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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON APRIL 22, 2013
FROM:	EDWARD SOLDI, P.ENG. DIRECTOR, ROADS AND TRANSPORTATION
SUBJECT:	MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT SCHEDULE 'B' STUDY FOR THE DAYUS CREEK DRAINAGE AREA STORM/DRAINAGE AND STORMWATER MANAGEMENT REMEDIATION/SERVICING WORKS

RECOMMENDATION

That, on the recommendation of the Director, Roads and Transportation, the following action **BE TAKEN** with respect to the Municipal Class Environmental Assessment (EA) Study Schedule "B" Study for the Dayus Creek Drainage Area Storm/Drainage and Stormwater Management (SWM) Remediation/Serviceing Works:

- (a) That the Municipal Class EA Schedule "B" Study Report for the Dayus Creek Drainage Area Storm/Drainage and SWM Remediation/Serviceing Works **BE ACCEPTED**;
- (b) A Notice of Completion **BE FILED** with the Municipal Clerk; and,
- (c) The Municipal Class EA Schedule "B" Study Report for the Dayus Creek Drainage Area Storm/Drainage and SWM Remediation/Serviceing Works **BE PLACED** on public record for a 30-day review period.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

ETC – July 19, 2010 – Municipal Class Environmental Assessment Study Schedule 'B' for Storm/Drainage and SWM Remediation/Serviceing Works for Dayus Creek Drainage Area

BACKGROUND

Purpose:

This report provides Committee and Council with an overview of and seeks approval to finalize the Municipal Class EA Study Report for the Dayus Creek Drainage Area Storm/Drainage and SWM Remediation/Serviceing Works. The EA study report identifies the preferred servicing option as a Permanent Private System for areas which may be developed in the study area, upgrades to the Dayus Creek Trunk Storm Sewer at the end of its serviced life and Restoration and Enhancement Best Management Practices for Dayus Creek between Commissioners Road and Thompson Road (location map is shown in Appendix A).

Context:

The Dayus Creek Drainage Area is approximately 450 hectares in size and is characterized as having a highly-developed area downstream and a significantly less developed area upstream. The urbanized areas include residential, commercial and institutional properties in addition to an old landfill site and the London Port Stanley (L&PS) railway line.

The largest single contributing catchment area is the former Westminster Campus of Victoria Hospital which is now the south campus of the London Health Sciences Centre (LHSC) and north campus of St. Joseph's Health Care that are generally separated by Commissioners Road East. These properties are serviced by a series of storm sewers and private SWM facilities. Additional development and servicing works are presently underway on the south campus in preparation for the construction of the Regional Mental Health Care Facility.

Dayus Creek is a tributary of the South Thames River with the upstream (south) part of the Creek constituting an open meandering watercourse generally following and crossing the railway line through a series of culverts.

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Towards the downstream (north) end of the drainage system, Dayus Creek enters an undersized storm sewer at the south side of Thompson Road and continues for approximately 600 metres north until the point of discharge at the South Thames River.

Due to the undersized storm sewer at the lower reach of the Creek as well as future development anticipated in the upstream area of the subwatershed, this Municipal Class EA evaluated and identified the recommended preferred storm/drainage and SWM servicing option for the Dayus Creek catchment area in order to eliminate the conveyance deficiencies and to optimize the performance of the major and minor flow conveyance systems in the Dayus Creek Drainage Area under existing and post development conditions.

DISCUSSION

In accordance with the Municipal Class EA process, the City conducted a public meeting at which three following viable options (alternatives) were initially presented that included:

- Option 1 - *Maintain Status Quo* (no additional SWM controls for new developments);
- Option 2 - *Private Permanent Systems* (PPS) in combination with SWM Best Management Practices (BMPs) and Upgrades to the Dayus Creek Trunk Storm Sewer and
- Option 3 – *Regional Wet SWM Facility* in combination with SWM Best Management Practices (BMPs).

The Class EA process review and rating of the above noted options identified a recommended preferred option for the proposed storm/drainage and SWM servicing works for the Dayus Creek EA that includes the following:

- PPS for areas which may be developed in the study area;
- Restoration and enhancement SWM BMPs for Dayus Creek between Commissioners Road and Thompson Road; and
- Upgrades to the Dayus Creek Trunk Storm Sewer at the end of its serviced life to sustain the required conveyance capacity for the subject drainage area (Dayus Creek Trunk Storm Sewer's life expectancy is estimated approximately in 35-50 years).

The criteria for the Permanent Private Stormwater Systems is identified for areas which are intended to be developed within the study area to provide post development flow control that meet MOE and City requirements for water quality, flood and erosion control for the subject drainage area. The estimated PPS cost associated with this solution is approximately \$4.5 - 5.5M and represents the estimated future storm/drainage and SWM servicing cost that would be needed to be borne by the land owners.

CONCLUSION

In July 2010, the City commenced the Dayus Creek EA to evaluate and identify the recommended preferred storm/drainage and SWM servicing option for the Dayus Creek drainage area in order to minimize the conveyance deficiencies and to optimize the performance of the major and minor flow conveyance systems in the Dayus Creek Drainage Area under existing and post development conditions.

It is recommended that the Municipal Class EA Study Report for the Dayus Creek Drainage Area Storm/Drainage and SWM Remediation/Service Works be accepted which identifies the preferred servicing option as Permanent Private Systems for storm/drainage and SWM servicing works which may be developed within the study area, future upgrades to the Dayus Creek Trunk Storm Sewer at the end of its serviced life and Restoration and SWM Enhancement Best Management Practices for Dayus Creek between Commissioners Road and Thompson Road.

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Next Steps:

Upon acceptance by Council:

- 1) The study report will be filed for review by the public and governing review agencies in order to complete the public review portion of the Class EA process.
- 2) A "Notice of Completion" be published identifying that the study report is available for public review for the mandatory 30 calendar days.
- 3) Stakeholders are encouraged to provide input and comments regarding this study during this time period.
- 4) Should stakeholders feel that issues have not been adequately addressed, they provide written notification within the 30-day review period to the Minister of the Environment requesting further consideration. This process is termed a "Part II Order" (formerly known as a Bump-Up Request).
- 5) Subject to no requests for a Part II Order being received, the project will be in a position to move forward to the design and construction stages in accordance with the recommendations of the study.

Acknowledgements:

This report was prepared within Environmental Engineering Services, Stormwater Management Unit by Billy Haklander, P.Eng., Environmental Services Engineer.

SUBMITTED BY:	RECOMMENDED BY:
BERTA KRICKER, M.ENG., F.E.C., P.ENG. MANAGER OF STORMWATER MANAGEMENT UNIT	EDWARD SOLDI, P.ENG. DIRECTOR, ROADS AND TRANSPORTATION
REVIEWED & CONCURRED BY:	
JOHN BRAAM, P.ENG. MANAGING DIRECTOR ENVIRONMENTAL AND ENGINEERING SERVICES & CITY ENGINEER	

April 15, 2013

Attach: Appendix "A" – Location Map

c.c. John Braam, City Engineer