

TCC SPC – Compilation of Edits to Trent Source Protection Plan

Draft – For Internal TCC SPC Purposes Only

Amendments to Trent Source Protection Plan, Chapter 2 – The Source Protection Planning Process

2.3.3 DRINKING WATER QUANTITY THREATS

The *Clean Water Act, 2006* identifies 2 activities that are prescribed to be drinking water quantity threats. Each of these types of drinking water threats is explained in this section.

2.3.3.1 PRESCRIBED DRINKING WATER QUANTITY THREATS

The activities prescribed to be drinking water threats under the *Clean Water Act, 2006* are those considered to be manmade. These activities as listed in the *Act* are provided below. Activities 19 and 20 are potential threats to water quantity¹.

- 19) An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.
- 20) An activity that reduces the recharge of an aquifer.

2.3.3.2 WELLHEAD PROTECTION AREA-Q (WATER QUANTITY)

Water quantity vulnerable areas are determined differently than other vulnerable areas. Through a tiered process of water budget analyses as set out in the Technical Rules under O. Reg. 287/07, SPCs are required to identify any areas with water quantity stress, determine the stress level in the Wellhead Protection Area-Q (WHPA-Q), and where the level is deemed significant or moderate, also identify the type and location of the activities that pose a drinking water quantity threat. At the final stage (Tier 3 Water Budget analysis), any WHPA-Q areas where significant or moderate drinking water stress has been identified is an area where significant drinking water quantity threat activities can occur. Within these areas, future activities which take water without returning it to the same source or which reduce recharge to the aquifer are significant water quantity threats. If the area has a significant risk level assigned then existing activities are also significant water quantity threats. There are two types of WHPA-Q; WHPA-Q1, and WHPA-Q2. WHPA-Q1 refers to the area where activities that take water without returning it to the same source may be a threat. WHPA-Q2 refers to the area where activities that reduce recharge may be a threat. Source Protection Plan policies must be developed to address significant water quantity threats. See Chapter **XX** for more details on the Water Quantity policies.

Watershed	Sub-Watershed	Tier 2 Stress Level	Municipal DWS
Rouge River	Little Rouge River(RO02)	Moderate	Stouffville (PW1, PW2, PW3, PW5)
Duffins Creek	Stouffville/Reesor Creek (DU06)	Moderate	Stouffville (PW6) Uxville(MW1, MW2)

¹ The water budget process that was completed for the Trent Assessment Report did not identify any subwatersheds that were sufficiently stressed to allow activities 19 and 20 to become significant drinking water threats in the Trent source protection areas. The water budget process undertaken in the CTC Assessment Report identified a subwatershed sufficiently stressed to allow activities 19 and 20 to become significant drinking water threats in a small area within Uxbridge and Scugog Townships.

Subsequently, the Tier-3 Water Budget and Water Quantity Risk Assessment Studies completed in 2014 for the Stouffville (York Region) and Uxville (Durham Region) municipal wells (see above table) delineated water quantity vulnerable areas called WHPA-Q1 and WHPA-Q2; where, in summary, the Tier-3 York/Durham Water Budget and Water Quantity Risk Assessment provided the following results:

“Exposure” level under scenario G (Table 4 – Exposure Scenarios; Technical Rules, 2009) is high due to impacts to “other users”: 20% decrease in base flows to cold water streams in the Yonge Street Aquifer area, greater than 1m incremental drawdown in other permitted wells and under PSWs.

“Tolerance” levels of Stouffville and Uxville drinking water systems are assessed to be high.

“Uncertainty” level of analysis was assessed to be low.

Therefore as per Technical Rule 98(2) and 100(1), a “moderate” risk level is assigned to the Local Area WHPA-Q1/Q2).

Since York/Durham Tier 3 Local Area (WHPA-Q1/Q2) was assigned a moderate risk level, all existing consumptive water takings and recharge reductions within this local area are classed as moderate threats and all future consumptive water takings (requiring PTTW) and future recharge reductions are classed as significant threats (Ref # 4 & 8, Table 5: Water Quantity Drinking Water Threats; Technical Rules, 2009).

A small portion of the Local Area in the Region of Durham (within the municipalities of Uxbridge & Scugog) extends into Kawartha-Haliburton Source Protection Area, part of the Trent Conservation Coalition SPR (see Map X-X)

The Recharge Policy Z-1 (3) and (4) apply only if the area is covered by a Significant Groundwater Recharge Area. As per Map X-X, The area is covered by SGRA therefore these policies apply.

Policies are required to ensure that moderate threats in the local area from becoming significant and to prevent future significant threats (i.e. increase to an existing taking or a new taking or reduction in recharge).

TCC SPC are technically be required to implement policies with respect to York/Durham Tier 3 Local Area coming under the jurisdiction of Kawartha-Haliburton SPA after MOE approves TRSPA’s Updated Assessment Report. MOE approved TRSPA’s Updated Assessment Report on July 24, 2015.

Amendments to Trent Source Protection Plan, Chapter 4: The Policies.

Addition of Chapter 4.8 – Background, Demand Policies (for Q1) and Recharge Policy (for Q2)

4.8 WATER QUANTITY

This section includes several policies permitted by the Clean Water Act, 2006. These policies are applicable to the WHPA Q1 and WHPA Q2 zone within the Trent Conservation Coalition boundary and apply regardless of vulnerability score.

In consultation with Municipalities, Durham Region prefers TCC to adopt CTC policies due to:

- The separation between Demand and Recharge Policies;
- The Lake Simcoe policies are based on Lake Simcoe Protection Plan.

WHPA-Q1 refers to the area where activities that take water without returning it to the same source may be a threat.

WHPA-Q2 refers to the area where activities that reduce recharge may be a threat.

4.8.1 WATER QUANTITY DEMAND (WHPA Q1)

POLICY Y-1

APPLICABLE AREA – WHPA Q1



Applicable Activity: Taking Water without Returning It to the Same Aquifer.

Any activity that takes water from an aquifer, without returning the water to that aquifer is a threat if it results in a depletion of available supply which could impair the long-term viability of a water system.

Municipal and private wells are typical examples of such water taking activities, along with industrial uses such as agriculture irrigation and aggregate extraction below the water table which requires pumping operations. When a Permit to Take Water (PTTW) is required, the province assesses the request to determine if the water taking is sustainable and issues a PTTW with appropriate conditions, to protect the ecosystem and other users. A PTTW is not generally required for private domestic wells as the amount of water taken is generally less than 50,000 litres per day which is the minimum threshold requiring approval.

This activity is a threat to drinking water sources as Taking water without returning it to the same aquifer can lead to the depletion of water in the aquifer, which reduces the amount of water available for municipal water supplies. If the available water in the aquifer drops below the safe threshold levels, municipal wells cannot produce enough to supply water demands which can lead to a water shortage.

Policy No.	Tool	Legal Effect	Implementer	E/F	Policy Text	Monitoring Policy
Y-1(1)	Prescribed Instrument	Must Comply	MOE	F - Moderate Risk Area	<p><u>Permit to Take Water Policies in WHPA-Q1 with Significant Water Quantity Threats</u></p> <p>Within the Tier 3 Water Budget WHPA-Q1 where a water taking is or would be a significant water quantity threat, the Ministry of the Environment and Climate Change shall ensure each water taking threat ceases to be, or does not become significant, through actions the Director considers appropriate on a case by case basis, such as:</p> <p>1) Reviewing all existing Permits to Take Water, located within WHPA-Q1 with a significant risk level, in consultation with other Ministries (as</p>	G-2(2)

					<p>required), the affected municipality, relevant conservation authorities, and permit holders, and amend the permits where necessary to ensure that:</p> <ul style="list-style-type: none"> a) municipal water supply requirements for the allocated and planned quantity (per the current approved population and employment projections of the most recent Growth Plan for the Greater Golden Horseshoe) will be met on a sustainable basis; and b) the hydrological integrity of municipal wells in the vulnerable areas will be maintained <p>2) Issuing Permits to Take Water for new or increased takings, located within WHPA-Q1 with moderate risk levels, only if it can be satisfactorily demonstrated, using the findings of the most recently approved Tier 3 Water Budget Model and other available data, where appropriate, that the taking:</p> <ul style="list-style-type: none"> a) Can be maintained on a sustainable basis; b) Will not affect the ability of the aquifer to meet the municipal water supply requirements for the current and planned service capacity; and c) Will ensure the hydrological integrity of municipal wells will be maintained. 	
G-2(2)	MON	MC	OMAFRA MOE	E/F	<p>The ministry shall prepare, by February 1 each year, an annual summary of the actions it has taken to achieve the outcomes of the source protection plan policies for the preceding calendar year and make that report available to the applicable Source Protection Authority.</p> <p>Recommended contents of the report include, but are not limited to:</p> <ul style="list-style-type: none"> a) A summary of the reviews completed during the calendar year on the Prescribed Instruments for existing significant drinking water threats, including a summary of the provisions included to ensure that the activity(ies) cease to be significant drinking water threats; b) A summary of the reviews completed during the calendar year on the Prescribed Instruments for future activities, including a summary of the 	N/A

					<p>provisions included to ensure that the activity(ies) will not be significant drinking water threats;</p> <p>c) A summary of inspections carried out and any orders issued as a result of an inspection during the preceding calendar year; and</p> <p>d) Other content as specified in clauses S-3(3), A-2(2), and OT-1(7).</p>	
Y-1(2)	Land Use Planning	Must Comply	Approval authority under the <i>Planning Act</i>	F - Moderate Risk Area	<p><u>Planning Policies in WHPA-Q1 with Significant Water Quantity Threats</u></p> <p>Within the Tier 3 Water Budget WHPA-Q1 where a water taking is or would be a significant water quantity threat, the relevant Planning Approval Authority shall ensure water taking does not become a significant drinking water threat by:</p> <p>1) Only permitting new development if the new development does not require a new or amended Permit to Take Water;</p> <p>2) Only providing final approval for new development that requires a new or amended Permit to Take Water once the Ministry of the Environment and Climate Change has determined that the proposed taking will not become a significant water quantity threat;</p> <p>3) Only approving settlement area expansions within WHPA-Q1 as part of a municipal comprehensive review where the applicable provincial planning criteria have been met and the following has been demonstrated:</p> <p>a) the aquifer has sufficient capacity to sustainably provide municipal water services to the expanded settlement area;</p> <p>b) the expansion will not adversely impact the aquifers ability to meet the municipal water supply requirements for current and planned service capacity, for other permitted takings, or for wastewater receiving bodies; and</p> <p>the hydrological integrity of municipal wells will be maintained.</p>	G-10(2)
G-10(2)	MON	MC	Approval authority	E/F	Report by February 1 each year to the applicable source protection authority on how the requirements of the policy were achieved for the preceding	N/A

			under the <i>Planning Act</i>		calendar year. Where the approval authority is not the lower or single tier municipality, the report will be copied to all applicable municipalities.	
Y-1(3)	Specify Action	Strategic	MMAH, MOE	F - Moderate Risk Area	<p><u>Growth Management/Planning Ministries to Review Growth in WHPA-Q1 with Significant Water Quantity Threats</u></p> <p>Within a Tier 3 Water Budget WHPA-Q1 identified as having significant water quantity threats, the Provincial Ministries specified below should undertake the following to ensure the provision and distribution of water supply for municipal population and employment growth forecasts does not create a new, or increase an existing, significant water quantity threat:</p> <p>1) The Ministry of Municipal Affairs and Housing in consultation with the Ministry of the Environment and Climate Change and any affected municipalities should use the Tier 3 Water Budget information and other available data to ensure that municipal Official Plan growth forecasts and distributions will not result in creating or worsening a significant water quantity threat, given water quantity constraints identified in Tier 3 Water Budget model areas; and</p> <p>2) The Ministry of Municipal Affairs and Housing should take into consideration water quantity constraints identified through Tier 3 Water Budgets, and other available data, during its review of the population forecasts contained in the Growth Plan for the Greater Golden Horseshoe, in consultation with relevant municipalities.</p>	Y-1(4)
Y-1(4)	Monitoring	Must Comply	MOECC MMAH	F - Moderate Risk Area	The ministry shall prepare, by February 1 each year, an annual summary of the actions it has taken to achieve the outcomes of the source protection plan policies for the preceding calendar year, and make that report available to the applicable Source Protection Authority. Reporting shall include information related to the effectiveness of the policies in ensuring a threat ceases to be, or does not become significant, and any actions required to respond to a drinking water threat during the reporting period.	N/A

Y-1(5)	Specify Action	Must Comply	Municipality	F - Moderate Risk Area	<p><u>Municipal Water Conservation Plans</u></p> <p>Municipalities responsible for the production, treatment, and storage of water, who have a municipal well and/or whose residents are served by a municipal water supply within the Tier 3 Water Budget WHPA-Q1 shall develop and/or update Water Conservation Plans to ensure they are an effective tool to support sustainable water quantity by reducing consumption and therefore the demand for water.</p>	Y-1(6)
Y-1(6)	Monitoring	Must Comply	Municipality	F - Moderate Risk Area	<p>The municipality shall prepare, by February 1 each year, an annual summary of the actions it has taken to achieve the outcomes of the source protection plan policies for the preceding calendar year, and make that report available to the applicable Municipalities and the Source Protection Authority.</p>	N/A
Y-1(7)	Specify Action	Strategic	MOECC	F - Moderate Risk Area	<p><u>Tier 3 Model Updates</u></p> <p>The Ministry of the Environment and Climate Change should adopt and fund a Tier 3 Water Budget Model in a WHPA-Q1 identified as having a moderate or significant risk level and undertake the following to ensure it is maintained as the primary model to review existing and future Permits to Take Water, to allow municipalities and other provincial ministries (i.e., Ministry of Municipal Affairs and Housing and Ministry of Infrastructure) to evaluate growth projections and distributions, and to facilitate the review of planning applications by municipalities, where necessary, to ensure that these activities cease to be, or do not become, significant drinking water threats:</p> <ol style="list-style-type: none"> 1) Through the Permit to Take Water program, require municipal takers in WHPA-Q1 to monitor water quantity and supply data on a regular basis to assist in the upkeep of the model to determine any increase or reduction in significant water quantity threats, and to improve simulations of cumulative impacts; 2) Use the model with the most up-to-date data as an analysis and decision making tool; and 3) When necessary, contribute to funding for new continuous flow gauging stations in key surface water features and enhance conservation authorities 	Y-1(4)

					existing Hydrometric Network in WHPA-Q1 to monitor long term trends in surface water quantity, study impacts of urbanization and climate change on aquifer recharge, and facilitate calibration of the model.	
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4.8.2 WATER QUANTITY RECHARGE (WHPA Q2)

POLICY Z-1

APPLICABLE AREA – WHPA Q2



AND SGRA



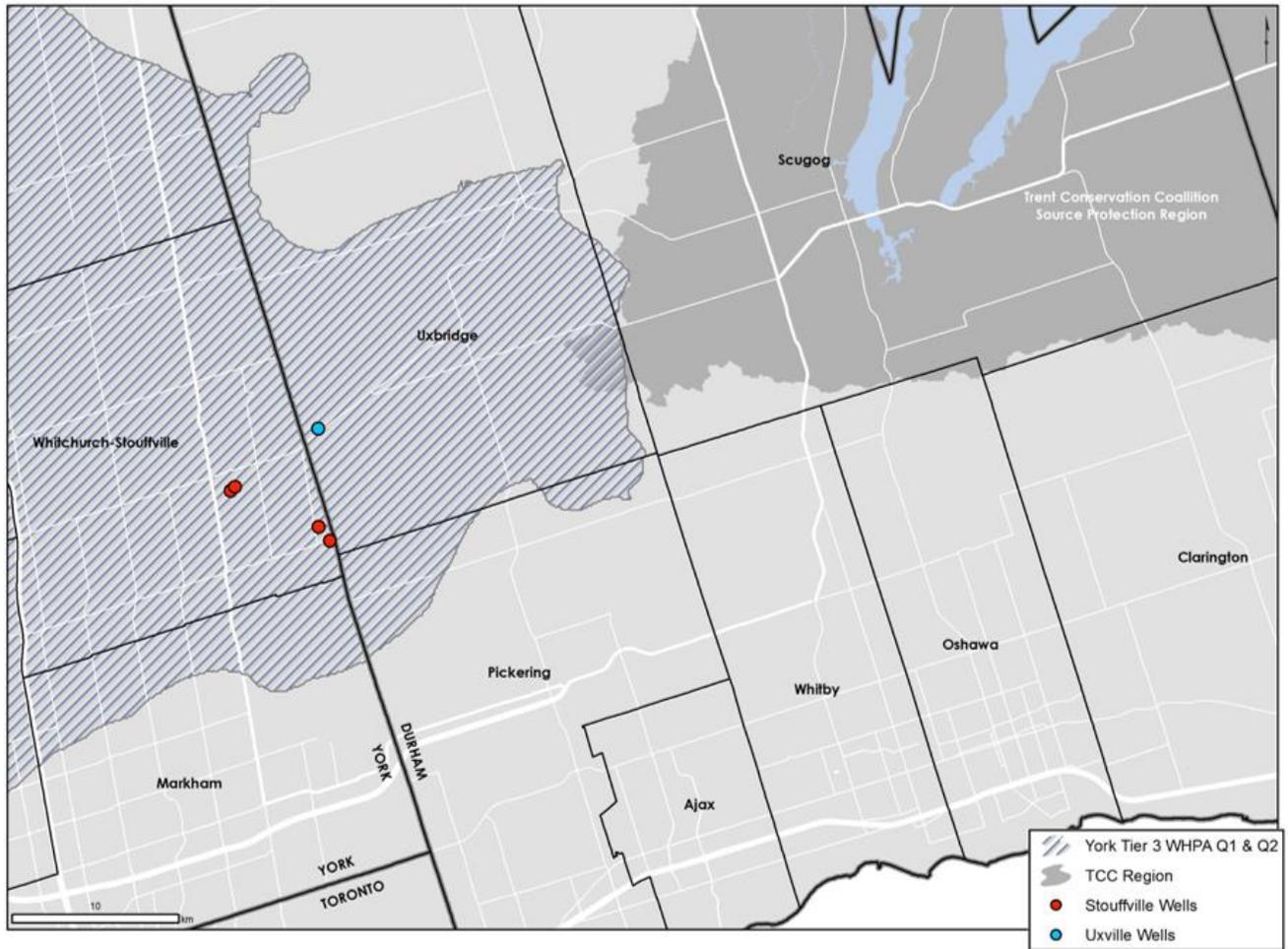
Applicable Activity: Recharge Reduction

When recharge to an aquifer is reduced, the available water supply becomes depleted and can impair the long-term viability of a water system. Typical examples which reduce recharge include existing and planned land use developments, such as residential subdivisions, employment areas and undifferentiated suburban lands. Any conversions of land to an impervious surface, such as paved parking lots, do not let water travel through the ground to recharge the aquifer.

This activity is a threat to drinking water sources as activities that reduce the recharge of an aquifer, reduces the water available for municipal water supplies. Impervious surfaces impede the ability for the aquifer to recharge and continue to provide water over the long term.

Policy No.	Tool	Legal Effect	Implementer	E/F	Policy Text	Monitoring Policy
Z-1	Land Use Planning	Must Comply	Planning Approval Authority	F - Moderate Risk Area	<p><u>Recharge Policy</u> For applications under the Planning Act within the Tier 3 Water Budget WHPA-Q2 identified as having significant water quantity threats, the relevant Planning Approval Authority shall ensure recharge reduction does not become a significant drinking water threat by:</p> <p>1) Requiring new development for lands zoned Low Density Residential (excluding subdivisions) or zoned Agricultural to implement best management practices such as Low Impact Development (LID) with the goal to maintain predevelopment recharge.</p>	Y-1(3)

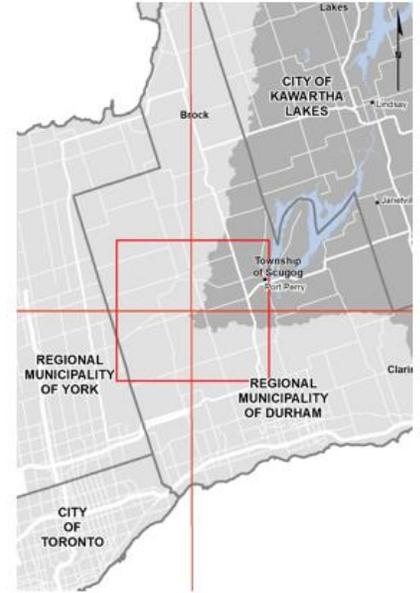
					<p>2) Requiring that all site plan (excluding an application for one single family dwelling) and subdivision applications for new residential, commercial, industrial and institutional uses provide a water balance assessment for the proposed development to the satisfaction of the Planning Approval Authority which addresses each of the following requirements:</p> <ul style="list-style-type: none">a) maintain pre-development recharge to the greatest extent feasible through best management practices such as LID, minimizing impervious surfaces, and lot level infiltration;b) where pre-development recharge cannot be maintained on site, implement and maximize off-site recharge enhancement (within the same WHPA-Q2) to compensate for any predicted loss of recharge from the development; and <p>3) Only approving settlement area expansions as part of a municipal comprehensive review where it has been demonstrated that recharge functions will be maintained on lands designated Significant Groundwater Recharge Areas within WHPA-Q2.</p> <p>4) Amending municipal planning documents to reference most current Assessment Reports in regards to the Significant Groundwater Recharge Areas within WHPA-Q2.</p>	
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-  York Tier 3 WHPA Q1 & Q2
-  TCC Region
-  Stouffville Wells
-  Uxville Wells



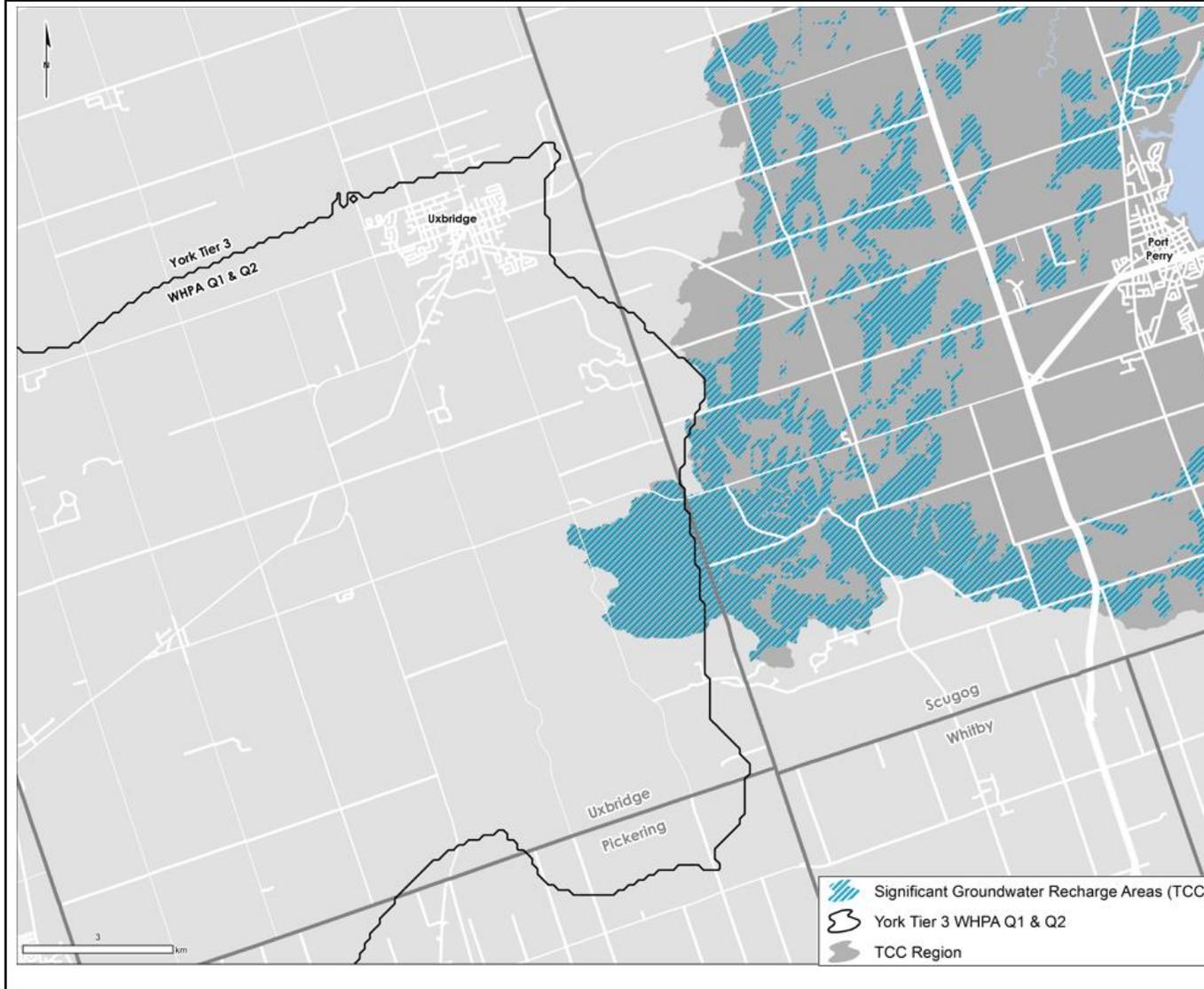
**Water Quantity Demand
Q1 & Recharge Q2
Kawartha-Haliburton
Source Protection Area
Policy Applicability Map**



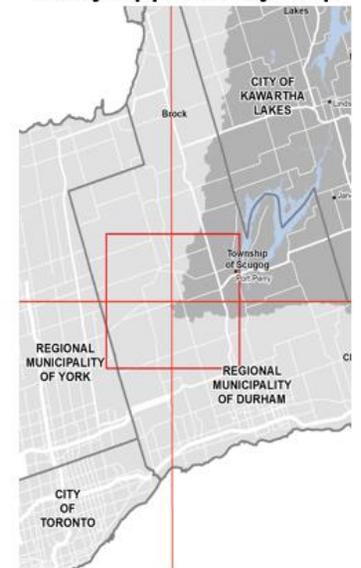
PRODUCED BY Lower Trent Conservation on behalf of the Trent Conservation Coalition Source Protection Committee, 2015.
Waterbodies and watercourses located within the extent of an intake protection zone or wellhead protection area are included in that zone.



Policy Applicability Map



**Water Quantity -
WHPA Q1 and SGRA
Kawartha-Haliburton
Source Protection Area
Policy Applicability Map**



PRODUCED BY Lower Trent Conservation on behalf of the Trent Conservation Coalition Source Protection Committee, 2015.

Waterbodies and watercourses located within the extent of an intake protection zone or wellhead protection area are included in that zone.



**Trent Conservation Coalition
Source Protection Region**
www.trentsourceprotection.on.ca

Policy Applicability Map

***Amendments to Trent and Ganaraska Source Protection Plan Explanatory Documents
Addition of Chapter 5.15 and 5.16 – Water Quantity Policies***

Explanatory Document

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5.15 Water Quantity Demand Policies

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5.15.2 Policy Y-1(2)

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5.15.6 Policy Y-1(6)

5.15.7 Policy Y-1(7)

5.16 Water Quantity Recharge Policy

5.16.1 Policy Z-1(1)

5.15 WATER QUANTITY DEMAND POLICIES (WHPA Q1)

The SPC considered the Draft policies contained in the CTC Source Protection Plan, and proposed to be used by Durham Region. Due to the small area of WHPA Q1 & Q2 within TCC, staff provided Durham Region the opportunity to comment on the proposed adoption of CTC policies with some small changes.

These policies were finalized by the SPC following consultation; Comments from Durham Region were received prior to formal consultation.

5.15.1 POLICY Y-1(1) – PERMIT TO TAKE WATER PRESCRIBED INSTRUMENTS

Y-1(1) RATIONALE

This policy is the same as CTC's DEM-1 policy.

Policy DEM-1 is a Prescribed Instrument policy that manages activities that take water from an aquifer without returning the water to the same aquifer through the Prescribed Instrument (Permit To Take Water). This policy applies to existing and future threats in a WHPA-Q1 with a significant risk level and to future threats in a WHPA-Q1 with a moderate risk level.

The intent of this policy is to ensure the Ministry of the Environment and Climate Change reviews existing Permits to Take Water within 3 years to ensure appropriate conditions are included to protect the sources of municipal drinking water considering the results of the Tier 3 Water Budget analysis for the area. Any new permits will be issued only after ensuring that the new taking will not become a threat to drinking water by using as part of the assessment the modelling approach and any updated information consistent with the Tier 3 Water Budget analysis. Additional conditions that may be included in such permits could be setting specific trigger levels when water taking would need to be reduced to protect the municipal supply; requiring installation and reporting of water levels in a comprehensive set of sentry wells to assess changes to the aquifer; or monitoring the impact to base flow in areas important for spawning in cold-water fisheries or for maintaining provincially significant wetlands in areas that have been identified as impacted in the Tier 3 water budget study to support the environmental protection requirements of the Permit to Take Water process under the Ontario Water Resources Act and associated regulations and directives.

FORMAL CONSULTATION: FEEDBACK RECEIVED & SPC DECISIONS:

MOECC Development Phase Comment: Since the portion of the York-Durham WHPA-Q1 that extends into TCC from CTC has a moderate risk level, part 1) of policy Y-1(1) is not feasible because of item 3 in Table 5 under Rule 113. This section of Rule 113 indicates that moderate risk level areas can only have significant risks associated with new or increased takings whereas Part 1 of policy Y-1(1) deals with reviewing existing water taking permits. Therefore, it would be appropriate to remove the first section of policy Y-1(1).

5.15.2 POLICY Y-1(2) – PLANNING POLICIES

Y-1(2) RATIONALE

This policy is the same as CTC's DEM-2 policy.

Policy DEM-2 is a land use planning policy that manages activities that take water from an aquifer without returning the water to the same aquifer. This policy applies to new development in a WHPA-Q1 with a significant risk level and to future threats in a WHPA-Q1 with a moderate risk level.

The intent of the policy is to ensure that the Planning Approval Authority has the most updated information and tools available through the Tier 3 Water Budget analysis to ensure decisions at a local level do not result in the new development becoming a significant drinking water threat within a WHPA-Q1. The local Source Protection Authority has the model files and information to support this analysis, but the applicant will have to retain qualified expertise to do the analysis. By using the current version of the Tier 3 water budget model and updated information should ensure that the results are technically robust and comparable to the original analysis. The Ministry of the Environment and Climate Change is the approval authority for whether or not to issue a Permit to Take Water for any new taking and only reviews applications which have been favourably reviewed by the Planning Approval Authority. So any planning approvals should be made contingent on the applicant subsequently receiving their Permit to Take Water.

The intent of Part 3 (a) is to direct the body with the authority for approving expansions to settlement area boundaries to take account of water quantity threats related to the existing wells and permitted takings to determine how additional water could be provided to supply new demands that would result from an increase to the area proposed for development BEFORE a decision is made to expand the settlement area. The additional water may be sourced from existing wells coupled with actions to implement risk management measures.

The intent of part 3 (b) is to ensure baseflow and overland flows into surface water is maintained to provide sufficient waste water assimilation in locations where maintaining this use has been identified as a threat. The surface water flow or quantity required for assimilation is usually set out in other instruments such as a Permit to Take Water or Environmental Compliance Approval.

The intent of part 3 (c) is to ensure the hydrological integrity of municipal wells will be maintained to ensure future supply.

FORMAL CONSULTATION: FEEDBACK RECEIVED & SPC DECISIONS:

Durham Region Development Phase Comment: The term ‘major development’ is specific to lands within the Lake Simcoe Protection Plan and is therefore not applicable within the TCC study area and not recommended for use in the TCC Plan. Defining ‘development’ in a manner similar to the CTC plan would be preferred.

5.15.3 POLICY Y-1(3) – GROWTH MANAGEMENT PLAN

Y-1(3) RATIONALE

This policy is the same as CTC’s DEM-3 policy.

Policy DEM-3 is a Specify Action policy that directs provincial agencies responsible for setting population targets and growth areas that may require additional or new municipal water supplies to consider the significant water quantity threats analysis. This policy applies to existing and future threats in a WHPA-Q1 with a significant risk level and to future threats in a WHPA-Q1 with a moderate risk level.

The intent of the policy is to ensure the different provincial ministries and municipalities communicate, coordinate and consider the Tier 3 Water Budget findings and most current information when setting provincial targets and policies directing population growth so that these do not create new threats or increase the threats of existing activities.

FORMAL CONSULTATION: FEEDBACK RECEIVED & SPC DECISIONS:

No feedback was received specific to this policy through formal consultation

5.15.4 POLICY Y-1(4) – MONITORING POLICY

Y-1(4) RATIONALE

This is the Monitoring policy for Policy Y-1(3) and Y-1(7). It is based on the CTC monitoring policies for Implementing Body MOECC and MMAH.

5.15.5 POLICY Y-1(5) – WATER CONSERVATION PLANS

Y-1(5) RATIONALE

This policy is the same as CTC's DEM-4 policy.

Policy DEM-4 is a Specify Action policy that requires municipalities to implement water conservation plans as part of their risk management approach. This policy applies to existing and future threats in a WHPA-Q1 with a significant risk level and to future threats in a WHPA-Q1 with a moderate risk level.

The intent of this policy is for the municipalities who are responsible for the supply and distribution of municipal water sourced from wells within a WHPA-Q1 to implement effective water conservation plans as part of their risk management strategy to reduce the threat from existing or future water demand by all users who receive water from this source. Some municipalities may already have such plans in place and after review no further actions may be required.

In developing or updating water conservation plans, a municipality is encouraged to consider using a wide range of approaches in combination such as: incentives for retrofits; introducing local by-laws and requirements under building permissions to mandate installation of low water use plumbing fixtures; setting differential pricing rates to reward low consumption; requiring or encouraging reuse of gray water for irrigation; and lawn watering restrictions. Municipal staffs are encouraged to collaborate and consult with others who may have already implemented such plans and thereby reduce the workload and benefit from their knowledge and expertise.

FORMAL CONSULTATION: FEEDBACK RECEIVED & SPC DECISIONS:

No feedback was received specific to this policy through formal consultation

5.15.6 POLICY Y-1(6) – MONITORING POLICY

Y-1(6) RATIONALE

This is the Monitoring policy for Policy Y-1(5)

FORMAL CONSULTATION: FEEDBACK RECEIVED & SPC DECISIONS:

No feedback was received specific to this policy through formal consultation

5.15.7 POLICY Y-1(7) – TIER 3 MODEL UPDATES

RATIONALE

Y-1(7) RATIONALE

This policy is the same as CTC's DEM-8 policy.

Policy DEM-8 is a Specify Action policy directed to the Ministry of the Environment and Climate Change to ensure that the Tier 3 Water Budget is maintained with current information and used for decisions that may result in significant threats from activities that take water from an aquifer without returning the water to the same aquifer. This policy applies to threats in a WHPA-Q1 with a moderate or significant risk level.

The provincial funding of technical work to assess threats to the source of municipal drinking water has resulted in substantial advancement in the knowledge of the groundwater resources where Tier 3 Water Budget studies have been completed. These models can and should be used to support a number of future decisions such as Permits to Take Water and land use planning. However information in the models needs to be kept up to date as Permits are amended, cancelled or newly issued and as land use changes in order to be useful. The CTC Source Protection Committee concluded that the Ministry of the Environment and Climate Change is best placed to ensure that there is sustainable funding and oversight to maintain and ensure use of the Tier 3 Water Budget models. There is also the need to enhance the monitoring of ground and surface water flows in some areas, including installing flow gauges at key locations.

The Ministry of the Environment and Climate Change is encouraged to maintain partnerships with source protection authorities, municipalities and other partners to undertake this maintenance, data collection and analysis. The Ministry of the Environment and Climate Change is also encouraged to consider ways to finance this aspect through a variety of methods such as: conditions of approval for Permits To Take Water; require municipalities operating wells in these areas to be responsible for monitoring and data collection and transfer; and/or direct provincial funding.

FORMAL CONSULTATION: FEEDBACK RECEIVED & SPC DECISIONS:

No feedback was received specific to this policy through formal consultation

5.16 WATER QUANTITY RECHARGE POLICIES (WHPA Q2)

The SPC considered the Draft policies contained in the CTC Source Protection Plan, and proposed to be used by Durham Region. Due to the small area of WHPA Q1 & Q2 within TCC, staff provided Durham Region the opportunity to comment on the proposed adoption of CTC policies with some small changes.

These policies were finalized by the SPC following consultation; Comments from Durham Region were received prior to formal consultation.

5.16.1 POLICY Z-1 – RECHARGE

Z-1 RATIONALE

This policy is the same as CTC's REC-1 policy.

Policy REC-1 is a land use planning policy that manages activities that reduce recharge to an aquifer. This policy applies to future threats in a WHPA-Q2 with a significant or moderate risk level.

The intent of the policy is to ensure that the Planning Approval Authority makes decisions that do not result in recharge reduction from new development becoming a significant drinking water threat within a WHPA-Q2. The Planning Approval Authority, through the plan review process (i.e., Planning Act applications) will determine what is required, and determine the acceptability of the proposed actions, in the water balance assessments.

The CTC Source Protection Committee wants the Planning Approval Authority to have the flexibility to require the appropriate level of detail in a specific water balance assessment commensurate with the scale and location of a proposed development. For example, within the WHPA-Q2 are areas that have been identified as Significant Groundwater Recharge Areas which are particularly important due to the nature of the soils and slope that permit higher than average infiltration of precipitation to replenish the groundwater. These areas should be given particular protection. Other areas may not be important for recharge and cannot provide the required infiltration due to the local soil and slope conditions. Site specific assessment and identification of the recharge characteristics of the site should be part of such water balance assessments. Where a detailed assessment is warranted, using the current version of the Tier 3 Water Budget model and updated information should ensure that the results are technically robust and comparable to the original analysis. The local Source Protection Authority has the model files and information to support this analysis, but it is envisioned that an applicant will have to retain qualified expertise to do the analysis.

The Source Protection Committee encourages the “complete application” check list be updated to include the Water Balance Assessment.

The intent of Part 1) of the policy is to avoid the burden on individual residential owners or agricultural operations by requiring that they undertake expensive hydrogeological assessments but to protect recharge by requiring instead that they implement best management practices that will reduce or eliminate any impact from their building or development activities that are subject to planning approvals. In general on low density and agriculturally zoned lands, it is possible to ensure that roof and impermeable surface run-off can be directed to on-site infiltration and thus maintain recharge without requiring technical assessments.

The intent of Part 2) of this policy is to ensure all types Planning Act applications with the potential for reducing recharge (excluding an application for one single family dwelling and agricultural lands) include an assessment of the potential reduction in recharge so that specific measures are identified and implemented to ensure the proposal does not result in recharge reduction becoming a significant drinking water threat within a WHPA-Q2. This requirement applies to development on lands with the greatest potential for reducing recharge such as commercial, employment, institutional, industrial uses and includes residential subdivisions but excluding an application for one single family dwelling.

The intent of Part 2 (b) is to allow the municipality the option where it meets local requirements to require the applicant to locate compensating recharge on another site within the WHPA-Q2 where it is not feasible to protect pre-development recharge within the development site. The CTC Source

Protection Committee concluded that the local municipality is best placed to determine the optimal actions to protect recharge and this provides them some local flexibility in their decision-making.

The intent of Part 3) is to ensure municipalities evaluate planned growth against recharge reduction at a large scale and only proceed if the planned growth will not result in new significant drinking water threats. Once feasibility of the growth is confirmed, development proponents are subject to Parts 1) and 2) of this policy which are site-specific.

FORMAL CONSULTATION: FEEDBACK RECEIVED & SPC DECISIONS:

Durham Region Development Phase Comment: Although it seems unlikely that offsite compensation will occur in such a small geographic area, it is recommended that Policy REC-1(2)(b) (TCC policy Z-1(2)(b)) be retained for consistency.