Water and Sewer Committee Report for 2009 –George Piercey

The Water and Sewer Committee is pleased to report that the Wastewater and Water Servicing Feasibility Report was completed, and recently presented to interested residents and landowners.

Engineering Technologies Canada (Engtech) partnered with TerrAtlantic and MacDonald Harland Engineering to complete this study, which was funded through the Canada – Prince Edward Island New Deal for Cities and Communities – Community Capacity Building Fund which is now managed by the Prince Edward Island Department of Transportation and Infrastructure Renewal.

This report included a **Community Profile**, which was developed from background information and a residents' survey which requested information on existing wells and septic systems and gauged interest in environmental issues and sustainability.

A **Needs Assessment** was carried out to fully understand the problem, before options could be explored. TerrAtlantic, a firm with hydrologists and engineers worked on water assessment, while Engtech assessed septic information. All information – existing provincial mapping, wetlands, property layers, homes, developed properties, was reviewed and analyzed. Criteria were set to assess each lot regarding long term sustainability. A colour coded map was produced showing which properties may require off-site, above ground or advanced treatment systems, and this was presented to residents for confirmation at a public meeting in the fall of 2008. Sub-areas were classified with properties in close proximity which may have more servicing issues.

Outcomes – Of the 551 properties, 10% were considered sustainable with their existing septic system. Many others may require above-ground systems (additional high quality fill brought in) or advanced treatment systems. Developed properties were recognized as having a greater need for solutions. The nine subareas were ranked according to level of need, using the set criteria. The highest need was in Sleepy Hollow, while the North Yorke subarea had a moderate-high need. All other subareas had a moderate, or lower, need for a solution.

TerrAtlantic assessed the community, although not on a lot-by-lot basis, and found that Sleepy Hollow will most likely require water servicing. They interviewed well drillers, reviewed well records and found some isolated problems with the water supply, which could often be corrected with on-site solutions, such as deepening or casing wells. It was felt to be premature to recommend central servicing to other subareas. Water and sewer problems can be related to cement block septic tanks, or poor soil. Once contributing issues are corrected, water problems may be resolved. If septic issues will not be solved with central sewer, installing central water would provide acceptable water, septic issues would remain. Some funds are set aside for the Sleepy Hollow area, to address water due to past issues with the landfill. TerrAtlantic also considered other groundwater issues such as possible well sites, and the implications regarding a possible Charlottetown wellfield.

EngTech investigated different options for wastewater treatment and servicing: connecting to the city (from an engineering, rather than political, perspective), cluster options, and conventional options such as lagoons, textile filters, peatland and land based effluent dispersal options. Wastewater servicing involves three stages – collection, treatment, plus discharge. Engtech consulted with government engineering officials and a surface water biologist. No more effluent can go into the North River. The two lagoons currently in the area require improvements, but may be waiting to see what action the community will take. Although residents have water safety concerns related to the landfill, findings suggested that if any leachate were to come from the landfill, it would not flow towards residents' wells.

Costs – Economic comparisons were made in the study. The most cost effective solutions involved connecting to the city of Charlottetown; however, other options were also identified and estimated costs were outlined.

Measures were also discussed to increase the life span and the operation of septic systems. A Septic System Management Plan (SSMP) could be adopted by the community to minimize the chances of septic system malfunctions. There are five levels – ranging from 1, where there is awareness, education and a data base to 4, where there is a utility responsible for maintenance, or 5, where the municipality can own the septic systems. The key is professional involvement and maintenance on a timely basis. The residents' survey found many homeowners are not regularly maintaining septic tanks.

As a result of the study, Council decided to initiate a $50 rebate for WaterSense approved low-flow toilets installed in the community. This "green initiative" will continue for 2010, and will reduce water use and ease the burden on septic systems.

In November 2009, the community applied for infrastructure funding from the Capacity Building Fund to approach the city, negotiate rates, do a rate study and prepare a design for a water and wastewater system in Sleepy Hollow. When this information has been gathered, a public meeting will be necessary to obtain resident approval for further expenditures, before the servicing can begin.

Several meetings were held throughout the year with representatives from the Department of Environment, Energy, and Forestry and elected officials regarding the servicing issues in the community.

The Water and Sewer Committee consists of George Piercey, Tamsyn Cosh-MacKenzie, Don Aitken, and Betty Pryor (ex-officio).

Respectfully submitted

George Piercey, Chair – Water and Sewer