

# INFORMATION REPORT

<b>TO:</b>	Chair and Members Open For Business Sub-Committee
<b>COMMITTEE DATE:</b>	September 6, 2018
<b>SUBJECT/REPORT NO:</b>	Rural Development and Sustainable Private Servicing (PED18191) (Wards 9, 11, 12, 14, 15)
<b>WARD(S) AFFECTED:</b>	City Wide
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<b>SIGNATURE:</b>	

## Council Direction:

N/A

## Information:

### **1.0 Background:**

#### ***1.1 History of rural development reviews, roles and responsibilities***

Since 2006, sustainable servicing principles have been a key part of the Rural Hamilton Official Plan (RHOP), which ensures that any Planning application in the rural area will not have a significant health or environmental impact originating from a development's water or wastewater servicing. The Development Planning team has used Public Works (Hamilton Water, Source Water Protection team) and Public Health (Healthy Environments, Safe Water team) as technical supports to determine if a given development application meets the sustainable servicing principles of the RHOP.

#### ***1.2 What is the issue?***

Development in Rural Hamilton is, for the most part, dependent on private services (sewage disposal and water supply). There are policies in the RHOP which address the provision of private services, with the aim of establishing sustainable private services which do not to create a negative impact on surrounding groundwater and users nearby. Based on provincial guidelines and regulations from the Ministry of Environment,

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*OUR Vision: To be the best place to raise a child and age successfully.*

*OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.*

*OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.*

Conservation and Parks, the City's Guidelines for Hydrogeological Studies and Technical Standards for Private Services was approved by Council in 2013. These guidelines are the framework for assessing sustainable servicing within the RHOP.

The policies require that prior to approval of various *Planning Act* applications, the proponent must demonstrate that private systems are provided which are capable of sustaining the proposed uses with acceptable levels of impacts on groundwater and surface water resources. One of the primary indicators of impacts from rural development is nitrates, a pollutant that originates from septic systems.

Concerns have been raised that the current private servicing regime and, in particular, the planning approvals process to implement this framework, is resulting in obstacles, delays and additional costs for development in the rural area.

The primary issues / areas of concern which have arisen relate to the following matters:

1. Site Plan Control applications for development on private services in the rural area for uses which are already permitted by the Zoning By-law: In these scenarios, although the use is permitted, the requirement to demonstrate sustainable servicing at the site plan stage can result in significant costs and delays, and can result in an inability for the development to proceed.
2. Niagara Escarpment Commission (NEC) Development Permits for the approval of a new or redeveloped single detached dwelling, on an existing lot of record: Within the NEC Development Control area, a development permit is required for a new or redeveloping single detached dwelling, which triggers the extra layer of servicing review. This requirement can add cost and time to a project, and may result in the inability to proceed with development.
3. Use of a Cistern as a water supply: The policies of the RHOP require development to be serviced by a well with sufficient quantity and quality of water to support the use. In cases of redevelopment of a use already on a cistern, this requirement can cause significant delay and cost to a project. Further, in certain situations it is not possible to secure a sufficient supply through a well alone, and supplementing with a cistern may be required.
4. Enlargement of existing, undersized lots: The policies of the RHOP permit a minor lot addition severance to support the enlargement of an existing and developed undersized lot, provided criteria are met. This criteria includes the need to satisfy all sustainable servicing requirements for the enlarged lot, which is not always feasible. A need for increased flexibility to allow minor lot additions which represent an improvement to an existing situation has been identified.

5. Better information for applicants up-front in the process: One concern relating to development in the rural area is the need for potential applicants to be better informed about the requirements, timing and cost of developing in the rural area, particularly as it relates to rural servicing requirements and studies. Better information up-front for applicants about the costs and requirements of development is required.

A working group comprised of staff from Planning, Building, Public Works, and Public Health was established to consider the issues noted above and develop recommendations for improvement.

### ***1.3 What is the magnitude of the issue?***

The table below summarizes the number of development applications received on a yearly basis in Hamilton's Rural area. The numbers range from approximately 130 to 160 applications per year.

<b>Rural Development Applications, 2015 – 2017</b>				
<b>Type</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Total</b>
Committee of Adjustment - Consent	24	18	15	57
Committee of Adjustment - Variance	60	58	45	163
Condominium	1	0	0	1
Formal Consultation	10	13	10	33
Official Plan Amendment	1	0	2	3
Site Plan	27	16	40	83
Subdivision	1	0	1	2
Zoning Amendment	6	4	7	17
NEC Development Permit	29	24	41	94
<b>Total</b>	<b>159</b>	<b>133</b>	<b>161</b>	<b>453</b>

## **2.0 Provincial requirements re adequate servicing:**

### ***2.1 Ministry of Environment, Conservation and Parks (MOECP) or Ontario Building Code (OBC)***

A significant underlying issue that is causing a problem in the review of private servicing arises from differing provincial legislation and standards amongst different ministries. The review of private services is mandated by both Ministry of Environment, Conservation and Parks (MOECP) legislation and the Ontario Building Code (OBC) under the Ministry of Municipal Affairs and Housing (MMAH). The different legislation, while complementary in some aspects, also provides different direction and

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requirements which are followed by City staff in different departments. The following table summarizes the applicability of the different provincial legislation in the City review process:

Type of Development	Applicable Provincial Legislation / Guidelines re Servicing	Nitrate Review?
Proposed development requires an approval under the <i>Planning Act</i> (Plan of Subdivision, consent, OPA, ZBA, Site Plan)	MOECP Guideline D-5-4 and OBC review	Yes
Proposed development does not require an approval under the <i>Planning Act</i> (use is already permitted by zoning, site plan not required, lot is existing)	OBC review	No
NEC Development Permit application	MOECP Guideline D-5-4 and OBC	Yes
(Note that all proposed development which generates daily sewage flow greater than 10,000 litres per day requires MOECP review and approval, regardless of whether or not <i>Planning Act</i> approval is required).		

The impact of this difference in policy review primarily relates to the review of nitrate risks from a given development's septic system. When development applications under the *Planning Act* are made, the RHOP requires a review of nitrate levels on lands to determine whether adequate private services can be accommodated. When applications are reviewed as required by those policies, Guideline D-5-4 is used to determine the proposed development's impacts on groundwater and whether the development is supportable. Nitrates are reviewed and considered important because nitrate contamination can have an impact on groundwater and human health. Excess nitrate in water supplies can lead to methemoglobinemia (or "blue baby syndrome") particularly in infants. Nitrates can interfere with the ability of blood to carry oxygen and has led to death in rare cases. Furthermore, the incidence of gastrointestinal cancers has been linked to excess nitrate in water supplies. From an ecological perspective, excess levels of nitrate promote algae growth in aquatic ecosystems. Throughout the life cycle of algae growth and decomposition, oxygen in the water is consumed which can cause the death of other aquatic organisms including fish species as well as significantly disrupt the local ecosystem.

At this time, the OBC does not require that nitrate, pathogen, or phosphorus impacts be reviewed in the approval or enforcement process for sewage disposal systems. The OBC does review soil conditions, calculation of daily design flow, minimum clearances, minimum size of septic tanks, design and construction of leaching beds and operation and maintenance.

The issue of nitrate impact is a key issue because it affects development and redevelopment in number of ways – size of building, lot size or whether or not it should proceed at all. The additional review required to ensure conformity with MOECC and the City’s hydrogeological guidelines also adds to the time and cost of the proposed development.

## **2.2 Greenbelt Plan and MMA interpretation**

On the Planning side, the Provincial policy direction regarding private servicing is contained in the Greenbelt Plan, which states:

“4.1.1.2 Proposals for non-agricultural uses must demonstrate that:

- a) the use is appropriate for location on rural lands;
- b) the type of water and sewer servicing proposed is appropriate for the type of use.”

To seek clarity, City staff raised this issue of differing provincial legislation with Provincial planning staff with the Ministry of Municipal Affairs (MMA) and directly asked the question “what is considered appropriate servicing”? Is “appropriate servicing” achieving compliance with MOECP or OBC? MMA staff indicated that compliance with OBC requirements is the standard to achieve appropriate servicing for uses permitted as-of-right by the Zoning By-law. For all other scenarios, including new lot creation or an Official Plan or Zoning By-law amendment application to expand the permitted uses on a property, compliance with MOECP guidelines is required.

## **3.0 Working Group Suggested Improvements and Changes:**

The City’s staff working group on rural development and sustainable private servicing has been meeting frequently over the last year to find solutions to the various issues affecting rural development. The following ideas, process changes and policy changes are proposed:

### **3.1 Mapping Project – awareness of constraints:**

There are certain known areas within Rural Hamilton where the potential for groundwater impacts from development is greater due to thin soils, fractured bedrock, or high groundwater levels. Having a larger thickness of unsaturated soil underneath the leaching bed of a septic system promotes better operation of the system and reduces groundwater quality risks. MOECP Procedure D-5-4 also discourages development in these “hydrogeologically sensitive areas”. For example, it is known that the soil conditions in Sheffield are very thin, with fractured bedrock exposed at the surface in some locations. These conditions do not allow for the natural environment to manage

sewage pollution effectively, and can increase the risks to nearby groundwater users. There are other areas with similar issues. Within these areas, there is a greater potential for development delays, reduced development yield, or in limited cases denial of the application altogether.

Staff have retained a consultant to create a mapping project of Rural Hamilton that will characterize the suitability of areas for sustainable servicing and thereby rural development. The maps are a synthesis of various hydrological and geological datasets to create coloured low/medium/high vulnerability scores for areas in rural Hamilton. The maps are being developed by a consultant and peer reviewed by Planning Department and Public Works staff and, potentially, a working group comprised of individuals with local knowledge of Hamilton's geology and groundwater. Ultimately these maps will be a tool owned and utilized by Development Planning staff to support rural development applicants through the process of applying for and obtaining development permits.

Having up-to-date information will be beneficial for members of the public and property owners that may be considering development in the rural area. Providing information up front to potential applicants can manage expectations of potential development yield and avoid surprises later in the process.

### **3.2 Cisterns:**

Policy C.5.1.1 of the RHOP states that all development (including redevelopment) must proceed by way of a well with sufficient quantity to sustain the use. In general, a cistern may only be used as a supplementary water supply system, and may only be permitted after it has been demonstrated that sufficient quantity can be provided from the well alone. The RHOP prohibits cisterns for new development because it requires a permanent off-site water source (i.e. City's urban water system). Further, cisterns are not considered a sustainable water source because of the reliance on off-site water supply.

This policy has created some issues for both residential and non-residential developments in the rural area, particularly in cases of redevelopment of a site which is already reliant on a cistern. To address this concern, staff are proposing the following policy changes:

- Permit the redevelopment of an existing use with a cistern to continue using a cistern. This option is beneficial to applicants who will not be delayed by a requirement to find a new water supply as part of a redevelopment application.
- Permit new development or redevelopment to proceed by way of cistern, or a combination well / cistern, if it has been demonstrated by the proponent (in the form

of a well test or study) that groundwater quality and quantity in the vicinity is inadequate to support the use.

These changes will have the benefit of being less costly and less time consuming for applicants who wish to proceed with development or redevelopment on a cistern, in accordance with the above policy changes. These policy revisions were brought forward as part of the Rural Official Plan Update in July, 2018.

### **3.3 Lot Additions:**

There are many existing undersized lots (i.e. less than one acre) in the rural area. Some of these lots are already developed with a single detached dwelling or other type of development, while others are vacant. In some cases, development occurred many years ago under different standards, and the existing sewage system may be inadequate or in need of repair or replacement.

It is recognized that enlarging an undersized lot will have a beneficial effect by providing a greater area for dilution of sewage effluent. The RHOP currently recognizes this situation, and Policy F.1.14.2.7 allows for minor lot additions to existing undersized lots to meet all sustainable servicing requirements. However, the policy requires that the minor lot addition must be large enough to result in the lot meeting all sustainable servicing requirements of the RHOP, meaning that nitrate levels at the property line will be within acceptable levels. This requirement is problematic for two reasons. One, it is not always possible or desirable for a property owner to acquire enough additional land to meet this requirement. Two, requiring conformity to the strict standards of the RHOP does not recognize that even a smaller lot addition will provide an overall benefit by increasing the existing lot size.

To provide greater flexibility to approve development of minor lot additions which increase the size of existing undersized lots, staff are proposing to amend policy F.1.14.2.7 to allow for lot additions to undersized lots which are existing and developed, even if the lot addition does not increase the size of the lot enough to meet all requirements of sustainable servicing. The lot addition must not result in adjacent lots becoming unsustainable and shall take as little acreage as possible out of agricultural use.

The benefit of this policy change is that it will allow consent applications for an addition to an undersized lot, which represent an improvement over an existing situation, to proceed more quickly and with reduced costs for the applicant. These policy revisions were brought forward as part of the Rural Official Plan Update in July, 2018.

#### **4.0 Other Issues: Site Plan Control Applications and NEC Development Permits:**

The staff working group also reviewed the issues surrounding rural Site Plan Control applications for uses permitted by the Zoning By-law, and NEC Development Permits for single detached dwellings.

##### ***4.1 Site Plan Control Applications for Permitted Uses:***

The working group considered different options for addressing the issues (timing, cost, inability to develop existing lots) associated with rural Site Plan Control applications for uses permitted by the Zoning By-law. One option which was reviewed was a process change for the review of Site Plan Control applications for uses already permitted in the Zoning By-law, whereby the servicing review would take place only at the building permit stage. Adequate servicing would be determined through the regulations of the Ontario Building Code and not reviewed against the RHOP sustainable servicing requirements (including nitrate impacts). This process change would primarily be applicable to Site Plan Control applications for permitted industrial and commercial uses (as other permitted uses such as agriculture and single detached residential are exempt from site plan review). Certain types of development which are significant water users or have the potential to have a significant groundwater impact (eg. greenhouses) would continue to be circulated for review in accordance with the hydrogeological guidelines.

While the above change was reviewed and evaluated by the staff working group, staff are not recommending this process change due to concerns over potential health and environmental impacts (related to nitrates) which may go un-reviewed and un-mitigated if the private servicing review is deferred solely to the OBC stage.

As a result, staff are not proposing any changes to the Site Plan Control process for the review of rural applications. However, staff note that the mapping project noted above will be an integral tool in informing potential applicants of the constraints, timing and costs of a proposed development or redevelopment project going forward.

##### ***4.2 NEC Development Permits:***

Within the NEC Development Control (DC) area, single detached dwellings (new or expansion) on existing lots require a development permit from the NEC prior to proceeding to building permit, and therefore conformity with the City's RHOP is required. As such, these applications trigger review for sustainable servicing (including nitrate impact). Properties within the NEC Development Control area are therefore subject to a more stringent review process than those properties outside of the DC area, which can lead to additional delays in the development approval process for these property owners.



The staff working group considered options for addressing this discrepancy between the servicing review of single detached dwellings within and outside of the Development Control area. One option considered was a policy change which would exempt all NEC permits for the development of single detached dwellings on existing lots of record from hydrogeological review under the City's Hydrogeological guidelines and RHOP. This would capture development on vacant lots of record within the NEC DC area. The developments would still be required to meet OBC requirements. The rationale behind this option is that single detached dwellings are permitted uses on appropriately zoned lots within the rural area, and conformity with OBC would be deemed to be appropriate servicing.

While the above change was reviewed and evaluated by the staff working group, staff are not recommending this policy and process change due to concerns over potential health and environmental impacts (related to nitrates) which may go un-reviewed and un-mitigated if the private servicing review is deferred solely to the OBC stage.

As a result, staff are not proposing any policy or process changes to the review of NEC permit applications for single detached dwellings.

## **5.0 Conclusion and Summary of Recommendations**

In summary, staff have moved forward on the following process and policy changes to address the recent concerns raised with regards to rural development on private services:

- (a) Mapping of constraint areas: areas within Rural Hamilton where the potential for groundwater impacts from development is greater will be identified and mapped. This mapping will be available at the Development Planning counter, to provide information up front to potential applicants in order to manage expectations of potential development yield and avoid surprises later in the process.
- (b) Cisterns: revisions to the RHOP were brought forward in July 2018 to permit cisterns as a sole water source in cases of redevelopment of a use which already relies on a cistern, or to permit a cistern as a primary water source where it can be demonstrated that groundwater quality or quantity is not sufficient.
- (c) Lot additions: revisions to the RHOP were brought forward in July 2018 to allow greater flexibility for staff to review proposed lot addition applications, in recognition of the improvement gained from increasing the size of an existing undersized lot.

## **6.0 Next Steps**

The draft constraint mapping, once completed, will be shared with rural councillors and, if desired, a working group with local knowledge of groundwater in the area.

Staff will continue to monitor the application of Official Plan policies, development standards and processes applicable to the rural area, and where process improvements are identified, staff will bring the identified changes forward to Committee and Council for consideration.

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