

Appendix A: Legislative and Policy Context for Watershed Plans

Role of the Watershed Plan

The Watershed Plan sets out long term strategic recommendations for the management of the Humber River watershed, based on an integrated understanding of watershed systems and technical analysis of issues, opportunities and their predicted effects on watershed health. Implementation of the Watershed Plan will rely on the adoption of supportive policies, programs and practices by the various partners. Specifically, the Watershed Plan is intended to inform and guide municipalities, provincial and federal governments and the Toronto and Region Conservation Authority as they update their policies and programs for environmental protection, conservation and restoration within the contexts of land and water use, and the planning of future development. The plan provides direction to local non-governmental organizations and private landowners with regard to best management practices and opportunities for environmental stewardship.

Legislative and Policy Context

Endorsement for a watershed management approach is well established in legislation and local plans and policies, although it is only the *Oak Ridges Moraine Conservation Plan (ORMCP)* which requires municipalities to undertake watershed plans and incorporate their objectives and requirements into municipal official plans and ensure that major development on the Moraine conforms with the watershed plan (see Table A1). *The Humber River Watershed Plan* was prepared to address the requirements of the ORMCP through a larger watershed planning exercise developed for a broader range of management objectives than just conformity with the ORMCP. Thus, the resulting Watershed Plan serves a variety of purposes, and not strictly ORMCP conformity.

Table A1 – Legislative and Policy Documents Promoting Watershed Planning

<p><i>Oak Ridges Moraine Conservation Plan (2002)</i> Watershed plans 24. (1) Every upper-tier municipality and single-tier municipality shall, on or before April 22, 2003, begin preparing a watershed plan, in accordance with subsection (3), for every watershed whose streams originate within the municipality’s area of jurisdiction. (2) The objectives and requirements of each watershed plan shall be incorporated into the municipality’s official plan.</p>
<p><i>Growth Plan for Greater Golden Horseshoe (2006)</i> 3.2.5 Water and Wastewater Systems 7. Municipalities, in conjunction with conservation authorities, are encouraged to prepare watershed plans and use such plans to guide development decisions and water and wastewater servicing decisions.</p>
<p><i>Greenbelt Plan (2005)</i> 3.2.3 Water Resource System Policies The following Water Resource System policies apply throughout the Protected Countryside: 2. Watersheds are the most meaningful scale for hydrological planning, and municipalities together with conservation authorities should ensure that watershed plans are completed and used to guide planning and development decisions within the Protected Countryside. 3. Cross-jurisdictional and cross-watershed impacts need to be considered in the development of watershed plans. The development of watershed plans and watershed management approaches in the Protected Countryside should be integrated with watershed planning and management in the NEP and the ORMCP areas and beyond the Greenbelt. 3.2.5 External Connections To support the connections between the Greenbelt’s Natural System and the local, regional and broader scale natural heritage systems of Southern Ontario,... the federal government, municipalities, conservation authorities, other agencies and stakeholders should: 3. Undertake watershed based planning, which integrates supporting ecological systems with those systems contained in this Plan.</p>
<p><i>Provincial Policy Statement (2005)</i> Water 2.2.1 Planning authorities shall protect, improve or restore the quality and quantity of water by: a) using the watershed as the ecologically meaningful scale for planning; b) minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts; c) identifying surface water features, ground water features, hydrologic functions and natural heritage features and areas which are necessary for the ecological and hydrological integrity of the watershed</p>
<p><i>Clean Water Act (2006)</i> Assessment reports 15. (1) The source protection committee for a source protection area shall prepare an assessment report for the source protection area in accordance with the regulations, the rules and the terms of reference. 2006, c. 22, s. 15 (1). Contents (2) An assessment report shall, in accordance with the regulations, the rules and the</p>

terms of reference,

- (a) identify all the watersheds in the source protection area;
- (b) characterize the quality and quantity of water in each watershed identified under clause (a);
- (c) set out a water budget for each watershed identified under clause (a) that,
 - (i) identifies the different ways that water enters and leaves the watershed and quantifies the amount of water that enters or leaves in each way,
 - (ii) describes the groundwater and surface water flows in the watershed,
 - (iii) quantifies the existing and anticipated amounts of water taken from the watershed that require a permit under section 34 of the *Ontario Water Resources Act*,
 - (iv) quantifies the existing and anticipated amounts of water taken from the watershed that do not require a permit under section 34 of the *Ontario Water Resources Act*, and
 - (v) having regard to the information referred to in subclauses (i) to (iv), describes any existing or anticipated water shortages in the watershed

Conservation Authorities Act (2006)

Objects

20. (1) The objects of an authority are to establish and undertake, in the area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals.

Powers of authorities

21. (1) For the purposes of accomplishing its objects, an authority has power,

- (a) to study and investigate the watershed and to determine a program whereby the natural resources of the watershed may be conserved, restored, developed and managed

Ontario Water Resources Act (2007)

Under the Water Taking and Transfer Regulation (O. Reg. 387/04) Permits to Take Water (PTTW) are issued by the Ministry of Environment. In accordance with the regulation, the Director issuing a PTTW shall consider a suite of environmental issues to the extent that information is available, and relevant to the application. These considerations include:

- The natural variability of water flow or water levels,
- minimum stream flow
- habitat that depends on water flow or water levels, and
- water balance and sustainable aquifer yield.

(While specific reference to watershed plans and associated technical reports is not made in the Regulation, such documents provide information and guidance regarding the considerations noted above)

Municipal Official Plans

York Region (2004)

2.3 Water

It is the policy of Council:

1. To cooperate with area municipalities, the conservation authorities and other agencies in the preparation of watershed planning initiatives to:
 - a) identify headwaters areas and better understand their function, linkages and sensitivities;
 - b) establish and achieve water quality objectives for the watershed;
 - c) address the long-term cumulative impact of development on the watershed;
 - d) create an inventory of existing geology, hydrology, hydrogeology, groundwater recharge areas, limnology, aquatic and terrestrial habitats and other environmental data;
 - e) recommend appropriate stormwater management techniques, including, but not limited to best management practices, the use of natural vegetative drainage corridors and the use

- of permeable surfaces; and
- f) identify the form and constraints under which development may be permitted and provide guidelines for development, design and construction.

Region of Peel (2001)

2.2.4 Watersheds

2.2.4.1 Policies

It is the policy of Regional Council to:

2.2.4.1.1 Promote and participate in watershed plans and subwatershed plans within Peel Region.

2.2.4.1.5 Work jointly with the conservation authorities, the area municipalities and, where applicable, the Niagara Escarpment Commission to integrate subwatershed planning and monitoring information on a regional and watershed basis, in order to assess the cumulative effects of land use changes and the implementation of subwatershed plans.

3.4.1 Water Resources

3.4.1.1 Policies

3.4.2.6 Direct the area municipalities to require appropriate hydrological and hydrogeological studies be undertaken, to the satisfaction of the Region, the area municipalities and the conservation authorities, for all planning initiatives that may have an immediate or cumulative impact on water resources and related natural systems. When possible these studies should be integrated with subwatershed plans.

7.6 Regional Planning Initiatives

7.6.2 Policies

It is the policy of Regional Council to:

7.6.2.2 Support the preparation and implementation of watershed management strategies.

7.9 Monitoring, Reviewing and Updating

7.9.2 Policies

It is the policy of Regional Council to:

7.9.2.5 Work jointly with the area municipalities, conservation authorities and other agencies to determine modifications needed to the official plans, policies and programs of the Region and the area municipalities which may be identified through watershed and subwatershed plans and other related studies.

City of Toronto (2002)

Chapter 2 – Shaping the City

The Official Plan makes reference to watershed plans in the context of managing stormwater. Official Plan policy states that the City will work with neighbouring municipalities and the Province to develop a framework for dealing with growth across the GTA which will, among other things “result in better water quality through water conservation and wastewater and stormwater management based on watershed principles”.

Chapter 3 – Building a Successful City

The Official Plan indicates that private city-building activities and changes to the built environment, including public works, will “reduce the adverse effects of stormwater and snow melt based on hierarchy of watershed-based wet weather flow practices”.

Restoration Plans**Toronto and Region Remedial Action Plan (1994)**

Recommends a watershed-based approach to de-listing impaired beneficial uses of the Toronto waterfront and watersheds, and notes Action 41: Include Watershed Perspectives in Planning Process.

Toronto Wet Weather Flow Management Master Plan (2003)

The City of Toronto Wet Weather Flow Management Master Plan identified a specific need to undertake restoration to mitigate impacts of development in the 905 area and to complement actions being taken in the downstream portion of the watershed. A key guiding principle of the WWFMMP is wet weather flow will be managed on a watershed basis with a natural systems approach being applied to stormwater management as a priority.

Appendix B: Oak Ridges Moraine Conservation Plan Watershed Plan Requirements Conformity Assessment Report

This report documents how requirements of sections 24 and 25 of the *Oak Ridges Moraine Conservation Plan* (Ministry of Municipal Affairs and Housing, 2002) have been satisfied for the portions of the **Humber River watershed** located in the Oak Ridges Moraine Area, based on direction provided by the Province's technical guidance documents (Ministry of the Environment, 2007)¹

Subsection	Requirement	Conformity Assessment	Document Reference
24.(1)	Every upper-tier municipality and single-tier municipality shall, on or before April 22, 2003, begin preparing a watershed plan, in accordance with subsection 24.(3), for every watershed whose streams originate within the municipality's area of jurisdiction.	Watershed planning and on-going watershed management have been activities the Toronto and Region Conservation Authority (TRCA) has carried out in partnership with its municipalities for a number of years. Therefore a watershed plan was deemed to have been initiated prior to April 22, 2003, acknowledging that some study components required updating to varying degrees.	A workplan to fulfill the watershed planning requirements of the ORMCP and direction to initiate the Humber River Watershed Planning Study according to the initial work program was approved by the Authority on Sept. 26, 2003 (Authority Res. #A196/03).
24.(3)	A watershed plan shall include, as a minimum, (a) a water budget and conservation plan as set out in section 25; (b) land and water use and management strategies;	A watershed planning study was initiated by the TRCA, in partnership with the Region of York, Region of Peel, and City of Toronto and area municipalities for the Humber River watershed on June 25, 2004.	A detailed workplan for the Humber River Watershed Planning Study was approved by the Authority on June 25, 2004 (Authority Res. #A191/04)
24.(3) cont'd		A final draft of the <i>Humber River Watershed Plan</i> was completed on March 25, 2008. Approval of the final <i>Humber River Watershed Plan</i> by the Authority was granted at the June 27, 2008 meeting by resolution #A137/08.	Approval of the final <i>Humber River Watershed Plan</i> by the Authority was granted at the June 27, 2008 meeting by resolution #A137/08.
24.(3)		See conformity assessments for sections 25.(1) and 25.(2).	See document references for sections 25.(1) and 25.(2).
24.(3)		The <i>Humber River Watershed Plan</i> describes recommended management strategies regarding	See section 5 (Strategies) of the <i>Humber River Watershed Plan</i> .

Subsection	Requirement	Conformity Assessment	Document Reference
24.(3) cont'd		<p>existing and future land and water use that will help to protect the ecological and hydrological features and functions of the watershed, including the portions in the Oak Ridges Moraine Area. Key strategies include the need to protect and expand natural cover and build sustainable communities, particularly with an aim to maintain or restore pre-development water balance.</p>	
24.(3) cont'd	<p>(c) a framework for implementation, which may include more detailed implementation plans for smaller geographic areas, such as subwatershed plans, or for specific subject matter, such as environmental management plans;</p>	<p>Implementation direction and initial considerations for priority actions and areas accompany the management strategies in the <i>Humber River Watershed Plan</i>. The <i>Humber River Watershed Plan Implementation Guide</i> provides more detailed implementation direction for policy, regeneration projects, etc. including supportive maps and criteria.</p>	<p>See section 5 (Strategies) of the <i>Humber River Watershed Plan</i>. See <i>Humber River Watershed Plan Implementation Guide</i></p>
24.(3) cont'd	<p>(d) an environmental monitoring plan;</p>	<p>The <i>Humber River Watershed Plan</i> includes recommendations regarding changes or enhancements to existing environmental monitoring programs and other area, site or issue-specific monitoring requirements.</p>	<p>See section 5.3.1 of the <i>Humber River Watershed Plan</i> and section 7 of the <i>Humber Watershed Plan Implementation Guide</i> for recommended enhancements to existing monitoring programs.</p>
24.(3) cont'd	<p>(e) provisions requiring the use of environmental management practices and programs, such as programs to prevent pollution, reduce the use of pesticides and manage the use of road salt; and,</p>	<p>The <i>Humber River Watershed Plan</i> includes recommendations regarding environmental practices and programs. The <i>Humber River Watershed Plan Implementation Guide</i> further identifies practices and policies applicable to the land use planning and development process. Many Humber watershed municipalities already require the use of environmental management practices (e.g. by-laws to control idling, dumping, filling, pesticide use, sewer use, and tree cutting, and salt management plans)</p>	<p>See section 5 (Strategies) of the <i>Humber River Watershed Plan</i>. See <i>Humber River Watershed Plan Implementation Guide</i> Also see endnotes for list of relevant municipal by-laws and salt management plans.²</p>

Subsection	Requirement	Conformity Assessment	Document Reference
24.(3) cont'd	(f) criteria for evaluating the protection of water quality and quantity, hydrological features and hydrological functions.	The <i>Humber River Watershed Plan</i> includes a framework of watershed objectives, indicators and targets to be used to track or evaluate long term watershed health. The accompanying <i>Implementation Guide</i> sets out recommended policies for the review of land use proposals regarding protection of groundwater and surface water quality and quantity, hydrological features and functions, as well as terrestrial features and functions and aquatic communities and habitat.	See Appendix C of the <i>Humber River Watershed Plan</i> for a summary of watershed objectives, indicators and targets used to track or evaluate watershed health. See <i>Humber River Watershed Plan Implementation Guide</i> for a compilation of all policies and maps showing where the policy recommendations apply.
24.(4)	Major development is prohibited unless, (a) the watershed plan for the relevant watershed, prepared in accordance with subsection 24.(3), has been completed;	A final draft of the <i>Humber River Watershed Plan</i> was completed on March 25, 2008. Approval of the final <i>Humber River Watershed Plan</i> by the Authority was granted at the June 27, 2008 meeting by resolution #A137/08.	Approval of the final <i>Humber River Watershed Plan</i> by the Authority was granted at the June 27, 2008 meeting by resolution #A137/08.
24.(4) cont'd	(b) the major development conforms with the watershed plan; and	See conformity assessment for section 24.(3)	See document references for section 24.(3)
24.(4) cont'd	(c) a water budget and conservation plan, prepared in accordance with section 25 and demonstrating that the water supply required for the major development is sustainable, has been completed.	See conformity assessments for sections 25.(1) and 25.(2).	See document references for sections 25.(1) and 25.(2)
24.(8)	An application for major development to which this subsection applies shall not be approved unless, (a) the relevant municipality has complied with clause (c) of subsection 24.(4); or (b) the applicant, (i) identifies any hydrologically sensitive features and related hydrological functions on the site and how they will be protected, (ii) demonstrates that an adequate	See conformity assessment for section 24.(4)	See document references for section 24.(4)
24.(8) cont'd		For any applications received prior to completion of watershed plans, in accordance with the <i>Oak Ridges Moraine Conservation Plan</i> , conformity will have been reviewed and confirmed through applicant submitted studies.	

Subsection	Requirement	Conformity Assessment	Document Reference
25.(1)	<p>water supply is available for the development without compromising the ecological integrity of the Plan Area, and (iii) provides, with respect to the site and such other land as the approval authority considers necessary, a water budget and water conservation plan that,</p> <p>(A) characterizes groundwater and surface water flow systems by means of modelling,</p> <p>(B) identifies the availability, quantity and quality of water sources, and</p> <p>(C) identifies water conservation measures.</p> <p>Every upper-tier municipality and single-tier municipality shall, on or before April 22, 2003, begin preparing a water budget and conservation plan, in accordance with subsection 25.(2), for every watershed whose streams originate within the municipality's area of jurisdiction.</p>	<p>A water budget study was initiated in January 2003 by the TRCA, in partnership with the Region of York, Region of Peel, and City of Toronto and area municipalities for the Humber River watershed in advance of the overall Humber River Watershed Planning Study.</p> <p>The Region of York's Water for Tomorrow program outlines specific goals for both education and water conservation measures as outlined in the initial scope of work. The Water Efficiency Master Plan Update recommends new and/or updated programs for public education and water conservation measures. New goals for education and water conservation measures will be set once the program implementation plan is completed and approved by council.</p> <p>The Region of Peel's Water Conservation Plan</p>	<p>See TRCA 2003 Capital Budget Workplan and Authority approval to hire consultants to undertake a study terms of reference.</p> <p>Approval to initiate the Humber River Watershed Planning Study according to a general workplan, including a water budget study component, was granted at the Sept. 26, 2003 meeting of the TRCA (Authority Res. #A196/03) and further approval of a detailed workplan was granted on June 25, 2004 (Authority Res. #A191/04).</p> <p>York Region Water Efficiency Master Plan Update, 2007.</p> <p>Regional Municipality of Peel Water Efficiency Plan – Final Report, Region of Peel, 2004.</p>

Subsection	Requirement	Conformity Assessment	Document Reference
		<p>was initiated in 2002 and completed in May 2004. The objectives of the plan are to reduce average annual day demand by 10 per cent, peak day demand by 10 per cent, and wastewater flows by 7 per cent, of projected 2015 levels. Key components of the Region's water efficiency efforts include public education through Water Smart Peel, rebate programs and other incentives. The programs are targeted to residents throughout the Region.</p> <p>The City of Toronto completed a water efficiency plan in 2002. The plan targets a reduction of peak day water demands by 275 ML/day or approximately 14% projected 2011 levels, and a reduction of wastewater flow by 86 ML/day, by 2011.</p>	<p><i>Water Efficiency Plan, City of Toronto Works and Emergency Services, 2002.</i></p> <p>Approval of the final <i>Humber River Watershed Plan</i> by the Authority was granted at the June 27, 2008 meeting by resolution #A137/08.</p>
25.(2)	<p>A water budget and conservation plan shall, as a minimum,</p> <p>(a) quantify the components of the water balance equation, including precipitation, evapotranspiration, groundwater inflow and outflow, surface water outflow, change in storage, water withdrawals and water returns;</p>	<p>The <i>Humber River Watershed Plan</i> includes a quantitative description of the major components of the water balance equation on an average annual basis over the watershed surface area. The water budget was developed based on available information regarding land use, vegetation, surficial soil characteristics, topography, stream flow at permanent stream gauges, permitted water withdrawals and spatial variations in long term average precipitation, temperature and evaporation across the watershed. It was developed using Precipitation Run-off Modelling System (PRMS) software. The PRMS model generated recharge estimates for input to the groundwater flow model (MODFLOW software), developed through the York- Peel-</p>	<p>Section 3.2.3 of the <i>Humber River Watershed Plan</i> describes the overall water budget for the watershed.</p> <p>The <i>Humber River Watershed Scenario Modelling and Analysis Report</i> provides a more detailed description of the existing water budget, including maps and tabular summaries, and the predicted effects of future land and water use and management scenarios on water budget components.</p>

Subsection	Requirement	Conformity Assessment	Document Reference
25.(2) cont'd	(b) characterize groundwater and surface water flow systems by means of modelling;	<p>Durham-Toronto partnership (YPDT), which was used to estimate the groundwater component of the water budget.</p> <p>The groundwater flow system of the Humber River watershed has been characterized by development and calibration of a groundwater flow model that utilizes MODFLOW software, developed through the York-Peel-Durham-Toronto partnership (YPDT).</p> <p>The surface water flow system of the Humber River watershed has been characterized by development and calibration of a hydrologic model based on Hydrologic Simulation Program – Fortran (HSPF) software. This model was originally developed by the City of Toronto in support of work on the Toronto Wet Weather Flow Management Plan, and was refined for TRCA to support work on the <i>Humber River Watershed Plan</i>.</p>	<p>See section 3.2.3 of the <i>Humber River Watershed Plan</i> and section 4.0 of the <i>Humber River State of the Watershed Report – Geology and Groundwater Resources</i> for a characterization of the groundwater flow system.</p> <p>See section 3.2.4 of the <i>Humber River Watershed Plan</i> and section 5 of the <i>Humber River State of the Watershed Report – Surface Water Quantity</i> for a summary of the surface water flow system.</p> <p>The <i>Humber River Watershed Scenario Modelling and Analysis Report</i> provides more detailed descriptions of the existing surface and groundwater flow systems, including maps and tabular summaries, and the effects of future land and water use and management scenarios on these systems.</p>
25.(2) cont'd	(c) identify, (i) targets to meet the water needs of the affected ecosystems, (ii) the availability, quantity and quality of water sources, and (iii) goals for public education and for water conservation;	<p>The <i>Humber River Watershed Plan</i> includes criteria in the form of maps and targets (both quantitative and qualitative) for the protection of groundwater and surface water quality and quantity, hydrological features and functions, as well as terrestrial features and functions and aquatic communities and habitat.</p> <p>Water efficiency plans or programs of the Region of York, Region of Peel and City of Toronto have</p>	<p>See 24.(3)(f) above for watershed targets.</p> <p>See section 4 of the <i>Humber River State of the Watershed Report – Geology and Groundwater Resources</i> and section 5 of the <i>Humber River State of the Watershed Report – Surface Water Quantity</i> for summaries of information on the availability and quality of water sources.</p>

Subsection	Requirement	Conformity Assessment	Document Reference
		<p>set goals for water conservation and public education.</p>	<p>Section 5.5.3 of the <i>Humber River Watershed Plan</i> addresses water conservation and supports continuation of municipal water efficiency and public awareness programs.</p> <p>See <i>York Region Water Efficiency Master Plan Update (2007)</i></p> <p>See section 2.0 of Peel Region's <i>Water Efficiency Plan (2004)</i></p> <p>See section 1.0 of City of Toronto's <i>Water Efficiency Plan (2002)</i></p>
25.(2) cont'd	(d) develop a water-use profile and forecast;	<p>The Region of York, Region of Peel and City of Toronto have developed water-use profiles and forecasts as part of studies to update their water master plans. The forecasts consider the effect of planned water conservation measures on future demand.</p> <p>Drawing on this information, a watershed-based water use profile and forecast was developed as part of preparing the <i>Humber River Watershed Plan</i>.</p>	<p>See section 4.0 of York Region's <i>Long Term Water Project Master Plan Update, April 2004</i> for water use forecast.</p> <p>See Peel Region's <i>Water Efficiency Plan (2004)</i> for water use forecast.</p> <p>See City of Toronto's <i>Water Efficiency Plan (2002)</i> for water use forecast.</p> <p>See section 5.3 of the <i>Humber River State of the Watershed Report – Surface Water Quantity</i> for the watershed-based water use profile.</p> <p>Also see section 5.3 of the <i>Humber River State of the Watershed Report – Geology and Groundwater Resources</i> for a summary of groundwater takings in the Humber River</p>

Subsection	Requirement	Conformity Assessment	Document Reference
25.(2) cont'd	(e) evaluate plans for water facilities such as pumping stations and reservoirs;	<p>A watershed-scale evaluation of the predicted effects of forecasted water and land use on groundwater levels was completed in support of the <i>Humber River Watershed Plan</i>. Based on this evaluation, appropriate land and water use management strategies have been provided in the watershed plan.</p> <p>Further plans for any such facilities are evaluated by municipalities as part of environmental assessment studies and/or updates to water supply master plans and will be reviewed in the context of watershed-based information from the <i>Humber River Watershed Plan</i>, supporting technical reports and available databases.</p>	<p>watershed.</p> <p>See section 5 (Strategies) of the <i>Humber River Watershed Plan</i> for management strategies.</p> <p>The <i>Humber River Watershed Scenario Modelling and Analysis Report</i> provides a summary of predicted effects of forecasted water and land use on groundwater levels.</p> <p>York Region's <i>Long Term Water Project Master Plan Update</i>, April 2004</p>
25.(2) cont'd	<p>(f) identify and evaluate,</p> <p>(i) water conservation measures such as public education, improved management practices, the use of flow restricting devices and other hardware, water reuse and recycling, and practices and technologies associated with water reuse and recycling,</p> <p>(ii) water conservation incentives such as full cost pricing, and</p> <p>(iii) ways of promoting water conservation measures and water conservation incentives;</p>	<p>All upper-tier and single-tier municipalities in the Humber River watershed have developed water efficiency plans and programs that identify and evaluate water conservation measures, incentives and ways of promoting water conservation measures and incentives. The <i>Humber River Watershed Plan</i> supports the recommendations of the municipal water efficiency plans and programs and describes management strategies that would further contribute to achieving the objectives and targets of these plans/programs.</p>	<p>See section 5.5.3 of the <i>Humber River Watershed Plan</i>.</p> <p>See sections 5.0 and 6.0 of York Region's <i>Water Efficiency Master Plan Update (2007)</i> for the identification, evaluation and recommendation of water conservation measures and education.</p> <p>See sections 6.0 and 9.0 of Peel Region's <i>Water Efficiency Plan (2004)</i>.</p> <p>See sections 4.0 and 6.0 of City of Toronto's <i>Water Efficiency Plan (2002)</i>.</p> <p>See Section 5.2.3 of York Region's <i>Water Efficiency Master Plan Update(2007)</i> for the cost analysis of water conservation</p>
25.(2) cont'd	(g) analyse the costs and benefits of the matters described in clause (f);	<p>All upper-tier and single-tier municipalities in the Humber River watershed have developed water efficiency plans and programs that analyse the</p>	

Subsection	Requirement	Conformity Assessment	Document Reference
25.(2) cont'd	(h) require the use of specified water conservation measures and incentives;	costs and benefits of their recommended water conservation measures, incentives and promotion strategies. York Region's Water for Tomorrow program used specific water conservation measures and incentives as part of the original capital plan. The Water Efficiency Master Plan Update also recommends the use of specific water conservation measures and incentives. The Region of Peel and City of Toronto water efficiency plans also use specific water conservation measures and incentives such as system leak detection, computer controlled irrigation, watering restrictions, toilet replacement, clothes washer replacement, and indoor and outdoor water audits.	measures See section 8.0 of Peel Region's <i>Water Efficiency Plan (2004)</i> See section 5.0 of City of Toronto's <i>Water Efficiency Plan (2002)</i> See section 6.0 of York Region's <i>Water Efficiency Master Plan Update (2007)</i> for the recommended program strategy. See section 6.0 of <i>Peel Region's Water Efficiency Plan (2004.)</i> See section 4.0 of <i>City of Toronto's Water Efficiency Plan (2002)</i> .
25.(2) cont'd	(i) contain an implementation plan for those specified measures and incentives that reconciles the demand for water with the water supply;	York Region developed an implementation plan for the program as part of the scope of work in 1998. The Water Efficiency Master Plan Update has recommended an updated program strategy. An implementation plan for the updated program is being developed. The Peel Region and City of Toronto water efficiency plans include implementation schedules.	See Section 6.0 of York Region's <i>Water Efficiency Master Plan Update (2007)</i> for the recommended program strategy See section 9.0 of Peel Region's <i>Water Efficiency Plan (2004)</i> . See section 6.0 of City of Toronto's <i>Water Efficiency Plan (2002)</i> .
25.(2) cont'd	(l) provide for monitoring of the water budget and water conservation plan for effectiveness.	York Region's <i>Water Use Efficiency Master Plan Update</i> , Peel Region's <i>Water Efficiency Plan</i> and	See Section 9.0 of York Region's <i>Water Efficiency Master Plan Update(2007)</i>

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27.(1)	<p>Except with respect to land in Settlement Areas, all development and site alteration with respect to land in a subwatershed are prohibited if they would cause the total percentage of the area of the subwatershed that has impervious surfaces to exceed,</p> <p>(a) 10 per cent; or</p> <p>(b) any lower percentage specified in the applicable watershed plan.</p>	<p>City of Toronto's <i>Water Efficiency Plan</i> recommend monitoring and evaluation programs be implemented.</p> <p>The <i>Humber River Watershed Plan</i> includes recommendations regarding changes or enhancements to existing environmental monitoring programs and other area, site or issue-specific monitoring requirements that provide for, or improve capacity for monitoring of the water budget (e.g. additional climate stations, stream gauges, groundwater monitoring wells etc.).</p> <p>The Humber River Watershed Planning Study assessed the current and projected future percent impervious cover for each Oak Ridges Moraine subwatershed (based on methods suggested in draft Technical Paper #13 which exclude Settlement Areas, utilizing subwatershed boundaries defined in draft Technical Paper #9). These estimates indicate that no Oak Ridges Moraine subwatersheds in the Humber River watershed exceed the 10% impervious cover criteria for current conditions (based on 2002 land use), nor will they exceed 10% upon build-out of municipal official plans approved as of January 2005.</p> <p>No lower percentage has been specified.</p>	<p>See section 9.0 of Peel Region's Water Efficiency Plan (2004).</p> <p>See section 6.0 of City of Toronto's Water Efficiency Plan (2002).</p> <p>See section 5.3.1 of the <i>Humber River Watershed Plan</i> and section 7 of the <i>Humber Watershed Plan Implementation Guide</i> for recommended enhancements to existing monitoring programs.</p> <p>See <i>Humber River Watershed Oak Ridges Moraine Subwatersheds Assessment Technical Brief</i></p>
27.(1) cont'd			N/A

Endnotes:

1.
 - Ministry of the Environment (2007) Oak Ridges Moraine Conservation Plan – Watershed Plans, Technical Paper #9.
 - Ministry of the Environment (2007) Oak Ridges Moraine Conservation Plan – Water Budgets, Technical Paper #10.
 - Ministry of the Environment (2007) Oak Ridges Moraine Conservation Plan – Water Conservation Plans, Technical Paper #11.
 - Ministry of the Environment (2007) Oak Ridges Moraine Conservation Plan – Subwatersheds (Impervious Surfaces), Technical Paper #13.

2.
 - City of Brampton Fill By-law, By-law 143-95.
 - City of Brampton Refuse By-law, By-law 381-2005.
 - City of Brampton Sewage By-law, By-law 90-75.
 - City of Brampton Salt Management Plan, 2005.
 - City of Brampton Tree Preservation By-law, Bylaw 38-2006.
 - City of Brampton Woodlot Conservation By-law, By-law 70-2001 as amended by By-law 402-2005.
 - City of Toronto Municipal Code, Chapters 455 (Filling and Grading), 517 (Idling of Vehicles and Boats), 548 (Littering and Dumping of Refuse), 612 (Pesticides, Use of), 658 (Ravine Protection), 681 (Sewers), and 813 (Trees).
 - City of Toronto Salt Management Plan, 2004.
 - City of Vaughan Fill By-law, By-law 189-96 as amended by By-law 265-2006.
 - City of Vaughan Idling of Vehicles By-law, By-law 170-2004.
 - City of Vaughan Littering and Dumping By-law, By-law 3-2004.
 - City of Vaughan Private Property Tree Protection By-law, By-law 185-2007 as amended by By-law 205-2007.
 - City of Vaughan Sewer Use By-law, By-law 12-74.
 - City of Vaughan Tree Protection By-law (Public Property), By-law 95-2005.
 - Dufferin County Forest Conservation By-law, By-law 2006-15.
 - Dufferin County Salt Management Plan, 2005.
 - Region of Peel Salt Management Plan, 2007.
 - Region of Peel Sewer Use By-law, By-law 90-90.
 - Simcoe County Tree-cutting By-law, By-law 5289.
 - Simcoe County Anti-dumping By-law, By-law 4805.
 - Town of Caledon Dumping on Private or Municipal Property By-law, 87-100.
 - Town of Caledon Fill By-law, By-law 2007-59.
 - Town of Caledon Healthy Horticultural Landscapes By-law, By-law 2003-81 as amended by By-law 2005-82.
 - Town of Caledon Salt Management Plan, 2005.
 - Town of Caledon Woodlands Conservation By-law, By-law 2000-100.
 - Town of Richmond Hill Salt Management Plan, 2005.
 - Town of Richmond Hill Tree Preservation By-law (Private Property), By-law 41-07.
 - Town of Richmond Hill Water Use Restrictions By-law, By-law 157-05.
 - Township of King Water Restriction By-law, By-law 75-43.
 - York Region Salt Management Plan, 2004.
 - York Region Sewage By-law, By-law S-0064-2005-009.
 - York Region Trees By-law, By-law TR-0004-2005-036.

Appendix C: List of Supporting Documents

Watershed Plan

Toronto and Region Conservation Authority. 2008. Humber River Watershed Plan.

Supporting Documents

Toronto and Region Conservation Authority. 2007. Listen to Your River – A Report Card on the Health of the Humber River Watershed, Prepared for the Humber Watershed Alliance.

Toronto and Region Conservation Authority. 2008. Humber River State of the Watershed Reports – Air Quality; Aquatic System; Cultural Heritage; Fluvial Geomorphology; Geology and Groundwater Resources; Land and Resource Use; Nature-based Recreation; Surface Water Quality; Surface Water Quantity; and Terrestrial System.

Toronto and Region Conservation Authority. 2008. Humber River Watershed Scenario Modelling and Analysis Report.

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Toronto and Region Conservation Authority. 2007. Development of a Sustainable Community Scenario for the Rouge River Watershed.

Freeman Associates. 2006. Action Plan for Sustainable Practices – Implementation Strategies for the Residential and Business Sectors in the Greater Toronto Area. Toronto and Region Conservation Authority.

J.D. Power and Associates. 2006. 2006 New Home Builder Customer Satisfaction Study – TRCA Supplemental Study. Toronto and Region Conservation Authority.

Ontario Ministry of Natural Resources and Toronto and Region Conservation Authority. Humber River Fisheries Management Plan. Final Draft 2005.

Appendix D: List of Acronyms

AMO	Association of Municipalities of Ontario
BILD	Building Industry and Land Development Association
CAMC.....	Conservation Authorities Moraine Coalition
CFIA	Canadian Food Inspection Agency
CO	Conservation Ontario
CVC.....	Credit Valley Conservation Authority
DFO.....	Department of Fisheries and Oceans
EA.....	Environmental Assessment
EFP	Environmental Farm Plan
EIS	Environmental Impact Statement
FMZ	Fish Management Zone
GLSF	Great Lakes Sustainability Fund
GTA.....	Greater Toronto Area
HWP	Humber River Watershed Plan
LEED	Leadership in Energy and Environmental Design
LSRCA.....	Lake Simcoe Region Conservation Authority
MESP.....	Master Environmental Servicing Plan
MMAH	Ministry of Municipal Affairs and Housing
MNR	Ministry of Natural Resources
MOE	Ministry of the Environment
MPIR	Ministry of Public Infrastructure and Renewal
NGO	Non-government organization
NVCA.....	Nottawasaga Valley Conservation Authority
OCETA.....	Ontario Centre for Environmental Technology Associations
ORC	Ontario Realty Corporation
ORM.....	Oak Ridges Moraine
RWMP	Regional Watershed Monitoring Program (TRCA)
STEP	Sustainable Technologies Evaluation Program (TRCA)
SW.....	Stormwater
SWM.....	Stormwater management
TNHS.....	Terrestrial Natural Heritage System (TRCA)
TRCA.....	Toronto and Region Conservation Authority
YPDT.....	York Peel Durham Toronto Groundwater Program