

No.	Section	Comment/Concern	Response
		p. Plates: An index key plan figure for these 33 plates would be useful; station locations should include proposed access/egress roadways, etc.	p. Agreed. A key plan was added to the updated EPR (dated February 2011). Station locations include the proposed access/egress roadways (dated December 23, 2010).
7.14	7. Impact Assessment, Mitigation & Monitoring	a. Section 7.1.1: Identify environmental technical studies undertaken to assess impacts and discuss results of those studies; identify further studies to be undertaken to provide detailed impacts, mitigation measures, monitoring and contingency plans; is a commitment in EPR?	a. Section 7.1.1 was modified to list studies undertaken.
		b. Table 7-1: <i>Contaminated Properties and Waste</i> and <i>Air Quality</i> should appear in the Natural Environment category; matrix rating and description does not coincide with information in tables outlining impacts, mitigation measures and monitoring.	b. Table 7-1 was removed and instead a summary of key impacts is included. The Contaminated Properties and Waste and Air Quality criteria now appear under the Natural Environment category.
		c. Section 7.2: Impacts as related to the specific activities identified in the matrix as runningway, bridges and culverts; station (including platforms, PPUDO, parking, etc.), the Operations and Maintenance Facility, and stormwater management facilities have not been presented; impacts to surface and groundwater must be acknowledged.	c. Section 7.2 was revised to include any impacts related to the specific activities and facilities listed in the comment.
		d. Section 7.2.1: All environmental factors are to be discussed; use subheading for each factors.	d. Agreed. Section 7.2.1 was revised to include sub-headings for each factor.
		e. Table 7-2: Define OPSS 180; ensure that <i>Contaminated Properties and Waste</i> and <i>Air Quality</i> are added to this table; has the Department of Fisheries and Oceans (DFO) been consulted?	e. Table 7-2 was revised to include the OPSS 180 definition and to include the two environmental factors mentioned in the comment. The Study Team initially contacted DFO. Study team directed that the response from DFO was to be removed from the project contact list and to directly contact TRCA.
		f. Section 7.2.2: All environmental factors, consistent with that presented in the matrix, are to be discussed (e.g. it appears that Land Use; Noise and Vibration; Property; and Utilities represent <i>Socio-Economic</i> whereas Built Heritage and Cultural Heritage Landscapes; and Archaeological Resources represent <i>Cultural Environment</i> and Traffic Operations; Transit Services; and Navigation represent <i>Transportation</i>).	f. Table 7-1 was removed and Section 7.2.2 was revised to discuss all environmental factors that will be affected by footprint impacts.
		g. Table 7-3: See comments above (d & f) re: grouping factors; all factors to be presented in table; environmental value/criterion for transportation does not correspond with the matrix.	g. Table 7-3 was revised to be consistent with the grouping of environmental factors as per the presentation in the revised Section 4 .
		h. Section 7.2.3: Identify timeframe for completion of refinement of potential utilities conflicts.	h. Section 7.2.3 has been revised and completed.
		i. Table 7-4: As marked by the X, it appears that all identified utilities have potential conflicts.	i. Table 7.4 has been revised and completed. Only significant utility conflicts are not included such as location, type of utility/service line, owner of the plant, conflict or potential conflict, mitigation or recommendations for the design phase.
		j. Section 7.3: See comments above (c, d, and f) re: discussing and grouping of all factors.	j. Section was revised as per responses above for c, d and f.
		k. Page 154 & Table 7-5: Explain relevance of statement beginning "With several exceptions..."	k. The statement was removed to avoid any confusion and the sentence was revised to read: "The nesting season for the majority of the species is from April 1 to July 31"
		l. Section 7.3.2 & Table 7-6: Move <i>Air Quality</i> and <i>Contaminated Property and Waste</i> discussion to natural Environment section; ensure all factors are presented in table.	l. Agreed, the two environmental factors were relocated to Section 7.3.1 Natural Environment.
		m. Section 7.3.3: Identify the "Highway Authorities" being referenced.	m. Referenced paragraph of Section 7.3.3 has been edited to read: "Also, during the Detailed Design Stage, consultation with the corresponding Municipal and Provincial Authorities (York Region, local Municipalities and MTO), as well as other stakeholders (407 ETR) will be sought to determine the requirements to maintain safe operation of traffic on the road network affected by the construction of the 407 Transitway."....
		n. Table 7-7: The environmental value/criterion presented does not correspond with the matrix.	n. Section has been edited..
		o. Section 7.4: Discuss factors for all activities, including all environmental value/criterion.	o. Agreed; this has been completed.
		p. Section 7.5: In addition to a summary of impacts, this section should include summary of future commitments related to mitigation and monitoring.	p. Section 9 lists the future commitments related to mitigation and monitoring. A statement was added to refer to Section 9 .
7.15	8. Implementation	a. Section 8.1.2: provide missing figure referenced on page 170.	a. Figure has been provided in the final EPR.
		b. Section 8.2: additional information required related to the stormwater management plans.	b. A preliminary stormwater management plan has been prepared and is included in the Drainage, Hydrology, Stormwater Management and Floodplain Hydraulics Report in Appendix L of the EPR. During the Detailed Design Stage, a final Stormwater Management Plan will be prepared.
7.16	9. Commitments to Future Action	a. Provide list of commitments to stakeholders.	a. Agreed; this has been provided.
		b. Section 9.4: Provide approximate timing for completion and submission of screening.	b. The CEAA screening will be conducted during the Detailed Design Stage. Approximate timing is not currently available. A CEAA Project Description has been prepared and submitted to CEAA.

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8.1	Air Quality Impact Assessment	d. In section 3.2.2 paragraph 4, it stated that the two future scenarios are both based on an average speed of 100km/hr. This is assuming that there will be no congestion during peak traffic periods at key points of access in the no build scenario. The validity of this assumption of the modeling should be explained by the proponent.	d. In Section 3.2.2, paragraph 4 of the AQIA report, it states that the average speed used in CAL3QHCR modelling was 100 km/h on Highway 407. It is an industry standard approach to use the posted speed limit as the average speed for a model simulation. Only one speed can be assigned to each road segment modelled and it is difficult to estimate the temporal and spatial extent of worst-case traffic conditions particularly for a future scenario (i.e., which areas will experience congestion). In addition, vehicle speed only impacts tailpipe emissions, which are comprised of gaseous contaminants and particulate matter less than 2.5 microns (PM2.5). The difference in the emission factor (g/VKT) for a light or heavy duty vehicle travelling at 100 km/hr versus 50 km/hr is a ratio of approximately 1.19 (in other words the emissions are 19% higher when the higher vehicle speed is used). Therefore, an assumed speed of 100 km/hr is conservative in comparison to an assumed speed of 50 km/hr. It should be noted that a higher speed will have a larger emission factor for NOx, CO and PM2.5 but for VOC compounds the inverse is true. Typically, the primary contaminants of concern are NOx and the PM fractions. Therefore, our assumption of 100 km/hr is considered to be reasonable.
		e. In Section 5.4, the comparison of existing conditions (2008) to future scenarios (2031), reference to the hourly values and 8 –hourly values presented in tabular form in Appendix B should be made and these values should be discussed in the context of expected hourly and 8-hourly exceedances (if any) of the AAQCs.	e. Discussion was added to Section 5.3.1 of the AQIA report in the context of expected hourly NOx exceedances (formerly Section 5.4). It was discovered that this section was improperly numbered and has now been updated in the attached revised report. Discussion about other gaseous contaminant exceedances is found in Section 5.3.2.
		f. In Figure 5.6 Maximum 24-hour PM2.5 Concentrations for Existing and Future Scenarios, B: “24 Hour PM _{2.5} Concentrations including Background – Future without Transitway 2031” the contours reflect concentrations in different levels than the other two figures. It is recommended that comparative figures such as this retain the same contour levels.	f. Figure 5.6 was updated so that the “24-hour PM2.5 Concentrations Including Background – Future without Transitway 2031” has the same contour levels as the other two scenarios. As a result, no contours will be shown as PM2.5 concentrations in the Future without Transitway scenario are outside of the range of these levels. The reasoning behind this is explained in Section 5.5.
		a. EPR, Section 6.4: Table 6-4 proposes that the ministry’s Enhanced (level-1) water quality protection be applied to the Don River and Rouge River. It is not clear what criteria are applied for the Humber River Watershed. Enhanced (Level-1) protection should be applied to all stormwater management facilities, including those in the Humber River Watershed, unless the proponent can justify a lower level.	a. Level-1 protection is being provided for the Humber River Watershed. Table 6-4 has been revised accordingly.
8.2	Surface Water	b. While the proposed stormwater management strategy (SWMS) relies heavily on utilizing twenty-one of the existing SWM ponds for the Highway 407 ETR to treat stormwater runoff from the 407 Transitway, the EPR states that additional hydrologic and hydraulic analysis will be needed at detailed design to confirm the type and extent of the stormwater management works, including studies to determine existing pond capacities at the time of construction. The characterization of potential impacts, evaluation of alternatives and proposed mitigation measures are key parts of the transit regulation project planning process; therefore those studies should be included in the final EPR as opposed to being deferred to detailed design.	b. As-built drawings and drainage areas for the 407 ETR ponds could not be obtained from both TRCA and MTO. Stage-discharge curves and outlet configurations of existing facilities will need to be prepared after a detailed topographic survey for each facility is completed. These activities are best deferred to the Detailed Design Stage. However, based on our preliminary analysis, the volume requirements were calculated to satisfy pre-development to post-development quantity controls for Transitway areas only. The required volumes calculated do not exceed more than 500m ³ per Transitway outlet. A desktop overview of the existing ponds and volumes was also performed. It was found that there is sufficient capacity to provide the additional volumes required for the Transitway. Should the field survey data and Detailed Design Stage work indicate that the additional volume cannot be accommodated in the existing SWM ponds, flat bottom grass swales can be used to provide the required volume. In the worst case scenario, an elongated/cascading facility (refer to our enhanced swale locations along the Transitway as indicated in Appendix A of the Drainage Report that will be approximately 90m long, with 1.5m depth and a 2m flat bottom would be needed to accommodate the required volume. The final arrangement – modification of existing SWM pond and/or elongated/cascading grass swales - will be determined during the Detailed Design Stage.
		c. The SWMS states that grassed swales will be used when SWM ponds are not used or where there is no extra capacity with existing SWM ponds. According to the ministry’s Stormwater Management Planning and Design Manual, 2003, grassed swales alone cannot meet Enhanced (Level 1) water quality protection and should be used as part of a treatment train approach.	c. Section 6.4 of the Final EPR now reads: “Where Transitway drainage contributes to an existing SWM pond either directly or via a grass swale with or without quantity storage, quality treatment will continue to be provided by the existing SWM pond. Where the runoff does not contribute to a SWM pond, water quality treatment will be provided by the enhanced grass swales. The enhanced grass swales will be part of a treatment train approach comprised of: sheet flow off the roadway surface; flow through grassed filter strips (roadway embankment); and enhanced grass swales. Enhanced grass swales have been shown to reduce TSS by 76% and grass filter strips provide a reduction of 20% to 80% (Low Impact Development Stormwater Management Manual, Toronto and Region Conservation and Credit Valley Conservation, Draft 2009). While the report does not provide documentation on a combination of grass filter strip and enhanced grass swale, it is expected that the combination should provide a total reduction of at least 80%, which would meet the Enhanced (Level 1) water quality target.”
		d. Mitigation measures to reduce thermal impacts to waterbodies designated as coldwater fisheries should be included as part of the SWMS.	d. During the Detailed Design Stage, SWM facilities proposed to outlet to these systems will explore opportunities to reduce thermal impacts during the summer period. This could include enhanced infiltration measures, shading of outfalls and ponds, drawing water from deep portions of the ponds or other treatment options (bio-retention units, grassed swales, etc.). This statement was added in the final EPR, Section 7.

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10.9	Section 6.2.2.6/7 – Woodbine Station	There appears to be a watercourse/drainage feature across this property that has not been identified or discussed within the Natural Heritage Report. Details regarding this tributary are needed as the transitway is proposed to cross it. There also appears to be a drainage feature paralleling the transitway and woodlot edge. The form and function of these features needs to be investigated. Limits of development for the station and parking facilities needs to be established, with station and parking areas appropriately designed to protect these features. Wetland habitats on site need to be identified for protection, and impacts mitigated to the extent possible.	<p>The watercourse in question is a small intermittent watercourse. This watercourse flows in a northerly direction into a poorly defined swale within the woodland swamp adjacent to Highway 407. The swale eventually flows into the Tributary of Beaver Creek (R8) and as such likely supports a seasonal warmwater fish community. The new crossing structure will likely not constitute a HADD, due to the seasonal nature of the warmwater fish community in this channel which makes this a low sensitivity system. Further analysis of the watercourse/drainage features and the design of the crossing structure will be addressed at the Detailed Design Stage.</p> <p>A narrow portion of the Green Ash Mineral Deciduous Swamp (SWD2-2), at the southeast corner of Highway 407 and Woodbine Avenue, will be impacted due to the construction of the Transitway and Woodbine/Rodick Road Station. Red ash is the dominant tree both in the canopy and understorey, and the ground cover is dominated by broad-leaved cattail (<i>Typha latifolia</i>). During the Detailed Design Stage, design efforts will be made to minimize any impacts to this swamp. Erosion control fencing along its southern, western and eastern boundaries to provide protection from sediment transport will be considered. Edge management, post-construction should be undertaken to mitigate the spread of invasive species along the newly created edges.</p> <p>The above information has been included in Section 7 of the EPR.</p>
10.10	Section 6.2.2.8 – Kennedy Station	The existing drainage features should be identified on plans. It appears that transit oriented development is proposed that would remove these features. Staff does not support this, and request that the potential future development locations be removed from plans. As noted previously, the limits of development for the station and parking facilities need to be established to ensure natural features are protected. Further detailed assessment of the form and functions of these features will be required.	Transit oriented development is not part of this undertaking, and if it occurs, it will be subject to Town of Markham planning approval. The references to this development have been removed from the final EPR. Further details of the form of the Transitway station facilities will be developed in collaboration with Metrolinx and the Town of Markham during the Detailed Design Stage. Detailed assessment of effects on natural features and any necessary mitigation will be provided during the approval and permitting process for these works.
10.11	Section 6.3.2 – Bridge Sizing	TRCA staff would like to ensure that ecological functions are maintained or improved at all crossing locations. Bridge sizing should include assessment of long-term channel movement (via meander belt) and provide for wildlife as well as fish passage. This issue can be addressed at detailed design, but understanding of expectations and commitments to address TRCA issues should be identified in EA.	Agreed. The water crossing structures sub-section under Section 6.3 has been modified to read: <i>" Waterway crossing: A crossing structure used where the Transitway will pass over a waterway (river, creek, tributary). The crossing configuration was determined through an assessment of ecological constraints, and both hydraulic and structural requirements. A hydraulic analysis (see Drainage Report in Appendix M) was undertaken to establish the design flood levels at the crossing, the opening required for the watercourse through the bridge and the required bridge deck clearance. This information was used to identify the preferred structure type and prepare the preliminary design. During the Detailed Design Stage, the actual bridge spans will be confirmed based on additional field surveying, updated hydraulic modelling, the actual shape of the section under the bridge, a detailed assessment of long-term channel movement (via meander belt analysis), erosion effects, and provision of wildlife and fish passage."</i>
10.12	Table 7-1	<p><i>Impacts to fish and fish habitat will result from the construction of both bridges and culverts, but this does not appear to be identified. While the most damaging effects can be mitigated to avoid a HADD, it is not accurate to assume no impacts in either the short or long terms when watercourses are covered, and the impacts are cumulative. Also, it is staff opinion that impacts to wildlife and wildlife habitat can be negatively affected by additional watercourse crossings, particularly if passage is further impaired. Vegetation, wildlife habitat and fish habitat are also potentially affected by the proposed maintenance and storage facilities, as well as for stations. Despite being predominantly "cultural" landscapes, they provide habitat, including potential habitat for species at risk in the case of cultural meadow habitats. These are permanent impacts related to the project footprint, and it is staff opinion that this has been understated in the EPR.</i></p> <p><i>There also appears to be potential impacts to fish and fish habitat at the proposed Woodbine Station as there are watercourses illustrated on mapping, but not addressed in the background report (NHR – Appendix 4).</i></p>	Agreed. Impacts to fish and fish habitat, vegetation and wildlife habitat have now been more clearly stated. Potential impacts to fish and fish habitat have been identified in the EPR (Sections 4, 7, and 9) and an assessment will be conducted during the Detailed Design Stage at the Woodbine/Rodick Station.
10.13	Table 7-2	<p><i>a) The footprint total area is identified in Table 7-2 as 73.06ha. While the areas affected may already have been disturbed historically (thus the cultural label), the impacts to the existing communities directly affected is permanent and significant at the local level. The overall net loss of greenspace, wetlands, and TRCA's defined Natural Heritage System should be identified, and opportunities to provide for improvement within the Parkway belt lands to offset impacts should be provided. Specifically, losses of wetland and tree cover should be mitigated/compensated for, and opportunities to improve meadow habitats considered. Based on the information presented, staff can concur that impacts are not likely to be significant provincially, but the cumulative effects and local impacts need to be more carefully considered and evaluated.</i></p>	<p>The following statements were added in the Natural Heritage Report and in the final EPR:</p> <p>The loss of vegetation and vegetation communities has been broken out into two categories, the preferred alignment for the Highway 407 Transitway, and the associated stations. Overall, there will be a loss of 73.06 ha of vegetated lands which includes a 47.99 ha loss due to the preferred alignment, and a 25.07 ha loss due to the stations. Collectively, this will result in impacts to both terrestrial and wetland habitat. This loss of habitat could result in impacts to the TRCA's Natural Heritage System. The TRCA has identified all of the natural cover in its region. The Natural Heritage System represents natural features that have been evaluated and assessed based on habitat quality as well as species presence. This work has been undertaken, in part, to help direct land use policy, strategic planning and environmental decision-making. Subsequently, an evaluation of any additional impacts to the TRCA Natural Heritage System will be undertaken during the Detailed Design Stage.</p>

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10.13	Table 7-2	<i>h) Within table 7-2, and within section 7.2.1, generally, there should be some discussion of TRCA's defined Natural Heritage System. While not a provincially designated natural area, the System was established to address the "systems approach" to management of natural heritage as identified within the Provincial Policy Statement, and to replace the antiquated "areas" approach.</i>	Agreed. Please refer to comment 10.13 a).
10.14	Table 7-5	<i>a) Please include reference to the need to address staff issues surrounding dewatering and its implications to natural features and fish habitat, as well as the efforts to achieve a no harmful alteration, disruption or destruction (HADD) as a result of dewatering operations. Commitment to the preparation of an EMP as necessary should be provided. Monitoring for compliance and performance should be anticipated.</i>	Agreed. Reference to the need to address TRCA issues surrounding dewatering and its implications to natural features and fish habitat, efforts to achieve a no harmful alteration, disruption or destruction (HADD) has been included. Commitment was provided for the preparation of an EMP as necessary. Monitoring for compliance and performance has been anticipated.
		<i>b) While staff supports the proposed mitigation measures generally, it should be noted that mitigation is not restricted only to the measures stated, but may include additional measures as deemed necessary by regulatory agencies. It is during detailed design that clarity regarding the full scale of impacts is resolved, and this needs to be acknowledged within the EA. The full suite of mitigation and compensation options identified within this report should be carried forward into the main body of the Environmental Project Report.</i>	Agreed. Statement added to indicate that during the Detailed Design Stage, further studies will be made to develop in more detail mitigation measures and that the presented mitigation measures in the EPR are based on preliminary design. The full suite of mitigation and compensation options stated in the Natural Heritage report has been carried forward into the final EPR.
		<i>c) Please identify that additional mitigation measures may be required based on detailed design, and that compensation requirements will also be established at detailed design. A commitment to try and achieve an ecological gain should be identified, with details to be addressed during detailed design.</i>	Agreed. Commitment was added to review mitigation and compensation with the potential of achieving ecological gain during the Detailed Design Stage.
10.15	Draft Natural Heritage Report (Appendix 4)	<i>a) Figure 2b and Table 1 do not identify the drainage feature that appears to be present between site D15 and R8. Please provide information regarding this feature.</i>	Agreed. Missing information on feature was included.
		<i>b) In Table 1, staff suggests that under flow conditions, the overall flow pattern be identified rather than based on single state condition. For example, flows should be identified as ephemeral, intermittent or permanent as this is more significant in terms of fish and fish habitat form and function.</i>	Agreed. Flow conditions were added to the report.
		<i>c) In section 3.3.1 or 2, staff recommends further discussion regarding the status of redds side dace within the relevant reaches. While they have been present historically, MNR must be contacted to confirm if the species is still present and if review and permitting under the ESA 2007 is required. The date of collections should be noted.</i>	Agreed. The missing information (status of redds side dace, presence, and permitting) was added in the report.
		<i>d) Figure 3b: German Mills Creek is mislabelled as Beaver Creek.</i>	Agreed. Has been revised
		<i>e) Screening by MNR for all species under the ESA2007 should be completed for this project.</i>	Agreed. During detailed design, further studies in consultation with MNR will be conducted for this project.
10.16	Plan and Profile Plates	<i>a) There are some preliminary descriptions of preferred structure sizes – this would be good information to add to the plates for ease of review.</i>	Agreed. Preliminary preferred structures sizes have been included in the plates.
		<i>b) The preliminary descriptions as provided in the Fluviogeomorphic preliminary assessment should also include station locations rather than site numbers that are not referenced or mapped elsewhere (as far as staff could see anyway)</i>	Agreed. The Fluvial Geomorphology preliminary assessment has been revised to include the station locations, in addition to the site numbers, that are referenced/mapped elsewhere.
		<i>c) Plate 31 is not correctly depicting the existing channel location at station 21+650 (approx). The channel to the north has been realigned, and is connected to the existing culvert under Hwy 407 via an open drainage feature (fish habitat) which runs parallel to the 407 for some distance, until it reaches the created wetlands to support the new channel.</i> Alignment as shown will have significant implications to the re-aligned tributary and TRCA requests that the alignment be provided on the south side of the 407 to the extent possible.	The re-aligned Markham Centre Tributary was considered when defining the alignment. The 407 Transitway runningway will not affect the re-aligned channel. Plates 31 and 32 have been revised to include the re-aligned channel according to the information provided by the Town of Markham.

Appendix A: Proposed 407 Transitway Swales (as referenced in Comment 8.2 b)

Area ID (hydrologic modelling)	Area (ha)	From ST	To ST	Outlet	Notes
Black Creek Subwatershed					
1	1.2	1+200	1+700	to Jane Station proposed pond and then to Black Creek Ref # 1	
2 + 3	0.42	1+700	2+015	proposed bioswale by TTC	Transitway low point approx. ST 1+780
4	1.32	2+115	3+115	enhanced swale then to Black Creek Ref # 2	
Don River Watershed					
71	0.61	3+115	3+620	enhanced swale then to Pond ID D1	
72 + 73	1.25	3+620	4+657	underpass at Keele Street; outlet to proposed pond	Transitway low point approx. ST 4+134
74 + 75	1.33	4+657	5+520	enhanced swale then to existing Pond ID D1	Transitway low point approx. ST 5+187
76 + 77 + 61					
62 + 51	0.8	5+520	6+235	to the proposed pond for the GO Barrie Station	
83 + 84	1.56	6+235	7+326	to existing Ponds ID D2 - D3	Ponds D2 and D3 to be redesigned
85 + 86 + 241	1.92	7+326	8+925	to existing Pond ID D4	
242	1.01	8+925	9+766	to enhanced swale then to existing Pond ID D5	
243 + 244 + 232	1.45	9+766	10+770	to enhanced swales, then to Creek Ref # 9	
233 + 234	0.69	10+770	11+350		
262 + 2644	0.85	11+350	12+040	to pond ID D7	
265 + 266 + 267 + 268	2.14	12+040	13+600	underground	Best Management Practices during Detailed Design
269 + 2691 + 301	1.31	13+600	14+700	to existing pond south of transitway (pond ID 9/9A)	
302 + 303	0.58	14+700	15+200		
304 + 310 + 311	1.44	15+200	16+400	to Pond ID D10	
312	0.65	16+400	16+740	to Leslie Station proposed pond	
313	0.67	17+300	16+900	to existing pond ID POND1, north of the transitway	
314	0.79	17+300	17+500	Pond ID POND2	
315 + 316 + 317	0.84	18+650		proposed enhanced swale and then to Pond ID D5/D4	
Rouge River Watershed					
10 + 20 + 30	1.34	18+650	20+307	to Woodbine Station proposed pond	Transitway low point approx. ST 9+567
40 + 50 + 60 + 70	1.4	20+307	21+470	to existing pond ID R3	
80	1.13	21+470	22+790	enhanced swale; possible connection to municipal system	Transitway low point approx. ST 22+790
Total transitway area:		26.7	ha		
Transitway area draining to existing ponds:		14.31	ha (54%)		
Transitway area draining to proposed ponds:		5.24	ha (20%)		
Transitway area draining to enhanced swales:		5.01	ha (19%)		
Underground:		2.14	ha (8%)		

Appendix B: 407 Transitway Water Crossings (as referenced in Comment 10.18 k)

Creek Ref. No	Name	Location	PROPOSED PRELIMINARY STRUCTUTR SIZE (m)	EXISTING STRUCTURE SIZE (m) (info taken from As-Built drawings)		
1	Tributary 1 of Black Creek	East of Highway 400	Humber River 55m span bridge	--		
2	Black Creek	East of Jane Street		70m span bridge	407 Conc. Box (5m span x 3m raise)	
3	Tributary 2 of Black Creek	East of Jane Street			--	
4	Tributary 1 of West Don River	East of GO Barrie Line	Don River 70m span bridge			
5	West Don River	West of Centre Street		80m span bridge	407 Bridge 38m span, no piers	
6	Westminster Creek	West of Dufferin Street and Highway 7		10m span bridge	--	
7	Tributary to East Don (Baker Sugarbush)	West of Bathurst Street		box culvert (4.84 x 2)m	--	
8	East Don River - west tributaries 1-2	East of Bathurst		--	407 Conc. Box (3.9m span x 1.8m raise)	
9	East Don River	West of Yonge Street		--	Highway 7: Box Conc. (6m span x 6m raise) - TRCA HEC-RAS Model 407: Bridge 104m span, 2 piers - 30m apart	
10	Pamona Creek	West of CNR Bala		--	407 Conc. Box (3.9m span x 3.015m raise)	
11	German Mills Creek	West of Bayview Street & Highway 407		50m span bridge	407: EBL Bridge (25.8 - 28.10)m span WBL bridge (26.7 - 29.5)m span	
12	Tributary 1 of German Mills Creek	West of Leslie Street		37m span bridge	407 Conc. Twin Culvert 2 x (3.9m span x 1.8m raise)	
13	Tributary 2 of German Mills Creek	Highway 404/Highway 407			--	
14	Rouge River	West of Warden Ave.		Rouge River 83m span bridge	407: Conc Twin Culvert 2 x (4m span x 3.75m raise)	
15	Tributary 1 of Rouge River	East of Warden Ave.			--	407 Conc. Box (3.5m span x 2.4m raise)
16	Tributary 2 of Rouge River	West of Kennedy Road			--	--

3.4 Consultation with the Public

To facilitate the consultation process, notification of consultation activities/opportunities were provided to the public.

The public was able to choose their level of involvement from one or more of the following options:

- Project website (www.lgl.ca/407Transitway);
- PICs; and,
- Contacting the Study Team directly.

3.4.1 Public Notification

Notification of many of the activities/opportunities was provided through advertisements in local newspapers including the *Vaughan Citizen*, *Markham Economist and Sun* and *The Liberal*. Five notices were placed in the local newspapers including:

- "Notice of Study Commencement" in June 21, 2007 under MTO's Class Environmental Assessment for Provincial Transportation Facilities process as a Group "A" project. This notice was also published in the *Toronto Star*;
- "Notice of Public Information Centre #1" on May 14, 2009;
- "Notice of Public Information Centre #2" on June 17, 2010;
- "Notice of Commencement of Transit Project Assessment Process", on August 26, 2010; and,
- "Notice of Completion", on December 23, 2010.

The "Notice of Study Commencement" advertised in June 2007 occurred when the study was initially following MTO's *Class Environmental Assessment for Provincial Transportation Facilities* process as a Group "A" project. This notice outlined the project and study area, discussed the MTO Class EA process and provided information on how to make comments during the study. The notice informed stakeholders of the project early in the Class EA process, prior to any decisions being made.

The "Notice of Public Information Centre #1" was placed in local newspapers at least one week prior to the events (May 26, 2009 and May 28, 2009). The notice included a discussion of the project, the new TPAP, PIC specifics (including date, time and location) and provided information on how to submit comments to the Study Team.

The PIC #1 brochure was mailed directly to the members of the public listed in the general public contact list on May 20, 2009. In addition, approximately 32,400 copies of the PIC brochure were distributed to residences, businesses and property owners within the two kilometre band centered on Highway 407 Corridor by Canada Post Unaddressed Mail Delivery service during the week of May 18, 2009. Additional copies of the brochure were available at the PIC.

The "Notice of Public Information Centre #2" was placed in local newspapers at least one week prior to the events (June 24, 2010 and June 29, 2010). The notice included a discussion of the project, the new TPAP, PIC

specifics (including date, time and location) and provided information on how to submit comments to the Study Team. Information on the project's website was also included. Information that two presentations (5:00 p.m. and 7:00 p.m.) were planned at the PIC was also included in the notice.

The PIC #2 brochure was mailed directly to the members of the public listed on the general public contact list on June 15, 2010. In addition, approximately 33,000 PIC brochures were distributed to residences, businesses and property owners located within the two kilometre band centered on Highway 407 Corridor by Canada Post Unaddressed Mail Delivery service during the week of June 14, 2010. Additional copies of the brochure were available at the PIC.

The "Notice of Commencement of Transit Project Assessment Process" was placed in local newspapers to initiate the TPAP on August, 26, 2010. To meet the TPAP requirement to publish the notice on two days, the notice was published in the same local newspapers on the next publication date (i.e. August 28 or 29, 2010). Information about the project and how to submit comments to the Study Team was included in the notice.

The "Notice of Completion" was placed in newspapers concurrent with the release of this EPR. The notice provided details about the study, identified locations where copies of the EPR was available for public review, and identified the closing date for submissions of comments and how to contact the Study Team for further information or submission of comments.

3.4.2 Notification to Landowners in Close Vicinity of the Transitway

Meetings with landowners were held on October 21, 2009 and December 1, 2009 to discuss the study and receive any comments.

The "Notice of Commencement of Transit Project Assessment Process" was mailed on August 25, 2010 to registered landowners whose properties are located within 30 metres of the 407 Transitway as per requirements under the Transit Projects Regulation. No responses from landowners from this notice have been received to date.

3.4.3 Public Information Centres (PICs)

Two rounds of PICs were held during this study to provide external agencies/stakeholders, property owners and the public with an opportunity to receive project-specific information, ask questions, share information about the study area, identify any support for and/or concerns with the project, and discuss these matters with the Study Team.

The PICs were organized as informal drop-in centres, where participants were encouraged to review displays and discuss issues with the Study Team. For each round of PICs, there were two PIC venues. For the first round of PICs, one was held just south of the study area at Black Creek Pioneer Village and one in Richmond Hill. For the second round, one was held at Black Creek Pioneer Village and one in Markham. Formal presentations were made twice at each venue of the second round of PICs.

- Suggest a more “active” way of learning to supplement display panels. e.g. Computer activated exhibits
- Is completion of project dependent on future funding?
- Concerned about traffic safety if operated as a bus route due to winter weather
- Emergency vehicles should have access to the 407 Transitway
- More parking at the various sites
- Will shuttle buses be considered?
- Provide a multi-layer map showing the construction/operation schedules and proponent of the different transit projects in the area
- Prefer LRT over BRT, better investment for the long-term
- If transportation is an issue, add more busses on route to different destinations

A response was sent to a resident concerned about impacts to his/her neighbourhood in the Yonge Street area. The response informed the resident that the 407 Transitway facilities will be underground near the subject neighbourhood, thus not affecting the visual environment. Further, it recommended contacting the Town of Richmond Hill regarding land use concerns as land use master plan studies are being conducted by the Town.

Public Information Centre #2

Eleven comment sheets were completed at the PIC. The majority of the comments were submitted at Markham on June 24, 2010. Several sheets were taken away for completion at a later date, and four comments were received following the PIC.

The majority of the comments received from the members of the public were in favour of the 407 Transitway. Specific comments ranged from: the request to implement the project sooner; concerns regarding noise and air pollution; stormwater run-off issues, and, requests to plant hedges and trees to reduce noise and to beautify the area. Many comments suggested various changes to the recommended plan, such as allowing Viva Purple to use the transitway, building small retail and restaurants inside the stations, using subways instead of buses, decreasing the number of parking spaces at Leslie Station, and decreasing the length between transit facilities for better connectivity. All comments received are presented in **Appendix A**. A summary of comments and issues raised by the public and responses provided is **presented** in **Table 3-4**.

Comments received were:

- In favor of the 407 Transitway
- Provide both trees and noise solid barriers instead of just one of the options.
- Requested a hard copy of the PIC display panels.
- Requested to include small scale commercial retail stores and restaurants into the design of stations. The stations should also be clean and safe.
- Concerned about the excess of parking spaces at the Leslie Station.
- Requested the use of renewable energy, local and green construction materials, and energy efficiency strategies and technologies to build the stations.

Table 3-4: PIC Public Comments and Study Team Responses

Public Comments	Study Team Responses
Requested that the transitway be implemented sooner.	On November 28, 2008, Metrolinx adopted the RTP, also known as “The Big Move: Transforming Transportation in the Greater Toronto and Hamilton Area”. Metrolinx is a Government of Ontario agency with a mandate to improve the coordination and integration of all modes of transportation in the GTHA. The RTP presents a plan of implementation and investment listing transportation projects in accordance to priority. The RTP has identified the 407 Transitway from Pearson International Airport to Kennedy Road in Phase Three of the 2008 investment plan which results in it being implemented in the period 16 to 25 years after the RTP release year. If you feel that the 407 Transitway is a project with greater priority than stated in the RTP, we advise that you contact Metrolinx to express your opinion.
Concerned about the increase in noise and air pollution.	Noise and air quality assessment studies are currently being conducted. The assessment studies will identify any potential noise and air quality impacts from the 407 Transitway and will provide, if required, mitigation measures to address the impacts. Results of the assessment studies will be documented in the EPR, which will be released for a 30-day public review. Information on where to review the EPR will be published in local newspapers and a letter will be mailed to you once the EPR is available.
Requested the planting of trees and hedges in the perimeter of the parking lots and the 407 Transitway alignment, in order to reduce noise, beautify the area, and provide safety for pedestrians.	A landscape planting plan based on the preliminary design has been developed. Further development of this plan will occur during the Detailed Design Stage.
Suggested allowing the Viva Purple to use the 407 Transitway between Bayview and Bathurst, and to also allow the YRT 300-series to use the transitway.	The primary travel market to be served by the 407 Transitway will be medium to long-distance trips as each segment of the entire length of the transitway (from Burlington to Highway 35/115) is implemented. Viva and YRT services offer more frequent stops on Highway 7 serving shorter-distance trips which are complementary to the 407 Transitway service. It will be possible for these operators to utilize portions of the transitway for express services on routes which are compatible with the transitway when it is implemented.
Concerned about existing bank erosion and encroachment on the Little German Mills Creek located in the southwest quadrant of Leslie Street and Highway 407. Increase quantity of stormwater runoff from new impermeable surfaces (i.e. proposed parking lot at Leslie Station) will further increase erosion and contaminant discharge into Little German Mills Creek.	A SWM assessment for the 407 Transitway is being conducted. All stormwater runoff generated by 407 Transitway facilities, including the Leslie Station, will be collected and treated prior to discharge in accordance with MOE, MTO and TRCA guidelines and best management practices. During the Detailed Design Stage of this project, a detailed SWM plan will be prepared and circulated to regulatory agencies for review. Erosion and sedimentation controls during construction and operation of the 407 Transitway are also being considered as part of this study. During Detailed Design Stage, an erosion and sedimentation control plan will be prepared and circulated to regulatory agencies for review.
Requested a transportation study at Leslie Street and Green Lane intersection. Currently, there are operational safety issues at Leslie Street and Green Lane intersection resulting in traffic accidents. Proposed Leslie Station will increase traffic volumes on Leslie Street resulting in an increase of traffic accidents.	The 407 Transitway study will address traffic effects at the entrance to the Leslie Station and along Leslie Street in the area. However, as Leslie Street is designated as a York Region Road, any additional transportation studies and information/request regarding Leslie Street and the Green Lane area in particular, should be directed to the Region.

Additional Comments Received

The Concord West Residents Ad Hoc Committee made up of residents in the residential area between Highway 7 and Highway 407 and Keele Street to Centre Street, submitted a letter to MTO on September 27, 2010 presenting an alternative location for the GO Barrie (Concord) Station. The alternative presented by the Committee was to locate the station north of Highway 7 in and around the Concord Floral lands. A response letter dated December 8, 2010 indicated that evaluations of four alternative configurations including the committee's proposal were conducted. An evaluation matrix and drawings were presented (see **Appendix A**). It was concluded that the technically preferred preliminary design alternative, which was developed in consultation with the TRG members, was the most suitable option for the transportation needs at this location. The preferred alternative allows opportunities to mitigate effects on the surrounding communities and improve access to valleylands. It includes the construction of a safe pedestrian crossing of the rail line, which does not currently exist and continuous access through the facilities from the Concord West community to the valley lands. The committee also presented to the MTO a recent sighting of the Blanding's Turtle at the GO Barrie (Concord) Station area. The Blanding's Turtle is regulated under the provincial *Endangered Species Act* (ESA) and the federal *Species at Risk Act* (SARA). The preferred alternative maintains a riparian corridor for turtle and other wildlife migration, as habitat for Blanding's Turtle is not believed to be present at this location. The preferred design also maintains an adjacent woodlot. Further investigations to confirm the presence/absence of Blanding's Turtle and its habitat will be carried out during the Detailed Design Stage. The response indicated that the lands in question have been retained by the Province solely for this planned transportation infrastructure. It was noted that if not required for this transportation infrastructure, the lands would be sold for other uses and community access to the valley at this location could be lost.

MTO received a reply from the Committee on December 16, 2010. MTO has offered to meet with the Concord West Residents Ad Hoc Committee at their earliest convenience to determine if there is any additional mitigation possible to address their concerns.