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**PLANNING FOR TOMORROW -
DRAFT YORK REGION WELLHEAD PROTECTION AREA POLICY
AND MAPPING**

(The staff recommendations contained in Clause 1 of the Report were adopted by the Council of The Regional Municipality of York at its meeting on March 26, 2009.)

The following report dated February 11, 2009, from the Commissioner of Planning and Development Services and the Commissioner of Environmental Services, is submitted to Council without a Committee recommendation.

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council endorse the attached draft Regional Wellhead Protection Area policies and mapping for discussion and inclusion in the draft Regional Official Plan (ROP) update when released for public review.
2. Planning Department staff circulate this report to all local municipalities, the development community, Regional partners and stakeholders, the Ministry of Energy and Infrastructure and Ministry of Municipal Affairs and Housing for comment and discussion.
3. Regional staff report back on the input received and any changes required to the policies and mapping as part of the Regional Official Plan update process.

2. PURPOSE

The purpose of this report is to introduce draft Wellhead Protection Area policies and mapping for inclusion in the updated Regional Official Plan to meet the intent of the Oak Ridges Moraine Conservation Plan (ORMCP), Source Water Protection planning and the Greenbelt Plan.

The draft Wellhead Protection Area policies and ROP map for inclusion in the updated Regional Official Plan are appended as *Attachment 1* to this report and are derived from the existing approved Oak Ridges Moraine Conservation Plan wellhead protection plan policies.

3. BACKGROUND

Regional Council first adopted wellhead protection areas for the Oak Ridges Moraine in September, 2004. These policies were approved by the Minister of Municipal Affairs in December 2006. Since that time the requirements of the *Clean Water Act, 2006* and the *Greenbelt Act, 2005* and Plan have made it necessary to extend this protection to all municipal wells in the Region.

Most recently, Regional Council at its meeting of February 19, 2009 endorsed Clause 5 of Report 2 of the Regional Transportation and Works Committee which described a Regional strategy for protecting drinking water sources, including Wellhead Protection Areas for all York Region wells and Intake Protection Zones for Lake Simcoe intakes as part of the Regional Official Plan update.

4. ANALYSIS AND OPTIONS

4.1 Provincial Context for Wellhead Protection

The *Clean Water Act, 2006* received Royal Assent on October 19, 2006. It's aim is to address one of the key recommendations of the Walkerton Inquiry which was "protecting water at its source".

Regulations necessary to fully define the scope and requirements of the *Clean Water Act, 2006* have been released in separate waves over the past 2 years. Additional regulations are anticipated in the future including those dealing with implementation of Source Protection Plans.

The purpose of the *Clean Water Act, 2006* is to provide a framework to protect water at its source as a first step in ensuring a safe drinking water supply. The main instrument to accomplish this goal is through Source Protection Plans for each *Source Protection Area/Region*. In general, Source Protection Plans are aimed at managing contaminant threats, preventing pollutants from reaching sources of drinking water and ensuring appropriate quantity of drinking water for municipal purposes.

4.2 Clean Water Act, 2006 Requirements and Risk Management Studies

The Source Protection Plan will describe the management strategies, as prescribed by the *Clean Water Act, 2006* requiring municipalities to 'protect' drinking water sources. Work is well underway to delineate protection areas including wellhead protection areas for groundwater wells, surface water intake protection zones, significant recharge areas and highly vulnerable aquifers in accordance with legislated Technical Rules. These zones focus further work to evaluate if land use activities have the potential to harm or act as a 'threat' to the municipal drinking water supply. Particular attention is given to existing and future land use activities that may be a source of pathogens, pesticides, herbicides,

solvents and other chemicals will be assessed and given a risk scoring, whereby significant risks will require mitigation in the Source Protection Plan. This assessment work, which is regulated by the Technical Rules under the *Clean Water Act, 2006* is anticipated to be finalized as early as 2010.

The Technical Rules require the Region to:

- Establish a 100 m radius around a municipal well, where uses that have the potential to provide pathogen contamination are prohibited. Source of pathogens would include septic systems, manure and storm water management facilities.
- Restrict storage or use of pathogens within the 100 metre to 2 year time of travel zone.
- Restrict land uses which use, store or manufacture petroleum based fuels, solvents, pesticides, herbicides, fungicides, construction equipment, inorganic chemicals, road salt or severely toxic chemicals identified by the Ontario regulations made pursuant to the *Environmental Protection Act*, where there is a significant threat (high potential to negatively impact the quantity and/or quality of groundwater that supplies a municipal well) identified in the 0 to 25 year time of travel zone.

Pathogen threats refer to drinking water quality threats that are related to conditions or activities that have the potential to introduce pathogens (i.e. living microorganisms that cause disease) into the groundwater.

4.3 New Well Development results in changes to Existing Wellhead Protection Areas

Since January 2006, the Region has undertaken Environmental Assessments to develop additional well capacity for the communities of Mt Albert, Schomberg and Nobleton. The new well development has expanded the wellhead protection areas in these communities. At the present time, only those parts of the wellheads on the Oak Ridges Moraine are included in the Official Plan, however, the updated policies and mapping propose that all Regional wellheads for the Region also be shown on the ROP map.

In addition to the expansion of the wellhead protection areas in these communities the proposed wellhead protection areas also reflect the 100 metre pathogen exclusion zone and the 0 to 5 year time of travel zone as required by the *Clean Water Act, 2006*. The 100 metre exclusion zone replaces the 0 to 150 days zone currently approved in the ROP on the Oak Ridges Moraine and applies to all wellheads.

Wellhead protection areas for three Regional well fields (Stouffville, Mt. Albert and Schomberg) extend beyond the Region's boundaries into Durham Region and Simcoe

County. Regional staff will work with these municipalities to ensure source protection measures are included within appropriate planning documents.

4.4 Oak Ridges Moraine Wellhead Protection Policies can be used for the balance of the Region

A number of upper tier jurisdictions in Ontario have already adopted wellhead protection area mapping and policies in their Official Plans. However, there is no “one size fits all” policy framework when determining the appropriate policy context. Moreover policies that are recommended and even approved at this time may require further amendment when the Source Protection Plans are completed in 2012. Regardless of the framework however, the policies will largely be implemented through local municipal official plans and zoning bylaws. It is incumbent on the Region therefore to assist local municipalities not only in delineating these areas, but also in working towards an implementation strategy on the ground.

York Region and all local municipalities currently have approved official plan policies and mapping on the Oak Ridges Moraine. These policies provide appropriate levels of protection for both Moraine and off Moraine wells with the amendments to the mapping and policies to acknowledge the 100 metre pathogen exclusion zone and 0 to 5-year time of travel zone.

Given the conservative and prescriptive nature of the ORMCP, the Regional Official policies that apply on the Oak Ridges Moraine are recommended to apply outside of the Oak Ridges Moraine as well. These policies will:

- Identify restrictions in Regional and area municipal official plans and zoning by-laws
- Prohibit or restrict land uses which use, store or manufacture the following substances: petroleum based fuels, solvents, pesticides, herbicides, fungicides, construction equipment, inorganic chemicals, road salt or severely toxic chemicals identified by the Federal *Environmental Protection Act*, where there is a significant threat identified in the 0 to 25 year time of travel zone.
- Require investigation of the need and potential for undertaking risk management planning including spills response, containment recovery and aquifer rehabilitation plans where existing land uses are identified in wellhead protection areas.
- Prohibit within the 100 metre pathogen zone around each municipal wellhead, and restrict within the 100 metre to 2 year time of travel zone, the storage or use of *pathogen threats*, by new uses, except for the storage or use of agricultural source material (manure) for personal or family use and prohibit on the Oak Ridges

Moraine the storage of animal manure or agricultural equipment or the undertaking of animal agriculture, except for personal use within the 0 to 2-year time of travel around each municipal well.

Further revisions of these policies may be required when Source Protection Plans are completed.

4.5 Next Steps as part of the Regional Official Plan update and Growth Plan Conformity

Proposed policies and mapping relating to wellhead protection are part of a series of reports being brought forward in the next few months to tie together the Planning for Tomorrow work and conclusions leading to policy formulation. This work will bring the Regional Official Plan into conformity with both the Places to Grow and the Greenbelt Plans.

The list of additional policy reports and their anticipated timing includes:

- Forecasts January (endorsed by Committee and Council)
- Land Budget January (endorsed by Committee and Council)
- Intensification February (endorsed by Committee and Council)
- New Communities Best Practices March
- Natural Heritage System April
- Centres & Corridors April
- Natural Heritage Trails May
- Agriculture Review June

The results of these reports will be incorporated into the updated Official Plan in time for release of a Draft Regional Official Plan in June, 2009. Public consultation and review will be undertaken throughout the summer and early fall with report back to Committee and Council prior to adoption of the updated Regional Official Plan in late 2009.

Public engagement relating specifically to wellhead protection areas will be scheduled as part of the overall consultation on the draft official plan, by identifying individual property owners within wellhead protection areas and writing to them as a first contact.

For Regional wellhead protection areas extending beyond York's boundaries, into Durham Region and Simcoe County, Regional staff will ensure source protection measures are considered within their appropriate planning documents.

5. Relationship to Vision 2026

Vision 2026, York Region's strategic plan for the future, establishes the overall vision and direction for Regional Council. As well, Council has adopted the Sustainability

Strategy and the Natural Heritage Directions Strategy. Further work is being undertaken on New Communities Criteria and Best Practices that will determine a new way of proceeding with development. The inclusion of Wellhead Protection Policies and mapping for the entire Region complies with our statutory requirements under the *Clean Water Act, 2006* and the *Greenbelt Act, 2005* and the Greenbelt Plan and assists in meeting Regional objectives relating to Sustainability.

6. FINANCIAL IMPLICATIONS

The introduction of updated wellhead protection policies and mapping has no impact on the Regional budget as the policies have been drafted with existing staff complement in the Planning and Development Services and Environmental Services Departments. The addition of wellhead protection policies and mapping into the Regional Official Plan may also assist the Region in avoiding expensive remediation and well closures by protecting wellheads from incompatible land uses in the protection areas.

Once the updated Official Plan is adopted by Council, should the plan be appealed to the Ontario Municipal Board, Regional staff will report back to Committee and Council.

Other aspects of wellhead protection are being developed through the Environmental Services Department and are either covered by provincial funding or captured and planned under existing Capital and Operating budget programs.

7. LOCAL MUNICIPAL IMPACT

Wellhead protection area policies and mapping are included in local official plans and zoning bylaws for those municipal wells on the Oak Ridges Moraine. A similar model to the Oak Ridges Moraine will be followed in this case, but amendments to existing approved policies will be required for new wells, for changes as required by the *Clean Water Act, 2006* and to add those wells outside of the Oak Ridges Moraine.

Many of the specific policy requirements, particularly those which prohibit or limit new uses and those which deal with existing uses incompatible in wellhead protection areas will need to be reflected in municipal zoning bylaws. Enforcement strategies for dealing with land uses that may pose risks within the wellhead will be discussed and agreed upon with local municipalities.

Regional staff from both the Environmental Services and Planning and Development Services Departments has commenced meetings with municipal partners under the Source Water Protection initiative. The proposed wellhead protection policies and mapping will be introduced at the next municipal Source Water Protection update workshop on March 5, 2009 and individual meetings with local municipalities have been scheduled commencing in the first week of March, 2009.

8. CONCLUSION

Wellhead Protection Area policies for lands outside of the Oak Ridges Moraine are required by the *Clean Water Act, 2006* and the *Greenbelt Plan, 2005*. Wellhead Protection Areas policies and mapping are approved in the ROP for lands on the Oak Ridges Moraine, but require some amendments as a result of *Clean Water Act* regulations and the establishment of several new Regional wells.

The proposed Wellhead Protection Area policies and ROP map are appended as *Attachment 1* to this report and are based on the existing approved Oak Ridges Moraine Conservation Plan wellhead protection plan policies approved in both Regional and local official plans (excluding Georgina which is not within the ORMCP). Local zoning bylaws for ORMCP municipalities (excluding King and Whitchurch-Stouffville) have also been approved. The revised policies and mapping will be implemented through local official plans and zoning bylaws.

It is recommended that the draft Policies and mapping to establish Regional Wellhead Protection Areas, appended as *Attachment 1*, be endorsed for discussion and inclusion in the draft Regional Official Plan update when released for public review.

Further it is recommended that staff report back on the input received and changes required to the policies and mapping as part of the Regional Official Plan update process.

For more information on this report, please contact John Waller, Director Long Range and Strategic Planning Branch at (905) 830-4444 Ext. 1525.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)