

**STAFF REPORT:        Engineering and Public Works Department**



**REPORT TO:**            Infrastructure and Recreation Committee  
**MEETING DATE:**      April 28, 2009  
**REPORT NO.:**         EPW.09.040  
**SUBJECT:**             Clarksburg Water & Sanitary Servicing Options  
**PREPARED BY:**       John Caswell – Manager of Water and Wastewater Services

**A. Recommendations**

THAT Council receive Report EPW.09.040 Clarksburg Water & Sanitary Servicing Options; and

THAT Council direct Staff to not reapply for funding for Clarksburg in the next two years; and

THAT Council approve Staff to consult with the residents of Clarksburg to define parameters for determining the condition of existing wells and septic systems in Clarksburg and also to assist the residents investigating interim alternative servicing arrangements that include recently advanced technology for treating water and wastewater on individual lots or communally; and

FURTHER THAT Council approve Staff to acquire the services of a consultant to provide a review of water quality in the Beaver River and a study of available alternate onsite or private servicing options. The consultant will also investigate and determine the location of wells and septic systems on each property in Clarksburg.

**B. Background**

Recently the Town was not successful in obtaining Building Canada Funding for funding in regards to water and wastewater servicing for Clarksburg. This application was for a partial servicing project that was part of the overall servicing scheme for Clarksburg. The Town had previously received confirmation of Federal funding of just under \$5,000,000. Including the last application to Building Canada Fund, the Town has submitted funding applications on four separate occasions over the last few years. The previous three applications were submitted to the Canada Ontario Municipal Rural Infrastructure Fund. In addition, a much earlier Clarksburg servicing application was made to the Provincial Direct Grant program without success.

As outlined in EPW.09.012 Clarksburg Servicing Project – Summary of Citizens Comments and Project Status Report Council directed Staff to inform the County of Grey of the Town’s support of reconstruction of Grey Road 13 prior to the servicing of Clarksburg, that the current underfunded expense, totalling \$93,019.53 be financed from reserve funds and that Staff undertake discussions with the Government of Canada regarding the redirection of funds previously committed under the Municipal Rural Infrastructure Fund.

On March 24, 2009 there was a deputation to the Infrastructure & Public Works Committee from a committee of the Clarksburg Ratepayer's Association. Their presentation included a review of engineering to date and also a number of options in regards to servicing individual lots with water & wastewater systems. The residents stated that there is newer improved technology available that may assist a number of lot owners with older systems that otherwise may require significant maintenance or upgrading. A number of lots may be restricted due to the land required for the installation of some wastewater systems.

Although the background information for past applications included some water sampling results from a cross section of wells, there has not been a comprehensive study completed for all of the area. There also was some information gathered regarding age and location of septic tanks but this did not include detailed information or any specific analysis of impact on ground water or the Beaver River. The cost of a comprehensive environment study for this area by a qualified consultant could cost in the area of \$25,000 to \$50,000.

Staff has expended a considerable amount of time and effort completing applications and is now recommending the Town defer servicing Clarksburg for a number of years. This recommendation will allow the Town to consider other projects for funding applications and future budget considerations. This will also allow Grey County to complete the road improvements on the Clarksburg portion of Grey Road 13 that the Town have requested be held off on for a number of years.

Within the deputation, certain statements were attributed to staff at the Grey Bruce Health Unit (see Attachment #1). The Town has contacted the Grey Bruce Health Unit and received a letter on March 25, 2009 (Attachment #2) supporting the Provincial Policy Statement, the Grey County Official Plan and the Ontario Professional Planners Institute in directing development to areas with municipal sewer and water services and in the support of servicing existing underserviced areas.

In moving forward, Staff recommend working closely with the Clarksburg Ratepayer's Association to investigate the timing and need for municipal services and to further research water and wastewater treatment systems that could provide an alternative to municipal servicing or at least defer the installation for a number of years. The next step would be for staff, in consultation with residents, to prepare a consultant's terms of reference for Town approval.

Attachment #2 states the Grey Bruce Health Unit's opinion that to protect community health, municipal water and wastewater treatment systems should be provided whenever possible for built environments lacking these municipal services.

### **C. The Blue Mountains' Strategic Plan**

This report furthers the Town's Strategic Goal #6, "Providing a strong, well managed municipal government, and the Town's Strategic Plan Goal #2 "Addressing the Town's municipal infrastructure needs".

#### D. Environmental Impacts

Should new onsite wastewater treatment options be adopted by Clarksburg residents it may result in more efficient septic beds.

#### E. Budget Impact

Within the 2009 Water and Wastewater Capital Budgets, a total of \$100,000 to prepare the preliminary servicing design was allocated to the Clarksburg Servicing Project which will now not be expensed. Since the costs were to be recovered ultimately from grants and benefiting property owners, there is no net impact on user rates.

Staff do estimate that up to \$5,000 worth of staff hours would be required over the next few months to research the servicing alternatives, meetings, and discussion with residents. This will allow servicing decisions to be determined both in the near future and in the long term.

Expenditures that were budgeted for Clarksburg were anticipated to be funded from grants and local improvement charges.

#### F. Attachments

Attachment #1- Selections from the Clarksburg Ratepayers presentation to I&R Committee, March 24, 2009

Attachment #2 – Letter to Duncan McKinlay from Grey Bruce Health Unit, March 25, 2009

Respectfully submitted,

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John Caswell  
Manager , Water and Wastewater Services

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Reg Russwurm  
Director, Engineering and Public Works

For more information, please contact:  
John Caswell  
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Selections from the  
Deputation of Clarksburg Ratepayers  
Infrastructure and Recreation Committee  
March 24 2009

## **Water Sampling Map**

We believe the water sampling map illustrating adverse water properties in Clarksburg as of 2005/ 2006 is flawed and misleading .

To date we have interviewed 8 of the 44 properties identified in red on the map of Clarksburg as having “ adverse “ water .One property was an apple orchard with no water on it .A second property was on Edwards St. and connected to Town Water. A third property , a B&B owner on Marsh St., reported that the kitchen tap strainer was not removed when the sample was taken and that her water tests are always good.. A fourth property with a newly drilled well at 90 ft. has just had her water tested good and has had no quality problems. Basically all the rest reported that their water tests were good.. 18% of the 44 “ red “ properties were errors.

I spoke with Kate Cassidy at the Public Health Offices in Owen Sound regarding the Ainley survey and results . She informed me that she has not heard of any water quality problems in Clarksburg .She also is familiar with the household Trojan UV Water treatment systems and recommends its use along with filter systems .On the subject of septic tanks , she is of the opinion that a properly maintained septic system works well and why bother with the newer high tech versions .

Accordingly, we are undertaking a survey of Clarksburg properties to determine how many properties really have water quality and septic problems . We will supply our results to you .

Let me stress that we certainly are in favour of helping those property owners who are experiencing water quality and / or septic problems . We feel there are available good options to water & sewer pipes which are cost effective and proven to be reliable .

## **BENEFITS OF HOUSEHOLD TREATMENT SYSTEMS**

- Much Lower costs and more affordable for a household
- The additional cost will affect only households needing treatment systems .
- Maintenance and operating costs will be borne by the households using the treatment systems .
- These systems are available now and could be installed this year and be eligible for the new Federal Home Improvement grants .
- Avoids the municipal costs for project engineering and the acquisition of the capital costs of 100 future development units at an estimated cost of \$ 2,280,000 .
- Enhances the town's chances of obtaining Provincial and Federal grants for other needed facilities such as a Medical Centre or New Town Hall .
- Avoids major road construction costs and the related traffic and business disruptions .
- Avoids increasing the load on the existing water and waste water treatment facilities of the Town .
- Will be viewed by a majority of Clarksburg property owners ,who have good water supply and septic systems , as a reasonable solution for those who need new household treatment systems .
- Will retain the low density village ambience of historical Clarksburg .

## RECOMMENDATIONS

- Water sampling should be done by trained persons such as Public Health personnel who have no vested interest in the installation of a new water system .
- Contact Beckwith Township near Kanata Ontario regarding the installation of Trojan point of entry water treatment systems into 265 households last fall to deal with contamination from a nearby land fill site..
- Investigate Trojan Technologies in London , ON. regarding their installations of Trojan UV systems in New York City, China ,and Homer Glen Illinois a community of 25,000 where Trojan UV equipment is engaged in treating waste water effluent .
- Investigate Pinnacle Environmental Technologies microFAST waste water systems , a high tech system for households .
- Investigate Todd Ecological waste water municipal systems which utilizes a wastewater treatment greenhouse in South Burlington , Vermont.
- Provide technical help and information on approved systems to households who are building a new home or are having problems with either their water quality or septic system..
- Require applicants for building permits of new construction to provide detailed information on their plans for water supply and possible water treatment systems to assure acceptable water quality .
- Inspect and approve all new water supply installations.



March 25, 2009

Duncan McKinkay, Deputy-Mayor  
The Town of Blue Mountains  
26 Bridge Street,  
P.O. Box 310  
Thornbury, ON N0H 2P0

Dear Mr. McKinlay,

Thank you for taking time to provide me with your questions about the information from a Clarksburg residents report. Please be assured that, the Grey Bruce Health Unit strongly supports the Provincial Policy Statement, the Grey County Official Plan and the Ontario Professional Planning Institute in directing development to areas with municipal sewer and water services and in the support of servicing existing underserved areas.

The comments attributed to Kathy Cassidy, Public Health Inspector, Grey Bruce Health Unit, were inaccurate. The remarks mentioned were possibly constructed from a conversation with a resident on February 13, 2009, at approximately 3:00 p.m. The information provided in that telephone conversation primarily related to the care and maintenance of drinking water and sewage systems. Her responses were generic answers to routine water/wastewater inquiries. They do not necessarily apply to a specific system because of the large variation in the conditions of different areas.

During that conversation, Kathy answered questions related to water treatment systems, including Trojan, and explained that Public Health does not recommend specific systems. She suggested that the gentleman should research different companies, consumer report magazines and opinions of local plumbers. The client also expressed concern about an engineer's proposal for municipal water and sewers in Clarksburg. Ms. Cassidy suggested that he could email a copy to the Health Unit for comment. No further correspondence was received.

To protect community health, municipal water and wastewater treatment systems should be provided whenever possible for built environments lacking these municipal services. Unless recently upgraded, private sewage systems in older areas are usually inadequate to treat sewage properly. Older sewage systems are undersized for modern water usage and require routine maintenance and upgrading. Maintenance activity among owners also varies greatly.

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Clarksburg is an older established residential area, and the majority of these septic systems can be labeled as medium or high risk systems. Due to the age of these systems, there is a greater potential for a sewage system failure to treat. If inadequately treated sewage continues to flow through the system without surfacing, failure may be undetected. Many owners consider their systems to be working as long as the toilets continue to flush and the sinks to drain. However, the waste water contents can be adversely impacting local ground water quality.

Older wells also lose their structural integrity which puts them at risk of surface water and near surface ground water infiltration. Contamination at these levels can enter the wells and contaminate deeper aquifers. In Grey and Bruce County a recent review of private water sample results has indicated that an adverse water quality of greater than 28% exists in all private water samples submitted and 11% of these adverse sample results indicated the presence of sewage contamination.

In addition, well owners in areas with contaminated groundwater tend to rely on point of entry treatment devices to disinfect their water. These systems require monitoring, maintenance and water sampling to ensure a continuous supply of potable water. Unfortunately, many owners fail to adequately monitor and maintain their treatment systems or sample their water. Public Health routinely responds to many inquiries from people who have found out through sample results that their treatment systems were not working properly and they have been drinking contaminated water.

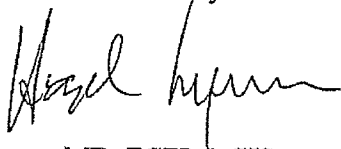
For these reasons, changes and improvements to water and wastewater services in Clarksburg are recommended to provide better protection of individual and community health.

In Ontario, the Ministry of Municipal Affairs and Housing *2005 Provincial Policy Statement* (PPS) directs planning departments toward building strong and healthy communities. Additionally, the Ministry of Health and Long-Term Care new *Ontario Public Health Standards and Protocols 2008*, (OPHS) which came into effect January 1, 2009, directs our programs and services towards evidence-informed practice that responds to the needs and emerging issues of the health unit area, and utilizes the best available evidence to address them.

In order to provide Public Health comment on the impact of new development or redevelopment on communities such as Clarksburg, Grey Bruce Health Unit is initiating collaborative partnerships with each jurisdictional municipality and planning department. Our goal is to assist in building strong and healthy communities. These partnerships can collectively address the 2005 PPS and the 2008 OPHS and enhance our shared commitment to healthy, safe, strong and clean communities.

Grey Bruce Health Unit employees look forward to working with your staff on meeting the needs of your communities. Please do not hesitate to contact our environmental health planner, Robert Graham at 519-376-9420 ex 1281. He would be able to provide comments and advice as you move forward.

Together we build healthy communities,

A handwritten signature in black ink, appearing to read "Hazel Lynn". The signature is fluid and cursive, with the first name being more prominent.

Hazel Lynn, MD, FCFP, MHSc  
Medical Officer of Health

HL/se

cc: Chris Munn, Director of Health Protection  
Lou D'Alessandro, Safe Water/Environment Manager  
Kathy Cassidy, PHI