



Report to: Development Services Committee

Date Report: September 16, 2014

SUBJECT: Markham Road Sanitary Sewer and Fairtree Sewage Pumping Station Improvements

PREPARED BY: Binu Korah, P.Eng., Senior Manager, Development and Transportation, ext.2849

RECOMMENDATION:

- 1) That the report titled “Markham Road Sanitary Sewer and Fairtree Sewage Pumping Station Improvements” be received; and,
- 2) That a new Engineering Department’s 2014 capital project be created in the amount of \$496,000 for a Markham Road Sanitary Sewer and Fairtree Sewage Pumping Station Class Environmental Assessment Study; and,
- 3) That the Class Environmental Assessment Study be 100% funded by the benefiting developers; and,
- 4) That staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to create a new Engineering Department’s 2014 capital project to initiate a Class Environmental Assessment (EA) study for the Markham Road Sanitary Sewer and Fairtree Sewage Pumping Station Improvements.

DISCUSSION:

The City of Markham has received several development plans within the Markham Road (Highway 48) trunk sewer catchment area. This trend is expected to continue as the area is being intensified. Amendments to zoning to increase density in the area will result in a need for additional sanitary flow capacity in the existing sanitary system.

The current/anticipated development applications in this drainage area are noted in Attachment A and are summarized as follows:

-
- a) 7325 Markham Road
 - b) 359 Elson Street
 - c) Neamsby Investment Inc. (South west corner of Markham Road and Elson Street)
 - d) 5370, 5400 and 5560 14th Avenue
 - e) City of Markham South East Community Centre and Library (SECCL)
 - f) Neamsby Investments Inc. (5685, 5711, 5751, 5845, 5865, 5875 and 5933 14th Ave)
 - g) 7360, 7350 Markham Road
 - h) 7190 - 7200 Markham Road
 - i) Future redevelopment potential sites (7725, 7635, 7655, 7675, 7677, 7393 Markham Road, 50 Kirkham Drive, 120 Markham Road, 15, 25, 35 and 45 Karachi Drive, 20, 30, 40 and 50 New Delhi Drive, Lands east of Karachi Drive)
 - j) 7400 Markham Road (Delridge homes)
 - k) Forest Bay Homes Ltd. – East Village
 - l) Remington Group Inc. (“Remington”) - Parkview Golf Course

In order to comment on the servicing of the pending/existing development proposal in this drainage area staff need to:

- Review the capacity of the existing sanitary sewer system
- Define what improvements are required
- Determine cost & assessment of future Improvements
- Prepare an implementation plan for improvements

In order to assess, and if appropriate, approve these Zoning amendments, subdivision and site plan applications, staff have to review the ultimate size of the pumping station, forcemain and other receiving sanitary sewers, including Markham Road (Highway 48) sewer capacity, to accommodate the proposed and future developments, and to determine phasing and funding requirements. As such, City staff recommends completing the Class Environmental Study for this project so development can proceed within this catchment area.

Fairtree Sewage Pumping Station (SPS)

The Village of Fairtree SPS catchment area as shown in Attachment A, is currently pumping the sanitary sewer flow through a 300mm forcemain along Steeles Avenue to Markham road sanitary sewer.

There are two major potential developments within this pumping station catchment area, i.e., Forest Bay Homes Ltd –East Village, and Remington lands. These development plans require Fairtree Sewage Pumping Station (“Village of Fairtree SPS”) upgrades including reconfiguration/enlargement of the wet well, upgrading the inlet pipe, pump upgrades and twining the forcemain etc.

The Forest Bay Homes Ltd. – East Village, applications for Secondary Plan Amendment, Draft plan of Subdivision Approval and Zoning By-law Amendment is currently at the OMB. In order to facilitate a resolution of the appeal, staff recommend that the Class EA for the Markham Road Sanitary Sewer and Fairtree Sewage Pumping Station Improvements be initiated in fall 2014 to support the developments within this area. However, if for some reason, if this study is not completed within a reasonable time frame (about 24 months from the start of the project), staff is of the opinion that City may have to consider the request of Forest Bay Homes Ltd. to identify a reasonable interim options to accommodate their developments.

Markham Road Sanitary Sewer

Markham Road sanitary sewer catchment area consists of about 1027 hectares of lands, of which most of which are already developed, (see Attachment A). However there are several redevelopment applications that are currently being processed or expected to be received within this catchment area. In order to evaluate these developments there is need for the City to review the capacity of the system including development of various alternatives and infrastructure upgrades to address any capacity issues.

Class EA Study

In order to establish the need and justification and evaluate various upgrade options/alternatives for this project, the City is required by law to complete a Class Environmental Assessment Study. The Schedule “C” Class EA study scope of work includes following tasks:

- Evaluate the existing capacity of the pumping station, forcemain and Markham Road sewer.
- Analyse Flow monitoring data and review the findings.
- Review current and proposed developments within the pumping station and Markham Road sewer catchment area in accordance with the City’s Official Plan.
- Calculate the flow based on the future developments.
- Conduct a detailed Topographic Survey.
- Develop various sewer and pumping station improvement concepts to accommodate the proposed developments.

-
- Consult with the public, agencies and other affected and interested parties (minimum of 2 Public Meetings are planned as part of this project).
 - Finalise the preferred solution and prepare a Preliminary Design Report which identifies and describes the concept and rationale for all the upgrade proposals including system equipment upgrades.
 - Undertake a Geotechnical and Hydrogeological Investigation, as required.
 - Identify and document the permit requirements of review agencies.
 - Determine the temporary noise impacts and mitigation measures, during construction.
 - Develop a cost estimate, implementation plan and funding requirements.
 - Present the recommendations to City Council for approval.
 - Prepare an Environmental Study Report (ESR), and file the document with the Ministry of Environment (MOE) for a mandatory 30 day public review period.

This project is not included in the current area specific Development Charges (DC) bylaw for this area and therefore the estimated cost for the study (\$496,000) is required from benefiting developers. Pending the outcome of the study and recommended infrastructure required to support development, a future area specific development charge bylaw may be required to recover the capital improvements, including this Class EA cost.

FINANCIAL CONSIDERATIONS AND TEMPLATE:

A new Engineering Department 2014 capital project is required to be funded 100% from benefiting developers and the study is subject to receipt of funding from benefiting developers.

HUMAN RESOURCES CONSIDERATIONS

Not applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

The proposed application will align with the City's strategic priority of Growth Management and Municipal Services by implementing the proposed development in coordination with available servicing allocation.



BUSINESS UNITS CONSULTED AND AFFECTED:

The Legal Services, Finance and Environmental Services Departments have reviewed this report and concur with the recommendations.

RECOMMENDED

BY: 

Alan Brown, CET
Director of Engineering


 Jim Baird, MCIP, RPP

Commissioner of Development Services

ATTACHMENTS:

Attachment A: Markham Road (Highway 48) sewer and Fairtree Sewage Pumping Station Catchment Area.



Attachment A