

PROVINCIAL POLICY STATEMENT, 2005: RESERVE SEWAGE SYSTEM CAPACITY FOR HAULED SEWAGE

This fact sheet provides guidance on the Provincial Policy Statement, 2005 regarding septage treatment capacity for hauled sewage. This fact sheet refers to “septage treatment capacity” which has the same meaning as what the PPS refers to as “reserve sewage system capacity.”

Provincial policy

The Provincial Policy Statement, 2005 (PPS) states that planning for sewage services must protect human health and the environment while integrating servicing and land use considerations in a coordinated, efficient and cost-effective manner.

The PPS says that full municipal sewage services are the preferred form of servicing. Where municipal services are not provided municipalities may establish policies, according to criteria set out in the PPS, for providing servicing of new developments with private communal or individual on-site sewage services (e.g. septic tanks).

Section 1.6.4.1 (e) of the PPS directs that a new lot can be created *only if there is confirmation of sufficient reserve sewage system capacity* to treat septage, regardless of whether the lot is created by a Plan of Subdivision or an application for consent.

Reserve sewage system capacity is defined in the PPS as the capacity to dispose or treat hauled sewage. The PPS considers the capacity *sufficient if the hauled sewage from the development can be treated or disposed at sites approved under the Environmental Protection Act (EPA) or the Ontario Water Resources Act (OWRA), but not by land-applying untreated, hauled sewage.*

This fact sheet outlines how to determine and confirm that septage treatment capacity exists for future development. It contains information on approval requirements for septage treatment facilities, and recommends the creation of a municipal septage plan.

The Provincial Policy Statement, 2005

The Provincial Policy Statement, 2005 (PPS) provides policy direction on matters relating to land use planning that are of provincial interest. It is issued under the authority of Section 3 of the *Planning Act* and applies to all applications, matters and proceedings commenced on or after March 1, 2005. *The Strong Communities (Planning Amendment) Act, 2004* amended Section 3(5) of the *Planning Act* to require that all decisions affecting land use planning matters “shall be consistent with” provincial policy.

What is the difference between hauled sewage and septage?

Private communal and individual on-site sewage services are comprised of septic tanks or other treatment units, followed by a leaching bed. While the installation of new holding tanks is not permitted, except in special circumstances, there are a number of houses, cottages and other establishments currently serviced by holding tanks. The waste from these tanks is informally called “septage.” However “hauled sewage” is the term used in the PPS and in the General Waste Regulation (O. Reg. 347) under the EPA.

Septage is raw and untreated and must not be confused with treated municipal sewage from a sewage treatment plant (STP) that must meet specific standards before being discharged, disposed or managed for other purposes.

Does the septage treatment capacity have to be available at the time that the lot is created?

The availability of existing and/or planned septage treatment capacity must be confirmed when a lot is created. You have some time, however, keeping in mind that the septic tanks may not need pumping out for three years from the date of occupancy. You need to consider when the development will be ready for occupancy and the amount of septage that will be generated.

How should planning authorities ensure that there’s adequate septage treatment capacity available?

Similar to other sewage disposal and treatment needs, planning authorities should confirm there is adequate septage treatment capacity available when they develop official plans or make plan amendments to provide for development. Further, planning authorities should confirm treatment capacity when they receive a proposal for development.

A planning authority can confirm septage treatment capacity in various ways, including but not limited to:

- Developing and maintaining an up-to-date municipal septage plan (see page 5 for more information on these plans). A municipal septage plan is an important tool and source of information for determining total septage generated currently, future treatment capacity needs and how those needs will be met.
- Determining that an approved facility, capable of receiving and treating the septage, is accessible within the area before a lot is created. This capacity could be provided by a municipal STP within the municipality, through written agreement with another municipality or an approved private sector facility. Since facilities, including expansion of existing ones, must be approved by the MOE, the ministry may be an important source of information on locations and any operational constraints.
- Asking a proponent to demonstrate adequate septage treatment capacity for planned lots at the time the Plan of Subdivision or an application for consent is submitted. Appropriate proof that the proponent is addressing the septage issue could be a letter, signed by the holder of the

Certificate of Approval (C of A) for a facility, indicating that capacity for the subdivision's septage exists.

What options are acceptable for treating and disposing of septage?

Septage may be treated or disposed at MOE approved facilities such as:

- municipal STPs that have the capacity and ability to accept the septage (see pages 4 and 5 for determining the capacity of , or approvals needed to expand, a municipal STP);
- dedicated septage treatment facilities, whether municipally or privately owned, e.g. composting, alkaline stabilization, dewatering trenches (see below for details on these dedicated facilities);
- waste disposal sites approved to accept septage (i.e., landfills and dewatering trenches but not a site which allows land application of untreated septage); and
- sites that are approved to receive septage that has been treated by alkaline stabilization.

These facilities require MOE Certificates of Approval which specify the site(s) and volume of septage accepted at the site(s). Operators of these treatment facilities, whether municipal or private, should keep track of available capacity for septage at their facilities, keeping in mind the frequency at which their customers' septic tanks need pumping out. MOE's local offices can provide information on Certificates of Approval for approved septage treatment facilities.

Technologies for treating or disposing of septage which can be considered include:

Alkaline stabilization. In alkaline stabilization, lime or alkali is added to untreated septage to raise the pH and thereby reduce pathogens. The alkaline stabilized septage may be land applied as a nutrient at sites which have an Organic Soil Conditioning Site Certificate of Approval. The ministry has conducted an alkaline stabilization pilot and a second one is ongoing. Information from these pilots will be used to develop treatment standards.

Septage composting. Septage composting is not currently being done in Ontario. However, it is an option in some circumstances and is being considered by several municipalities and private operators. The ministry has not yet established septage treatment standards.

Lagoons. Stabilization lagoons are designed to treat septage to MOE standards and may be considered as an option for treating septage. Stabilization lagoons may be suitable for rural areas where large areas of land are available. The Certificate of Approval should be checked to ensure that the lagoon in question is a stabilization lagoon. Note that storage lagoons, unlike stabilization lagoons, store septage rather than treat it and cannot be considered a septage treatment site. The ministry is working to develop standards for septage stabilization lagoons.

Dewatering trenches. In some parts of Ontario, particularly in rural and remote areas, dewatering trenches are used to dispose of septage. A dewatering trench is a long, narrow trench excavated in permeable soils for the purpose of dewatering septage prior to final disposal. The design capacity would be specified in the Certificate of Approval. The separated solids can be disposed at approved landfill sites or further stabilized and used as nutrients at approved Organic Soil Conditioning sites. Standards for dewatering trenches are currently in use in Ontario.

Dewatering facility. At a dewatering facility, septage is pumped out and hauled to a ‘dedicated’ or ‘independent’ facility for treatment. The treatment usually involves screening, dewatering to separate the liquid from the solids, and may involve the treatment of either the separated liquid or solids or both. Treatment of the liquid may involve a constructed wetland system, or it could be a pre-fabricated plant that is modified to treat septage. Pre-fabricated or “package” STPs are often used at hotels, golf clubs, housing developments and small townships. The separated solids can be disposed at approved landfill sites or further stabilized and used as nutrients at approved Organic Soil Conditioning sites. The ministry is conducting pilots on reed bed filtration and sand filtration which will be used to develop standards for dewatering.

Incineration. Septage must be dewatered before it can be incinerated. Incineration of septage has not been found to be cost-effective and is currently not practiced in Ontario. The ministry evaluates each proposal on a case-by-case basis.

It is important to note that septage treatment capacity does not include the land application of untreated septage.

How can one determine if there is capacity at an existing municipal sewage treatment plant to handle raw septage?

About 45 per cent of Ontario’s sewage treatment plants accept some septage. While STPs provide a high level of treatment, some municipalities have small STPs that typically are not designed nor have the capacity to accept septage. Septage is much more concentrated than household sewage, and a plant may therefore need modifications to treat the septage. In these circumstances, municipalities may benefit from working with neighbouring municipalities to create septage treatment capacity.

In calculating a STP’s capacity to take the septage, it is important to note that the typical household generates about 3,600 litres (792 imperial gallons) every three years. This volume will typically account for a small percentage of a STP’s full capacity.

To determine if a STP has the long term capacity, authorities should use the Ministry of the Environment’s *Procedure D-5-1: Calculating and Reporting Uncommitted Reserve Capacity at Sewage and Water Treatment Plants (1995)*. In the calculation consideration should be given to the higher concentration of septage.

What approvals are needed to expand a sewage treatment plant?

If expansion of a sewage treatment plant or an alteration to a service area is being considered, one needs to allocate the time needed to plan and receive the following approvals:

- Environmental assessment (EA) requirements: Expansions or service area alterations are subject to specific schedules, depending on the size and impact of the facility, in the *Municipal Engineers Association Municipal Class Environmental Assessment June 2000*.

- Certificate of Approval: For a new STP, expansion or modification to an existing STP or an alteration to a service area, a new C of A or amendments to an existing C of A would be required under the *Ontario Water Resources Act* and/or the *Environmental Protection Act*.

Note that a hauler pumping and transporting the septage must have a C of A under the *Environmental Protection Act*.

Municipal Septage Plans

A number of municipalities have started to account for the septage generated within their boundaries, and some are taking the next step and developing a septage plan.

A municipal septage plan is an important tool and source of information for determining total septage generated currently and future treatment capacity needs, and how those needs will be met.

Municipalities, other *Planning Act* approval authorities, developers and haulers are encouraged to work together to develop municipal septage plans and to determine the amount of septage generated, the number of septage treatment facilities available and septage management solutions. A cooperative approach to developing a municipal septage plan can yield important information which can be used to assist planning authorities and individual proponents in demonstrating septage treatment capacity for lot creation proposals.

Potential components of a municipal septage plan

Background information such as:

- service area
- inventory of available treatment and disposal options including:
 - level of treatment
 - uncommitted reserve septage treatment capacity
 - sewage treatment plants which accept septage, or modifications needed for an existing plant
 - septage treatment lagoons
 - dewatering trenches (including location and area serviced)
 - list of approved/licensed haulers in the area, and their Certificates of Approval
 - list of other septage treatment facilities available in other municipalities

Septage generation information:

- population on individual on-site and private communal septage systems
- projected population growth using septage systems
- type and volume of septage currently produced in the area
- volume land applied untreated
- volume to sewage treatment plant
- volume to other septage treatment facilities

Proposed strategy to treat septage:

- existing treatment capacity vs. future treatment capacity requirements
- method of treatment
- provider (municipal/private)
- time frame for creation of treatment capacity if not already in place

Financial strategies

- estimated operating/capital costs of present/future treatment or disposal
- annual septage haulage cost
- cost of preferred strategy(ies)
- future funding strategy.

The importance of municipal septage plans in the land use decision process

A municipal septage plan is a useful tool for informing official plan reviews and approval authorities when making decisions on land use applications. A municipal septage plan can also inform and support environmental assessment requirements for facility expansions or alterations to service areas. The stages in land use planning decision-making where the question of treatment capacity arises include:

- the development and review of official plans, comprehensive reviews and official plan amendments, such as for secondary or area plans and settlement area expansions; and
- approval of site-specific development plans, such as those for subdivisions and consents.

For more information, contact:

The Ministry of Municipal Affairs and Housing (MMAH) provides a one-window service for land use planning on behalf of the Province. MMAH is the primary contact for all *Planning Act* matters, and can be reached at the following locations:

Central (Toronto): (416)585-6226 or 1-800-668-0230
Southwest (London): (519) 873-4020 or 1-800-265-4736
East (Kingston): (613) 545-2100 or 1-800-267-9438
Northeast (Sudbury): (705) 564-0120 or 1-800-461-1193
Northwest (Thunder Bay): (807) 475-1651 or 1-800-465-5027

For technical information on septage treatment, please call the Ministry of the Environment's Waste Management Policy Branch at (416) 325-4100.

This fact sheet was developed to assist participants in understanding the Provincial Policy Statement, 2005. As it summarizes complex matters and reflects legislation, policies and practices that are subject to change, it should not be relied upon as a substitute for specialized legal or professional advice in connection with any particular matter.