



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	April 7, 2014
SUBJECT/REPORT NO:	Guidelines for Hydrogeological Studies and Technical Standards for Private Services (PW14032) - City Wide
WARD(S) AFFECTED:	City Wide
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SIGNATURE:	

RECOMMENDATION

That the Guidelines for Hydrological Studies and Technical Standards for Private Services ("the Guidelines") be adopted to provide the necessary requirements for the completion of hydrogeological studies to support development in rural areas that rely on private water and wastewater services. The Guidelines implement the policies of the Rural Hamilton Official Plan and represent an assembly of the technical and planning standards currently in place at the municipal and provincial level.

EXECUTIVE SUMMARY

The Rural Hamilton Official Plan (RHOP) contains policies to ensure that "*all new development establishes, and maintains in perpetuity, sustainable private services*" wherever municipal water and/or wastewater services are not available. Furthermore, the RHOP directs Council to adopt hydrogeological standards that establish a consistent content and methodology for the hydrogeological studies submitted to the City. A hydrogeological study or investigation is a study of the groundwater and geologic conditions in an area or location.

These Guidelines are general and the need for a study is determined by the City, on a case-by-case basis. Hamilton Water or Planning and Development staff may reduce the scope of a hydrogeological study and/or give more precise technical guidance regarding the type of information or level of research effort to be included in the study.

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A hydrogeological study report is necessary for most of the following types of applications:

- official plan amendments;
- zoning by-law amendments;
- plans of subdivision, condominium;
- severance applications;
- proposals for new agricultural-related uses;
- expansions of existing uses that will increase the needs for private water and/or sewage disposal.

The Guidelines are consistent with technical standards developed by the Ontario's Ministry of the Environment (MOE) regarding private servicing and conforms to the standards established in the Ontario Building Code (2012, as amended).

The Guidelines summarize the applicable pieces of provincial legislations (Ontario Water Resources Act, Clean Water Act, Safe Drinking Water Act etc.), provincial guidelines that outline the analysis approaches; as well as City's key planning documents/ reports (Rural Hamilton Official Plan, Source Protection Plans etc.).

For the purposes of meeting these guidelines, an appropriate expert is required to complete the hydrogeological reports and shall be professionally qualified as a Professional Engineer or Professional Geoscientist with demonstrated training and experience in the field of hydrogeology. Where necessary, preparation of the hydrogeological study report may require input from a professional with experience in the design of private services.

The hydrogeological report shall include information such as physical setting, water supply (groundwater quantity and quality) and sewage disposal. This information will ensure that the development proceeds at a density and scale that will not result in exceedance of acceptable limits or cause degradation of groundwater resources.

Alternatives for Consideration - See Page 4

FINANCIAL - STAFFING - LEGAL IMPLICATIONS

Financial: All costs associated with preparation of the hydrogeological report (including the retaining of qualified professional services as may be required) are the proponent's responsibility.

The cost of developing the Guidelines, mainly staff time, was funded through Source Protection Planning budget.

The cost of implementing the guidelines will be partially funded through the Development Application fees. This process involves City's staff time for providing guidance to proponents and consultants, reviewing documents and participating to meetings.

Staffing: No additional staff is required.

Legal: No legal implications are expected as a result of implementing these guidelines.

HISTORICAL BACKGROUND

The Rural Hamilton Official Plan requires that all developments have self-sustaining private individual water wells and private individual sewage disposal systems. To meet this requirement, Hamilton Water staff assembled the Guidelines that outline the critical steps to be evaluated by the proponent and the designated professional expert. The Guidelines were finalised through consultation with Planning Division, Building Services Division and Public Health Services Department and were peer reviewed by an independent hydrogeological consultant.

It is the responsibility of the proponent to demonstrate to the City's satisfaction that:

- i) an adequate and safe supply of potable water for proposed development is available without compromising/impacting existing groundwater and surface water resources or the ecological community;
- ii) the on-site and off-site groundwater quality and quantity and its users will not be adversely affected;
- iii) site conditions are suitable for on-site sewage disposal and that appropriate accommodation can be made in the event of system failure (i.e. a reserve area);
- iv) on-site sewage disposal systems will not impair the use of groundwater or surface water resources;

The Guidelines specify the items that must be included in a hydrogeological study report as well as comprehensive rationale and guidance for site-specific studies that will need to be carried out on a case-by-case basis for individual development applications by the proponents and/or their qualified professional consultants.

The Guidelines facilitate a consistent approach towards assessing development applications in the rural area and providing appropriate recommendations.

The recommendations contained in this report support the Mission Statement of the Public Works Business Plan "Innovate Now" - "Provide safe, strategic and environmentally conscious services that bring our communities to life".

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The recommendation of this report implements the policies of the *Rural Hamilton Official Plan, Chapter C - City Wide Systems and Designations, Section C.5.0 Infrastructure, subsection 5.1. Sustainable Private and Wastewater Services; and Chapter F – Implementation, Section 3.2.2 Hydrogeological Studies.*

Policies in Section C.5 require the submission of information for the servicing of the site, either prior to the submission of a development application or in conjunction with it. If there is insufficient information a hydrogeological study may be required.

Such studies are important to determine minimum lot sizes for severances.

Policies in Section F.3.2.5:

- require the City to prepare and adopt these guidelines;
- sets out the general framework of the guidelines;
- require the hydrogeological study be prepared by a qualified person.

RELEVANT CONSULTATION

Consultation was undertaken with:

- Planning and Economic Development Department, Planning and Building Divisions
- Public Health Services Department, Health Protection Division
- Independent hydrogeology consultants
- Public

The above Departments and Divisions were responsive in contributing comments and input relevant to their mandates on the development of the Hydrogeological Guidelines.

The Guidelines were available for public review at the Rural Zoning Open Houses held by Planning staff in November and December 2013. The document was accessible for review on the City's website as well. No comments were received.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The adoption of the Guidelines will: implement the policies of the RHOP; and, provide clear direction to development proponent and proponent's qualified expert for the completion of the hydrogeological studies.

City staff has the duty to provide comprehensive direction on how the RHOP policies shall be interpreted and used by the residents, developers and consultants towards assessing the viability of their project, improving their projects or having a development application approved.

A hydrogeological study, where applicable, is required for a complete application under the Planning Act and the Official Plan. The hydrogeological study report is one key component in forming the basis for providing or denying servicing approval.

The Guidelines will also expedite the internal process of assessing the merits of a development application and ensuring consistency and transparency with respect to the requirements for such studies.

ALTERNATIVES FOR CONSIDERATION

City Council can decide that such Guidelines are not required to be implemented. Yet this decision will be against the RHOP and will lead to increasing the time that the municipal staff dedicates to each development application as more communication with the proponent and the proponent's consultant is anticipated.

The lack of documented expectations increase costs on the developer side as the consultant will bill for more time. At the end this may lead to a perceived difficulty of pursuing development within City of Hamilton rural area.

ALIGNMENT TO THE 2012 - 2015 STRATEGIC PLAN

Strategic Priority #1 - A Prosperous & Healthy Community

WE enhance our image, economy and well-being by demonstrating that Hamilton is a great place to live, work, play and learn.

Strategic Objective

1.6 Enhance Overall Sustainability (financial, economic, social and environmental).

The ultimate goal of the Guidelines is to help the qualified professionals generate hydrogeological reports that provide proper information to be used by City staff to make the best decisions in order to protect the human health and the groundwater resources for present and future generations.

Strategic Priority #2 - Valued & Sustainable Services

WE deliver high quality services that meet citizen needs and expectations, in a cost effective and responsible manner.

Strategic Objective

2.2 Improve the City's approach to engaging and informing citizens and stakeholders.

The Guidelines provide information to the proponent as well as ensuring transparency and consistency for the development application process when hydrogeological studies are required.

APPENDICES AND SCHEDULES ATTACHED

Appendix A "Guidelines for Hydrological Studies and Technical Standards for Private Services".