

LAKE ERIE REGION SOURCE PROTECTION COMMITTEE

REPORT NO. SPC-20-06-04

DATE: June 25, 2020

TO: Members of the Lake Erie Region Source Protection Committee

SUBJECT: Centre Wellington Tier 3 Draft Water Quantity Policies

RECOMMENDATION:

THAT the Lake Erie Region Source Protection Committee receives report SPC-20-06-04 – Centre Wellington Tier 3 Draft Water Quantity Policies – for information.

SUMMARY:

The project team, with the lead of the Township of Centre Wellington and Wellington County, has developed draft water quantity policies to address the significant risk level designation for the Centre Wellington WHPA-Q, as well as the WHPA-Q overlapping from Acton (Town of Halton Hills) into the Town of Erin. The policies have been developed based on the insights of the technical studies, and previous water quantity policy work in the Lake Erie Region, as well as approved policies in other source protection regions. The proposed timeline would see a proposed Grand River Source Protection Plan amendment submitted to the Ministry of the Environment, Conservation and Parks, following pre- and public consultation, by early May 2021.

REPORT:

With the completion of the technical work (see report SPC-20-06-03), the project team commenced with the development of water quantity policies to address the two prescribed drinking water threats, consumptive water taking, and recharge reduction, within Wellhead Protection Area Quantity (WHPA-Q) as a result of the significant risk level designation. High level draft water quantity policy approaches were presented to the Source Protection Committee a year ago in report SPC-19-06-05.

The Township of Centre Wellington together with Wellington County has taken the lead to draft the water quantity policies, which have been reviewed by the Project Team, comprised of staff from the Lake Erie Source Protection Region and Ministry of the Environment, Conservation and Parks.

The draft water quantity policies presented in this report are for the Wellington County section of the Grand River Source Protection Plan, with a focus on the WHPA-Q for the Centre Wellington drinking water system (**Figure 1**) as well as the WHPA-Q overlap from the Acton drinking water system in Halton Region, Town of Halton Hills (**Figure 2**). Water quantity policies applicable to the Centre Wellington WHPA-Q but within Woolwich Township and therefore within the Region of Waterloo section of the Grand River Source Protection Plan will be presented at the next SPC meeting in October. The goal is for the water quantity policies to be consistent across the WHPA-Q, as much as possible. Water quantity policies addressing the WHPA-Q and IPZ-Q in the Guelph-Guelph/Eramosa area are being developed as part of the Guelph-Guelph/Eramosa water quantity policy development study and are not included in this report.

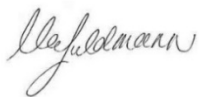
Draft water quantity policies are presented in **Appendix A**. The policies have been developed based on previous water quantity policy development work in the Lake Erie Region as well as approved policies in other source protection regions in Ontario. The policies reflect the results and insights gained from the Tier 3 water budget and related technical studies, and are tailored to the need of the municipality and available municipal resources while achieving the objectives of the source protection plan as laid out in the *Clean Water Act, 2006*. The policies use a combination of approaches including prescribed instruments (i.e., Permits To Take Water), land use planning, education and outreach, and specify action policies.

Next Steps and Timelines

Staff propose the following timeline for submitting what will now be called the S.34 Wellington/Region of Waterloo Grand River Source Protection Plan update, in reference to the sections of the plan that are proposed to be amended.

- **June 25, 2020:** presentation to SPC of draft water quantity policies for Wellington section of Grand River SPP.
- **October 1, 2020:** presentation of revised water quantity policies, including policies for portion of WHPA-Q in Woolwich, as part of complete proposed Assessment Report and Source Protection Plan package, and release of package for pre-consultation. Policy revisions will include possible amendments to policy tool and intent, and will address legal effect, policy order and numbering, and confirming whether a policy applies to existing and/or future activities.
- **October 5 – November 16, 2020** (6 weeks): pre-consultation with municipalities and ministries affected by the proposed amendments. Includes formal notice to clerks and request for council resolution in support of amendment.
- **January 21, 2021:** presentation to SPC of any revisions following pre-consultation comments received and release for public consultation.
- **January 25 – March 8, 2021** (6 weeks): public consultation of proposed plan amendments. Public meetings may be held if desired and will be determined in consultation with the municipalities. The format of any public meeting will be guided by the then current COVID-19 pandemic restrictions in place.
- **April 1, 2021:** presentation to SPC of any revisions following public consultation comments, and release to Grand River Source Protection Authority.
- **April 23, 2021:** Grand River Source Protection Authority releases amended Assessment Report and Source Protection Plan for submission to Ministry of the Environment, Conservation and Parks.

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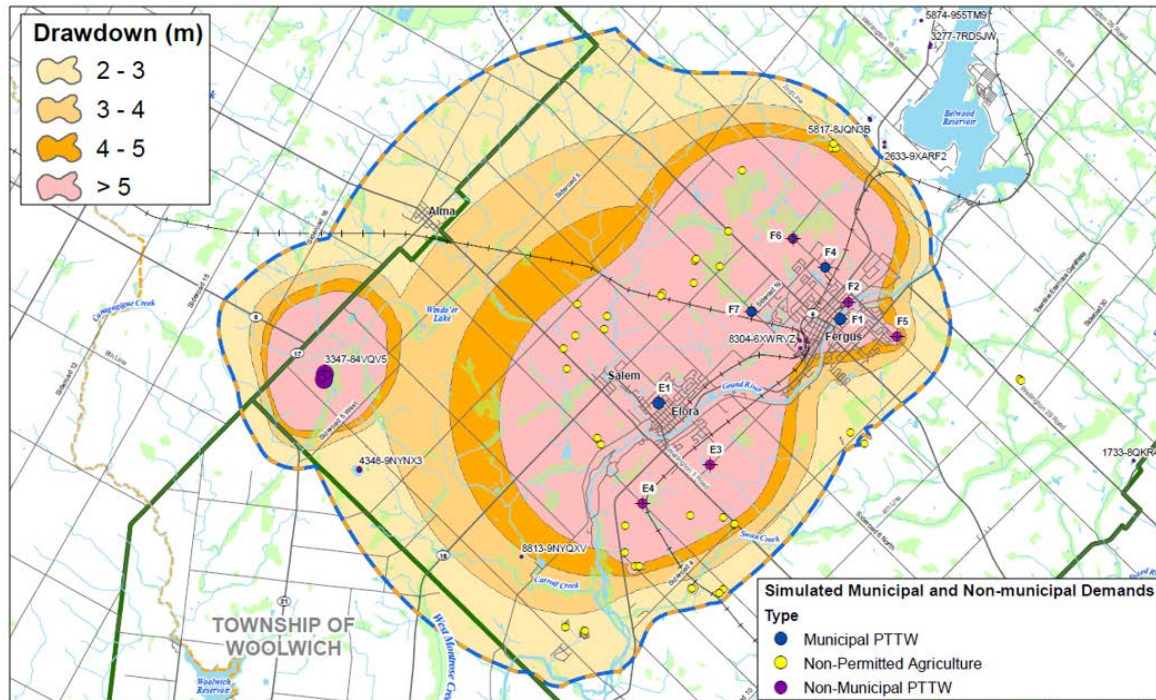


Figure 1: Township of Centre Wellington WHPA-Q delineation and permitted consumptive water takings.

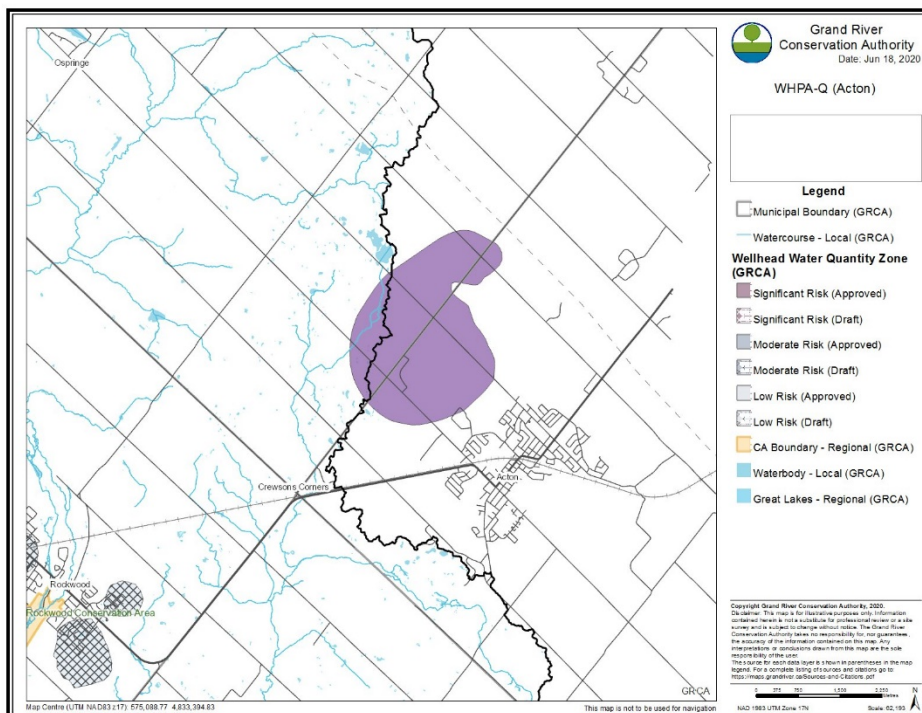


Figure 2: Acton (Town of Halton Hills) WHPA-Q showing overlap into Grand River watershed (Town of Erin).

Appendix A:

County of Wellington draft water quantity policies

Policy Number	Policies Addressing Prescribed Drinking Water Threats within the County of Wellington
Definitions	
	<p>Drinking Water Threat Disclosure Report - means a report required pursuant to the County of Wellington Official Plan as part of a complete application or as a condition of site plan control for the development, redevelopment or site alteration of non-residential uses within a Wellhead Protection Area, Intake Protection Zone or Issue Contributing Area.</p>
	<p>Major Development - means development consisting of,</p> <ul style="list-style-type: none"> i. the creation of four or more lots, ii. the construction of a building or buildings with a ground floor area of 500 m² or more, or iii. the establishment of a major recreational use.
	<p>Major Recreational Use - means a recreational use that requires large-scale modification of terrain, vegetation or both and usually also requires large-scale buildings or structures, including but not limited to the following: golf courses; serviced playing fields; serviced campgrounds; and ski hills.</p>
Official Plan and Zoning By-law Amendment(s) Policies	
	<p>The Risk Management Official shall prepare a terms of reference for Drinking Water Threat Disclosure Reports that outlines the information that applicants are required to provide within Drinking Water Threat Disclosure Reports, when these reports are required as part of a complete application under the <i>Planning Act, 1990</i> or a condition of site plan control.</p>
19 and 20. An Activity that takes water from an aquifer or surface water body without returning the water taken to the same aquifer or surface water body and An activity that reduces the recharge of an aquifer	
	<p>To ensure that a consumptive water taking and an activity that reduces the recharge of an aquifer cease to be or never become significant drinking water threats, where these activities are or would be significant drinking water threats as prescribed by the <i>Clean Water Act, 2006</i>, the following shall apply:</p> <ul style="list-style-type: none"> a) The Township of Centre Wellington shall develop, maintain and implement a long-term monitoring program of groundwater and surface water systems to assess potential groundwater and / or surface water impacts from consumptive water takings and/or recharge reduction within the Centre Wellington WHPA-Q. The design and implementation of this monitoring program should consider the recommendations from the Centre Wellington Tier 3 Studies, the Centre Wellington Water Supply Master Plan, future municipal exploratory drilling programs, Class Environmental Assessments for municipal wells, municipal wellfield capacity studies and / or other studies required through the Centre Wellington Permit To Take Water / Drinking Water Works Permit. The development, maintenance and implementation of this program should be in collaboration with the municipalities, County, Ministry of the Environment, Conservation and Parks and the Grand River Conservation Authority, where possible.

Policy Number	Policies Addressing Prescribed Drinking Water Threats within the County of Wellington
	<p>b) The Grand River Conservation Authority, the Ministry of the Environment, Conservation and Parks, the municipalities and / or the County should meet regularly to mutually share information to collaboratively manage water resources within the Centre Wellington WHPA-Q. This may include, but is not limited to, the sharing of data, use and / or management of the Tier 3 model and / or discussion related to consumptive water takings, areas of recharge reduction and / or actions taken by the parties.</p> <p>i. An Information-Sharing Process document shall be developed that includes requirements, as needed, for meeting frequency, agendas, participants, the nature and format or the types of information to be mutually shared. Consideration should also be given to links to other groups such as Grand River Water Managers and / or Low Water Response Group.</p> <p>c) The municipalities shall implement and maintain public education and outreach initiatives regarding water conservation and the use of best management practices that reduce the impact on groundwater recharge. Where possible, these education and outreach initiatives will be coordinated with other municipalities.</p> <p>d) The Ministry of the Environment, Conservation and Parks should consider providing ongoing funding to the Grand River Conservation Authority and the municipalities to maintain and update the following:</p> <ul style="list-style-type: none">• Tier 3 water budget models;• Tier 3 climate change assessment models;• updates to Tier 3 Risk Assessments, Risk Management Measures Evaluation Process and associated studies; and• long-term monitoring programs of groundwater and surface water systems to assess potential impacts from water takings and / or recharge reduction.
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	
	<p>To ensure a consumptive water taking ceases to be or never becomes a significant drinking water threat where the activity is or would be significant drinking water threat as prescribed by the <i>Clean Water Act, 2006</i>, the following shall apply:</p> <p>a) For any existing consumptive water taking, the Ministry of the Environment, Conservation and Parks shall review and, if necessary, amend Permits To Take Water (PTTW) and / or Drinking Water Works Permits to ensure that the municipal supply will not be adversely impacted, and to consider the Tier 3 water budget results including consideration of water supply requirements for planned growth and prolonged drought. The Ministry of the Environment, Conservation and Parks should circulate Environmental Registry notices to the municipalities and Grand River Conservation Authority and have due regard for comments from the Grand River</p>

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	<p>Conservation Authority and municipalities regarding new or revised conditions of approvals. To achieve this, the Ministry of the Environment, Conservation and Parks should consider the following terms and conditions that address:</p> <ul style="list-style-type: none"> i. groundwater and surface water monitoring; ii. demand management: water needs assessment (review of permitted maximum takings) and water efficiency measures; iii. phased approach to assess impacts; iv. information sharing with the Ministry of the Environment, Conservation and Parks, municipalities and conservation authorities including a condition of approval for permit holders to provide municipalities and conservation authorities technical reports and monitoring data gathered pursuant to a condition of the PTTW (as per bullet i) above); v. measures to increase the optimization of the municipal water supply system where appropriate; and vi. drought management planning for drought sensitive wells / systems. <p>b) For any future consumptive water taking, the Ministry of the Environment, Conservation and Parks shall issue Permits To Take Water (PTTW) and / or Drinking Water Works Permits to ensure that the municipal supply will not be adversely impacted. The Ministry of the Environment, Conservation and Parks, where appropriate, should ensure the use of the Tier 3 model, reports and data in its evaluation of these takings including consideration of water supply requirements for planned growth and prolonged drought. The Ministry of the Environment, Conservation and Parks should circulate Environmental Registry notices to the municipalities and Grand River Conservation Authority and have due regard for comments from the Grand River Conservation Authority and municipalities regarding new or revised conditions of approvals. To achieve this the Ministry of the Environment, Conservation and Parks should consider the following terms and conditions that address:</p> <ul style="list-style-type: none"> i. groundwater and surface water monitoring; ii. demand management: water needs assessment (review of permitted maximum takings) and water efficiency measures; iii. phased approach to assess impacts; iv. information sharing with the Ministry of the Environment, Conservation and Parks, municipalities and conservation authorities including a condition of approval for permit holders to provide municipalities and conservation authorities technical reports and monitoring data gathered pursuant to a condition of the PTTW (as per bullet i) above); v. measures to increase the optimization of the municipal water supply system where appropriate; and vi. drought management planning for drought sensitive wells / systems. <p>c) For any existing consumptive water taking, the Ministry of Natural</p>

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	<p>Resources and Forestry, in consultation with the Ministry of the Environment, Conservation and Parks, municipalities, conservation authorities and / or licensees, shall review, and if necessary, amend existing <i>Aggregate Resources Act, 1990</i> licenses in consideration of the long-term sustainability of the municipal water supplies using the results of the Tier 3 water budget. To achieve this the Ministry of Natural Resources and Forestry should consider the following terms and conditions in licenses such as:</p> <ul style="list-style-type: none"> i. address operational and geological controls; ii. require rehabilitation measures that restrict and/or limit extraction activities below the water table; and iii. groundwater and surface water monitoring. <p>d) For any future consumptive water taking, the Ministry of Natural Resources and Forestry, in consultation with the Ministry of the Environment, Conservation and Parks, municipalities, conservation authorities and / or licensees, shall issue new <i>Aggregate Resources Act, 1990</i> licenses in consideration of the long-term sustainability of the municipal water supplies using the results of the Tier 3 water budget. To achieve this the Ministry of Natural Resources and Forestry should consider the following terms and conditions in licenses such as:</p> <ul style="list-style-type: none"> i. address operational and geological controls; ii. require rehabilitation measures that restrict and/or limit extraction activities below the water table; and iii. groundwater and surface water monitoring. <p>e) The Township of Centre Wellington shall promote water conservation and demand management to all Township of Centre Wellington municipal water users within the Centre Wellington WHPA-Q as outlined in the Township of Centre Wellington Water Supply Master Plan.</p> <p>f) The Township of Centre Wellington shall evaluate opportunities to optimize their water systems based on the source protection water quantity technical work, and where appropriate develop, maintain, and enhance water supply system optimization programs. The design and implementation of these programs should consider, where appropriate, the recommendations from the Centre Wellington Tier 3 Studies, the Centre Wellington Water Supply Master Plan, future municipal exploratory drilling programs, Class Environmental Assessments for municipal wells, municipal wellfield capacity studies and / or other studies required through the Centre Wellington Permit To Take Water (PTTW) / Drinking Water Works Permit.</p> <p>Optimization strategies at existing municipal well locations, may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> i. optimizing existing capacity to realize existing permitted capacity; ii. exploring the potential for expanding the existing capacity beyond

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	<p>the current permitted capacity; and / or</p> <ul style="list-style-type: none"> iii. balancing the municipal pumping to optimize/maximize municipal water taking. <p>g) The County of Wellington, in consultation with the municipalities, should take into consideration water quantity constraints identified through the Tier 3 water budget results when allocating projected growth as part of a municipal comprehensive review.</p> <p>h) The County of Wellington, in consultation with the municipalities, shall only approve municipally serviced settlement area expansions within a WHPA-Q as part of a municipal comprehensive review or as otherwise provided by the Provincial Growth Plan for the Greater Golden Horseshoe (A Place to Grow), where the following has been demonstrated:</p> <ul style="list-style-type: none"> i. Through the use of the Tier 3 Model or other equivalent means, it is demonstrated that the expansion will not adversely impact the aquifer's ability to meet the municipal water supply requirements for current and planned service capacity. The work required should be the result of collaboration and coordination between the County, municipalities, Grand River Conservation Authorities Province and / or private developers. <p>i) The County shall provide appropriate Official Plan policies and study requirements to ensure that new developments requiring a new or amended PTTW for groundwater taking within a WHPA-Q can adequately demonstrate that the municipal supply will not be adversely impacted and to consider the Tier 3 water budget results including consideration of planned growth and prolonged drought. The following requirements shall be added to the Official Plan:</p> <ul style="list-style-type: none"> i. Clarification that a Drinking Water Threat Disclosure Report is included in the list of studies in the Official Plan that may be required for a complete application; ii. A Drinking Water Threat Disclosure Report and Hydrogeological Impact Assessment as a component of a complete application under the <i>Planning Act</i> (official plan amendment, subdivision, condominium, rezoning or consent); and iii. That development subject to site plan control under the <i>Planning Act, 1990</i> is to be conditional upon a Drinking Water Threat Disclosure Report and Hydrogeological Impact Assessment through the development review and consultation process, as appropriate. <p>The planning approval authority shall use its discretion to implement the requirements of this policy to the extent feasible and practicable given the specific circumstances of the proposed water taking.</p> <p>j) The municipalities when reviewing planning applications for new development requiring a new or amended Permit To Take Water (PTTW)</p>

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	<p>for groundwater taking within a WHPA-Q should consult with the Ministry of the Environment, Conservation and Parks to discuss any necessary amendments to the terms and conditions of the PTTW. A local municipality may use holding zone provisions or a community planning permit in order to ensure that a PTTW, if required, is in place prior to the commencement of any development activity.</p> <p>k) To ensure the provision and distribution of municipal water supply to support County population and growth forecasts, the Ministry of the Environment, Conservation and Parks, in consultation with any relevant municipalities and the Grand River Conservation Authority, should use the Tier 3 model, reports and data in its evaluation of new or expanded municipal takings through the Permit To Take Water (PTTW) and / or Class Environmental Assessment processes, where those new or expanded consumptive takings could affect a reduction in the assigned risk level for a WHPA-Q.</p> <p>l) The Ministry of Natural Resources and Forestry should consider integrating source protection water quantity technical work into the aggregate policy framework and provincial standards. The Ministry Natural Resources and Forestry should also enhance engagement with other water managers (e.g., municipalities, conservation authorities, and the Ministry of the Environment, Conservation and Parks) in the <i>Aggregate Resources Act, 1990</i> licensing.</p> <p>m) The Ministry of the Environment, Conservation and Parks and the Ministry of Natural Resources and Forestry should consider prioritizing inspection and abatement activities of sites with Permits to Take Water (PTTW) and / or <i>Aggregate Resources Act, 1990</i> licenses.</p> <p>n) Placeholder for a new consumptive policy, related to priority of use or allocation, to be considered once Province releases water quantity framework related to water bottle moratorium and provincial water management review.</p>

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20. An activity that reduces the recharge of an aquifer	
	<p>To ensure that any existing or future activity that reduces the recharge of an aquifer ceases to be or never becomes a significant drinking water threat, where this activity is or would be a significant drinking water threat as prescribed by the <i>Clean Water Act</i>, the following shall apply:</p> <p>a) For any existing activity that reduces the recharge of an aquifer, the Ministry of the Environment, Conservation and Parks shall review and, if necessary, amend Environmental Compliance Approvals for stormwater management facilities to ensure that terms and conditions are incorporated, where appropriate, that include groundwater recharge</p>

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	<p>considerations. These may include implementation of low impact development, minimizing impervious surfaces and lot level infiltration for the purposes of maintaining recharge function. For facilities located within the WHPA-Q in a Chloride, Sodium or Nitrate ICA, the terms and conditions should consider water quality when recommending best management practices and address how recharge will be maintained and water quality will be protected.</p> <p>b) For any future activity that reduces the recharge of an aquifer, the Ministry of the Environment, Conservation and Parks shall issue Environmental Compliance Approvals for stormwater management facilities to ensure that terms and conditions are incorporated, where appropriate, that include groundwater recharge considerations. These may include implementation of low impact development, minimizing impervious surfaces and lot level infiltration for the purposes of maintaining recharge function. For facilities located within the WHPA-Q in a Chloride, Sodium or Nitrate ICA, the terms and conditions should consider water quality when recommending best management practices and address how recharge will be maintained and water quality will be protected.</p> <p>c) The County of Wellington, in consultation with the municipalities, shall only approve municipally serviced settlement area expansions within a WHPA-Q as part of a municipal comprehensive review or as otherwise provided by the Provincial Growth Plan for the Greater Golden Horseshoe (A Place to Grow), where it can be adequately demonstrated that recharge functions can be maintained or improved on lands designated Significant Groundwater Recharge Areas within a WHPA-Q.</p> <p>d) The planning approval authority should require new development and site alteration under the <i>Planning Act, 1990</i> to implement best management practices such as Low Impact Development (LID) with the goal to maintain predevelopment recharge. The best management practices must consider how recharge will be maintained and water quality will be protected especially regarding winter maintenance chemical application and / or storage. Implementation of best management practices is encouraged, but voluntary, for agricultural uses, agriculture-related uses, or on-farm diversified uses where the total impervious surface does not exceed 10 per cent of the lot.</p> <p>e) The planning approval authority shall require that all site plan, subdivision and vacant land condominium applications to facilitate major development for new residential, commercial, industrial and institutional</p>

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	<p>uses provide a water balance assessment for the proposed development which addresses each of the following requirements:</p> <ul style="list-style-type: none"> i. maintain pre-development recharge to the greatest extent feasible through best management practices such as LID, minimizing impervious surfaces, and lot level infiltration; ii. where pre-development recharge cannot be maintained on site, implement and maximize off-site recharge enhancement (within the same WHPA-Q) to compensate for any predicted loss of recharge from the development; and iii. within the WHPA-Q in a Chloride, Sodium or Nitrate ICA, the water balance assessment must consider water quality when recommending best management practices and address how recharge will be maintained and water quality will be protected. <p>The planning approval authority shall use its discretion to implement the requirements of this policy to the extent feasible and practicable given the nature of the proposed development, specific circumstances of a site and off-site recharge opportunities.</p> <p>f) Municipalities are encouraged to develop and update design standards (e.g., development manual, design guidelines, etc.) for maintaining and enhancing groundwater recharge. These may include implementation of low impact development, minimizing impervious surfaces and lot level infiltration for the purposes of maintaining recharge function. The design standards must consider water quality when recommending best management practices and address how recharge will be maintained and water quality will be protected especially regarding winter maintenance chemical application and / or storage.</p> <p>g) The Ministry of the Environment, Conservation and Parks should consider prioritizing inspection and abatement activities of stormwater management facilities that include groundwater recharge considerations.</p>