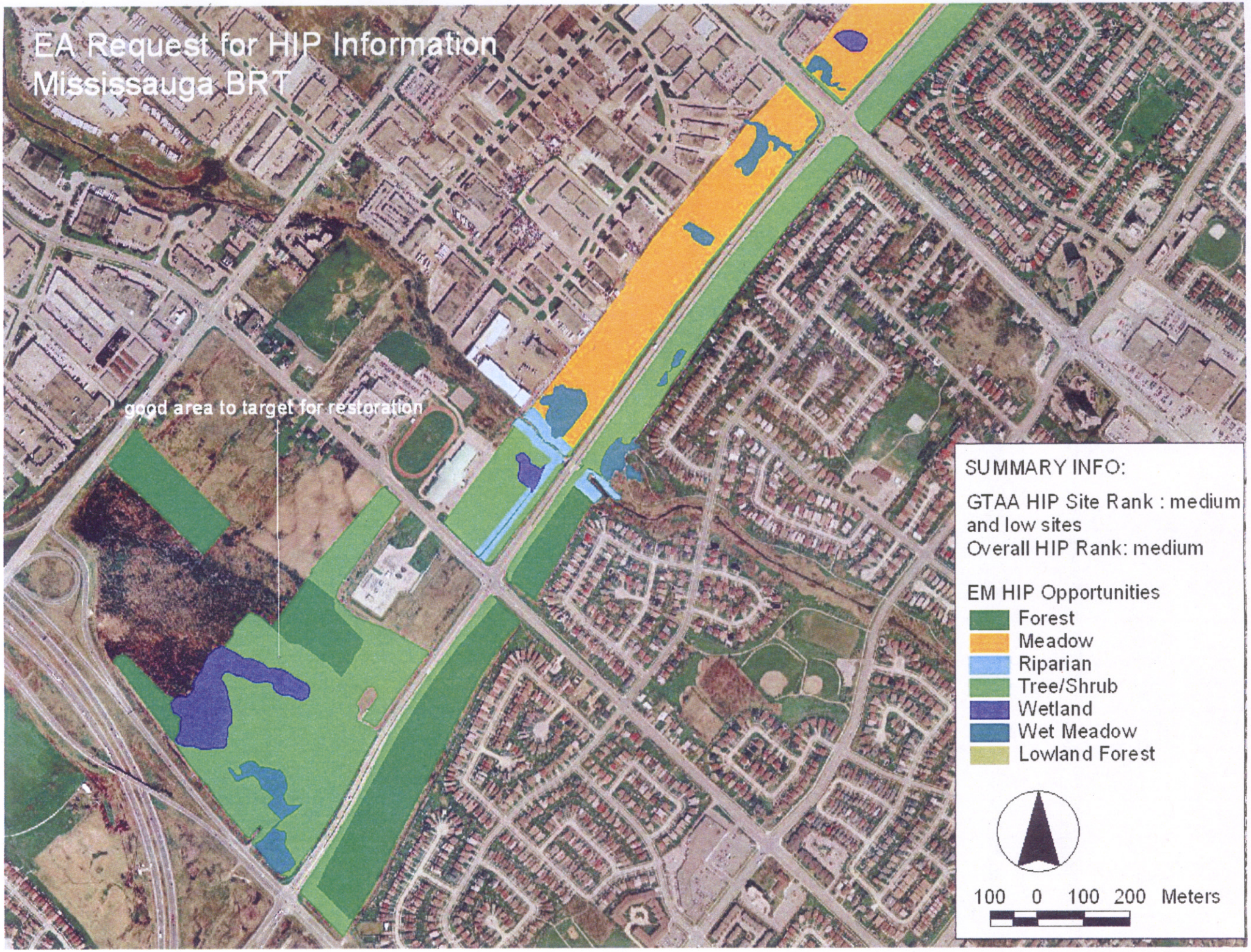
I HEREBY CERTIFY THAT THIS REGULATION LINE MAP _____ IS A TRUE COPY OF MAP No. _____ A SCHEDULE OF ONTARIO REGULATION _____

SIGNED _____

SECRETARY TREASURER, M.T.R.C.A.

ETOBICOKE CREEK

SHEET No. 7
M.T.R.I-7


EA Request for HIP Information
Mississauga BRT
good area to target for restoration
SUMMARY INFO:
GTAA HIP Site Rank : medium and low sites
Overall HIP Rank: medium
EM HIP Opportunities
Forest
Meadow
Riparian
Tree/Shrub
Wetland
Wet Meadow
Lowland Forest
100 0 100 200 Meters

From: Thompson-Black, Melinda (MNR) [Melinda.Thompson-Black@ontario.ca]
Sent: Friday, December 21, 2007 11:15 AM
To: Anderson, Holly
Subject: RE: Information Request

Attachments: **Ecoplans-Dec20.doc**
Hello

Attached please find information related to your data request.

Melinda Thompson-Black
A/ District Ecologist
Aurora District, Ministry of Natural Resources
50 Bloomington Rd
Aurora, ON L4G 3G8
(905) 713-7425
melinda.thompson-black@ontario.ca

From: Sharon Lingertat [mailto:SLingertat@trca.on.ca]
Sent: Thu 13/12/2007 10:21 AM
To: Anderson, Holly
Subject: Re: Mississauga BRT

Hi Holly,

The twinleaf location is at 612020 4833675. 21-50 plants were found in 2003.

Hope this helps. The other mapping information was sent to Mike, so you may want to followup with him if that's something else that you're looking for.

Thanks,
Sharon Lingertat
Acting Planner II, Environmental Assessments
Toronto and Region Conservation Authority
Tel: (416) 661-6600 ext.5717
Fax: (416) 661-6898
slingertat@trca.on.ca

ecoplans
Limited
Environmental Planners & Consulting Ecologists

February 13, 2008

Ms. Sharon Lingertat
Acting Planner II, Environmental Assessments
Toronto and Region Conservation Authority
Planning and Development
5 Shoreham Drive
Downsview, ON M3N 1S4

RE: Mississauga Bus Rapid Transit Project

Dear Ms. Lingertat:

This letter is in response to your letter dated November 30, 2007. Thank you for providing TRCA's input and for forwarding available study area data. The enclosed table outlines the Project Team's responses to the comments outlined in your letter.

As you know, we are currently planning for a meeting to review and discuss advancements in the preliminary design and proposed mitigation measures with TRCA staff.

Yours truly,
ECOPLANS LIMITED

Mike Bricks, MCIP, RPP
Consultant Environmental Planner

c: Geoff Wright, City of Mississauga
Willy Ing, City of Mississauga
Dale Turvey, MRC
Darrell Wunder, MRC
Anne MacMillan, Ecoplans

Encl.

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www.ecoplans.com • e-mail: ecoplans@ecoplans.com

Summary of TRCA November 30, 2007 Letter (Contact: Sharon Lingertat) - Input and Action/Response		
Comments	**How Comment Is Being Addressed During Preliminary Design**	**Requirements for Detail Design and Construction Stages for this Project**
E-mail received on December 3, 2007 identifying submission requirements and providing comments on draft terrestrial and aquatic habitat tables, comments based on the November 17, 2007 site visit and a draft Watercourse Crossings chart. The following submission requirements were outlined:		
1. Under Ontario Regulation 166/06 a permit is required from TRCA for each of these areas: - Permit 1 (Regulated Areas 1 and 2) – Eglinton Avenue at Explorer Drive and Eglinton Avenue at Centennial Park Boulevard - Permit 2 (Regulated Area 3) – Eglinton Avenue (west of Rakely Court), Etobicoke Creek - Permit 3 (Regulated Area 4) – Eastgate Parkway (Tomken Road to Dixie Road) - Permit 4 (Regulated Area 5) – Eastgate Parkway (east of Cawthra Road)	1. Permit requirements acknowledged. Permits will not be sought until Detail Design (current project is Preliminary Design); however, ongoing consultation will occur to ensure TRCA's involvement with key design decisions during Preliminary Design.	1. Apply for permits and undertake any additional consultation required towards finalizing mitigation measures and addressing permit requirements
2. There are three watercourses crossings that may impact fish or fish habitat. TRCA undertakes the initial review of all *Fisheries Act* applications.	2. Acknowledged. Ecoplans will assess potential impacts of the project on these features and will consult further with TRCA, accordingly. To be clear, we understand the three watercourses to which TRCA is referring are: Etobicoke Creek, Little Etobicoke Creek and Elmcrest Creek (Eglinton Ave. and Explorer Drive). It should be noted that based on observations made during field investigations, Elmcrest Creek no longer exists as an open channel upstream/north of Eglinton Avenue. The Creek is currently intercepted at a location upstream of the proposed transitway alignment and diverted to a storm sewer system. Therefore, there is no crossing of Elmcrest Creek by the proposed transitway.	2. Ongoing consultation towards finalizing the design and mitigation measures and obtaining determination from TRCA as to whether works will result in likely HADD.
3. There may be additional approval requirements for this project – list of acts provided.	3. Acknowledged. Based on the impact analysis, appropriate agency consultation will be undertaken during Preliminary Design to identify the relevant approval and permit requirements.	3. Obtain approvals and undertake associated agency consultation, as required
4. Details regarding submission of permit applications to TRCA.	4. Receipt of information acknowledged. Permits will be sought during Detail Design; however, ongoing consultation will occur to ensure TRCA's involvement with key design decisions during Preliminary Design and to identify relevant permit requirements.	4. Apply for permits and undertake any additional consultation required towards finalizing mitigation measures and addressing permit requirements
Appendix A	**Appendix A**	**Appendix A**
1. Digger crayfish (*Fallicambarus fodiens*) are present in the hydro corridor immediately upstream of Eastgate Parkway on Little Etobicoke Creek. Please ensure that the proposed alignment considers the fish habitat and wetland assessment so that there will be minimal impacts to the crayfish habitat.	1. Based on the site visit with TRCA staff, it is our understanding that the Digger Crayfish are found along the north edge of the wetland/along the fence line. Given this location is some distance from the proposed alignment is not anticipated that these animals will be directly affected. Potential implications to the adjacent wetland habitat in relation to potential indirect effects will also be considered in the impact analysis, and relevant mitigation measures recommended. A southerly shift in busway alignment is being investigated at the creek crossing, to minimize impact on wetlands and fish habitat.	1. The process of finalizing the design will involve refinement of the impact assessment and mitigation measures to address potential implications to this species and its habitat.
2. Please explore all opportunities to restore fish passage at the existing Little Etobicoke Creek culverts under Eastgate Parkway, including the removal of the existing jersey barriers and weir.	2. Fish passage issues at the existing crossing will be assessed in the course of developing the Preliminary Design for the new crossing, and opportunities to retrofit the existing crossing will be identified regardless of whether it is appropriate to implement them as part of this project. The option of extending the existing culvert rather than building a new busway structure is being explored. If the existing 3-cell structure is extended, the Preliminary Design will be developed to ensure a low flow channel/cell is maintained to facilitate fish passage. It is anticipated that the jersey barriers would be replaced with a more environmentally suitable approach. Also, if the existing structure is extended, the extension will encompass the existing weir; therefore the Preliminary Design will assess opportunities to remove it and accommodate the grade change in a manner better suited to fish passage. However, the weir appears to be integral to the existing structure.	2. Any fish passage improvement developed during Preliminary Design will be refined as appropriate during Detail Design.

Summary of TRCA November 30, 2007 Letter (Contact: Sharon Lingertat) - Input and Action/Response		
Comments	**How Comment Is Being Addressed During Preliminary Design**	**Requirements for Detail Design and Construction Stages for this Project**
3. Please review the attached TRCA Guideline for Watercourse Crossing to ensure the all information requirements (i.e. fluvial geomorphic assessment, hydraulic assessment, etc.) and design considerations are addressed. Given that the EA and Addendum provide little detail with respect to design considerations for the proposed crossings, this information will need to be included with the detailed design submission.	3. We have completed a preliminary fluvial geomorphic assessment of the channel conditions at each existing culvert, however a more detailed analysis may be required for the detail design if the existing structures are under-sized, or being used by the new lanes in Detail Design. We will review the Guideline to determine what if any additional field assessment and specific analyses are required at the Detail Design stage.	3. Complete the necessary work per the TRCA Guidelines and the commitments made at the Preliminary Design stage.
4. At the Little Etobicoke Creek crossing it is noted that the transitway crossing will be an extension to the existing crossing at this location. As per the above noted crossing guidelines, please ensure that the appropriate studies were conducted as part of the detailed design for the existing structure and that copies are included as part of the detailed design submission for review. If the existing structure was not sized appropriately, please consider a replacement structure that adequately addresses the appropriate range of design considerations.	4. We will determine the appropriate culvert size for the existing crossing through the current study. If the existing crossing is determined to be undersized, the City of Mississauga will consider opportunities to address that issue. Any extension or new construction related to the busway will reflect the appropriate culvert size.	4. Design and construct any new BRT-related culvert at Little Etobicoke Creek to the appropriate size.
5. It is noted that there is evidence of existing active erosion at the Little Etobicoke Creek Crossing. Please ensure that measures are included in the design to address this issue.	5. Local and general scour at all proposed watercourse crossings will be evaluated during Preliminary Design. Opportunities for mitigating existing bank erosion in the vicinity of proposed structures, including the active erosion sites observed upstream of the existing Little Etobicoke Creek crossing, will be explored during Preliminary Design to the extent physically, technically and economically practicable. Design concepts for scour protection and any stream restoration works will be formulated and documented.	5. Design and construct bank protection according to the Preliminary Design recommendations and commitments.
6. TRCA has records of Etobicoke Twinleaf (*Jeffersonia diphylla*) near the crossings of Etobicoke Creek at Eglinton Avenue. Please ensure the alignment of the structure at Etobicoke Creek avoids the area where Twinleaf is present.	6. Staff indicated during the site walk that the location of the twinleaf was on the east valley slope upstream of the crossing (the valley slopes adjacent to the road/through the proposed alignment are eroded and little groundcover is present). Therefore it is not anticipated that this species or its habitat will be affected. We will investigate a shift of the busway alignment to as close as possible to Eastgate Parkway, which will have the effect of avoiding the twinleaf location.	6. Avoidance of this species and its habitat will be re-confirmed as needed.
7. Please ensure that a net ecological gain is provided for all disturbed areas. Staff has targeted Eastgate Parkway for a Habitat implementation Plan (HIP) where a natural corridor running east-west may be established between Etobicoke Creek and the Credit Valley watershed. Please explore these opportunities at the detailed design stage.	7. Reasonable and feasible restoration opportunities which would achieve a net ecological gain will be identified during Preliminary Design. Restoration details will then be developed during Detail Design. Specific opportunities as a component of the Eastgate Parkway HIP will be reviewed and discussed with TRCA.	7. The details of the opportunities identified during Preliminary Design will be refined during Detail Design and restoration plans developed as required.
8. Reference is made in the Fish and Fish Habitat Summary Table to the CVC/MMR Sediment Control Guidelines. Please also use the guidelines recently produced for the Greater Golden Horseshoe Area Conservation Authorities (Erosion and Sediment Control for Urban Construction [2006]). This document can be downloaded at www.sustainabletechnologies.ca.	8. Reference will be updated in the text. As part of the Preliminary Design for the BRT, erosion potential will be evaluated in areas along the BRT corridor, concerns with respect to sedimentation in features of the natural environment receiving drainage from the transitway will be identified, and recommendations will be made to guide the preparation of a Erosion and Sediment Control Plan as part of future Detail Design. Recommendations will include a shortlist of both vegetative and structural control measures that can feasibly be implemented during construction.	8. Reference will be made to the updated reference. Using guidelines set forth in the document entitled Erosion and Sediment Control for Urban Construction, an Erosion and Sediment Control Plan will be prepared and circulated to all regulatory agencies having jurisdiction at the time of Detail Design for the transitway.
9. The tables indicate that a comprehensive stormwater management (SWM) plan will be prepared as part of the detailed design. The following TRCA SWM criteria applies to this project. • Water Quality Control: Level 1 Enhanced • Water Quantity Control: 2 to 100 year control required for the Little Etobicoke Creek Watershed, quantity control not required for other areas. • Erosion Control. 25 mm detention for 48 hours (or for maximum duration feasible) Please also note that there is an existing SWM pond on the Bell Mobility	9. The Preliminary Design study will present a comprehensive surface water conveyance and management strategy formulated to provide guidance for the future Detail Design. Alternative storm water management measures will be screened to identify measures that can feasibly be implemented to mitigate potential surface water related impacts associated with the construction of the BRT system. To the extent technically, physically, and economically practicable, opportunities for utilizing existing storm water management measures, such as the Bell Mobility SWM pond, will be explored. Within the TRCA's jurisdictional area, the prescribed TRCA SWM criteria will be used in combination with recommendations of the Ministry of the Environment's *Stormwater Management Planning and Design Manual* to establish design requirements for drainage conveyance and management works. Design concepts for key storm water management measures will be documented.	9. Following from recommendations of the Preliminary Design report, detail design of all surface water conveyance and management measures will be completed. The final design circulated to the TRCA and other regulatory agencies having jurisdiction will provide detail sufficient for confirming that the final design is consistent with the approved Preliminary Design. Once all agency concerns have been adequately addressed, the storm water management strategy will be implemented in accordance with all applicable approval conditions.

Summary of TRCA November 30, 2007 Letter (Contact: Sharon Lingertat) - Input and Action/Response		
Comments	**How Comment Is Being Addressed During Preliminary Design**	**Requirements for Detail Design and Construction Stages for this Project**
site, located just west of the proposed Etobicoke Creek crossing. There may be potential to retrofit this facility to accommodated local drainage from the transitway project.		
10. a) The vegetation and Wildlife Summary Table, EA Commitments to Future Work, states that there will be compensation for wetlands loss per CVCA practice. As this area is located within TRCA's jurisdiction please revise to read, "…per TRCA practice". b) TRCA staff recommends reviewing the alignment such that impacts to the existing natural environment are minimized to the extent possible.	10. a) Text will be revised to TRCA from CVCA were applicable. b) A key component of the mitigation measures will be to review the alignment and proposed design approaches to minimize potential natural environmental impacts to the extent possible. As mentioned above (Item 1 in Appendix A), a southerly shift in BRT alignment is being investigated at the Little Etobicoke Creek crossing, to minimize impact on wetlands. However, there are many constraints on / limited opportunities on the alignment and limited ability to make significant revisions to it.	10. a) n/a b) Alignment will be set at the Preliminary Design stage
11. For direction during detailed design please reference the attached TRCA Post Construction Restoration Guidelines and the TRCA Native Flora List.	11. The Guideline will be reviewed during preparation of the Preliminary Design recommendations for planting and restoration	11. The Guideline will be reviewed during preparation of the final planting and restoration plan.

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E-mail: kbright@ecoplans.com
Website: www.ecoplans.com

NOTES OF MEETING - REVISED

PROJECT: Mississauga Bus Rapid Transit (BRT) Facility

FILE NO.: 07-3272

DATE: March 19, 2008 **TIME:** 1:30 p.m.

PLACE: McCormick Rankin Corporation, Mississauga

PRESENT:

Liam Marray	Credit Valley Conservation
Allan Newell	Credit Valley Conservation
Sharon Lingertat	Toronto and Region Conservation Authority
Scott Smith	Toronto and Region Conservation Authority
Brad Stephens	Toronto and Region Conservation Authority
Patricia Lewis	Toronto and Region Conservation Authority
Geoff Wright	City of Mississauga
Brian Smith	City of Mississauga
Eugene Furgiuele	City of Mississauga
Mike Sone	GO Transit
Muyiwa Adebayo	GO Transit
Steve Schijns	McCormick Rankin Corporation
Darrell Wunder	McCormick Rankin Corporation
Kate Macnaughton	McCormick Rankin Corporation
Anne MacMillan	Ecoplans Limited
Kim LeBrun	Ecoplans Limited
Erin Eldridge	Ecoplans Limited
Mike Bricks	Ecoplans Limited
Katie Bright	Ecoplans Limited

PURPOSE: To discuss the design, potential environmental effects and proposed mitigation measures.

The following notes provide an overview of the meeting.

ITEM	PROCEEDINGS:	ACTION BY:
1.0	**Introductions**	
1.1	Roundtable introductions occurred.	
2.0	**Project Overview and Status**	
2.1	M. Bricks provided an overview of the project including the completion of the original 1992 Environmental Assessment (EA) and the 2004 EA Addendum. The current project represents Phase I of the capital works and includes BRT West (Winston Churchill Boulevard to Erin Mills Parkway) and BRT East (Centre View Drive to Renforth Station). The portion of the Mississauga BRT facility between BRT East and BRT West (i.e. along Highway 403) is currently operational along the existing Highway 403 bus bypass lanes.	

ITEM	PROCEEDINGS:	ACTION BY:

It was noted that GO Transit is responsible for the design and construction of the BRT West and the City of Mississauga is responsible for the design and construction of the BRT East; however, the City of Mississauga is coordinating the Preliminary Design of both sections.

M. Bricks explained that the previous EA work provided a conceptual design for BRT East and BRT West. The current Phase I project will bring the design for BRT East and BRT West to a Preliminary Design level of detail. In addition, the Project Team is pursuing a decision under the Canadian Environmental Assessment Act (CEAA). Transport Canada and Infrastructure Canada are triggered under CEAA as they are providing funding for Phase I of this project. Transport Canada is coordinating the CEAA Screening process. If it is determined that any of the works will result in a the harmful alteration, disruption or destruction of fisheries habitat (HADD) the Department of Fisheries and Oceans (DFO) will become a Responsible Authority and as a result will need to sign-off on the CEAA Screening. It will be important to determine in the near future if DFO will be a Responsible Authority. As a result, based on the information presented at this meeting the Conservation Authorities will be requested to provide a timely response regarding whether or not the proposed works are anticipated to result in a HADD. Specific permits will be obtained during Detail Design.

G. Wright explained that construction of Phase I of the project is to commence in 2009 with completion scheduled for 2012. As a result, CEAA approval and completion of Preliminary Design must be completed as soon as possible in 2008. Due to funding, the project schedule is not flexible.

3.0 Review of Preview Meeting Notes

3.1 K. Bright reviewed the previous meeting notes. The following outlines outstanding action items:

- TRCA to provide updated hydraulic model. MRC has received modelling from 1987; however, the updated model is required as the 1987 model does not reflect current conditions (i.e. structures). P. Lewis indicated that the new model is being completed by TSH and that the model will reflect current conditions. TRCA is expecting a draft submission within a week and will provide MRC with information as soon as possible. — TRCA
- MRC to provide fluvial geomorphological input to TRCA for Little Etobicoke Creek. The information will be provided as part of a drainage/stormwater management reporting. — MRC
- D. Wunder to schedule a field visit with CVC. — MRC

4.0 Natural Environment Features, Potential Environmental Effects and Proposed Mitigation

4.1 Natural environment features were reviewed with reference to the information tables distributed prior to the meeting as well as fieldwork data plates and aerial photo mapping of the study area.

ITEM	PROCEEDINGS:	ACTION BY:
4.2	<u>BRT West (CVC jurisdiction)</u> A. MacMillan provided a brief overview of the terrestrial features within the BRT West study area. There are no watercourses within BRT West. In general, the study area is highly disturbed and effects will be limited to edge impacts to 'culturally' influenced features (cultural meadow and succsessional vegetation). However she did note that the area along the north side of Highway 403 is part of the east-west 'Linkage' system identified by the City/CAs, Based on the low representation of habitat on the landscape generally the area provides some local function. It is anticipated that the terrestrial effects of the project will be limited in general, based on the vegetation and habitat. Standard construction mitigation measures will be employed to address and minimize the effects. B. Stephens agreed that although the BRT West vegetation units provide some ecological function it is recognized that the features are highly disturbed.	
4.3	<u>Renforth Creek (TRCA jurisdiction)</u> A. MacMillan provided an overview of the creek features and noted that Renforth Creek appears to be a fairly minor and disturbed feature. Most of the upstream flow appears to be diverted. A small pocket of cattail mineral meadow marsh is located along the south side of Renforth Drive west of Eglinton Avenue, however there is no flow path evident through it. A ditched channel system extends through the manicured area, but it appears to end at the subdivision, so the whole system is effectively isolated. The current design has a parking lot in that location; however, the design is being reviewed for opportunities to move the parking lot. B. Stephens explained that the marsh may not be considered a 'wetland' under the Conservation Authorities Act. A. MacMillan and B. Stephens will review whether or not the marsh should be considered a wetland, based on TRCA's criteria used to define a wetland. If it is not a wetland a permit under TRCA's *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses, Ontario Regulation* will not be required. However, B. Stephens noted that the marsh does provide some local function so compensation will be required if it is affected. Similarly, he noted that the 'riparian vegetation' north of the road also provided a local function and compensation should be considered if it is impacted. It was agreed that compensation for works in the Renforth Creek area may be best completed in another location where enhancement works may be more beneficial. B. Stephens inquired as to where Renforth Creek flows. D. Wunder indicated that it is not clear but that it seems to inlet at a stormsewer and travel under the nearby subdivision. [*Post-Meeting Note: City of Toronto staff have subsequently informed K. Macnaughton that they have no drawings/information showing a sewer connection from Renforth Creek to the*	Ecoplans/ TRCA

ITEM **PROCEEDINGS:** **ACTION BY:**

subdivision immediately south. It is possible that Renforth Creek is connected by storm sewer to the development on the south side of Eglinton Avenue (north of the hydro corridor), but this is a private development as such the City does not have any information for sewers at this site.]

B. Stephens indicated that works at this location would not require Authorization under the Fisheries Act and would be covered under a Letter of Advice.

K. Macnaughton explained that with the current design attempts were made to provide onsite control with storage in the parking lot. The intent is to use flat bottom swales (preferred) or oil grit separators and with drainage back into the system. B. Stephens noted that if it is determined that the 'creek' is not a watercourse it would be acceptable to enhance/modify the existing channel to provide water quality and quantity control.

4.4 Elmcrest Creek (TRCA jurisdiction)

A. MacMillan provided an overview of the creek features and noted that Elmcrest Creek appears to only support indirect fish habitat, and it is quite disturbed. The proposed works include the addition of a new pipe to collect drainage that will be cut off by the construction of the busway. The existing culvert under Eglinton Avenue no longer conveys flow from north of Eglinton Avenue to Elmcrest Creek. Flows from upstream (i.e. north) of Eglinton are now picked up by storm sewers and conveyed to Etobicoke Creek via the Eglinton Avenue storm sewer. As such, construction of the BRT will not impact flows to Elmcrest Creek.

S. Lingertat explained TRCA's regulated area north across Eglinton Avenue to a point that is just south of the proposed works. D. Wunder indicated that the busway work as currently proposed does not encroach on the regulated area.

B. Stephens indicated that works at this location would not require Authorization under the Fisheries Act and would be covered under a Letter of Advice.

4.5 Sediment and Erosion Control

S. Lingertat and B. Stephens noted that sediment and erosion control will be of particular interest to TRCA. TRCA has new guidelines regarding sediment and erosion control and is focusing on ensuring that during Detail Design the plans and contracts outline appropriate mitigation measures while acknowledging the need for flexibility to upgrade or revise mitigation should the mitigation fail to sufficiently control sedimentation and erosion. D. Wunder acknowledged TRCA's interests and explained that during Preliminary Design areas of concern will be identified, proposed mitigation measures developed and that mitigation measure will be refined as appropriate during Detail Design. A. MacMillan explained that standard construction mitigation measures (e.g. clearing restrictions, sediment and

ITEM	PROCEEDINGS:	ACTION BY:
	erosion control, best management practices) will be added as a list at the end of the summary tables and documented in the CEAA Screening Report.	Ecoplans

4.6 Etobicoke Creek (TRCA jurisdiction)

A. MacMillan provided an overview of the creek features and noted that the Etobicoke Creek Valley provides an important natural corridor. TRCA has noted a colony of the regionally rare Twinleaf, as well as a range of locally rare vegetation and bird species. The Twinleaf is located approximately 200m north of the structure. The City of Mississauga has noted Butternut trees in the general area. TRCA mapping does not indicate the presence of Butternut. Due to the timing of Ecoplans' field visit (late fall) the presence of Butternut could not be confirmed. A commitment will be made to undertake a field survey during Detail Design to confirm the presence/location of Butternut in the area of impact, as well as any other species of interest. However, since the area adjacent to Eglinton was disturbed to construct the Eglinton Avenue trunk storm sewer outlet, the edge area is unlikely to support any of the more sensitive species.

The design at Etobicoke Creek had a new structure over the creek in close proximity to the existing Eglinton Avenue structure (on piers). To reduce environmental effects the design has been revised to widening the existing Eglinton Avenue structure by approximately 5 meters. Since the existing pier is located on a concrete base along the concrete slope from the abutment, the extension would not actually cover any stream bed.

S. Schijns explained that the existing piers will be extended to accommodate the widening. M. Bricks explained that although the design is proceeding with the widening, approval is required from the City of Toronto as they own the structure. City of Toronto staff have indicated support for the widening but the formal approval is still pending.

B. Stephens indicated that given the existing information (piers located outside the watercourse) the works at Etobicoke Creek will not be considered a HADD and will be covered under a Letter of Advice.

D. Wunder noted that Etobicoke Creek is one of the structures that is not up-to-date in TRCA's 1987 model. P. Lewis explained that the new model would reflect the current structure.

D. Wunder explained that it is his understanding that the current structure does not have deck drains that actively discharge runoff directly to the creek. This will be confirmed. In the event that functional deck drains are found, opportunities for disconnecting the drains or directing runoff to the overbanks will be explored. K. Macnaughton explained that gravity can be employed for drainage but that opportunities for attenuation are very limited. Water quality will be addressed through the use of oil grit separators.

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	TRCA staff confirmed that no water quantity control will be required for Etobicoke Creek. D. Wunder indicated that quantity control may still need to be considered to mitigate potential local flooding along and within the BRT corridor.	
4.7	Cultural Woodland – Northeast of Eastgate Parkway (TRCA jurisdiction) A. MacMillan explained that the small pocket of vegetation northeast of Eastgate Parkway in front of the TD Bank is dominated by a variety of comment and tolerant tree and shrub species. Although portions of the vegetation unit indicate that some of the vegetation may have been planted as part of past landscaping efforts, other vegetation has colonized the area. It was agreed that compensation for the loss of this woodland would be best completed in another location where enhancement works may be more beneficial.	
4.8	Little Etobicoke Creek (TRCA jurisdiction) A. MacMillan provided an overview of the creek features and noted that the Little Etobicoke Creek provides warmwater habitat for tolerant fish species. At the previous meeting, it was anticipated that the BRT alignment and creek crossing would be on a separate structure at a new location upstream of the existing crossing. However, the design has been revised to pull the alignment up tight to the existing road to avoid the wetland immediately east of the creek, and to provide opportunities to address the existing limitations and issues associated with the existing structure. The proposed design would extend the existing three-cell box culvert by approximately 13 meters to the north (upstream). This design also enables removal of the existing New Jersey barrier and the low weir that presently affects fish movement, and re-design of a properly functioning low flow channel. The end result would be an improvement from the existing conditions.	
	E. Furgiuele suggested that the D. Wunder should contact the City's Transportation and Works department to assist in determining why the New Jersey barrier has been place at Little Etobicoke Creek. E. Furgiuele will provide D. Wunder with an appropriate contact.	City
	E. Furgiuele inquired about consideration for creating a pedestrian walkway using the exiting culverts. S. Schijns indicated that it may be technically feasible; however, the decision would rest with the City of Mississauga and the pedestrian walkway may not be implemented as part of the BRT works. S. Schijns will note this opportunity at future meetings with Planning and/or Transportation and Works staff.	MRC
	D. Wunder enquired as to whether the TRCA had a standard specifying what design flow should be considered when siting pedestrian trails in the floodplain (i.e. what return period flood level should be used to set the elevation of the trail). The TRCA indicated that they did not have such standards at this time. E. Furgiuele indicated that the City of Mississauga has used culverts for pedestrian passage in numerous locations and as a result	

ITEM	PROCEEDINGS:	ACTION BY:
	likely has standards or policies about such use.	
	P. Lewis inquired as to what fluvial geomorphological works have been completed for Little Etobicoke Creek. D. Wunder explained that preliminary works have been undertaken but that more detailed works will be completed during Preliminary Design. Fluvial geomorphological information will be documented as part of the drainage/stormwater management reporting to be provided to for TRCA's review.	MRC
	B. Stephens inquired as to how fish will pass under low-flow conditions. K. LeBrun confirmed that with the existing conditions fish, the New Jersey barrier directs most of the flow through the low flow channel, so fish movement is possible through the low flow cell when there is sufficient flow. The low weir upstream of the structure does pose a barrier to fish movement under lower flow conditions. However, it will be removed as part of the design of the extended structure. A. MacMillan indicated that since the drop/grade change at the weir is relatively small, the channel can be designed using rocky riffles or similar elements to accommodate the grade change and improve fish movement opportunities. B. Stephens noted that those additional works would be appropriate but that it would be necessary to ensure that the additional design revisions (grading, rocky ramp) would function well otherwise the efforts would be better focused on a different location.	
	B. Stephens indicated that he would like to revisit this area again during a follow-up field visit. D. Wunder will schedule the follow-up field visit.	MRC
	B. Stephens indicated that based on the proposed design and assuming that it will function properly, the works at Little Etobicoke Creek would not be considered HADD and would be covered under a Letter of Advice.	
	S. Lingertat inquired as to whether or not the extension would result in increased flood levels. D. Wunder confirmed that based on the 1987 hydraulic model (with some assumptions to include the current structure) it appears that there are no concerns. This will be confirmed once the updated model is available. D. Wunder noted that some flood-proofing may be required for the BRT at this location.	MRC
	B. Stephens indicated that all reasonable alternatives should be considered (e.g. single span structure). Ecoplans explained that other alternatives were reviewed, but that based on the effort to avoid the wetland and to 'fix' the existing flow issues (remove the weir and New Jersey barriers, etc.), the proposed design was considered a better option overall. They confirmed that if a new structure was constructed upstream of the existing structure, the existing structure would not be modified. It was acknowledged that a single span structure would not improve the downstream conditions, and would affect a large portion of the wetland. The proposed design avoids the wetland, and enables removal of the existing New Jersey barrier and the low weir that presently affects fish movement, and enables re-design of a properly	

ITEM	PROCEEDINGS:	ACTION BY:
	functioning low flow channel. The end result would be an improvement from the existing conditions. As a result, the proposed extension is overall, a better solution. Ecoplans and MRC will ensure that the rationale for the selected design is included in the CEAA Screening Report.	Ecoplans/ MRC
	A. MacMillan noted that efforts will be made to minimize encroachment of into the cattail mineral marsh to the northeast side of the creek. That marsh is known to contain Chimney Crayfish; however, the Chimney Crayfish are within the north portion of the marsh and should not be impacted by the proposed works. B. Stephens explained that Chimney Crayfish are sensitive to waterlevel fluctuations. As a result, it is important that the waterlevel in the north section of the marsh remain unaltered. A. MacMillan indicated that MRC/Ecoplans would review available geotechnical information to assess how the surface water in the wetland is supported, and highlight this potential issue for further review during Detail Design.	Ecoplans/ MRC
	K. Macnaughton explained that to the west it may be possible to have a stormwater management facility at the northeast corner of Tomken Road and Eastgate Parkway. In general, stormwater management facilities will be implemented; however, where that is not possible oil grit separators will be employed.	
	K. Macnaughton inquired if it would be acceptable to outlet into Little Etobicoke Creek as the only other option would be the marsh and that would affect the Chimney Crayfish. B. Stephens agree that outletting to Little Etobicoke Creek, with advance quality treatment, would be acceptable in order to avoid impacting the Chimney Crayfish. S. Lingertat noted that it may be possible to ditch between the marsh towards the creek. D. Wunder noted that ditching is a possibility and that the local clay soils would help retain drainage within any ditches. B. Stephens indicated that discharging to the wetland east of Etobicoke Creek should be avoided.	
	In response to a question from K. Macnaughton, B. Stephens indicated that it would be acceptable to discharge treated stormwater into the reed canary grass mineral meadow marsh west of the creek. That would only occur if it is feasible to locate a stormwater management facility to the northeast.	
4.9	Habitat Improvement Program Area (TRCA jurisdiction) A. MacMillan provided an overview of the Habitat Improvement Program (HIP) Area to the north of Cawthra Road and west of Eastgate Parkway. The HIP area is predominately a cultural meadow with various pockets of meadow marsh. Based on input from E. Furgiuele the southwest corner of the HIP Area is thought to be a relatively undisturbed cattail mineral meadow marsh.	
	The current design has a parking lot located at the southwest corner of the HIP Area. MRC is exploring opportunities to relocate the parking lot to avoid removing the cattail mineral marsh. It was noted that consideration will be	

ITEM	PROCEEDINGS:	ACTION BY:
	given to the overall effects of relocating the parking lot as the relocation would result in increased edge effects by encroaching into the middle of the unit. B. Stephens suggested that this site should be visited during a follow-up field visit. During the field visit the marsh conditions will be assessed to provide input towards and design refinements. B. Stephens noted that the rationale for the parking lot location should be included in the CEAA Screening Report.	
4.10	Off-Site Compensation S. Lingertat indicated that the HIP Area would be an ideal location for compensating enhancement/restoration works. M. Bricks explained that the City would only be able to complete works on property owned by the City. The majority of the BRT right-of-way is owned by either the Ministry of Transportation or the Ministry of Public Infrastructure Renewal and managed by the Ontario Realty Corporation. As a result, there will be limited opportunities for compensation works within the BRT right-of-way. It was agreed that opportunities should be explore for off-site compensation on property owned by the City or Conservation Authorities. TRCA, CVC and E. Furgiuele will review possible off-site opportunities with consideration for ongoing or planned restoration/enhancement efforts at key locations.	TRCA/CVC/ City
4.11	Cultural Woodland – South of Cawthra Road (CVC jurisdiction) A. MacMillan explained that the cultural woodland located south of Cawthra Road and East of Eastgate Parkway is quite open and disturbed. The current design would result in edge encroachment; however, the design is being reviewed and the encroachment may be reduced. L. Marray indicated that measures will need to be taken to lessen the edge effects and that compensation will be required. A. MacMillan indicated that given its open character, it should not be sensitive to edge effects, since the unit itself is effectively an 'edge'.	
4.12	Deciduous Forest – North of Chalfield Lane (CVC jurisdiction) A. MacMillan explained that the deciduous forest located north of Chalfield Lane and east of Hurontario Street does provide some ecological function but is somewhat disturbed. The design would reduce this unit by approximately 30-40%. E. Furgiuele suggested that off-site compensation should be considered and L. Marray agreed. L. Marray inquired as to how the value of loss will be identified towards determining the required compensation. CVC does have some standards which require the assessment of the quality of the feature. E. Furgiuele indicated that the City of Mississauga has a framework that should be used towards determining value and compensation. E. Furgiuele will forward the framework to L. Marray and A. MacMillan. It was agreed that the framework should be reviewed and then the value determined as part of the upcoming field visit.	City

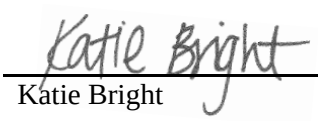
ITEM	PROCEEDINGS:	ACTION BY:
4.13	Eastern Tributary of Cooksville Creek (CVC jurisdiction) A. MacMillan explained that only a short section of the eastern tributary of Cooksville Creek upstream of the highway is open channel; the balance of the channel further upstream, as well as through and downstream of the right-of-way is piped. S. Schijns explained that the open section of the channel will not be directly impacted during construction since the right-of-way will be to the south (downstream) where the channel is already enclosed. As a result, it is anticipated that standard mitigation measures (e.g. erosion and sediment control, temporary flow passage) will employed to mitigate any potential indirect impacts to the watercourse.	
4.14	Cooksville Creek (CVC jurisdiction) A. MacMillan provided an overview of the creek features and noted that Cooksville Creek does not directly support fish use; however, it could be considered to support indirect fish habitat. The current proposal should enable retention of an open system in some form. S. Schijns provided an overview of the design requirements during Phase I and Phase II. Although the Preliminary Design is only addressing Phase I there is a need to review Phase II to ensure that the Phase I ('interim') design will work with future plans. D. Wunder presented some working plans and provided an overview of the current drainage challenges in the area and proposed plans for Phase I and Phase II. The working plans are attached to these meeting notes. S. Schijns explained that some design refinements have been reviewed to provide an improved design for the busway during Phase I. Those design refinements would require the realignment (retaining the current length) of Cooksville Creek and as a result thought would need to be given to how much work should be advanced to Phase I to avoid addition impacts and costs during Phase II. L. Marray and A. Newell explained that CVC is not opposed to the realignment either during Phase I or Phase II. As a result, MRC will review and optimize the design during Phase I and Phase II. The updated design will be provided to CVC in advance of a field visit.	MRC
	L. Marray indicated that the realignment of Cooksville Creek would be considered HADD, based o his current understanding of DFO's position on channel realignments. A. MacMillan noted that recent DFO direction regarding channel realignment is that realignment is not automatically considered HADD. Given the low sensitivity of the habitat and residual scale of negative effect, particularly if the realigned channel is the same as the original channel length, the realignment should not require authorization. A. MacMillan and L. Marray will discuss this with Dave Gibson (DFO).	CVC/ Ecoplans

ITEM	PROCEEDINGS:	ACTION BY:
5.0	**Next Steps**	
5.1	MRC will work on design refinements as discussed at this meeting. The design refinements will be communicated to TRCA/CVC and plans provided as appropriate.	MRC
5.2	TRCA will review the summary tables and provide comments within the next few weeks. The summary tables will then be updated and the information included in the CEAA Screening Report.	TRCA
5.3	D. Wunder will schedule a field visit with TRCA and a field visit with CVC.	MRC
5.4	K. Macnaughton will send TRCA and CVC drawings and a summary describing the proposed stormwater management measures.	MRC

The forgoing represents the writer's understanding of the major items of discussion and the decisions reached and/or future actions required. If the above does not accurately represent the understanding of all parties attending, please notify the undersigned immediately upon receiving these minutes (905-823-4988).

Minutes Prepared by:

Ecoplans Limited



Katie Bright

cc: Attendees
Dave Gibson, Department of Fisheries and Oceans
Rebecca Stranberg, Transport Canada
Kaarina Stiff, Transport Canada
Rachel Parkin, Transport Canada
Willy Ing, City of Mississauga
Scott Anderson, City of Mississauga
Dale Turvey, McCormick Rankin Corporation
David Waverman, Ecoplans Limited

TORONTO AND REGION Conservation
for The Living City

April 4, 2008 CFN 39971

BY MAIL AND EMAIL (mbricks@ecoplans.com)

Mr. Mike Bricks
Ecoplans Limited
2655 North Sheridan Way, Suite 280
Mississauga, ON L5K 2P8

Dear Mr. Bricks:

Re: Response to Notice of Public Information Centres
Mississauga Bus Rapid Transit (Eastgate Parkway at Highway 403 to Eglinton Avenue at Renforth Drive)
Etobicoke Creek; City of Mississauga; Regional Municipality of Peel

Toronto and Region Conservation Authority (TRCA) staff received notice of the upcoming Public Information Centres (PIC) scheduled for April 8, 2008 and April 9, 2008. Further to TRCA correspondence dated November 30, 2007, staff has expressed interest in this project. While staff is unable to attend the meetings, please forward one copy of any handouts or display materials from this meeting for our files.

Yours truly,

Sharon Lingertat

Sharon Lingertat
Planner II, Environmental Assessments
Planning and Development

SL/

BY EMAIL
cc: Geoff Wright, City of Mississauga (geoff.wright@mississauga.ca)
Beth Williston, TRCA, Manager, Environmental Assessments
Quentin Hanchard, TRCA, Manager, Development Planning and Regulations
Chandra Sharma, TRCA, Etobicoke/Mimico Watershed Specialist

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TORONTO AND REGION Conservation
for The Living City

April 25, 2008

CFN 39971
x ref CFN 23800

BY MAIL AND EMAIL (mbricks@ecoplans.com)

Mr. Mike Bricks
Ecoplans Limited
2655 North Sheridan Way, Suite 280
Mississauga, ON L5K 2P8

Dear Mr. Bricks:

Re: Response to Meeting Notes and Handouts
Mississauga Bus Rapid Transit (Eastgate Parkway at Highway 403 to Eglinton Avenue at Renforth Drive)
Etobicoke Creek Watershed; City of Mississauga; Regional Municipality of Peel

Toronto and Region Conservation Authority (TRCA) staff attended a meeting on March 19, 2008 at the McCormick Rankin Corporation offices to discuss the preliminary design. Staff has reviewed the Notes of Meeting received on March 28, 2008, along with the handouts noted below. Comments are provided in Appendix A.

- Fish and Fish Habitat Summary Table (March 18, 2008)
- Vegetation and Wildlife Summary Table (March 18, 2008)
- Mississauga BRT East – Plates 2 to 7

It is understood that the Phase 1 construction is expected to commence in 2009. Please ensure that the 60% detailed design is submitted to the undersigned, as soon as possible, to ensure that the review can be completed in a timely manner. At the detailed design stage, please provide the following:

- Six (6) INDIVIDUALLY folded copies of the plans
- Four (4) copies of supporting reports or documentation
- Signed permit application(s)
- Review fee(s) ($2,400 for each permit application)

Please ensure that all required information is included with your submission(s). Should you have any questions please contact me at extension 5717 or by email at slingertat@trca.on.ca.

Yours truly,
Sharon Lingertat
Sharon Lingertat
Planner II, Environmental Assessments
Planning and Development

SL/
Encl: Storm Outfall and Outfall Channel Design Criteria
Standard Detail: Wetland Outflow Channel

BY EMAIL
cc: Willy Ing, City of Mississauga (willy.ing@mississauga.ca)
Scott Anderson, City of Mississauga (scott.anderson@mississauga.ca)
Katie Bright, Ecoplans (kbright@ecoplans.com)
Carolyn Woodland, TRCA, Director, Planning and Development
Quentin Hanchard, TRCA, Manager, Development, Planning and Regulations
Chandra Sharma, TRCA, Etobicoke/Mimico Watershed Specialist

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Member of Conservation Ontario

APPENDIX A

Wetlands North of Eastgate Parkway and East of Cawthra Road

1. The minutes do not refer to the Regulated Area located north of Eastgate Parkway and east of Cawthra Road. This area is considered wetland and will also require a permit under Ontario Regulation 166/06. Please ensure that this area is considered when preparing the detailed design plans.

Little Etobicoke Creek Crossing

2. The proposed works at the Little Etobicoke Creek crossing may involve flood plain re-grading in order to maintain existing flow conditions (i.e., low flow through the east cell). Please ensure that a detailed grading plan is provided, along with sections to show the extent of work in this area. Please note that the volume of fill to be placed in the floodplain should be minimized to the extent possible. In addition, please ensure that these changes are reflected in the hydraulic analysis for this crossing.

3. The handouts mention removing several existing in-stream barriers, and enhancing channel stability. Please ensure that natural channel design principles are followed, and that design drawings and supporting technical information is submitted for review.

4. It was noted at the last meeting that a Stormwater Management (SWM) pond is being considered, to provide the required level of control. Please ensure that design details and plans are submitted for review and that the SWM facilities are located outside of the Regional Flood Plain.

5. Section 4.8 of the meeting minutes indicates that the rationale for the selected design will be discussed/documented in the CEAA screening report. Please ensure that part of that documentation includes the supporting background studies/analyses (i.e., hydraulic modeling, fluvial geomorphic studies, etc.) undertaken as part of the decision-making process.

6. Section 4.8 of the meeting minutes refers to the cattail marsh on the northwest side of Little Etobicoke Creek, which contains Chimney Crayfish. To avoid confusion in the future, please revise to read northeast side.

Cultural Woodlot

7. Regarding the small pocket of vegetation discussed in Section 4.7 of the meeting minutes, please ensure that this community is defined in the preliminary design documents, to allow for a comprehensive understanding of the vegetation impacts and removals along the BRT alignment.

Etobicoke Creek

8. Please make every effort to redirect deck drainage to a suitable location, and avoid direct outlet to the watercourse. In addition, TRCA staff encourages any possible enhancements to existing infrastructure (i.e., existing outlet).

9. The Fish and Fish Habitat Summary Table notes that standard MTO Erosion and sediment control plans will be used at the creek crossings. Please refer to the TRCA "Erosion and Sediment Control Guideline for Urban Construction" (December 2006) for proper ESC measures and details. A digital copy of the guideline can be found at www.sustainabletechnologies.ca.

10. Section 4.6 of the meeting minutes notes that the works at Etobicoke Creek will not be considered a HADD. Please revise to state that given the existing information (piers located outside of the watercourse) that those works will not be considered a HADD, and will be covered by a Letter of Advice.

Southwest Corner of Eglinton Avenue and Centennial Park Boulevard

11. A Regulated Area is located on the southwest corner of Eglinton Avenue and Centennial Park Boulevard. If any works are proposed within this area, a permit under Ontario Regulation 166/06 will be required.

Elmcrest Creek

12. It is noted that a new sewer pipe will be constructed to collect existing drainage at the location of Elmcrest Creek. Please confirm whether this is major system flow, as it is suggested that minor system flows have been previously diverted. Design details (drainage area plan, flow calculations, etc.) pertaining to the proposed conveyance system will need to be submitted for review. In the event that a new outlet is required, please refer to the TRCA Storm Outfall Design Criteria which outlines TRCA requirements (attached).

13. The Fish and Fish Habitat Summary Table notes that standard MTO Erosion and sediment control plans will be used at the creek crossings. Please refer to the TRCA "Erosion and Sediment Control Guideline for Urban Construction" (December 2006) for proper ESC measures and details. A digital copy of the guideline can be found at www.sustainabletechnologies.ca.

Renforth Creek

14. The engineering requirements for this location will vary depending on whether or not the feature is deemed to be a watercourse. If it is a watercourse, then it is assumed to have an associated floodplain and therefore, appropriate fluvial geomorphic, hydraulic and flood plain analyses will also be required as per the other crossings.

    If the feature is not deemed to be a watercourse, the proposed works will need to be designed such that the existing overland flow routes are maintained, similar to the Elmcrest Creek location.

    In either case, please investigate if there are future plans to develop the vacant lands to the north of the proposed BRT. Any flow calculations will need to be based on the ultimate development scenario.

15. The Fish and Fish Habitat Summary Table notes that standard MTO Erosion and sediment control plans will be used at the creek crossings. Please refer to the TRCA "Erosion and Sediment Control Guideline for Urban Construction" (December 2006) for proper ESC measures and details. A digital copy of the guideline can be found at www.sustainabletechnologies.ca.

General

16. Section 3.1 of the meeting minutes refers to the updated hydraulic model. TRCA has recently updated the Etobicoke Creek Hydrology model and is in the process of updating the watershed hydraulic model. Staff will provide a copy of the updated model, as soon as it is available.

17. It is noted that some background information has been completed (i.e., fluvial geomorphic assessment, preliminary hydraulic analyses); however, the details of this information has not been provided. Please provide this information at the preliminary design stage so that a determination can be made as to potential impacts that may affect the detail design of the proposed structures.

Storm Outfall and Outfall Channel Design Criteria:

Engineering:

1. Avoid disturbance to the low flow channel of the watercourse if at all possible. Where erosion protection may be necessary, make use of granular filter layers beneath the larger stone as required and/or embed the stone - the use of filter cloth within the low flow channel of the watercourse is not acceptable and is not preferred within the outfall channel itself. Please note that potential DFO / fishery concerns can be minimized by avoiding in/near water works associated with the outfall.

2. Provide velocity calculations in support of all proposed treatment types (eg., stone, vegetation, etc.).

3. Where feasible, implement flow spreading measures downstream of the outfall once energy has been dissipated by chute blocks, etc. (i.e., in areas where there is a wide, flat floodplain between the outfall and the low flow channel).

4. Provide details of erosion and sediment control measures to be implemented during the construction period.

5. Locate the outfall channel such that it joins the watercourse at a flat angle; avoid the outside bends of meanders.

6. If at all possible, the outfall should be located outside the meander belt.

7. The outfall structure should not impact existing flood levels.

8. River run stone is generally preferred over riprap, particularly in areas with high quality habitat. Consult with Authority staff to determine when/where riprap may be acceptable.

Landscaping / Restoration:

1. A combination of trees, shrubs, and herbaceous vegetation is typically required for the restoration of disturbed areas. Ensure all plantings are native, non-invasive species, and are suitable given the soil, moisture, and light conditions of the site. Plantings should also be compatible and complementary to the existing vegetation communities.

2. In general, plantings should follow the standard densities of 1 metre on centre for shrubs and 5 metres on centre for trees. However, these guidelines may change depending on the situation (eg., increase densities for live staking).

3. Please indicate that site stabilization will occur during or immediately following construction to avoid erosion. Depending on their suitability, various techniques may be employed including hydroseeding, installing straw mulch or jute mats, etc.

4. Seeding mixtures should consist of quick-growing, non-invasive species. Manufacturers offer an assortment of mixtures that are suited to various conditions, including a slope

stabilization mix, meadow mix, and wetland mix. In particularly sensitive areas, a seed mix consisting entirely of native species should be used to avoid the invasion of aggressive vegetation. Where seeding is proposed for interim stabilization with woody material being introduced in a later phase, care should be taken in both the composition and rate of application. Ensure that the subsequent plantings are able to establish without excessive competition or or damage from small mammals.

5. If the area is very grassy, mulch and rodent guards may be needed to protect young tree stems.

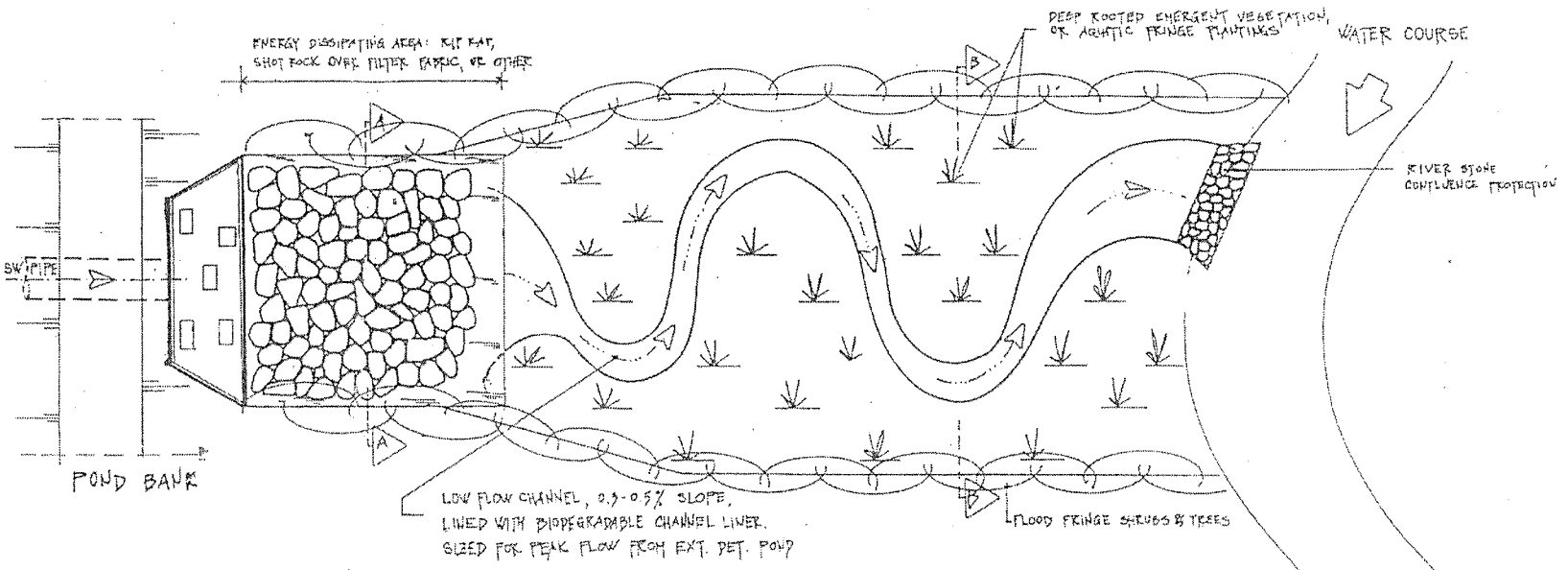
6. There are no size requirements for vegetation to be planted. However, greater numbers of smaller-sized vegetation are generally preferred over fewer numbers of larger-sized vegetation. Planting large vegetation may also cause more disturbance to the site.

7. Indicate how existing vegetation to be retained will be protected (i.e., location and detail of fencing).

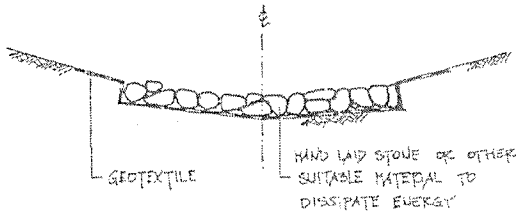
8. Plans should include a plan view showing planting locations, species and numbers, a detail showing the installation, and a note listing the species, size, and condition (i.e., bareroot, potted, etc.). The latter will ultimately dictate the season when works can be done.

STANDARD DETAIL : WETLAND OUTFLOW CHANNEL

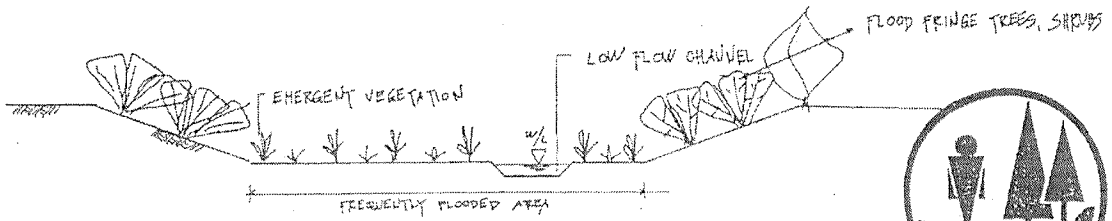
N.T.S.



SECTION 'A-A' N.T.S.



SECTION 'B-B' N.T.S.



L.S.R.C.A. VI/95
V. Sir

TORONTO AND REGION Conservation
for The Living City

May 9, 2008 CFN 40577

BY MAIL AND EMAIL (dave.beattie@earthtech.ca)

Mr. Dave Beattie
Earth Tech (Canada) Inc.
Corbloc Building, 80 King St., 2nd Fl.
St. Catharines, ON L2R 7G1

Dear Mr. Beattie:

Re: Response to Potential Routes (Figure 1)
Hanlan Feedermain (Lakeview Water Treatment Plant to Hanlan Pumping Station and Reservoir)
Municipal Class Environmental Assessment - Schedule C
Etobicoke Creek; City of Mississauga; Peel Region

Toronto and Region Conservation Authority (TRCA) staff met with the Region of Peel and Earth Tech (Canada) on April 1, 2008 to discuss the proposed alternative routes for a new secondary feedermain, as required to meet the Region's future water supply needs. Staff has reviewed Figure 1, Potential Routes, for the section of feedermain located within TRCA's jurisdiction and note the following.

Route	# of Regulated Areas	Location of Regulated Areas
1	2	• Tomken Road, south of Eglinton • Tomken Road at Britannia
2	3	• **Little Etobicoke Creek crossing north of Dundas** • Dixie at Eastgate Parkway • Britannia Road, east of Tomken Road • TRCA property located south of Lakeshore Road E.
2A	3	• **Little Etobicoke Creek crossing north of Dundas** • Dixie at Eastgate Parkway • Britannia Road, east of Tomken Road
3	2	• Tomken Road, south of Eglinton • Tomken Road at Britannia
3A	2	• **Little Etobicoke Creek crossing east of Tomken Road** and Regulated Area between Tomken Road and Dixie along the north side of Eastgate Pkwy. • Britannia Road, east of Tomken Road

Based on a desktop review of the natural features within the area, at this preliminary stage routes 1 and 3 appear to have the fewest impacts as a result of the potential watercourse crossing to the north, while routes 2, 2A and 3A appear to cross Little Etobicoke Creek at locations further downstream, where impacts may be more significant. As a result, routes 1 and 3 are the preferred alignment from our perspective. If it is determined at a later date that the preferred alternative requires a watercourse crossing, directional drilling is typically preferred to open-cut, if geotechnical and hydrogeological conditions support directional drilling. Detailed comments are provided in Appendix A.

Please also note that there are several other projects within the study area that may conflict with the proposed routes. Preliminary design for the Mississauga Bus Rapid Transit project is currently underway, with the proposed alignment along the north side of Eastgate Parkway. It is expected that the transitway will be constructed below grade. Staff is also involved in the Little Etobicoke Creek Erosion Study that is being prepared in response to erosion concerns between Eglinton Avenue and Highway 401.

We look forward to receiving further information as this project progresses. Should you have any questions, please contact me at extension 5717, or by email at slingertat@trca.on.ca.

Yours truly,

Sharon Lingertat

Sharon Lingertat
Planner II, Environmental Assessments
Planning and Development

SL/ss

BY EMAIL

cc:	Region of Peel:	Lynne Germaine, (lynne.germaine@peelregion.ca)
	Earth Tech:	Karl Grueneis, (karl.grueneis@earthtech.ca)
	CVC:	Liam Marray, (lmarray@creditvalleycons.com)
	Ecolplans:	Mike Bricks, (mbricks@ecoplans.com)
	TSH:	Wolfgang Wolter, (wwolter@tsh.ca)
	City of Mississauga:	Willy Ing, (willy.ing@mississauga.ca)
		Scott Anderson, (scott.anderson@mississauga.ca)
		Bob Levesque, (bob.levesque@mississauga.ca)
	TRCA:	Quentin Hanchard, Manager, Development, Planning and Regulation
		Chandra Sharma, Etobicoke/Mimico Watershed Specialist
		George Leja, Real Estate Coordinator
		Cathy Crinnion, Archaeologist

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Appendix A:

1. Please ensure that conditions for each alignment are assessed, including dewatering requirements and possible ecological impacts as a result of any dewatering activities. Please also ensure that a geotechnical and hydrogeological report is provided so that a comprehensive review of alignments can be completed.

2. All watercourses within this area are considered warmwater. As a result, the warmwater timing window of July 1 to March 31 will be applied to any development in or near the watercourse.

3. The TRCA Executive Committee requires a net ecological gain on all files. Please ensure that the EA provides a commitment to a net ecological gain which can be defined at the detailed design stage.

4. Staff's preference is to site the new infrastructure outside of the Regional Flood Plain, Meander Belt and other Regulated Areas. If routes within the Regional Flood Plain, Meander Belt or other Regulated Areas are required, appropriate background analyses will need to be provided (i.e. fluvial geomorphology/meander belt/100 year erosion limit) to ensure that appropriate consideration has been given to the potential movement of the creek (both laterally and vertically). These studies will need to be undertaken and considered as part of the selection process for the preferred alignment as part of the EA process.

5. Please note that the Etobicoke/Mimico Watershed Specialist has requested that the Etobicoke/Mimico Watershed Coalition be kept informed of this project. Once the EA has progressed to a stage where a preferred alignment has been chosen, a report will be prepared and presented to the Coalition for information purposes.

From: Brad Stephens [mailto:BStephens@trca.on.ca]
Sent: Tue 29/07/2008 9:23 AM
To: Sharon Lingertat; Anderson, Holly
Subject: Re: Fw: Digger Crayfish

Hi Holly,

Fallicambarus fodiens is an L-2. Let me know if you have any further questions.

Regards,
Brad

Brad Stephens, Hons.Bsc.
Planning Ecologist II
Rouge and Upper Humber Watersheds
Toronto and Region Conservation Authority
Ph: 416 661 6600 xt 5733
Fx: 416 661 6898
bstephens@trca.on.ca
www.trca.on.ca

From: Scott Smith [mailto:SSmith@TRCA.on.ca]
Sent: Thursday, July 17, 2008 3:37 PM
To: Gunter, Clark
Subject: RE: FW: Mississauga BRT data 503272

Clark,

I'm afraid you will have to make do with the data you have. Thanks for the heads up and we will fix our lines, but it can't be done until the fall.

thanks,

Scott Smith, B.E.S.
Planner 1, Environmental Assessments
Planning and Development
Toronto and Region Conservation Authority
5 Shoreham Drive, Downsview, Ontario M3N 1S4
Tel: 416-661-6600 ext. 5758
Fax: (416) 661-6898
E-mail: ssmith@trca.on.ca

From: Scott Smith [mailto:SSmith@TRCA.on.ca]
Sent: Friday, July 11, 2008 10:41 AM
To: Gunter, Clark
Subject: Re: FW: Mississauga BRT data 503272

Clark,
Geomatics has confirmed that the data is off in certain areas. It can be fixed, but the individual who can do this is in the field often in the summer and has limited time to fix the issue. When do you need this data by?

thanks,

Scott Smith, B.E.S.

ecoplans Limited

72 Victoria Street South, Suite 100,
Kitchener, Ontario N2G 4Y9
Telephone: (519) 741-8850 Fax: (519) 741-8884
Website: www.ecoplans.com

NOTES OF SITE VISIT - REVISED

PROJECT: Mississauga Bus Rapid Transit (BRT) Facility

FILE NO.: 07-3272

DATE: 18-Jun-08 **TIME:** 12:30 – 3:30 p.m.

PLACE: BRT Site Visit

PRESENT:

S. Lingertat	Toronto and Region Conservation Authority
B. Stephens	Toronto and Region Conservation Authority
S. Smith	Toronto and Region Conservation Authority
P. Lewis	Toronto and Region Conservation Authority
E. Furgiuele	City of Mississauga
D. Wunder	McCormick Rankin Corporation
I. Khan	McCormick Rankin Corporation
A. MacMillan	Ecoplans Limited
H. Anderson	Ecoplans Limited
C. Gunter	Ecoplans Limited

PURPOSE: Second site visit to review potential impacts and discuss mitigation strategies.

The following notes and action items provide an overview of the field visit

PLATE	NOTES:	ACTION BY:
Plate 7	Renforth Creek - Confirmed status o Not fish habitat given extent of enclosure 'downstream' o Perhaps cattail pocket along road can be used as SWM – polishing - Renforth parking lot – confirmed that parking lot on south side has been removed	
Plate 5	Etobicoke Ck - Outfall o some minor slumping of gabions that may need attention o otherwise agreed that deep pool at outfall provides good refuge pool - Crossing – review of design / impacts o There may be some temporary works for footings, but no permanent encroachment on the river bed. TRCA provided a preliminary determination that with the application of mitigation the works are not likely to result in a HADD. This determination is based on the assumption that the design and mitigation measures will not change significantly during Detail Design. o ~5m extension of existing bridge deck and footings, which are up on the concrete facing outside of channel. North-eastern most existing footing located	Ecoplans to confirm widening – based on current understanding, 5 m is max extension of existing deck and pier

PLATE	NOTES:	ACTION BY:
	within bankfull channel (outside of baseflow wetted width) upon concrete o Removal of several trees at the top of east valley slope adjacent to Eglinton will be required for construction (Basswood, Sugar Maple). – no significant species. o TRCA commented on need to repair failing upstream concrete slabs (undermining/cracking due to overland surface flow?) on both sides of the Creek. The concrete facing will also need to be disturbed to construct the pier extensions. o TRCA noted that the design should incorporate stormwater treatment. - Wildlife: o 2 Cliff swallow nests identified under bridge deck o Location of butternut ▪ TRCA confirmed they did not find it during last vegetation survey ▪ Field review found no evidence of Butternut in area of anticipated impacts - Possible restoration area west side of Etobicoke Creek south of Eglinton – Rakely Court o Private lands limits potential for restoration	
Plate 4	Eastgate Parkway: Dixie Road MAS2-1b - Not visited - Discussed ramp location is fixed based on avoidance of hydro towers and to locate ramp intersection with Eastgate to maximum separation from other intersections	Ecoplans will review site in detail to validate existing information.
Plate 3	Eastgate Parkway: Dixie Road Regulated Area[1] – Wetland (linear) - Not visited - Parking lot (not on plans as size and layout being considered) but will be on top of Regulated Area, however Regulated Area/wetland appears to be gone (an access "road" has been constructed through area)	Ecoplans to review site in detail to validate presence / location of wetland
Plate 3	Little Etobicoke Ck - TRCA provided a preliminary determination that with the application of mitigation the works are not likely to result in a HADD. This determination is based on the assumption that the design and mitigation measures will not change significantly during Detail Design.The proposed design concept should improve the present situation and functioning of low flow channel, and improve opportunities for fish movement Crossing – review of design / impacts o Existing 3-cell open footing box culvert will be extended ~13 m on north (upstream) side o New Jersey barrier and rip rap material along north-western side of existing culvert opening and	

[1] The TRCA Regulated Area extends from approximately Little Etobicoke Creek to Dixie Road. The extent of the Regulated Area will be determined during Detail Design.

PLATE	NOTES:	ACTION BY:
	concrete weir across channel at upstream end of existing structure will be removed as part of the extension works, using rocky riffles and other natural channel design techniques to achieve the gradient changes o Still some leakage and spreading of lower flow across more than one of the cells, which will be addressed through design measures (i.e., maintain low flow) o Fish passage should be improved through removal of barriers (weir and Jersey wall) and improved functioning of the low flow channel o SWM- proposed design of SWM facility on west side of creek constrained by Hydro towers as well as pipelines.	
Plate 3	Location of berms at Tomken Road - Not visited - Discussion of berms and impact to MAM2-b and MAM2-2 - TRCA indicated that they prefer that fill not be placed in the floodplain. - TRCA indicated that any proposed fill/berms within the flood plain will need to be assessed through appropriate hydraulic analyses (i.e. berms will need to be inputted into the hydraulic model). A hydraulic assessment is required to ensure that the fill/berms will not result in adverse impacts to existing flood elevations.	
Plate 2	Cawthra Road Station and HIP area - Description of site / impacts and mitigation o Including loss of regulated wetland and unregulated MAS2-1b o TRCA indicated that the various habitats that will be affected should be reviewed further in the field and characterized in relation to habitats present within the broader area. In relation to the small cattail pocket in southwest corner, a portion of which will be affected by station, Ecoplans noted that there were several similar pockets, as well as a large cattail dominant wetland area further to the north. The City noted that while they recalled mention of the southwest pocket in the NA study, they could not recall any specific rationale, or whether the rest of the areas had been noted. o Discussed issues around preferred compensation being within the NE4SMA, and specifically issue of ownership and ORC's openness to restoration/works on their land, as well as infrastructure constraints (e.g., pipelines, hydro towers). Noted that options should be integrated with water resources in relation to drainage design and options with respect to wetland creation and provision of a source of water.	Ecoplans to review habitats in HIP area in more detail Ecoplans to look at restoration potential and openness of ORC to restoration projects

The forgoing represents the writer's understanding of the major items of discussion and the decisions reached and/or future actions required with input from Ecoplans/MRC attendees. As simultaneous conversations were usually occurring at field stops, some information may be missing from the table. If the above does not accurately represent the understanding of all parties attending, please notify the undersigned immediately upon receiving these minutes (519-741-8850).

Minutes Prepared by:

Ecoplans Limited

Clark Gunter
Ecoplans Limited

cc: Attendees
Geoff Wright, City of Mississauga
Willy Ing, City of Mississauga
Scott Anderson, City of Mississauga
Katie Bright, Ecoplans Limited
Mike Bricks, Ecoplans Limited
Steve Schijns, McCormick Rankin Corporation
Dale Turvey, McCormick Rankin Corporation

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ecoplans Limited

Environmental Planners & Consulting Ecologists

July 7, 2008

Ms. Sharon Lingertat
Acting Planner II, Environmental Assessments
Toronto and Region Conservation Authority
Planning and Development
5 Shoreham Drive
Downsview, ON M3N 1S4

RE: Mississauga Bus Rapid Transit Project

Dear Ms. Lingertat:

This letter is in response to your letter dated April 25, 2008. Thank you for providing TRCA's input. The enclosed table outlines the Project Team's responses to the comments outlined in your letter.

Yours truly,
ECOPLANS LIMITED

Mike Bricks, MCIP, RPP
Consultant Environmental Planner

c: Geoff Wright, City of Mississauga
Willy Ing, City of Mississauga
Scott Anderson, City of Mississauga
Dale Turvey, MRC
Steve Schijns, MRC
Darrell Wunder, MRC
Anne MacMillan, Ecoplans

Encl.

2655 North Sheridan Way, Suite 280, Mississauga, Ontario L5K 2P8 • (905) 823-4988 • fax (905) 823-2669
www.ecoplans.com • e-mail: ecoplans@ecoplans.com

Summary of TRCA April 25, 2008 Letter (Contact: Sharon Lingertat) - Input and Action/Response		
Comments	**How Comment Is Being Addressed During Preliminary Design**	**Requirements for Detail Design and Construction Stages for this Project**
Wetlands North of Eastgate Parkway and East of Cawthra Road 1. The minutes do not refer to the Regulated Area located north of Eastgate Parkway and east of Cawthra Road. This area is considered wetland and will require a permit under Ontario Regulation 166/06. Please ensure that this area is considered when preparing the detailed design plans.	1. The small wetland/meadow marsh pockets, and specifically the cattail mineral meadow marsh in the southwest corner, are discussed in Item 4.9 of the minutes. Although we acknowledge that the minutes do not refer to this Regulated Area, we do not recall a specific discussion at the meeting about the Regulated Area. We noted at the meeting that we would review relocation of the required station north of Eastgate and east of Cawthra from the corner further to the east, so as to avoid encroachment into the marsh pocket. Please be advised that the station was shifted slightly further to the east and the configuration modified in order to minimize encroachment into this wetland pocket. However, given the configuration of this pocket, it cannot be entirely avoided. Furthermore, based on our recent site walk (June 18, 2008), we note that this wetland does not appear to be unique in any way. It is dominated by cattail, however there are several other similar pockets, as well as one quite extensive area, of similar cattail-dominant meadow marsh habitat. The CEAA Screening Report will include a commitment to protect wetland pockets in the HIP area from water level changes and adjacent construction related disturbances.	1. Design and works in the vicinity of the HIP area according to the Preliminary Design recommendations and commitments.
Little Etobicoke Creek Crossing 2. The proposed works at the Little Etobicoke Creek crossing may involve flood plain re-grading in order to maintain existing flow conditions (i.e., low flow through the east cell). Please ensure that a detailed grading plan is provided, along with sections to show the extent of work in this area. Please note that the volume of fill to be placed in the floodplain should be minimized to the extent possible. In addition, please ensure that these changes are reflected in the hydraulic analysis for this crossing.	2. We agree that the proposed works will likely involve some floodplain grading to maintain and enhance flow conditions. This will be noted in the recommendations for the design concept at this crossing. Please note that detailed grading plans will not be developed as part of this preliminary design undertaking; these plans and the final details of other mitigation measures will be prepared during Detail Design using recommendations and guidelines set forth by the Preliminary Design study. Drawings will be circulated with the Preliminary Design study presenting proposed remedial works conceptually with sufficient information to guide the future Detail Design. Cross-sectional geometry in the hydraulic model for Little Etobicoke Creek will be revised based on the proposed works. We will include a commitment in the CEAA Screening Report to prepare and submit these detailed plans and assessments to TRCA.	2. Based on the recommendations of the Preliminary Design, Detail Design for the crossing will be completed. TRCA will be consulted during the development of the design details, and the detailed design and supporting technical information will be circulated to the TRCA for review.
3. The handouts mention removing several existing in-stream barriers, and enhancing channel stability. Please ensure that natural channel design principles are followed, and that design drawings and supporting technical information is submitted for review.	3. The Preliminary Design study will include commitments regarding the use of natural channel design principles to enhance fish movement, channel stability and function. Please note that the design drawings and supporting detailed technical information will not be developed until the subsequent Detail Design stage of the project. We will include a commitment in the CEAA Screening Report to consult with TRCA during development of the detailed design of the structure extension and channel enhancements.	3. Based on the recommendations of the Preliminary Design, Detail Design for channel works will be completed. TRCA will be consulted during the development of the design details, and the detailed design and supporting technical information will be circulated to the TRCA for review.
4. It was noted at the last meeting that a Stormwater Management (SWM) pond is being considered, to provide the required level of control. Please ensure that design details and plans are submitted for review and that the SWM facilities are located outside of the Regional Flood Plain.	4. The Preliminary Design study will present a comprehensive surface water conveyance and management strategy formulated to provide guidance for the future Detail Design. Alternative storm water management measures are being reviewed to identify measures that can feasibly be implemented to mitigate potential surface water related impacts associated with the construction of the BRT system. To the extent technically, physically, and economically practicable, opportunities for utilizing existing stormwater management measures will be explored. Within the TRCA's jurisdictional area, the prescribed TRCA SWM criteria will be used in combination with recommendations of the Ministry of the Environment's *Stormwater Management Planning and Design Manual* to establish design requirements for drainage conveyance and management works. Design concepts for key stormwater management measures will be submitted to TRCA. As a preliminary design study, locations and approximate pond block sizes will be identified on drawings, and a typical outlet detail will be provided as guidance for future Detail Design of the facilities. Preliminary stage-storage-discharge rating curves developed for each pond will be input to hydrologic models to assess pond performance and demonstrated that all quantity control objectives have been achieved. Detailed grading plans and outlet details for each pond will be prepared as part of the Detail Design using recommendations and guidelines provided as part of this preliminary design undertaking.	4. Following from recommendations of the Preliminary Design, Detail Design of all surface water conveyance and management measures will be completed. The final design will be circulated to the TRCA and other regulatory agencies having jurisdiction and will provide detail sufficient for confirming that the final design is consistent with the Preliminary Design. Once all agency concerns have been adequately addressed, the stormwater management strategy will be implemented in accordance with all applicable approval conditions.

Summary of TRCA April 25, 2008 Letter (Contact: Sharon Lingertat) - Input and Action/Response		
Comments	**How Comment Is Being Addressed During Preliminary Design**	**Requirements for Detail Design and Construction Stages for this Project**
5. Section 4.8 of the meeting minutes indicates that the rationale for the selected design will be discussed/documented in the CEAA screening report. Please ensure that part of that documentation includes the supporting background studies/analyses (i.e., hydraulic modeling, fluvial geomorphic studies, etc.) undertaken as part of the decision making process.	5. The CEAA Screening Report will include details regarding background studies/analyses (e.g. initial [high-level] fluvial geomorphologic review). As appropriate, the background study information will be included as and appendix to the report or will be provided under separate cover to TRCA and other interested agencies.	5. Design and construct bank protection according to the Preliminary Design recommendations and commitments.
6. Section 4.8 of the meeting minutes refers to the cattail marsh on the northwest side of Little Etobicoke Creek, which contains Chimney Crayfish. To avoid confusion in the future, please revise to read northeast side.	6. The meeting notes have been revised accordingly.	6. N/A
Cultural Woodlot 7. Regarding the small pocket of vegetation discussed in Section 4.7 of the meeting minutes, please ensure that this community is defined in the preliminary design documents, to allow for a comprehensive understanding of the vegetation impacts and removals along the BRT alignment.	7. The requested information will be provided in the CEAA Screening Report, however we note that this feature is not a natural vegetation community.	7. Design and construct works according to the Preliminary Design recommendations and commitments.
Etobicoke Creek 8. Please make every effort to redirect deck drainage to a suitable location, and avoid direct outlets to the watercourse. In addition, TRCA staff encourages any possible enhancements to existing infrastructure (i.e., existing outlet).	8. Based on observations made during field investigations, deck drains for the existing structure discharge directly over Etobicoke Creek. As part of the proposed works, opportunities for disconnecting existing deck drains and directing drainage intercepted by them to suitable locations will be explored to the extent technically, physically and economically practicable. The drainage system for the new lanes added to the structure as part of the BRT undertaking will be not incorporate deck drains that discharge directly over the creek.	8. Design and construct works according to the Preliminary Design recommendations and commitments.
9. The Fish and Fish Habitat Summary Table notes that standard MTO Erosion and sediment control plans will be used at creek crossings. Please refer to the TRCA "Erosion and Sediment Control Guidelines for Urban Construction" (December 2006) for proper ESC measures and details. A digital copy of the guidelines can be found at www.sustainabletechnologies.ca.	9. Reference will be updated in the tables and text. As part of the Preliminary Design for the BRT, potential for erosion and sedimentation as a result of the proposed BRT works will be identified, with specific reference to natural features, and recommendations will be made to guide the preparation of an erosion and sediment control strategy as part of future Detail Design. Recommendations will include a shortlist of both vegetative and structural control measures that can feasibly be implemented during construction.	9. Using guidelines set forth in the document entitled Erosion and Sediment Control for Urban Construction, an erosion and sediment control plan will be prepared and circulated to all regulatory agencies having jurisdiction at the time of Detail Design for the busway.
10. Section 4.6 of the meeting minutes notes that the works at Etobicoke Creek will not be considered a HADD. Please revise to state that given the existing information (piers located outside of the watercourse) that those works will not be considered a HADD, and will be covered by a Letter of Advice.	10. The meeting notes have been revised accordingly.	10. N/A
Southwest Corner of Eglinton Avenue and Centennial Park Boulevard 11. A Regulated Area is located on the southwest corner of Eglinton Avenue and Centennial Park Boulevard. If any works are proposed within this area, a permit under Ontario Regulation 166/06 will be required.	11. Acknowledged. No works are currently proposed for the southwest corner of Eglinton Avenue and Centennial Park Boulevard. The busway is located on the north side of Eglinton Avenue.	11. N/A
Elmcrest Creek 12. It is noted that a new sewer pipe will be constructed to collect existing drainage at the location of Elmcrest Creek. Please confirm whether this is a major system flow, as it is suggested that minor system flows have been previously diverted. Design details (drainage area plan, flow calculations, etc.) pertaining to the proposed conveyance system will need to be	12. The existing sewer system on Eglinton Avenue passes beneath the culverts that outlet to Elmcrest Creek. Ultimately the sewer discharges to Etobicoke Creek through a concrete outlet located south of Eglinton Avenue within the floodplain. East of Etobicoke Creek, the new sewer system proposed to serve the future BRT will parallel the existing Eglinton Avenue sewer system. The BRT sewer system will outlet to the Eglinton Avenue sewer system at multiple points. It will not outlet to	12. Design and construct works according to the Preliminary Design recommendations and commitments.

Summary of TRCA April 25, 2008 Letter (Contact: Sharon Lingertat) - Input and Action/Response		
Comments	**How Comment Is Being Addressed During Preliminary Design**	**Requirements for Detail Design and Construction Stages for this Project**
submitted for review. In the event that a new outlet is required, please refer to TRCA Storm Outfall Design Criteria which outlines TRCA requirements (attached).	Elmcrest Creek. As such, a new outfall to Elmcrest Creek will not be required Major flows from lands north of the BRT will be intercepted and conveyed to intersecting roadways that currently serve as major system outlets across Eglinton Avenue. Catchment maps and hydrologic modeling completed to quantify minor and major system flows will be provided in the Stormwater Management Plan to be circulated in support of the Preliminary Design Study.	
13. The Fish and Fish Habitat Summary Table notes that standard MTO Erosion and sediment control plans will be used at creek crossings. Please refer to the TRCA "Erosion and Sediment Control Guidelines for Urban Construction" (December 2006) for proper ESC measures and details. A digital copy of the guidelines can be found at www.sustainabletechnologies.ca.	13. Reference will be updated in the tables and text. As part of the Preliminary Design for the BRT, potential for erosion and sedimentation as a result of the proposed BRT works will be identified, with specific reference to natural features, and recommendations will be made to guide the preparation of an erosion and sediment control strategy as part of future Detail Design. Recommendations will include a shortlist of both vegetative and structural control measures that can feasibly be implemented during construction.	13. Using guidelines set forth in the document entitled Erosion and Sediment Control for Urban Construction, an erosion and sediment control strategy will be prepared and circulated to all regulatory agencies having jurisdiction at the time of Detail Design for the busway.
Renforth Creek 14. The engineering requirements for this location will vary depending on whether or not the feature is deemed to be a watercourse. If it is a watercourse, then it is assumed to have an associated floodplain and therefore, appropriate fluvial geomorphic, hydraulic and flood plain analyses will also be required as per the other crossings. If the feature is not deemed to be a watercourse, the proposed works will need to be designed such that the existing overland flow routes are maintained, similar to the Elmcrest Creek location. In either cased, please investigate if there are future plans to develop vacant lands to the north of the proposed BRT. Any flow calculations will need to be based on the ultimate development scenario.	14. Based on discussions at the June 18, 2008 field meeting, it is our understanding that the TRCA will not be classifying Renforth Creek as a watercourse. Regardless, the parking area has now been removed from the south side of Eglinton Avenue, so there will be no interference with the small cattail pocket or the ditch system downstream of it. The BRT infrastructure north of Eglinton Avenue will incorporate measures to maintain/provide minor and major system connections across Eglinton Avenue for external lands. Flow calculations will be based on the ultimate development scenario ascertained from discussions with the City.	14. Design and construct works according to the Preliminary Design recommendations and commitments.
15. The Fish and Fish Habitat Summary Table notes that standard MTO Erosion and sediment control plans will be used at creek crossings. Please refer to the TRCA "Erosion and Sediment Control Guidelines for Urban Construction" (December 2006) for proper ESC measures and details. A digital copy of the guidelines can be found at www.sustainabletechnologies.ca.	15. Reference will be updated in the tables and text. As part of the Preliminary Design for the BRT, potential for erosion and sedimentation as a result of the proposed BRT works will be identified, with specific reference to natural features, and recommendations will be made to guide the preparation of an erosion and sediment control strategy as part of future Detail Design. Recommendations will include a shortlist of both vegetative and structural control measures that can feasibly be implemented during construction.	15. Using guidelines set forth in the document entitled Erosion and Sediment Control for Urban Construction, an erosion and sediment control strategy will be prepared and circulated to all regulatory agencies having jurisdiction at the time of Detail Design for the busway.
General 16. Section 3.1 of the meeting minutes refers to the updated hydraulic model. TRCA has recently updated the Etobicoke Creek Hydrology model and is in the process of updating the watershed hydraulic model. Staff will provide a copy of the updated model, as soon as it is available.	16. Hydraulic models have been formulated for Etobicoke Creek and Little Etobicoke using the HEC-2 model and prorated flows previously provided by the TRCA. The HEC-2 model has been converted to HEC-RAS, and sections for existing structures that will be impacted by the BRT have been updated using contract drawings provided by the City and topographic information taken from Ontario Base Mapping and field surveys. The model will be updated as necessary once the updated hydraulic models have been received from the TRCA.	16. Design and construct works according to the Preliminary Design recommendations and commitments.
17. It is noted that some background information has been completed (i.e., fluvial geomorphic assessment, preliminary hydraulic analyses); however, the details of this information has not been provided. Please provide this information at the preliminary design stage so that a determination can be made as to potential impacts that may affect the detail design of the proposed structures.	17. Design revisions have resulted in the need to update available background information. The CEAA Screening Report will include details regarding background studies/analyses (e.g. initial [high-level] fluvial geomorphologic review). As appropriate, the background study information will be included as and appendix to the report or will be provided under separate cover to TRCA and other interested agencies.	17. Design and construct bank protection according to the Preliminary Design recommendations and commitments.

From: Scott Smith [mailto:SSmith@TRCA.on.ca]
Sent: Thursday, July 17, 2008 3:37 PM
To: Gunter, Clark
Subject: RE: FW: Mississauga BRT data 503272

Clark,

I'm afraid you will have to make do with the data you have. Thanks for the heads up and we will fix our lines, but it can't be done until the fall.

thanks,

Scott Smith, B.E.S.
Planner 1, Environmental Assessments
Planning and Development
Toronto and Region Conservation Authority
5 Shoreham Drive, Downsview, Ontario M3N 1S4
Tel: 416-661-6600 ext. 5758
Fax: (416) 661-6898
E-mail: ssmith@trca.on.ca

From: Scott Smith [mailto:SSmith@TRCA.on.ca]
Sent: Friday, July 11, 2008 10:41 AM
To: Gunter, Clark
Subject: Re: FW: Mississauga BRT data 503272

Clark,
Geomatics has confirmed that the data is off in certain areas. It can be fixed, but the individual who can do this is in the field often in the summer and has limited time to fix the issue. When do you need this data by?

thanks,

Scott Smith, B.E.S.

From: Brad Stephens [mailto:BStephens@trca.on.ca]
Sent: Tue 29/07/2008 9:23 AM
To: Sharon Lingertat; Anderson, Holly
Subject: Re: Fw: Digger Crayfish

Hi Holly,

Fallicambarus fodiens is an L-2. Let me know if you have any further questions.

Regards,
Brad

Brad Stephens, Hons.Bsc.
Planning Ecologist II
Rouge and Upper Humber Watersheds
Toronto and Region Conservation Authority
Ph: 416 661 6600 xt 5733
Fx: 416 661 6898
bstephens@trca.on.ca
www.trca.on.ca

Phone Call: July 29, 2008
Scott Smith TRCA
Holly Anderson (Ecoplans)

Scott confirmed that Redside Dace are extirpated from Etobicoke Creek .

TORONTO AND REGION Conservation
for The Living City

October 23, 2008 CFN 39971

BY MAIL AND EMAIL (mbricks@ecoplans.com)

Mr. Mike Bricks
Ecoplans Limited
2655 North Sheridan Way, Suite 280
Mississauga, ON L5K 2P8

Dear Mr. Bricks:

Re: Response to Notice of Public Information Centres
Mississauga Bus Rapid Transit (Eastgate Parkway at Highway 403 to Eglinton Avenue at Renforth Drive)
Etobicoke Creek; City of Mississauga; Regional Municipality of Peel

Toronto and Region Conservation Authority (TRCA) staff received notice of the upcoming Public Information Centres (PIC) scheduled for October 28, 2008 and October 29, 2008. Further to previous TRCA correspondence, staff has expressed interest in this project. While staff is unable to attend the meetings, please forward one copy of any handouts or display materials from these meetings for our files.

Please note that staff received the Draft EA Addendum on October 8, 2008 and it is currently under review.

Yours truly,
Sharon Lingertat

Sharon Lingertat
Planner II, Environmental Assessments
Planning and Development

SL/ss

BY EMAIL
cc: Mississauga: Geoff Wright (geoff.wright@mississauga.ca)
Willy Ing (willy.ing@mississauga.ca)
TRCA: Beth Williston, Manager, Environmental Assessments
Quentin Hanchard, Manager, Development, Planning and Regulation
Chandra Sharma, Etobicoke/Mimico Watershed Specialist

F:\Home\Public\Development Services\EA\Letters for Mailing\39971 - PIC2.doc

ecoplans Limited

2655 North Sheridan Way, Suite 280
Mississauga, Ontario, L5K 2P8

Telephone: (905) 829-6262
Fax: (905) 823-2669
E-mail: mbricks@ecoplans.com

TRANSMITTAL

To: Ms. Sharon Lingertat
Planner II, Environmental Assessments
Toronto and Region Conservation Authority
Planning and Development
5 Shoreham Drive
Downsview, ON M3N 1S4

Date: November 14, 2008

Project #: 07-3272

Delivery: Courier

Re: Mississauga Bus Rapid Transit Project

As requested, please find enclosed a copy of the PIC#2 displays for the above noted project.

For your comment
For your information
For your action

for your use *
as requested *

Per: _____
Mike Bricks
Ecoplans Limited

c. Dale Turvey, MRC (transmittal only)
Geoff Wright, City of Mississauga (transmittal only)
Willy Ing, City of Mississauga (transmittal only)

McCORMICK RANKIN
CORPORATION
A member of MMM GROUP

2655 North Sheridan Way
Mississauga, Ontario, L5K 2P8
Tel: (905) 823-8500
Fax: (905) 823-8503
E-mail: mrc@mrc.ca
Website: www.mrc.ca

MINUTES OF MEETING

PROJECT:	Mississauga BRT		
FILE NO.:	6964		
DATE:	January 12, 2009	**TIME:**	1 pm
PLACE:	Credit Valley Conservation offices, Mississauga		
PRESENT:	Liam Marray, CVC (Senior Planner / Ecologist) Rizwan Haq, CVC (Supervisor – Engineering Plan Review) Stephen Schijns, MRC		
PURPOSE:	CVC comments on draft BRT EA Addendum (distributed October 2008)		

PROCEEDINGS: **ACTION BY**:

1.1 Winston Churchill Boulevard

L. Murray noted that the Addendum and PDR should note that all wetlands are regulated (they weren't at the time of the 1992 EA), and that the CVC requires a compensation, mitigation, and/or replication of function plan for the loss of any regulated wetlands. MRC

L. Murray requested that MRC identify if any rare or endangered species are located in the area of the changed alignment. Ecoplans

R. Haq requested that the Addendum include enough information from the Preliminary Design Report to allow the reader to determine if storm water management can be achieved. MRC

S. Schijns will provide CVC with a copy of the draft PDR for review, to complement the EA Addendum material. MRC

1.2 Cooksville Creek

R. Haq requested that MRC perform the hydraulic analysis of the mid-culvert reduction on the basis of a continuous pipe with a restricted opening size. MRC should quantify the spillover across Rathburn Road and determine the spill pathway, noting if it is any different from the existing situation. He requested that the hydraulic analysis and conclusions be confirmed by a Professional Engineer rather than a Technician (CET). MRC MRC MRC

He requested MRC provide a digital model of the hydraulic analysis. S. Schijns advised that the MRC drainage engineer will contact Mr. Haq by phone (1-800-668-5557) to review and confirm his requirements and comments.	MRC MRC
S. Schijns described the culvert reconstruction process at Cooksville Creek, noting that there would be no exposure of the creek to the construction work (water would be diverted into the cell that is not being reconstructed). L. Marray advised that, on that basis and on the review of the project, CVC's preliminary position was that there was no HADD involved. This position would be reviewed in the course of the detail design.	Ecoplans CVC

1.3 Design

S. Schijns went through the project status and timing. L. Marray suggested that the detail design team(s) hold a CVC briefing within the first month of their assignment(s). This would ensure that CVC's new staff are up to date on the project.	Detail Design

The foregoing represents the writer's understanding of the major items of discussion and the decisions reached and/or future actions required. If the above does not accurately represent the understanding of all parties attending, please notify the undersigned within 48 hours of receiving these minutes at 905-823-8500.

Minutes prepared by,

McCormick Rankin Corporation

Stephen Schijns, P. Eng.

cc: Attendees
M. Bricks, K. Bright – Ecoplans
D. Turvey, A. Shea, K. Rodger, A. Kauppinen - MRC
G. Wright, S. Anderson, W. Ing – City of Mississauga (BRT)
S. Davies, M. Adebayo – GO Transit

Other Agencies

From: Eva.Kliwer@Mississauga.Ca
Sent: Thu 8/23/2007 1:47 PM
To: Kim LeBrun
CC: Holly Anderson
Subject: RE: Re: Mississauga BRT Project

Kim,
Our Natural Areas Survey information does not include detailed fisheries or aquatic data. Some of the fact sheets for the sites, which you can view on the City's web page under "residents/environmental planning/ natural green spaces/natural areas survey", may make a general reference to an aquatic species if it contributes to the significance of the site. The Credit Valley Conservation and Toronto Region Conservation should have the information you require.

Holly,
As mentioned above, there are fact sheets on our web site which include detailed maps of the site and most of the information you requested. I can provide you with species list for each site but this won't likely be until about Thursday of next week.

If you have questions please contact me.
Regards,
Eva

Eva Kliwer
Planner
Policy Planning Division
City of Mississauga Planning and Building Department
Phone: 905-615-3200 ext.5753
Fax: 905-615-4494

e-mail: eva.kliwer@mississauga.ca

Transport Canada
Marine

Transports Canada
Maritime

100 South Front Street
Sarnia, Ontario
N7T 2M4

Your file Votre référence

Our file Notre référence
See below

May 29, 2008

Mississauga Bus Rapid Transit
C/o Transport Canada – Surface Infrastructure Programs
Tower C Place de Ville
330 Sparks Street
Ottawa, ON K1A 0N5

Attention: Rebecca Stranberg

Dear Madam:

RE: Various Locations, City of Mississauge, Regional Municipality of Peel, Province of Ontario

8200-08-6142	Cooksville Creek	West of Hurontario St. between Highway 403 & Rathburn Rd W
8200-08-6143	Trib of Cooksville Creek	East of Central Parkway East, North of Highway 403
8200-08-6144	Little Etobicoke Creek	East of Tomken Road, North of Eastgate Parkway
8200-08-6145	Etobicoke Creek	N Side of Eglinton Ave E, E of Eastgate Pkwy, W of Spectrum Way
8200-08-6146	Elmcrest Creek	North of Eglinton Avenue West, East of Explorer Drive
8200-08-6147	Renforth Creek	South of Matheson Boulevard East, West of Renforth Drive

Receipt is acknowledged of your correspondence dated March 31, 2008 in connection with the above noted works.

Please be advised that the waters of Etobicoke Creek at the above location are **navigable**. Consequently, an application for approval is required.

Transport Canada's review of the proposal will be made under the Navigable Waters Protection Act. Enclosed is an Application Guide which will assist you in making an application under the Navigable Waters Protection Act.

The Navigability Requests at all other sites are considered **not navigable**. Consequently, we have no interest in any works at these sites.

Should you have any questions, please contact the undersigned at (519) 333-6330.

Yours truly,

Kelly Thompson
A/NWP Officer
Navigable Waters Protection

KT/jd

Encl.

Transportation and Works Department

City of Mississauga
201 City Centre Drive, Suite 800
MISSISSAUGA ON L5B 2T4

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June 18, 2008
File: PO.04.DES - 200

Mr. Glenn Gilbert
Manager, Environment Unit
Lands and Trusts Services
Department of Indian and Northern Affairs
25 St. Clair Avenue East, 8th Floor
Toronto ON M4T 1M2

Dear Mr. Gilbert:

The City of Mississauga, in partnership with GO Transit, would like to inform the Department of Indian and Northern Affairs of Phase One of the Mississauga Bus Rapid Transit (BRT) Project. This project involves the construction of a new bus only roadway (busway) across Mississauga and eleven new bus stations. Specifically, the new busway will extend from Winston Churchill Boulevard to Erin Mills Parkway and from the Mississauga City Centre to Renforth Drive running adjacent to the Highway 403, Eastgate Parkway, and Eglinton Avenue corridors. **Figure 1** (attached) provides an overview of the Mississauga BRT Project corridor.

In 1992, the Provincial Ministry of the Environment approved the Mississauga BRT Project from Ridgeway Drive in the west to Renforth Drive in the east and a subsequent Environmental Assessment Addendum in 2004. The BRT Project is currently in the Preliminary Design stage, which also includes the undertaking of a Canadian Environmental Assessment Act Screening Report.

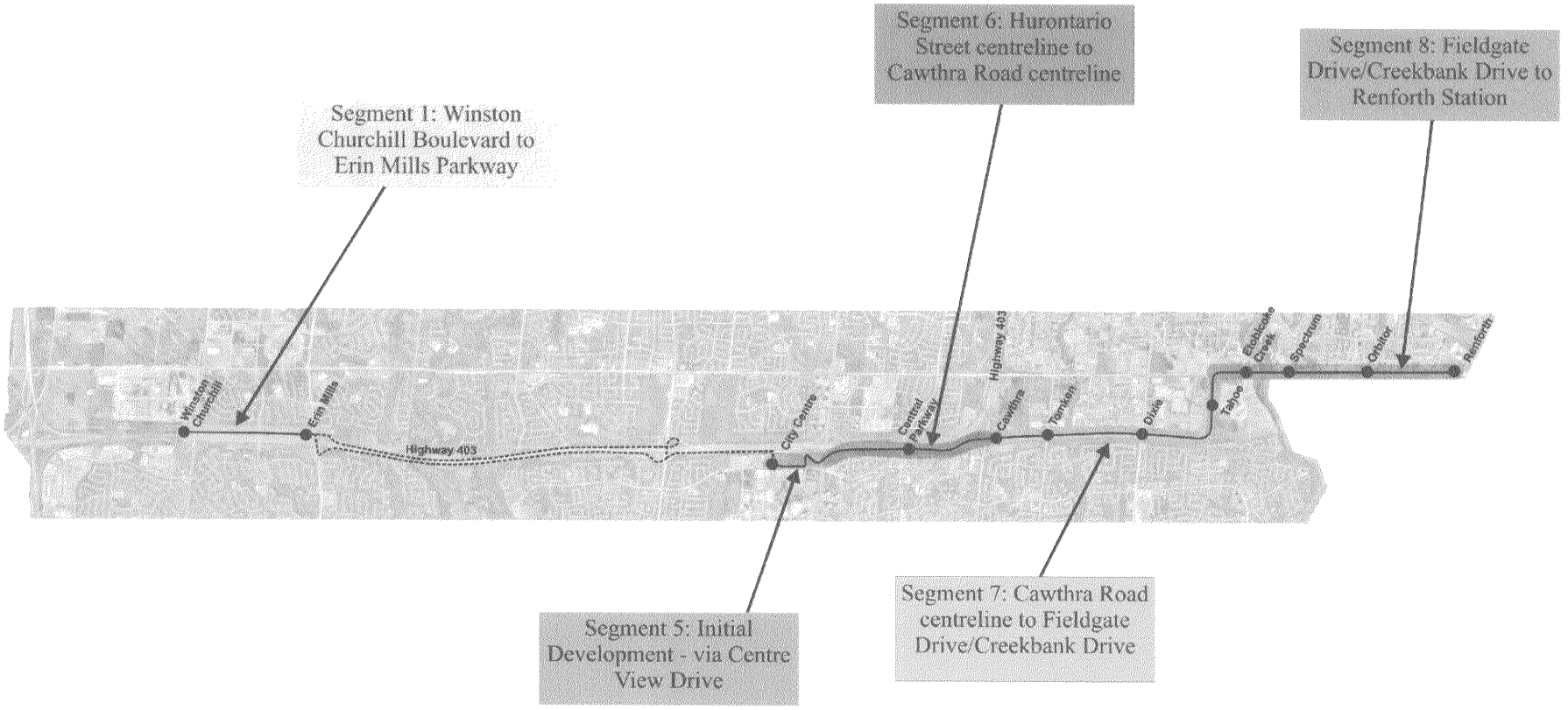
This notification is being provided in hopes that the Department of Indian and Northern Affairs - Lands and Trusts Services can assist us in determining if any First Nation groups may hold an interest in this project. Any input that you can provide would be greatly appreciated. To date only the Mississaugas of the New Credit First Nation have received notification. Please respond to undersigned at the address noted above or feel free to call the Mississauga BRT Project Office at 905-615-3200 extension 5745.

Sincerely,

Geoff Wright, P.Eng., MBA
Director, BRT Project Office

c: M. Powell, Commissioner, Transportation and Works

Figure 1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Cawthra
Tomken
Dixie
Tahoe
Etobicoke Creek
Spectrum
Orbitor
Renforth
Segment 5: Initial Development - via Centre View Drive
Segment 7: Cawthra Road centreline to Fieldgate Drive/Creekbank Drive

Transportation and Works Department

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June 18, 2008
File: PO.04.DES - 200

Mr. Fred Hosking
Senior Claims Analyst
Specific Claims Branch, Ontario Research Team
Department of Indian and Northern Affairs
10 Wellington Street, Room 1310
Gatineau QU K1A 0H4

Dear Mr. Hosking:

The City of Mississauga, in partnership with GO Transit, would like to inform the Department of Indian and Northern Affairs of Phase One of the Mississauga Bus Rapid Transit (BRT) Project. This project involves the construction of a new bus only roadway (busway) across Mississauga and eleven new bus stations. Specifically, the new busway will extend from Winston Churchill Boulevard to Erin Mills Parkway and from the Mississauga City Centre to Renforth Drive running adjacent to the Highway 403, Eastgate Parkway, and Eglinton Avenue corridors. **Figure 1** (attached) provides an overview of the Mississauga BRT Project corridor.

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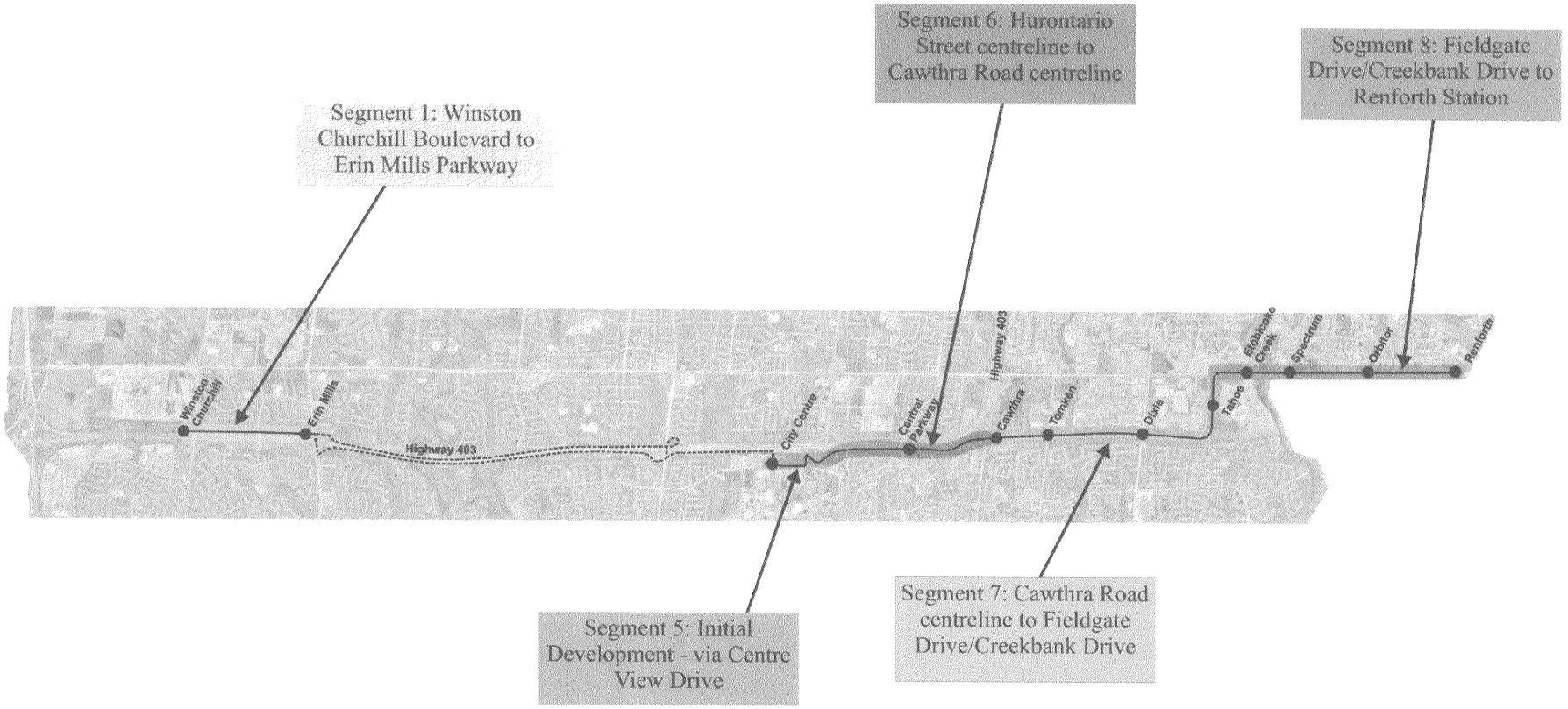
This notification is being provided in hopes that the Department of Indian and Northern Affairs - Specific Claims Branch can assist us in determining if any First Nation groups may hold an interest in this project. Any input that you can provide would be greatly appreciated. To date only the Mississaugas of the New Credit First Nation have received notification. Please respond to undersigned at the address noted above or feel free to call the Mississauga BRT Project Office at 905-615-3200 extension 5745.

Sincerely,

Geoff Wright, P.Eng., MBA
Director, BRT Project Office

c: M. Powell, Commissioner, Transportation and Works

Figure 1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Transportation and Works Department

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June 18, 2008
File: PO.04.DES - 200

Mr. Kevin Clement
Acting Director, Financial Issues and Cost-Sharing
Comprehensive Claims Branch
Department of Indian and Northern Affairs
10 Wellington Street, Room 1310
Gatineau QU K1A 0H4

Dear Mr. Clement:

The City of Mississauga, in partnership with GO Transit, would like to inform the Department of Indian and Northern Affairs of Phase One of the Mississauga Bus Rapid Transit (BRT) Project. This project involves the construction of a new bus only roadway (busway) across Mississauga and eleven new bus stations. Specifically, the new busway will extend from Winston Churchill Boulevard to Erin Mills Parkway and from the Mississauga City Centre to Renforth Drive running adjacent to the Highway 403, Eastgate Parkway, and Eglinton Avenue corridors. **Figure 1** (attached) provides an overview of the Mississauga BRT Project corridor.

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This notification is being provided in hopes that the Department of Indian and Northern Affairs - Comprehensive Claims Branch can assist us in determining if any First Nation groups may hold an interest in this project. Any input that you can provide would be greatly appreciated. To date only the Mississaugas of the New Credit First Nation have received notification. Please respond to undersigned at the address noted above or feel free to call the Mississauga BRT Project Office at 905-615-3200 extension 5745.

Sincerely,

Geoff Wright, P.Eng., MBA
Director, BRT Project Office

c: M. Powell, Commissioner, Transportation and Works

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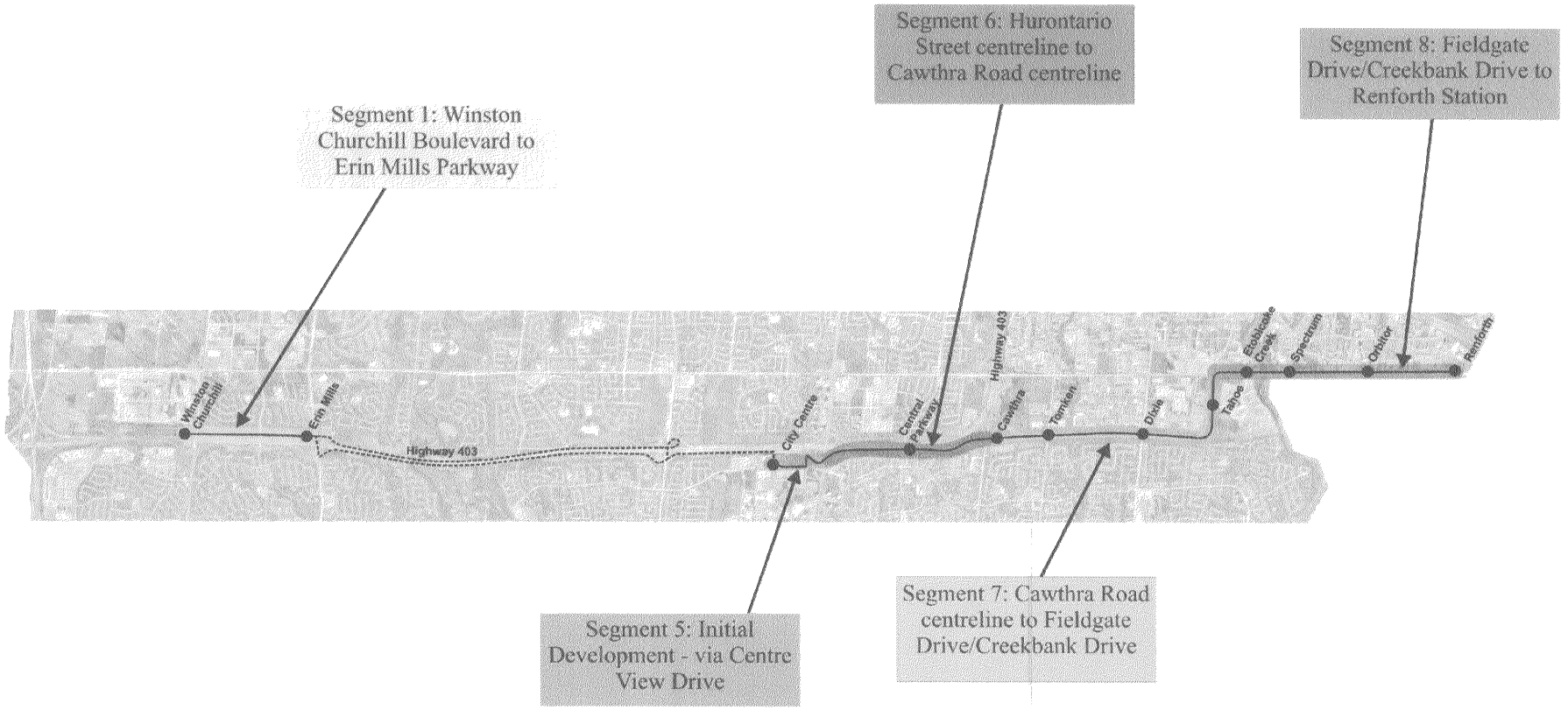
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Transportation and Works Department

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June 18, 2008
File: PO.04.DES - 200

Mr. Franklin Roy
Director
Litigation Management and Resolution Branch
Department of Indian and Northern Affairs
10 Wellington Street, 25 Eddie 1430
Gatineau QU K1A 0H4

Dear Mr. Roy:

The City of Mississauga, in partnership with GO Transit, would like to inform the Department of Indian and Northern Affairs of Phase One of the Mississauga Bus Rapid Transit (BRT) Project. This project involves the construction of a new bus only roadway (busway) across Mississauga and eleven new bus stations. Specifically, the new busway will extend from Winston Churchill Boulevard to Erin Mills Parkway and from the Mississauga City Centre to Renforth Drive running adjacent to the Highway 403, Eastgate Parkway, and Eglinton Avenue corridors. **Figure 1** (attached) provides an overview of the Mississauga BRT Project corridor.

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This notification is being provided in hopes that the Department of Indian and Northern Affairs - Litigation Management and Resolution Branch can assist us in determining if any First Nation groups may hold an interest in this project. Any input that you can provide would be greatly appreciated. To date only the Mississaugas of the New Credit First Nation have received notification. Please respond to undersigned at the address noted above or feel free to call the Mississauga BRT Project Office at 905-615-3200 extension 5745.

Sincerely,

Geoff Wright, P.Eng., MBA
Director, BRT Project Office

c: M. Powell, Commissioner, Transportation and Works

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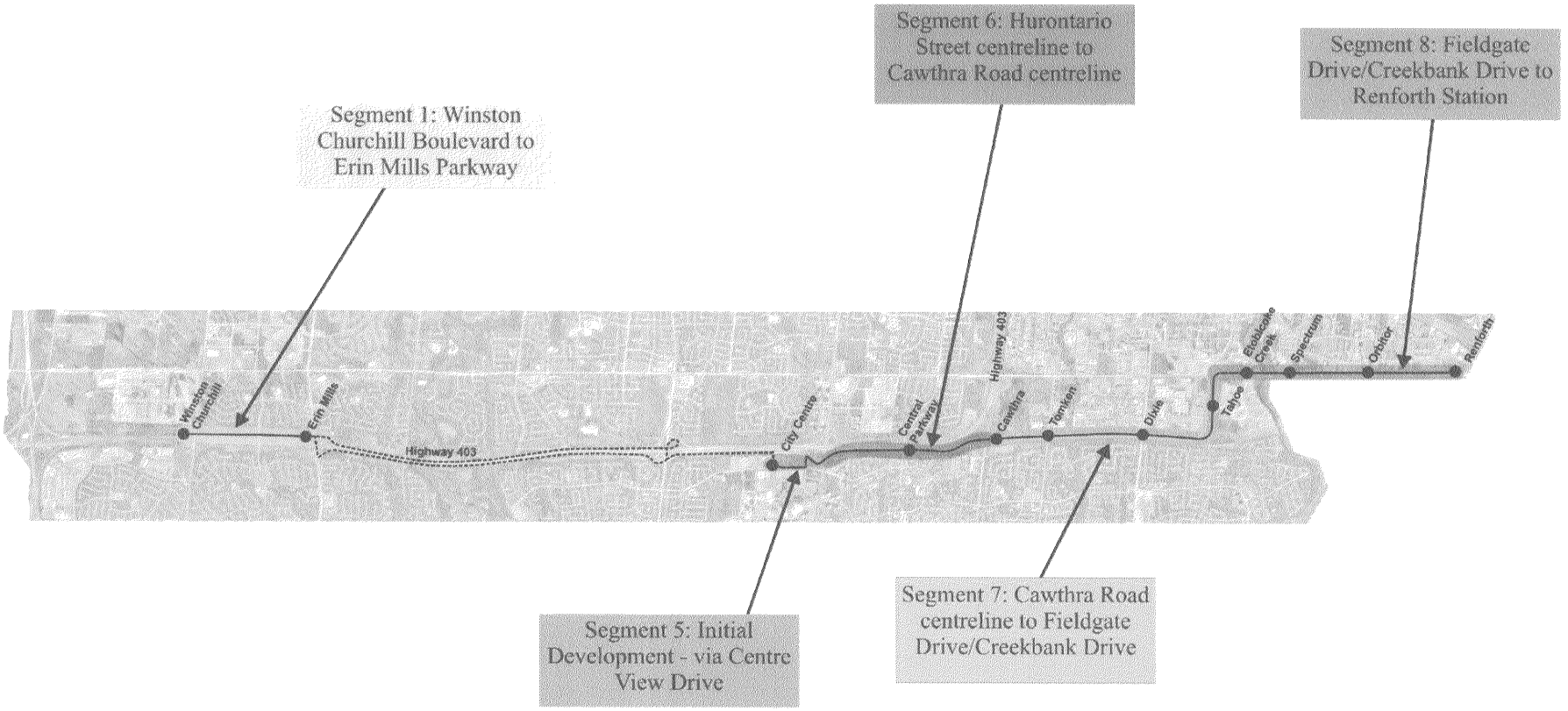
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Transportation and Works Department

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June 18, 2008
File: PO.04.DES - 200

Mr. Alan Kary
Deputy Director
Policy and Relationships Branch
Ministry of Aboriginal Affairs
720 Bay Street, 4th Floor
Toronto ON M5G 2K1

Dear Mr. Kary:

The City of Mississauga, in partnership with GO Transit, would like to inform the Ministry of Aboriginal Affairs of Phase One of the Mississauga Bus Rapid Transit (BRT) Project. This project involves the construction of a new bus only roadway (busway) across Mississauga and eleven new bus stations. Specifically, the new busway will extend from Winston Churchill Boulevard to Erin Mills Parkway and from the Mississauga City Centre to Renforth Drive running adjacent to the Highway 403, Eastgate Parkway, and Eglinton Avenue corridors. **Figure 1** (attached) provides an overview of the Mississauga BRT Project corridor.

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This notification is being provided in hopes that the Ministry of Aboriginal Affairs - Policy and Relationships Branch can assist us in determining if any First Nation groups may hold an interest in this project. Any input that you can provide would be greatly appreciated. To date only the Mississaugas of the New Credit First Nation have received notification. Please respond to undersigned at the address noted above or feel free to call the Mississauga BRT Project Office at 905-615-3200 extension 5745.

Sincerely,

Geoff Wright, P.Eng, MBA
Director, BRT Project Office

c: M. Powell, Commissioner, Transportation and Works

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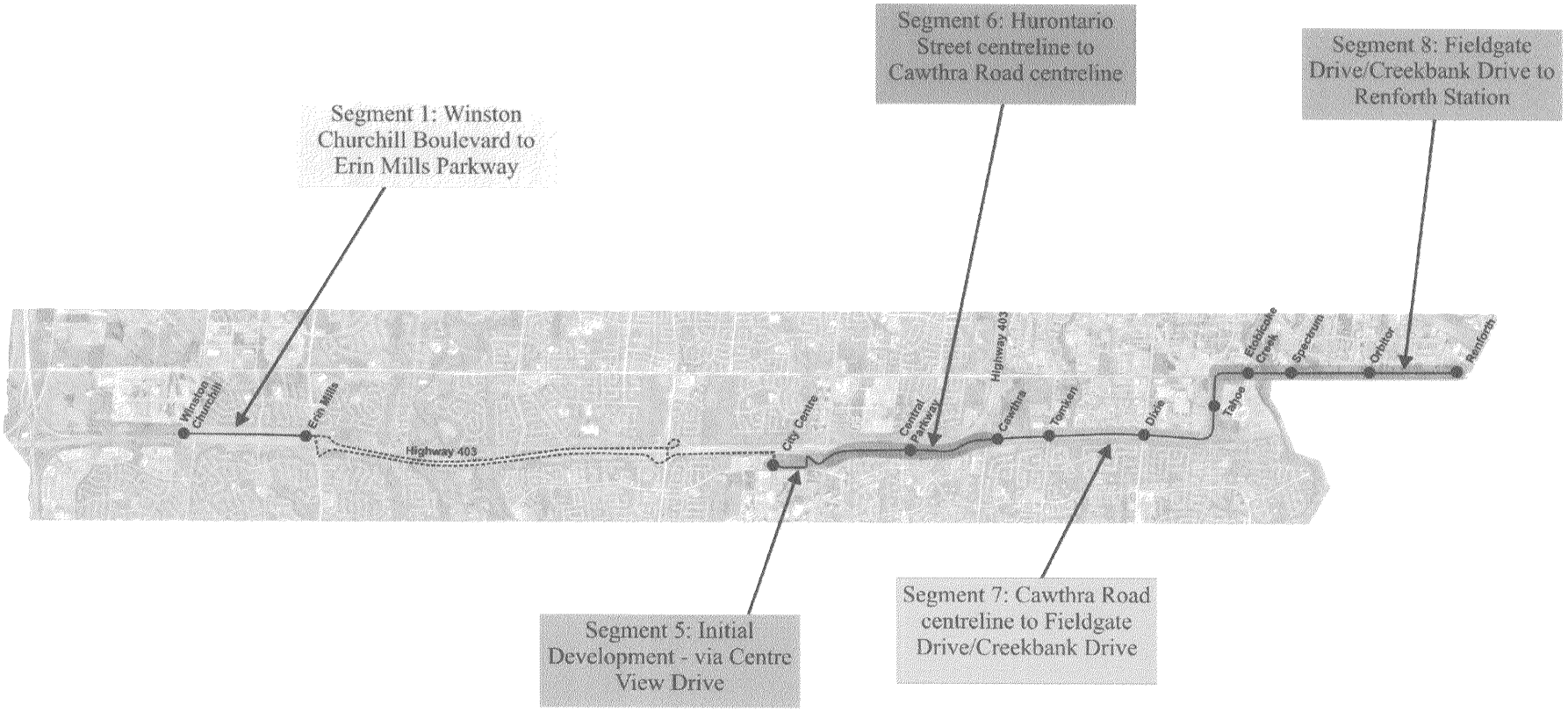
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Affaires indiennes et du Nord Canada
Indian and Northern Affairs Canada

www.ainc-inac.gc.ca

JUL 0 2 2008

Votre référence - Your file

Notre référence - Our file
B 8260-12

Geoff Wright
Director, BRT Project Office
Transportation and Works Department
City of Mississauga
201 City Centre Drive, Suite 800
MISSISSAUGA ON L5B 2T4

Dear Mr. Wright:

Re: First Nation Interests – Mississauga Bus Rapid Transit Project

I am writing in response to your letter of June 18, 2008, inquiring if any First Nation groups may hold an interest in the above noted study.

We have conducted a brief search of our records and determined that a specific claim has been submitted by the following First Nation in the vicinity of the area of interest:

Mississaugas of the New Credit First Nation
2789 MISSISSAUGA ROAD R.R. #6 HAGERSVILLE ON N0A 1H0
(905) 768-1133

I note that you have already contacted this First Nation.

In addition, there is another First Nation in the vicinity of your area of interest. You may wish to contact this First Nation to advise them of your intentions. They can be reached at:

Six Nations of the Grand River
P.O. Box 5000 OHSWEKEN ON N0A 1M0
(519) 445-2201

For more information, you may wish to consult a "Public Information Status Report" on all claims which have been submitted to date. This information is available to the public on the Indian and Northern Affairs Canada (INAC) website and can be found at http://www.ainc-inac.gc.ca/ps/clm/pis_e.html.

It should be noted that the reports available on the INAC website are updated quarterly and therefore, you may want to check this site at regular intervals for updates. In accordance with legislative requirements, confidential information has not been disclosed.

.../2

You may also wish to visit http://www.ainc-inac.gc.ca/nr/iss/acp/acp-eng.asp on the INAC website for information regarding the Federal Action Plan on Aboriginal Consultation and Accommodation.

Please rest assured that it is the policy of the Government of Canada as expressed in *Outstanding Business: A Native Claims Policy* that "in any settlement of specific native claims the government will take third party interests into account. As a general rule, the government will not accept any settlement which will lead to third parties being dispossessed."

We can only speak directly to claims filed under the Specific Claims Policy in the Province of Ontario. We cannot make any comments regarding potential or future claims, or claims filed under other departmental policies. This includes claims under Canada's Comprehensive Claims Policy or legal action by a First Nation against the Crown. You may wish to contact INAC's Negotiations East Branch at (819) 994-7521 or its Litigation Management and Resolution Branch at (819) 934-2185 directly for more information. In addition, you may wish to consult the Assessment and Historical Research Unit at (819) 994-6453, and the Consultation and Accommodation Unit at (613) 944-9313.

To the best of our knowledge, the information we have provided you is current and up-to-date. However, this information may not be exhaustive with regard to your needs and you may wish to consider seeking information from other government and private sources (including Aboriginal groups). In addition, please note that Canada does not act as a representative for any Aboriginal group for the purpose of any claim or the purpose of consultation.

I hope this information will be of assistance to you. I trust that this satisfactorily addresses your concerns. If you wish to discuss this matter further please contact me at (819) 953-1940.

Yours sincerely,

Fred Hosking
Senior Claims Analyst
Ontario Research Team
Specific Claims Branch

From: Lachance, Francois (MAA) [Francois.Lachance@ontario.ca]

Sent: July 7, 2008 2:33 PM

To: Willy Ing

Subject: RE: Mississauga Bus Rapid Transit - Ministry of AboriginalAffairs: Organization of interest to Contact

Dear Willy Ing

With respect to your project, the Bus Rapid Transit Project has indicated that you have contacted the Mississaugas of New Credit. We have reviewed the brief materials you have provided, and can advise that this project does not appear to be located in an area where any additional First Nations may have existing or asserted rights that could be impacted by your project.

François Lachance
Policy Advisor
Ministry of ABORIGINAL AFFAIRS
416-326-4754 (VOICE)

-----Original Message-----
From: Willy Ing [mailto:Willy.Ing@mississauga.ca]
Sent: July 7, 2008 1:57 PM
To: Lachance, Francois (MAA)
Cc: Andrea McLeod; Geoff Wright
Subject: Mississauga Bus Rapid Transit - Ministry of AboriginalAffairs: Organization of interest to Contact

Dear Mr. Lachance,

The City of Mississauga's Bus Rapid Transit Project Office has received a voice mail message from your office in response Geoff Wright's letter dated June 18, 2008 to Mr. Alan Kary (attached). Your message indicated that the only organization of interest that we should contact is the "Mississauga's of the New Credit". It would be appreciated if you would confirm this via e-mail, as we need to make written documentation in our Federal Environmental Assessment (CEAA).

Should you have any concerns, you may contact me.

Willy

Willy Ing
Project Leader, Bus Rapid Transit (BRT)
City of Mississauga
Transportation and Works Department
201 City Centre Drive
Suite 800
Mississauga, Ontario
L5B 2T4.
Phone: 905-615-3200 Ext. 5791
Fax: 905-896-5504

From: Willy Ing [Willy.Ing@mississauga.ca]

Sent: July 11, 2008 12:10 PM

To: hoskingf@inac.gc.ca

Cc: Geoff Wright

Subject: First Nations Interests - Mississauga Bus Rapid TransitProject

Attachments: Fred-Hosking-Response-07-02-08.pdf; BRT PISR July 11 2008.pdf

Dear Mr. Hosking,

Regarding your letter dated July 2, 2008 to Mr. Geoff Wright(attached), the Mississauga Bus Rapid Transit Project Office have researched the Public Information Status Report with respect to a potential claim being made by "Mississaugas of the New Credit First Nations". According to the report, the only claimant that we found which maybe similar is noted on page 186 of 272 "Mississaugas of the Credit (Band - 120)" attached. To assist us with our communications with the First Nations, would it be possible for your office to clarify which specific claim your brief search has revealed?

Should you have any questions please contact me. My contact information is noted below.

Willy Ing
Project Leader, Bus Rapid Transit (BRT)
City of Mississauga
Transportation and Works Department
201 City Centre Drive
Suite 800
Mississauga, Ontario
L5B 2T4.
Phone: 905-615-3200 Ext. 5791
Fax: 905-896-5504
e-mail: willy.ing@mississauga.ca

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Phone Call: July 31, 2008, 11:37:48 am
From: Doherty, Andrea [Andrea.Doherty@DFO-MPO.GC.ca]
To: LeBrun, Kim
Subject: Re: Mississauga BRT – DFO SAR Risk mapping

DFO's Distribution of Species At Risk mapping indicates the potential presence of Redside Dace and Atlantic Salmon in Little Etobicoke Creek within the study area and Elmcrest and Renforth Creeks immediately downstream of the study area.

DFO was contacted to clarify whether the potential presence indicated by the maps pertained to Redside Dace or Atlantic Salmon (or both).

Andrea Doherty confirmed that the SARA potential mapping in these areas was referring only to Redside Dace populations, not Atlantic Salmon.

Andrea confirmed that the only reason these areas are still identified as having potential for Redside Dace is due to the historic records (NHIC reports last record in 1949).

Andrea recommended that Ecoplans check the Redside Dace Recovery Strategy/Plan for additional information.

The Recovery Strategy indicates that Redside Dace has likely been extirpated from the Etobicoke Creek Watershed. TRCA (pers comm. Scott Smith, Tuesday July 29, 2008) confirms that Redside Dace were extirpated from Etobicoke Creek.

Indian and Northern Affairs Canada
Affaires indiennes et du Nord Canada

www.inac.gc.ca
www.ainc.gc.ca

10 SEP. 2009

Your file - Votre référence

Our file - Notre référence

Geoff Wright
Director, BRT Project Office
City of Mississauga
201 City Centre Drive, Suite 800
MISSISSAUGA, ONTARIO L5B 2T4

Dear Mr. Wright:

Re: Mississauga Bus Rapid Transit (BRT) Project – Phase One

I am writing in response to your letter of June 18, 2008 addressed to Franklin Roy inquiring about any claims that may affect the subject property. I regret that we were unable to respond earlier.

We can advise that our inventory does not include active litigation in the vicinity of this property. Please note that we are unable to make any representations regarding potential or future claims.

We cannot make any comments regarding claims filed under other departmental policies. For information on any claims you should also contact Fred Hosking of the Specific Claims Branch at (819) 953-1940 to inquire about any Specific Claims, and Guy Morin of the Comprehensive Claims Branch at (819) 956-0325 to inquire about any current Comprehensive Claims.

.../2

If you have any further questions please do not hesitate to contact me at (819) 994-1947.

Sincerely,

Marc-André Millaire
Litigation Team Leader
Litigation Portfolio Operations East
Litigation Management and Resolution Branch

DISCLAIMER: In this Disclaimer, "Canada" means Her Majesty the Queen in right of Canada and the Minister of Indian Affairs and Northern Development and their servants and agents. Canada does not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any data or information disclosed with this correspondence or for any actions in reliance upon such data or information or on any statement contained in this correspondence. Data and information is based on information in departmental records and is disclosed for convenience of reference only. Canada does not act as a representative for any Aboriginal group for the purpose of any claim. Information from other government sources and private sources (including Aboriginal groups) should be sought, to ensure that the information you have is accurate and complete.

First Nations

Transportation and Works Department

City of Mississauga
3484 Semenyk Court
MISSISSAUGA ON L5C 4R1

FAX: 905-896-5504
FAX: 905-615-3173
www.mississauga.ca

Leading today for tomorrow

March 19, 2008
File: FA.05.CEA

Chief M. Bryan Laforme
Mississaugas of the New Credit First Nation
RR #6, Hagersville, Ontario
N0A 1H0

Dear Chief Laforme:

The City of Mississauga, in partnership with GO Transit, would like to inform the Mississaugas of the New Credit First Nation that a Federal Environmental Assessment has been initiated through the Canadian Environmental Assessment Agency (CEAA) for Phase One of the Mississauga Bus Rapid Transit (BRT) Project.

This project involves the construction of a new bus only roadway (busway) across Mississauga and eleven new bus stations. Specifically, the new busway will extend from Winston Churchill Boulevard to Erin Mills Parkway and from the Mississauga City Centre to Renforth Drive running adjacent to the Highway 403, Eastgate Parkway, and Eglinton Avenue corridors. **Figure 1** (attached) provides an overview of the Mississauga BRT Project corridor.

In 1992, the Provincial Ministry of the Environment approved the Mississauga BRT Project from Ridgeway Drive in the west to Renforth Drive in the east and addendum in 2004. We enclose a copy of the latest addendum for your information.

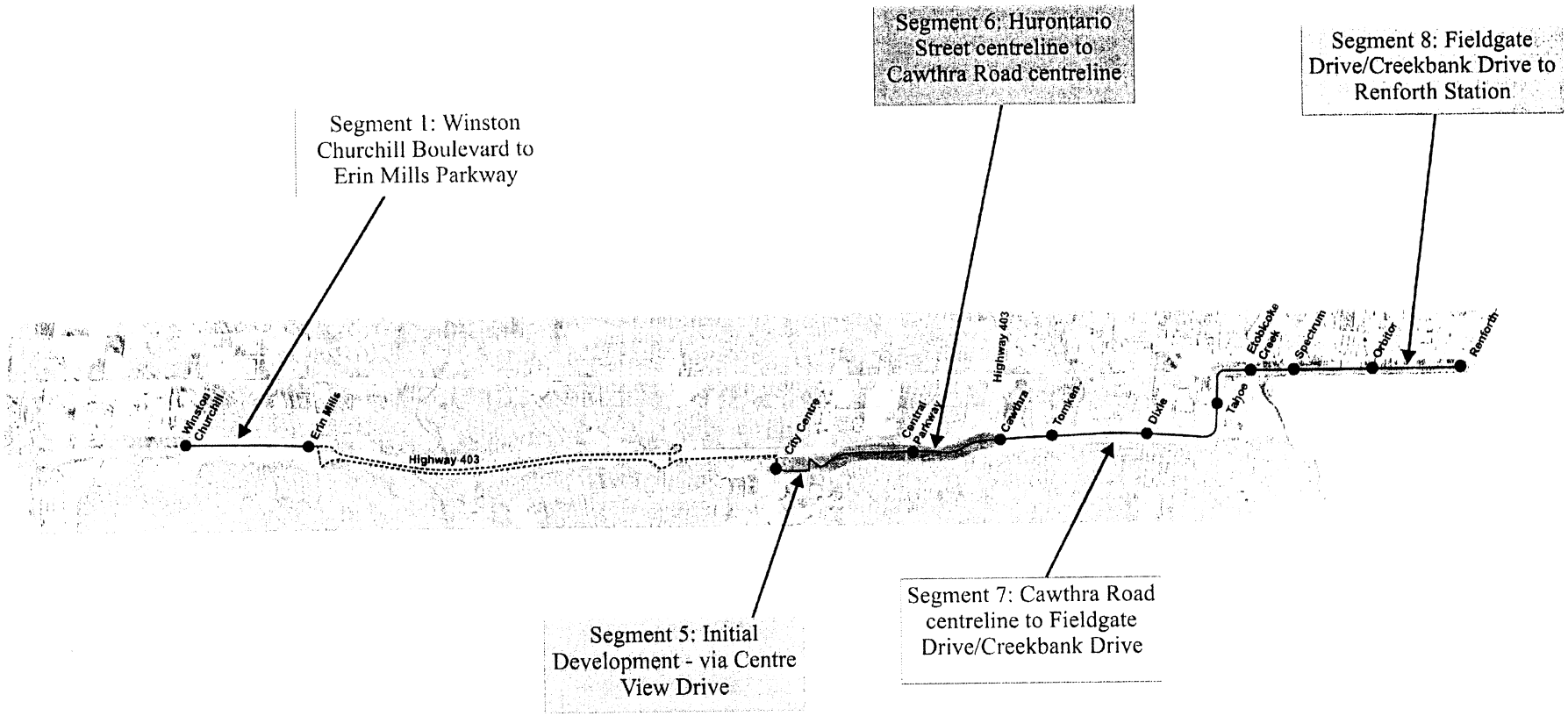
We would invite you to provide comments on the CEAA Screening Report for the Mississauga BRT Project once it is released. As well, if you would like to discuss this project in greater detail, please contact the Mississauga BRT Project Office at 905-615-3200 extension 5745 to arrange a meeting.

Sincerely,

Geoff Wright
Director, BRT Project Office

c: M. Powell, Commissioner, Transportation and Works
R. Parkin, Transport Canada

Figure 1


Segment 6: Hurontario Street centreline to Cawthra Road centreline
Segment 8: Fieldgate Drive/Creekbank Drive to Renforth Station
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Erin Mills
Highway 403
City Centre
Central Parkway
Highway 403
Cawthra
Tomken
Dixie
Tahoe
Etobicoke Creek
Spectrum
Orbitor
Renforth
Segment 5: Initial Development - via Centre View Drive
Segment 7: Cawthra Road centreline to Fieldgate Drive/Creekbank Drive

Transportation and Works Department

City of Mississauga
3484 Semenyk Court
MISSISSAUGA ON L5C 4R1

FAX: 905-896-5504
FAX: 905-615-3173
www.mississauga.ca

Leading today for tomorrow

March 19, 2008
File: FA.05.CEA

Chief M. Bryan Laforme
Mississaugas of the New Credit First Nation
RR #6, Hagersville, Ontario
N0A 1H0

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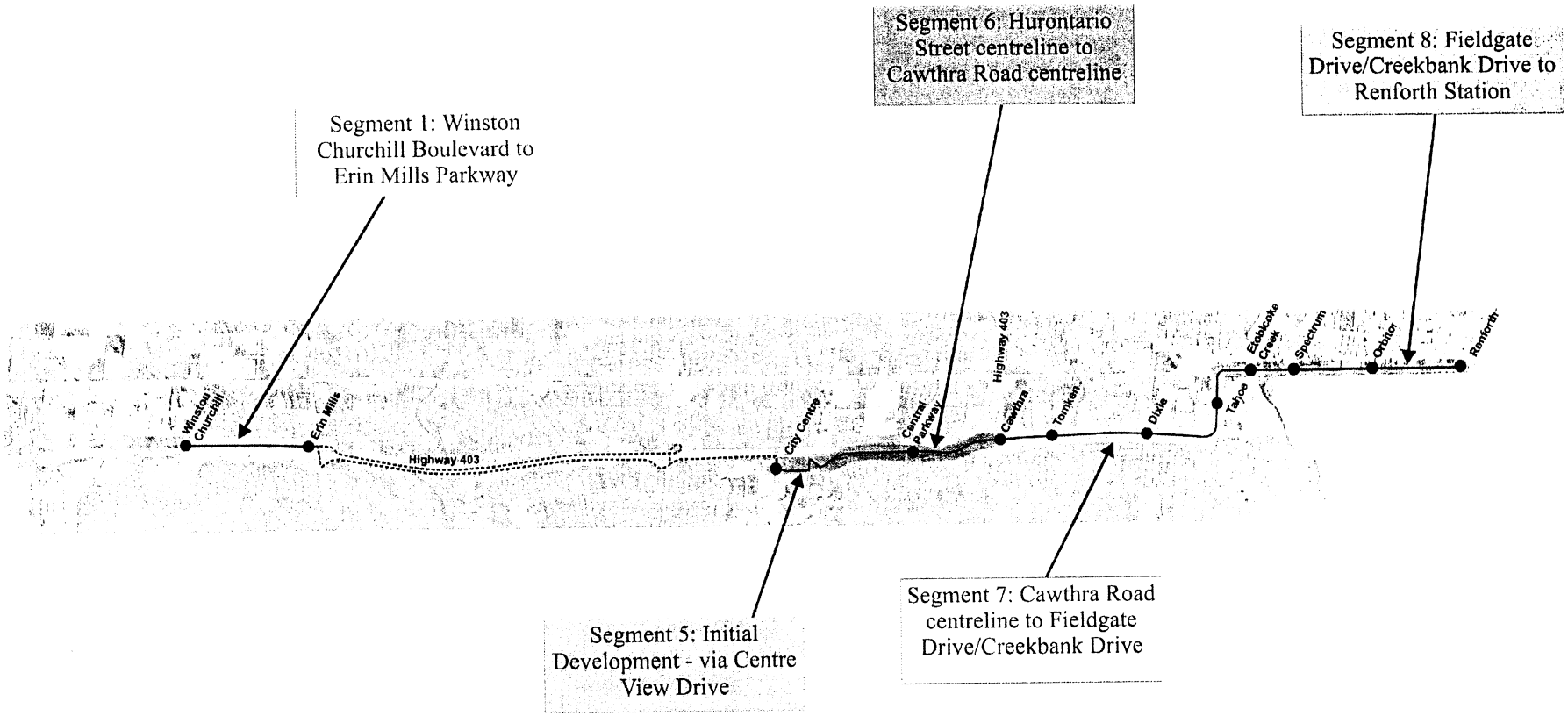
Sincerely,

Geoff Wright
Director, BRT Project Office

c: M. Powell, Commissioner, Transportation and Works
R. Parkin, Transport Canada

Figure 1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Transportation and Works Department

City of Mississauga
201 City Centre Drive, Suite 800
MISSISSAUGA ON L5B 2T4

www.mississauga.ca

Leading today for tomorrow

July 16, 2008
File: PO.04.DES - 200

Six Nations of the Grand River
P.O Box 5000
Ohsweken, Ontario
N0A 1M0

Dear Sirs:

The City of Mississauga, in partnership with GO Transit, would like to inform the Six Nations of the Grand River of Phase One of the Mississauga Bus Rapid Transit (BRT) Project. This project involves the construction of a new bus only roadway (busway) across Mississauga and eleven new bus stations. Specifically, the new busway will extend from Winston Churchill Boulevard to Erin Mills Parkway and from the Mississauga City Centre to Renforth Drive running adjacent to the Highway 403, Eastgate Parkway, and Eglinton Avenue corridors. **Figure 1** (attached) provides an overview of the Mississauga BRT Project corridor.

In 1992, the Provincial Ministry of the Environment approved the Mississauga BRT Project from Ridgeway Drive in the west to Renforth Drive in the east and a subsequent Environmental Assessment Addendum in 2004. The BRT Project is currently in the Preliminary Design stage, which also includes the undertaking of a Canadian Environmental Assessment Act Screening Report.

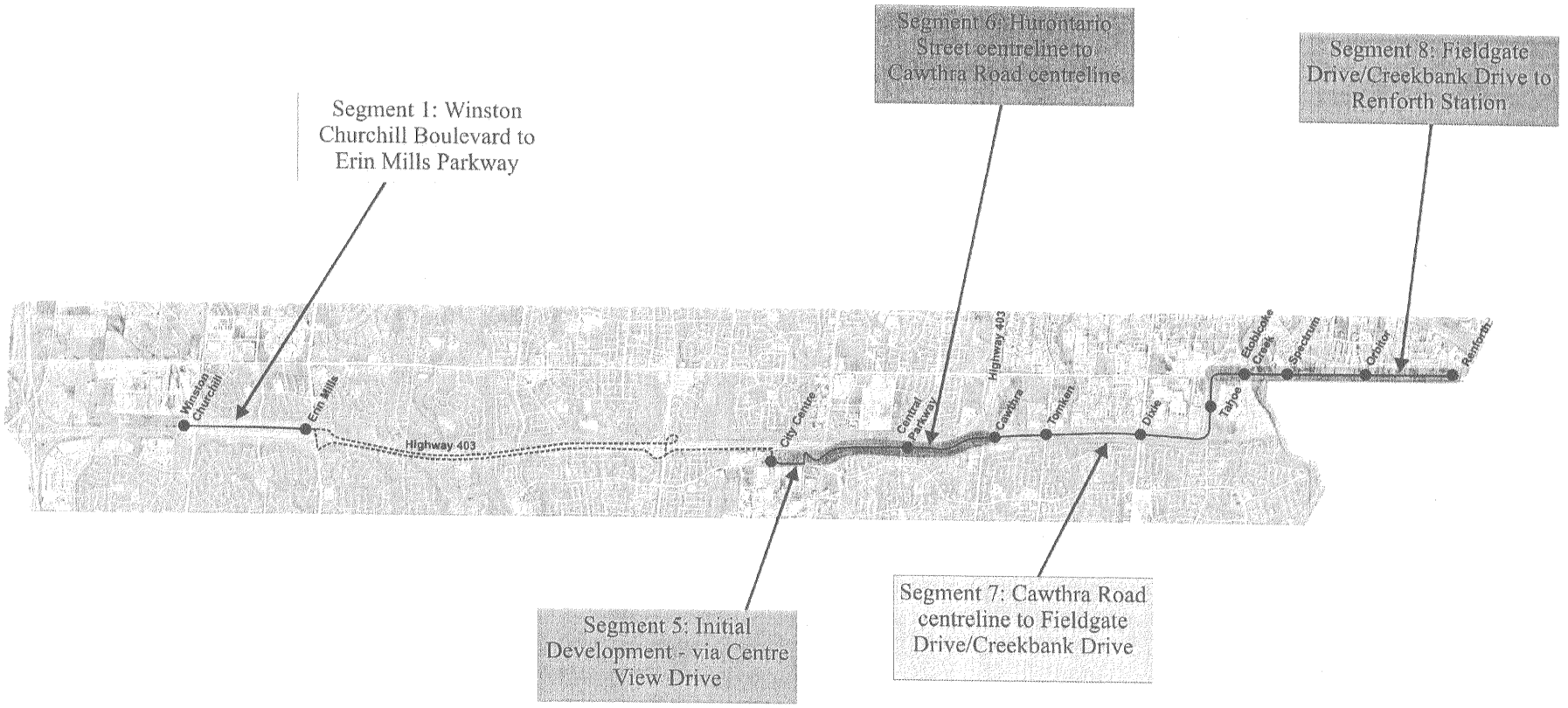
This notification is being provided in hopes that the Six Nations of the Grand River can assist us in determining if you may hold an interest in this project. Any input that you can provide would be greatly appreciated. To date we have notified the Mississaugas of the New Credit First Nation, the Ministry of Aboriginal Affairs, and the Department of Indian and Northern Affairs. Please respond to the undersigned at the address noted above or feel free to call the Mississauga BRT Project Office at 905-615-3200 extension 5745.

Sincerely,

Geoff Wright, P.Eng., MBA
Director, BRT Project Office

c: M. Powell, Commissioner, Transportation and Works

Figure 1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Dixie
Tahoe
Etobicoke Creek
Spectrum
Chintor
Renforth
Segment 5: Initial Development - via Centre View Drive
Segment 7: Cawthra Road centreline to Fieldgate Drive/Creekbank Drive

From: Willy Ing [Willy.Ing@mississauga.ca]
Sent: October 20, 2008 4:13 PM
To: Bright, Katie; Bricks, Mike
Cc: Geoff Wright; Schijns, Steve; Shea, Andrew; Andrea McLeod
Subject: Our phone call to Six Nations of the Grand River

Hi Mike and Katie,

I called the Six Nations of the Grand River today and spoke to Kate Cave (1-519-445-2563). They did receive our letter of July 16, 2008, but did not respond to us as they didn't have any interest in our BRT Project.

However, I advised Kate that our project is along existing corridors and that an archaeological review is being conducted as part of our project. Kate replied indicating that if the archaeological review reveals any remains, they need to be contacted and advised of the findings, otherwise they do not need to see the reports.

Willy

Willy Ing
Project Leader, Bus Rapid Transit (BRT)
City of Mississauga
Transportation and Works Department
201 City Centre Drive
Suite 800
Mississauga, Ontario
L5B 2T4
Phone: 905-615-3200 Ext. 5791
Fax: 905-896-5504
e-mail: willy.ing@mississauga.ca

Transportation and Works Department

City of Mississauga
201 City Centre Drive, Suite 800
MISSISSAUGA ON L5B 2T4

www.mississauga.ca

Leading today for tomorrow

October 21, 2008
File: PO.04.DES-200

Chief Laforme
Mississaugas of the New Credit First Nation
2789 Mississauga Road
R.R. #6 Hagersville, Ontario
N0A 1H0

Dear Chief Laforme:

Further to my letter of March 19, 2008, a copy of which is attached for your convenience, we would like to inform the Mississaugas of the New Credit First Nation that we are currently undertaking the final phases of the required Canadian Environmental Assessment Agency screening report, and our addendum to the approved Provincial Environmental Assessment for the Mississauga Bus Rapid Transit (BRT) project.

For your information, as part of our project we are conducting an archaeological review. Once this archaeological review is completed and should the review reveal the presence of any remains, we will endeavour to notify the Mississaugas of the New Credit First Nation.

Should you have any questions or concerns regarding our BRT Project, please contact me at 905-615-3200, extension 4940 (email: geoff.wright@mississauga.ca), or contact Mr. Willy Ing, BRT Project Leader, at 905-615-3200 ext. 5791 (email willy.ing@mississauga.ca).

Sincerely,

Geoff Wright, P.Eng., MBA
Director, BRT Project Office
905-615-3200 ext. 4940

WI:arm
Enclosure

c: M. Powell, Commissioner, Transportation and Works
W. Ing, BRT Project Leader