

*Reviewed Oct 05/06*  
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**Ed Gillis**

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**From:** Lewis Landers  
**Sent:** Thursday, October 05, 2006 3:00 PM  
**To:** Ed Gillis  
**Cc:** Cindy MacHardie; Michelle Newell; Gerry Boyd  
**Subject:** Stormwater Management Solutions; October 2006 Executive Committee Report

The Stormwater Management Solutions Study was authorized by Council Motion C05(232) in May 2005. The purpose of the Study was to examine the causes and solutions for stormwater related flooding in five areas of the Regional System. The areas studied were determined based on Councillor requests and Staff input. A draft report on the Oakmount Drive/Spruce Lane area was presented to the Executive Committee in December 2005 and the full report was presented in March 2006.

A brief review of the Study results and current status is given below:

1. ***Oakmount Drive/Spruce Lane, Lantz***

This area involves both Municipal and Provincial roads and was developed prior to the requirement for stormwater management plans. The Study identified three contributors to flooding problems as follows: houses built too low; ditches and driveway culverts undersized for major storm; and foundation drains piped to ditch inverts. Five possible solutions ranging from \$45,000 to \$330,000 are presented; the higher cost solutions represent lower risk of flooding. None of the solutions include curb and gutter which is estimated to cost an additional \$213,000 for the piped storm sewer options. This area is discussed in more detail in a separate report.

2. ***Poplar Drive at Paley Brook, Lantz***

This area involves only Provincial roads; however, the Municipality has a sewage lift station in the immediate area. The Study identified two contributors to flooding problems as follows: undersized road culverts and vegetation growth downstream. Five remedial measures totaling \$240,000 are presented; the measures are not mutually exclusive so that some or all of them could be implemented. NSTPW replaced the culverts at this location in September. The Municipality was not consulted and all of the recommendations in the Study were not implemented. However, drainage in this area is expected to improve and Staff recommend that the area be monitored for further action.

3. ***Pioneer Park, Enfield***

This area involves private land. The Study identified the cause of flooding as a collapsed culvert under a former railway spur. The spur is now in private hands and the landowner is reluctant to change the situation lest it moves the problem downstream and causes greater damage. The landowner views the matter as an issue between private individuals. The Study presented two options (minor and major system) ranging from \$35,000 to \$130,000. Staff recommends that Council not intervene in this matter without legal advice.

4. ***Elmwood Drive at Mill Pond Stream, Elmsdale***

This area involves only Provincial roads. The study identified contributors to flooding as follows: undersized road culverts; undersized mill culverts; insufficient watercourse setback; and undersized driveway culverts. Remedial actions ranging from \$715,000 to \$1,240,000 (dependent on further analysis) are presented. This area is discussed in more detail in a separate report.

5. ***Frederick Allen Drive at Highway 2, Lantz***

This area involves only Provincially-owned roads. The Study identified the cause of flooding as undersized road culverts. Remedial measures totaling \$175,000 are presented. NSTPW cleaned upstream ditches in the fall of 2005 which resulted in some drainage improvement. The construction of storm sewers to facilitate sidewalks is expected to improve drainage; therefore, further action will be in conjunction with sidewalk construction scheduled for next year.

The total for all remedial measures identified in the Study ranges from \$1,210,000 to \$2,115,000 (excluding curb and gutter). It should be noted that the Study does not address legal or financial responsibilities for the proposed solutions nor is the Study intended to be a comprehensive inventory of all stormwater related complaints within the Municipality. For a legal perspective, please review Joe MacDonnell's letter of December 22, 2005, posted on January 12, 2006 under Item 29.

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