

**Cottage Septic  
Reinspections**

**Need For  
Review and Changes**

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Cottages in Ontario are normally serviced by private on-site septic systems. As septic inspection studies are completed, it becomes apparent that many of the one million septic systems are inadequate because of either age, inappropriate design, installation or use (Penfold 1993). Current attempts to enforce environmental protection related to septic installations have failed because of ineffective provincial regulations and under funded septic inspection programs.

This paper will draw attention to public and environmental concerns regarding existing defective septic systems and provides a critical analysis of the existing Cottage Pollution Control Program (CPCP). A new cost effective, economically sound and socially acceptable septic reinspection program will be proposed taking into account the experience gained to date.

### Scope of Problem

During the work of the Commission on Planning and Development Reform in Ontario (OCPDR)<sup>1</sup>, considerable attention was drawn to the matter of seriously substandard private septic systems existing throughout rural Ontario. According to the Commission's report "there is increasing evidence of contamination of both ground and surface water as a result of their use"(OCPDR 1993). A member of the Commission, George Penfold notes that "many [existing] septic systems [in Ontario] are inadequate because of age, ...and further that as many as 16% of new installations fail in the first seven years due to poor design, installation or management"(Penfold 1993). The Ontario Ministry of Environment and Energy's Cottage Pollution Control Program carried out in Haliburton and Muskoka found that "one-third of the [septic] systems were designed to current standards and worked properly, one third were designed below standard, and one-third were classified as public-health nuisances" (OCPDR 1993).

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<sup>1</sup> Commission on Planning and Development Reform is often referred to as the Sewell Commission.

## Septic reinspections

The Cottage Pollution Control Program was initiated by the Ontario Ministry of Environment in 1970 to study the cottage waste disposal problem, to evaluate existing waste disposal systems and to enforce repairs to unsatisfactory systems (OMOE 1992). The program of regulation, enforcement and abatement initiatives governing cottage waste disposal systems is authorized under Part VIII of the Environmental Protection Act (EPA) which deals specifically with measures aimed at the control, maintenance and supervision of sewage systems (E.P.A. 1990). The program (CPCP) determines whether sewage systems are in compliance with the EPA (OMOEE 1994).

This program was designed to respond to requests from Cottager Associations to undertake a survey of all developed properties on a particular lake. In this program, detection work is undertaken by seasonal staff. Through the Environmental Youth Corp program, OMOEE employs students who are supervised by abatement officers. Detection teams composed of two students visit each cottage to assess the property and interview the owner or occupant where the following information is collected: The type of building, the sewage disposal method and type, the location, size and set back of on-site sewage disposal systems, the type of use, the water supply source, the sewage disposal methods and type, the size and set backs of on-site sewage disposal systems, the type and depth of soil and physical evidence of any malfunctioning systems (OMOEE 1994). This data is recorded on survey forms. ( Appendix 1) Each system is classified on the basis of this information. (Appendix 2)

Properties which are assigned a classification of Nuisance- grey water, Nuisance- toilet waste or Direct Pollution are further investigated by MOEE abatement officers who are authorized under the EPA to make legally binding agreements with property owners. These agreements are made with the property owner in accordance with a Pollution Abatement Report which outlines the problems identified and corrective work required for the owner to complete by an agreed date (OMOE 1992).

## Problem with existing reinspection system

A major concern raised by the Commission was that existing septic designs are oriented to protect public health and not the environment (Penfold 1993). According to Terry Healy, an abatement officer with MOEE, “the current [MOEE] regulations address health issue only (i.e. sewage on the ground).

They [regulations] do not reflect environmental concerns such as phosphorous or nitrogen migration from existing sewage systems”(Healy 1993). Unlike nitrogen, high concentrations of phosphorous are rarely observed in groundwater and there is no direct link between phosphorous and problems of human health (Schiff et al. 1993). Although septic effluent contains phosphorous which is the limiting nutrient for inland lakes, current MOEE land use policies, treatment design and standards related to septic systems do not provide ecosystem protection by regulating phosphorous inputs to lakes.

Apart from the inadequacy of the MOEE regulations to address other than health protection, the current problems associated with inadequate existing septic installations are a direct result of under-financing and under-staffing of programs and agencies responsible for maintaining installation standards and reinspecting systems. Health Units simply do not have the staff to properly inspect cottage septic systems and only respond to complaints when people can smell sewage (Silversides 1991).

The final report of the Sewell Commission reveals that in 1990, OMOEE inspected 9067 septic systems and 34 percent were determined to be malfunctioning. In response to this, the Commission made the following recommendations to address the problems identified: “that the MOEE be responsible for regular inspections of private septic systems every five years; that private wells be inspected at the same time; that MOEE should consider entering into agreements assigning responsibility for inspections and issuance of permits to regional and county or municipal governments; that MOEE and its agents be permitted to charge septic and private well owners a fee to cover the cost of inspections on a user-pay basis, to be collected with property taxes”(OCPDR 1993).

### **Existing septic reinspection system is neither effective nor efficient**

The existing septic reinspection process is not effective. The Cottage Pollution Control Program classification system was developed to identify health problems only and not environmental problems. Only properties where it has been visually determined that sewage is exposed to environment require any retrofit measures. As an example, a twenty-five year old cottage septic system could consist of an old forty-five gallon drum as a tank and a few feet of drain line both located quite close to a lake. If at the time of the septic survey, no signs of malfunctioning were observed, the property would be classified as seriously substandard (Moran 1993). The property owner would receive a letter stating:

“Your property has been classified as seriously substandard. This classification is used to identify those properties where the existing system does not meet current standards, is in a state of neglect, or has a limited life. We would urge you to seriously consider making improvements to your system in the very near future.”

In 1992, 217 cottage septic systems were inspected and classified through the Cottage Pollution Control Program on Jack's Lake in Peterborough County. Fifty-nine properties were determined to have seriously substandard septic systems (Figure #1) but required no remedial action by the property owners (Moran 1993). Current EPA regulated standards do not deal with seriously substandard septic systems located close to water bodies. The present regulations address health issues only such as sewage on the ground surface and do not reflect environmental concerns (Healy 1993). The matter of allowing seriously substandard septic systems to remain uncorrected is a serious fault in the current septic reinspection programs (Moran 1993).

Jack's Lake 1992 Septic Survey

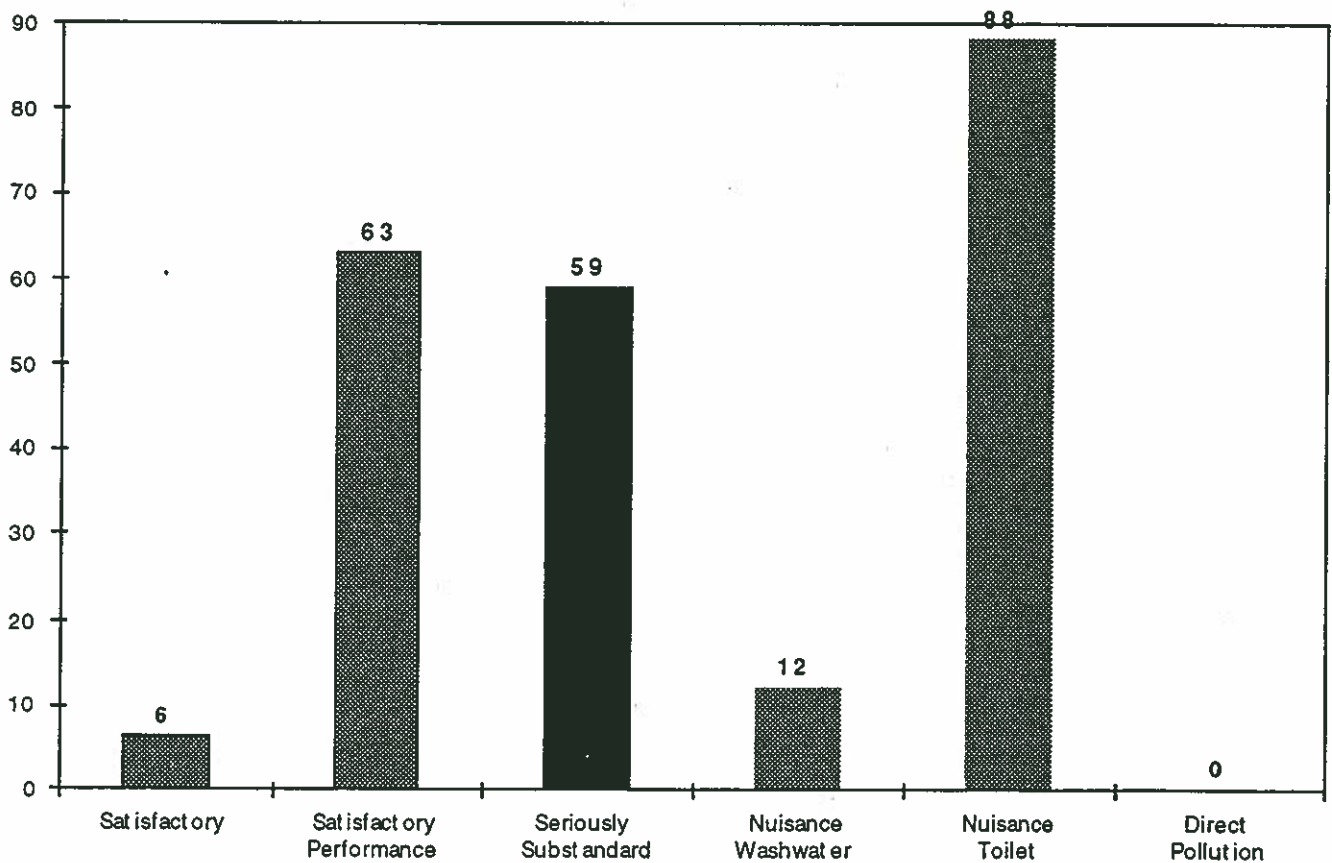


FIGURE # 1



Apart from the current reinspection system being ineffective, it is also very inefficient for two major reasons: (1) Current survey methodology depends on verbal information received from the property owners or occupants. Most of the survey information already exist in a more reliable form in the records of either the municipal building departments, the County Health Units or the Provincial Assessment Offices (Appendix 3). For example, survey teams may ask owners to list the number of bedrooms in a cottage while in many cases this information is already available in all three agency offices. The information may vary between all three offices and these problems are not likely to be resolved through the current survey approach which is dependent on verbal input from the occupants. According to the EPA regulations, septic tile beds are sized based on the number of bedrooms and discreet owners may not acknowledge that bedrooms were added after the issuance of septic use permits by the County Health Units (E.P.A. 1990).

(2) The septic surveys now apply to all properties on a particular lake when many systems have recently been installed and have valid in-effect certificates of approval. The work load for the reinspection programs could be reduced and efforts made more meaningful if the recently installed and certified septic systems were not reinspected.

Apart from the ineffectiveness of the survey methodology and the inability of OMOEE's current regulations to deal with substandard systems, the Cottage Pollution Control Program is limited in its' application. Because of funding and staffing restrictions, MOEE can not respond to the numerous request from Cottage Associations who wish to have septic systems on their lakes surveyed. For example, Jack's Lake is the only lake in Peterborough County to have the benefit of the Cottage Pollution Control Program since 1980 (Moran 1993).

The existing cottage septic reinspection program is clearly inadequate. Relatively few cottage septic systems are ever checked due to staffing reductions and program funding cuts. Current EPA regulations do not require substandard septic systems to be improved and most of the information obtained in the surveys is already available within government offices. Furthermore, the MOEE has indicated that they will no longer be able to fund the Cottage Pollution Control Program through the traditional Environmental Youth Corp arrangements (Healy 1993). This position was also expressed by the Minister of Environment and

Energy, Bud Wildman in 1993 with a statement “My ministry will commit to funding this program [Cottage Pollution Control Program] for one more year” (Wildman 1993).

### **Proposed System**

Taking into account the increased public concern raised by the work of the Sewell Commission and its recommendations, it is perhaps timely that an expanded province wide septic reinspection program be developed. The following is a proposal for a cost effective, efficient, ecologically sound and socially acceptable cottage septic reinspection program based on recognizing and addressing the deficiencies in the current Cottage Pollution Control Program.

- A cottage septic re-inspections should be available throughout all of Ontario.
- Program responsibility should remain with the MOEE as this ministry is charged with regulatory responsibility for Part VIII of the EPA which deals with private septic systems. As MOEE is the provincial agency with statutory responsibility for environmental protection, it is proposed that MOEE maintain the overall mandate for septic re-inspections in order to ensure provincial consistency in regulatory enforcement.
- Consistent with the recommendation of the Sewell Commission, the program implementation could be assigned by MOEE to agents such as municipal governments at the Regional, County or Township levels.
- MOEE regulations must be updated to reflect environmental as well as health concerns.

Funding is paramount to the acceptance of any proposal to implement such a program. The proposed program would be carried out on a revenue dependent basis funded by the affected cottage owners through a levy collected with the municipal property taxes. At a time when governments are committed to expenditure control and deficit reduction, the property funded approach is likely to receive government support. Having the inspections of private septic systems funded through municipal taxes is consistent with the practice where property owners on public sewer systems pay via property taxes, to maintain their sewer systems. Currently, on most lakes, despite several hundred separate septic systems having potential to pollute the common property of lake and ground water, no costs are incurred by the property owners to ensure that the septic systems are reinspected and as needed replaced.

The proposed program would be socially acceptable to the affected property owners. Cottagers would be supportive of paying for a system of regular septic inspections since this would be an investment in water quality assurance for their lake areas (FOCA 1993). Cottagers' associations across the province are ready to play any part they can to protect the quality of lakes and groundwater. The Federation of Ontario Cottagers' Association (FOCA) has worked closely with the Sewell Commission on their recommendation to address the serious matter of defective private septic. FOCA supports the Sewell Commission recommendation that "...the MOEE and its agents be permitted to charge septic and private well owners a fee to cover the cost of inspections on a user-pay basis, to be collected with taxes" (FOCA 1993). Cottage property real estate values would be protected if the lake environment is protected.

Increased effectiveness is required to solve the problem of leaving seriously substandard systems in place. The current classification system of six categories would be replaced and three categories would be used to describe inspected septic systems as recently suggested by MOEE (OMOEE 1995). The three categories are: "System is Acceptable", "Upgrade Recommended", and "Upgrade Required". In order for any reinspection program to be effective, appropriate regulation must be in place to ensure that seriously substandard systems are upgraded. OMOEE should proceed immediately with amendments to the regulations under Part VIII of the EPA. Minimum standards must be established in order that existing septic installations causing or are likely to cause environmental problems are upgraded.

Increased efficiency is essential to a new program. I propose that two major changes. (1) Regulations should be implemented in order that certificates of approval for new or upgraded septic systems are issued with an expiry date based on the anticipated life expectancy of the septic system. The usable life-span of septic systems normally ranges from 10-20 years (Moull 1991). Certain activities such as property sales, new building permits, rezoning, minor variances or severances should not be permitted on properties with expired certificates of approval. Reinspection programs could be directed only to those properties with expired certificates of approval. This would resolve the current inefficiency of reinspecting all systems including those with recent approvals.



(2) It is essential that a data base of existing septic systems be prepared based on current information within the files of: the Provincial Assessment office, the municipal building department, the MOEE or the Health Unit. These agencies have considerable common information on properties and an inter office data base program would contribute to developing an inventory of septic systems on each lake. (Appendix 3) When this information is collated, file audits could direct the reinspection program to the properties with expired certificates. Also, the information-sharing data could trigger action to have site septic inspection inspections carried out when data shows a need for follow-up. As an example, when a property with a certificate of use for a three bedroom system is reported by the assessment department to now have five bedrooms, action could be initiated for a septic upgrade without even doing an actual site inspection. Such activities could be carried out all year round and would not be dependent on contacting cottagers on site during the limited times available during the cottage season. A large portion of the septic monitoring could be reduced by interagency information sharing.

### **Economically sound**

Septic upgrades would be totally paid for by property owners without the government subsidies which commonly apply to publicly owned municipal sewage system capital programs. The capital investment by cottagers within a rural community contributes significantly to the area's economic development which benefits septic contractors, plumbers and aggregate suppliers. As many cottages are water access (non road) only, year round business activity results from contractors hauling material across frozen lakes during winter months. This economic activity directly contributing to environmental protections can be stimulated without any cost to governments. All costs are borne by the property owners investing in their individual property improvements which collectively contributing to long term water quality protections.

### **Conclusion**

The Sewell Commission has raised public awareness of the issue of substandard septic systems throughout cottage country. Due to our county's financial constraints, we can not expect governments to fund a resolution to this problem. The current reinspection program has limited application and only weak regulations upon which to rely. As shown, a septic reinspection program could operate in a more efficient manner by sharing information through a collective data base maintained by all agencies involved. The

proposed reinspection program addresses the current program deficiencies in manner which is socially acceptable to cottagers and provides economic stimulus to rural Ontario.

Bill 163, an Act to amend various Acts to implement certain recommendations from the work of the Sewell Commission received Royal Assent on December 8, 1994. It is expected to be enacted in March 1995. This Bill 163 amends the Environmental Protection Act to enable the development of a reinspection regulation for Part VIII sewage systems (OMMA 1994). An opportunity now exist for the Provincial government to address the inadequacies of the existing regulations and develop a more effective and efficient septic reinspection program. The views expressed in this paper could contribute to the new regulations as we proceed towards a new era of environmental protection for Ontario's Lakes.



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