

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON FEBRUARY 3, 2014
FROM:	JOHN LUCAS, P. ENG. DIRECTOR OF WATER AND WASTEWATER & TREATMENT
SUBJECT:	NOTICE OF COMPLETION OF THE SOUTHWEST AREA SANITARY SERVICING MASTER PLAN: MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT FOR THE SOUTHLAND WASTEWATER TREATMENT PLANT AND PROPOSED SANITARY SERVICING OF THE SOUTHWEST AREA (ES5260)

RECOMMENDATION

That, on the recommendation of the Director of Water and Wastewater & Treatment, the following action **BE TAKEN** with respect to the Municipal Class Environmental Assessment (EA) Schedule "B" Study for the Southland Wastewater Treatment Plant (WTP) (in Lambeth) and the Southwest Area Sanitary Servicing (SASS) Master Plan:

- (a) That the Municipal Class EA Schedule "B" Study Report for the Southland Wastewater Treatment Plant **BE ACCEPTED**;
- (b) A Notice of Completion **BE FILED** with the Municipal Clerk;
- (c) The Municipal Class EA Schedule "B" Southland Wastewater Treatment Plant **BE PLACED** on public record for a 30-day review period; and
- (d) The Southwest Area Sanitary Servicing (SASS) Master Plan **BE ACCEPTED**.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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- 2013-02-25 Southwest Area Sanitary Servicing Master Plan: Appointment of Consulting Engineer (ES5260)
- 2012-12-04 Strategic Priorities and Policy Committee. Growth Management Implementation Strategy (GMIS): 2013 Annual Update and Review.

BACKGROUND

Purpose:

The purpose of this report is to identify to Council the recommended preferable options for the Southwest Area Sanitary Servicing (SASS) Master Plan, including:

- 1. The decommissioning of the Southland WTP in accordance with the requirements of the Municipal Class EA Schedule 'B' process; and,
- 2. Sanitary servicing within the study area including the Lambeth, North Lambeth, North Talbot and Bostwick West neighbourhoods in accordance with the Master Plan requirements of the Municipal Class EA.

Context:

The Municipal Class EA for the Southland WTP was commenced in 2011 but was placed on hold pending the completion of the Southwest Area Plan (SWAP) and was subsequently incorporated into the Southwest Area Sanitary Servicing (SASS) Master Plan. The study area is shown in Figure E.1 in Appendix A. It is located within the limits of the SWAP land use study, which was adopted by Council in November 2012.

In general the SASS Master Plan includes two components:

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1. The Southland WTP EA considered four options related to resolving the high cost of treatment and operational constraints at the plant. All options were evaluated in accordance with the Municipal Class EA process requirements.
2. The balance of the SASS Master Plan considered four alternatives for the sanitary servicing strategy for growth within the study area. All alternatives were evaluated in accordance with Master Planning requirements of the Municipal Class EA.

Discussion:

The SASS Master Plan recommends two key sanitary servicing opportunities:

1. Decommissioning of the Southland Wastewater Treatment Plant (WTP)

Operational costs per cubic meter treated at the Southland WTP are up to 13 times higher than other City of London treatment facilities. The objectives of the EA were to significantly reduce operational costs to service the existing non-growth sewershed area and allow for the future servicing of the balance of the lands south of Main Street. The preferred option, Option D, is to decommission the plant and replace it with a pumping station and a forcemain to Hamlyn Street. This project will consist of following components:

- Construction of a pumping station rated at approximately 230 m³/day (2.66 L/s) average day flow for the current service area of the Southland WTP south of Main Street;
- Pumping station to be located within the fenceline of the current WTP or just outside towards the southwest;
- Construction of a forcemain from the Southland WTP site north along Campbell Street to terminate at a future maintenance hole in vicinity of the intersection of Hamlyn Street/Campbell Street into a new gravity trunk sewer connected to the Wonderland Pumping Station (PS); and
- Decommissioning of the Southland WTP.

The location and routing of the above works are shown in Figure E.2, Appendix A.

The cost for Option D is estimated at \$1,000,000 and is the most cost effective of all options considered.

2. Optimizing Pumping Stations and Accommodating Growth

The SASS Master Plan evaluated the existing four pumping stations (PS) in proximity to Colonel Talbot Road and Southdale Road with the objectives to reduce operational costs and allow for growth (Southwinds PS, Talbot Village PS (privately owned), Westfield PS (privately owned), and Crestwood PS). The preferred servicing alternative was Alternative 4, which includes sanitary sewers along existing/future road networks to the Wonderland PS and sanitary sewers along Colonel Talbot Road to a new pumping station with a new forcemain to Boler Road. This strategy includes (\$ capital costs):

- A gravity sewer running south along Colonel Talbot Road (starting in the vicinity of Pack Road to take flows from the Crestwood PS, Westfield PS and Talbot Village PS) to Kilborne Road (\$5.28M);
- A new pumping station (Colonel Talbot PS) in the vicinity of Diane Crescent to pump flows via a new forcemain along Colonel Talbot Road to Boler Road to the Oxford WTP sewershed (\$5.128M);
- A gravity sewer continuing from Kilborne Road through a future residential subdivision and south to Campbell Street (\$3.536M);
- A gravity sewer running east along Hamlyn Street to Wonderland Road (\$5.225M); and
- Connection to the common sewer along Wonderland Road which connects the study area and other areas north of Dingman Drive to the Wonderland PS (\$1.971M).

Alternative 4 is shown in Figure E.3, Appendix A.

Common elements to all alternatives included:

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- Trunk sewer on Bostwick Road from north of Pack Road to the intersection of Wharncliffe Road/Wonderland Road (\$10.196M).
- Decommissioning of Crestwood PS (\$250,000)
- Modifications to Southwinds PS; shortening the forcemain (\$200,000)
- Conversion of the Southland WTP to a PS (\$997,000)

The total estimated cost for Alternative 4 is \$44,250,000, including 15% engineering and 20% contingency (excluding H.S.T), over a 20-year period. This alternative is the most cost effective of all alternatives considered.

It is noted that a future EA will be required to determine the location of the proposed Colonel Talbot PS. The objective of this new PS is to provide flexibility in servicing the study area by “filling in the blanks” north to south, between Southdale Road and Lambeth’s Main Street. The PS allows the northerly region of the study area to develop and convey sewage to the Oxford WTP for treatment, while gravity trunk sanitary sewers will allow for sewage in the southerly region to be conveyed to the Wonderland PS/Greenway WTP. This approach promotes optimal use of existing sanitary infrastructure.

Project timing

The SASS Master Plan does not assign timelines to specific projects. The City of London Wastewater Servicing Master Plan Update and 2014 Development Charge (DC) Study will provide the schedule for the construction of the projects identified in the SASS Master Plan in the context of servicing growth citywide. However, the sewer running east along Hamlyn Street to Wonderland Road and the sewer on Wonderland Road which connects the study area to the Wonderland Road PS were previously scheduled in the 2009 Sanitary Servicing Development Charge Update for 2015 and will be Phase 1 of this servicing strategy. The design of these sewers will commence this year for construction in 2015 per the original schedule.

Public Engagement

The Master Plan process included engagement of the Lambeth residents, local businesses, and land developers in the study area. There were two public information centres (PIC) held at the Lambeth Community Centre on May 15, 2013 and November 13, 2013. In addition, individual meetings took place as requested with the Lambeth Business Association and members of the development community.

The Lambeth Business Association expressed interest for sanitary servicing along Main Street while residential property owners in the Lambeth area are generally content with private servicing through existing septic systems. There will be an opportunity for Lambeth business owners to be engaged in a Local Improvement (LI) process following the extension of trunk sewer works planned for completion in 2015. Staff has communicated that the most cost-effective time to initiate the LI process would be in coordination with Main Street road improvements, which would need to be scheduled in future capital works budgets.

The development community is interested in extension of trunk sewers to facilitate the construction of residential units.

EESD is following the City’s procurement process to retain an engineering consultant to complete the detailed design in 2014 for Phase 1 trunk sewer works described above, intended for construction in 2015. This will assist in the development of three residential subdivisions as well as two significant blocks on Wonderland Road. Subsequent phasing through the 2014 DC study and GMIS will support future orderly and cost-effective growth in the community.

CONCLUSIONS

Based on the results of the Southland WTP Class EA and the SASS Master Plan, there is a recommended sanitary servicing strategy for the lands within the study area. The cost to convert the Southland WTP to a pumping station with a forcemain to Hamlyn Street is \$1,000,000. The total cost to design and construct the balance of the works over the 20 year period is estimated at \$44,250,000 including engineering and contingency (excluding HST).

NEXT STEPS

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- 1) Upon Council Resolution of this study report, a “Notice of Completion” will be published and the final study report will be available for review by the public and governing agencies for 30 calendar days.
- 2) For the works related to the decommissioning of the Southland WTP only, the public can provide comments during the 30-day review period and/or discuss any issues with the Consultant and the City. If any issues cannot be resolved, the public can provide written notification to the Minister of the Environment and trigger a “Part II Order”. If there are no requests for a Part II Order, the project may move forward to design and construction in accordance with the recommendations of the study report.
- 3) Environmental and Engineering Services will engage a consulting engineer for the design and construction of the Phase 1 sewers in accordance with the City’s procurement policies.

Acknowledgements:

This report was prepared within the Wastewater and Drainage Engineering Division by Maureen Ricciuto, Senior Engineering Technologist in consultation with Shawna Chambers, P.Eng., Environmental Services Engineer.

SUBMITTED BY:	RECOMMENDED BY:
TOM COPELAND, P. ENG. DIVISION MANAGER WASTEWATER AND DRAINAGE ENGINEERING	JOHN LUCAS, P.ENG. DIRECTOR OF WATER AND WASTEWATER & TREATMENT
REVIEWED & CONCURRED BY:	
JOHN BRAAM, P.ENG. MANAGING DIRECTOR ENVIRONMENTAL AND ENGINEERING SERVICES & CITY ENGINEER	

January 28, 2014

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Attach: Appendix A – Executive Summary, SASS Master Plan

- c.c. Scott Mathers, Manager of Development Finance
 Geordie Gauld, Division Manager of Wastewater Treatment Operations