



## STAFF REPORT ACTION REQUIRED

### Contract Award – Request for Proposals No. 9117-14-3049 Design, Build, Operate and Maintain the Expanded Dufferin Organics Processing Facility

<b>Date:</b>	September 04, 2015
<b>To:</b>	Public Works and Infrastructure Committee
<b>From:</b>	General Manager, Solid Waste Management Services Director, Purchasing & Materials Management Division
<b>Wards:</b>	All
<b>Reference Number:</b>	P:\2015\Cluster B\SWM\September\016PW (AFS#20273)

#### SUMMARY

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The purpose of this report is to advise of the results of the Request for Proposals No. 9117-14-3049 to engage a Contractor to design and build an expansion of the Dufferin Organics Processing Facility (DOPF), and subsequently to operate and maintain the expanded facility. The report further requests authority to enter into an agreement with the recommended proponent and to increase the capital budget for this project.

The Request for Proposal (RFP) yielded a fair and competitive procurement process consisting of two (2) proposals. The recommendation of award is to W.S. Nicholls Construction Inc. (W.S. Nicholls) which had the highest overall scoring proposal, (both highest scoring technical proposal and lowest cost proposal). The highest overall scoring proposal exceeds the previously approved capital budget, therefore a request for authority to increase the capital budget is included in this report.

The expanded DOPF, once completed will provide an additional 55,000 tonnes per year of capacity to process source separated organic (SSO) materials from the City's Green Bin Program. The combined processing capacity of the Disco Road and expanded DOPF is needed to process a significant portion of the SSO Green Bin material collected by the City of Toronto. Subject to Council approval, construction of the expanded DOPF is expected to commence in early 2016 with commissioning and commencement of processing operations scheduled for early 2019.

## RECOMMENDATIONS

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### **The General Manager of Solid Waste Management Services and the Director of Purchasing & Materials Management Division recommend that:**

1. City Council authorize and direct the General Manager of Solid Waste Management Services to negotiate and enter into agreements with W.S. Nicholls Construction Inc., being the highest overall scoring proponent that met the requirements of Request for Proposal No. 9117-14-3049, to:
  - a. design, build and commission the expanded Dufferin Organics Processing Facility to process a minimum 55,000 tonnes per year of the City's Source Separated Organic material at the Dufferin Waste Management Facility, at an estimated total amount of \$81,978,300 including HST and all applicable charges, or \$73,824,000 net of HST recoveries; and
  - b. operate and maintain the expanded Dufferin Organics Processing Facility over a term of three (3) years from commissioning with an option to renew for up to an additional two (2) one (1) year extensions, at the sole discretion of the General Manager of Solid Waste Management Services, at an estimated total amount of \$42,431,164 including HST and all applicable charges, or \$38,210,577, net of HST recoveries.
2. City Council, with the adoption of Recommendation No. 1, authorize and direct the General Manager of Solid Waste Management Services to increase the Capital Plan for the Dufferin Organics Processing Facility (CSW009) for the years 2015 through 2019 by \$20,670,695, from \$53,153,305 to \$73,824,000 (net of HST recoveries), with annual cash flows as indicated in Table 2 of the Financial Impact section of this report with the increase funded through the Waste Management Reserve Fund.

## FINANCIAL IMPACT

### Capital

The total contract award recommended in this report is \$81,978,300, including HST and all applicable charges. This represents a total cost to the City of \$73,824,000 net of HST recoveries. The engineering estimate for this assignment was \$56,545,200 including HST and all applicable charges.

The total cost for the Contractor to design, build and commission (DBC) the expanded DOPF will not exceed \$71,802,000 including all costs as set out in the DBC base proposal Forms 1B & 1C, a contingency allowance (10 percent) and non-recoverable HST.

Additional contract costs are also included in the following summary (Table 1) where contract administration services are included as previously approved through award of RFP No. 9117-13-3073 in July 2013.

**TABLE 1: Summary of Total Project Cost**

<b>Item</b>	<b>Cost (\$)</b>
Design, build and commission expanded facility	71,802,000
Engineering (contract administration services)	1,592,000
Inter-divisional charges (ECS, Legal, Permits)	430,000
<b>Total Cost (net of HST Recoveries)</b>	<b>73,824,000</b>

The Capital Account (CSW009) had previously been authorized to \$51,950,125 through the 2015 Capital Budget process (Council Authority, March 10 and 11, 2015), and previous year carry forward of \$1,203,180 (approved at May 5 and 6, 2015 Council) for a total cost of \$53,153,305. As shown in the following Table 2, an additional \$20,670,695 is required to be authorized through the 2016 Capital Budget process, and in conjunction with Recommendation No. 2 above, to result in an updated capital budget (CSW009: 2015-2019) of \$73,824,000.

This additional project cost of \$20,670,695 is required to award the project where the cost of submission exceeded original estimates. This additional cost is related to the current economic climate in the construction market and construction industry capacity to deliver capital projects. This is also pursuant to Recommendation No. 8 of PW6.1 (SSO Public Facility Business Plan) as adopted by Council June 19, 20 and 22, 2007 which directs Staff to include additional funding requirements for the new SSO processing facilities in future capital and operating budget submissions.

Following the approval of this increase, the capital project will be funded from the Waste Management Reserve Fund.

**TABLE 2: Revised Cash Flow (net of HST recoveries)**

<b>CSW009</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Total (\$)</b>
<b>Previously Approved Budget</b>	10,503,593	32,073,712	10,266,000	155,000	155,000	53,153,305
<b>Requested Revised Budget</b>	500,000	18,000,000	47,506,000	7,604,000	214,000	73,824,000
<b>Change</b>	(10,003,593)	(14,073,712)	37,240,000	7,449,000	59,000	20,670,695

The requested revised cash flows are based on the estimated schedule to completion of the project and the SSO Program's readiness to proceed.

## Operating Impact

The 55,000 tonnes of SSO which will be processed at the upgraded DOPF is presently being processed under contracts with three (3) private companies. Once in operation, the costs incurred by Solid Waste Management Service, Processing & Resource Management's budget will be reduced on average 11.7 percent (%) on a comparative annual basis until the end of the contract. A further benefit of processing the SSO at the Dufferin Waste Management Facility will be the reduction of approximately 1,000 trailer loads per year of SSO material which is presently being sent to private processors across Ontario. As shown in Table 3, the resulting savings are estimated to be \$5,474,053 net of HST recoveries over the life of the operating contract including option years.

The total upset contract cost for W.S. Nicholls to operate the expanded DOPF to process 55,000 tonnes per year of Green Bin material over the term of the agreement (three years), including City option extensions to the term (for two (2) one (1) year periods), inclusive of all haulage costs and handover of the facility at the end of the contract will not exceed \$38,210,577 including all charges, net of HST recoveries.

The following table provides a common basis for comparing the operating cost impact of the DOPF to the overall cost of the current three (3) contractor model, taking into account the actual expected quantities of digester solids requiring management.

**TABLE 3: Overall Operating Cost Comparison (55,000 Tonnes per Year)  
2019-2023 Funds Centre SW0476 (net of HST recoveries)**

	Base Operating Agreement (\$)			Extension (\$) City Option		Total (\$)
	Year 1	Year 2*	Year 3*	Year 1*	Year 2*	
Recommended Proponent's Contract Price	\$7,299,855	\$7,445,852	\$7,594,770	\$7,746,665	\$8,123,435	\$38,210,577
Internal Haulage of SSO from Transfer Stations	\$219,911	\$224,309	\$228,795	\$233,371	\$238,039	\$1,144,426
Additional Digester Solids Haulage and Treatment **	\$403,892	\$411,970	\$420,209	\$428,613	\$437,186	\$2,101,870
Total Cost to City (A)	<b>\$7,923,658</b>	<b>\$8,082,132</b>	<b>\$8,243,774</b>	<b>\$8,408,650</b>	<b>\$8,798,660</b>	<b>\$41,456,874</b>
Current Processors (B)	<b>\$9,018,171</b>	<b>\$9,198,535</b>	<b>\$9,382,506</b>	<b>\$9,570,156</b>	<b>\$9,761,559</b>	<b>\$46,930,927</b>
Savings (B-A)	<b>\$1,094,513</b>	<b>\$1,116,403</b>	<b>\$1,138,731</b>	<b>\$1,161,506</b>	<b>\$962,899</b>	<b>\$5,474,053</b>

\*Assumed Consumer Price Index adjustment at 2.0% per year.

\*\*Additional digester solids' haulage and treatment are required post – processing by another third party contractor.

Following the completion of the expanded DOPF, Solid Waste Management Services will pursue the beneficial use of the biogas produced by the anaerobic process. Any further net operating impact (revenue) is yet to be determined.

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information.

## **DECISION HISTORY**

City Council on June 19, 20 and 22, 2007, considered Report PW6.1 “SSO Public Facility Business Plan – Recommendations of the Planning Study for Expanded Public SSO Processing Capacity”, which included the construction of the Disco Road Organics Processing Facility and the expansion of the Dufferin Organics Processing Facility to provide a total of 130,000 tonnes of capacity to process the City's Green Bin material. The following recommendations related to the Dufferin Organics Processing Facility were adopted:

- 1) Reconstruction of the Dufferin Organic Processing Facility to increase processing capacity to 55,000 tonnes of SSO using wet pre-treatment operations and anaerobic digestion.
- 2) The Acting General Manager of Solid Waste Management Services and the Director Purchasing & Materials Management Division be directed to issue a RFP for contracted professional services to: provide contract administration services; conduct soils investigations at the Disco Transfer Station and Dufferin Waste Management Facility; prepare an RFP to design, build and operate the SSO processing facilities; and provide construction supervision services, and to report the results of the RFP to the Bid Committee.
- 3) The Acting General Manager of Solid Waste Management Services and the Director Purchasing & Materials Management Division be directed to issue a Request for Expressions of Interest (REOI) for the purposes of pre-qualifying and short-listing vendors of wet phase pre-processing technologies for SSO, such as hydro-pulping, and anaerobic digestion technologies.
- 4) The Acting General Manager of Solid Waste Management Services and the Director Purchasing & Materials Management Division be directed to issue a Request for Proposals (RFP) to proponents pre-qualified in accordance with Recommendation No. 3 to design, build and operate, for a term of up to five (5) years, two (2) 55,000 tonnes per year SSO processing facilities, one (1) at the Disco Transfer Station and one (1) at the Dufferin Waste Management Facility.
- 5) Staff be directed to include additional funding requirements for the new SSO processing facilities in future capital and operating budget submissions.

City Council Decision document can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2007.PW6.1>

Recommendation No. 4 was carried out during 2008-09, with the Disco Road Organic Processing Facility procurement (RFP 3907-09-7053) reporting/cancellation, and request to negotiate agreements to design, build, commission and operate a new 55,000 to 90,000 tonnes/year SSO facility through a report presented to November 2009 Public Works and Infrastructure Committee (PWIC).

City Council on November 30, December 1, 2, 4 and 7, 2009 considered Report PW28.13 "Design, Build and Operate a New Source Separated Organic Material Processing Facility at the Disco Road Transfer Station on a Sole Source Basis" of the Public Works and Infrastructure Committee and adopted the following motions:

1. City Council authorize and direct the General Manager of Solid Waste Management Services to enter into sole source negotiations with AECOM Canada Ltd. for a contract to design, build and operate a new facility to process the City's source separated organic material at the Disco Transfer Station site.
2. City Council request the General Manager of Solid Waste Management Services, to report back to City Council on the results of the negotiations.

City Council Decision Document can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2009.PW28.13>

Report can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2009/pw/bgrd/backgroundfile-24368.pdf>

City Council on February 22, 2010 considered report PW30.4 "Authority to Negotiate and Enter into an Agreement with AECOM Canada Ltd. To Design, Build, Commission and Operate a New SSO Processing Facility at Disco Transfer Station" and accepted the recommendations.

Report can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2010/pw/bgrd/backgroundfile-26686.pdf>

Agreements were subsequently signed between the City & AECOM Canada Ltd (dated October 8, 2010) for Design, Build, Commission and Operate and Maintain engagements relating to a new SSO facility at the Disco Road Transfer Station. The Disco Road Organics Processing Facility was designed, constructed and commissioned between 2011-14, and was granted substantial performance during June 2014, to allow transition to the operations contract (July 1, 2014 – June 30, 2017) to allow processing up to 90,000 tonnes / year of the City's source separated organic material. The Disco Road SSO facility agreements were developed through authority granted at February 22, 2010 City Council, following the procurement and negotiation process presented to November 30, 2009 City Council for the Disco Road facility. More than one (1) year after being granted substantial completion, with

two (2) major deficiencies, at the Disco Road Organics Processing Facility, AECOM continues to be unable to resolve outstanding Contract deficiencies and the City is currently considering contractual and legal options available to bring AECOM's work to completion.

For the Dufferin Organic Processing Facility, initial repairs and upgrades were completed through an emergency repair initiative set out in report EX 46.65 "Authority to Negotiate and Enter into a Sole Source Agreement for Repairs and New Construction at the Dufferin Organics Processing Facility". Authority was granted for this undertaking at August 25-26, 2010 City Council. An agreement was subsequently executed between the City and CCI-TBN Inc., the contracted operator of the facility, to design, build and commission the DOPF during 2011-12, while the facility continued to operate as the City's only "in Toronto" processing facility, pending the commencement of SSO processing operations at the new Disco Road SSO facility during 2014.

Report can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2010/ex/bgrd/backgroundfile-32998.pdf>

Further efforts to expand the DOPF were initiated through Recommendation No. 3 and part of No. 4 above (PW6.1) between 2013-15, and have concluded with RFP No. 9117-14-3049 procurement to design, build, commission and operate an expanded 55,000 tonnes/year SSO facility at the Dufferin Transfer Station which is the subject of this report.

## **ISSUE BACKGROUND**

The expansion of the DOPF has involved the following steps:

- Retaining Professional Engineering Services to develop the RFP requirements for the expansion;
- Pre-Qualification of companies that would be invited to submit proposals; and
- RFP for the design, build, commissioning and three (3) year operating contract for the expanded facility, with two (2) one (1) year options.

### Professional Engineering Services

In accordance with the "Decision History" Recommendation No. 6 (PW6.1) above, Purchasing & Materials Management Division (PMMD) issued Request for Proposals 9117-13-3073 during May 2013 for Professional Engineering Services for Source Separated Organic Material Processing at the expanded Dufferin Waste Management Facility. The RFP resulted in the award of a contract to Conestoga Rovers & Associates (now GHD Limited).

### Pre-qualification of Vendors

In accordance with the "Decision History" Recommendation No. 3 (PW6.1) above, in October 2013, the PMMD issued Request for Pre-Qualification (RFPQ) 9117-13-3191 for pre-qualification of source separated organic material processing systems. The purpose of the RFPQ was to pre-qualify respondents to provide SSO processing systems that:

- a) process SSO by pre-processing followed by anaerobic digestion; and
- b) capable of satisfying the City's functional requirements and performance objectives for SSO processing.

Through the RFPQ, two (2) Pre-Qualified respondents providing SSO Processing Systems were selected; the system proposed by Anaergia Inc. and the system proposed by CCI Bioenergy.

RFP 9117-14-3049

In accordance with the "Decision History" Recommendation No. 4 (PW6.1) above, RFP 9117-14-3049 for the Design / Build / Commission and Operate an Expanded SSO Material Processing Facility at the Dufferin Transfer Station was issued by PMMD on August 27, 2014. The scope of work described in this RFP included:

- a) Site preparation, perimeter road and re-location of leaf and yard waste area in vicinity of the existing DOPF in preparation for building renovation/expansion and addition of new processing equipment;
- b) design and construction of an expanded facility including two (2) separate processing trains to process a minimum 55,000 tonnes per year of SSO, and including related systems for residue and digester solids management, odour control and treatment and wastewater treatment;
- c) the SSO processing trains to be based on one (1) of the two (2) SSO processing systems pre-qualified through RFPQ 9117-13-3191;
- d) commissioning the new SSO facility including processing SSO during commissioning; and,
- e) operating the new SSO facility for a period of three (3) years plus an optional extension for up to an additional two (2) years at the discretion of the General Manager of Solid Waste Management Services.

The RFP required Proponents to provide a proposal which responded to the requirements of the scope of work as set out in the RFP (the 'Base Proposal'), and also explicitly invited Proponents to express their suggestions for improvements to the work, which could have included improvements to the design or functional or performance specifications for the new SSO facility, in an optional and separate Proposal (the 'Alternative Proposal'). An Alternative Proposal, if submitted, would be evaluated using the same evaluation criteria stated in the RFP.

Two (2) Proponents responded to the RFP: AECOM Canada Ltd. (AECOM) and W.S. Nicholls Construction Inc. (W.S. Nicholls). Evaluation of the two (2) base proposals determined that W.S. Nicholls had the highest technical score and the lowest cost and



therefore also had the highest total score and was ranked first. However, the cost of service proposals for both Proponents exceeded the approved capital budget allocated for this project.

## COMMENTS

RFP 9117-14-3049 was issued by PMMD on August 27, 2014 and was available for download in PDF format on the City's website. The RFP included the selection criteria to be used for evaluation. A mandatory site meeting was held on September 11, 2014 at which 17 firms attended. This resulted in a total of two (2) submissions being received on January 15, 2015 from the following firms:

1. AECOM Canada Ltd. utilizing CCI Bioenergy/ BTA technology, submitted a Base and an Alternative Proposal; and,
2. W.S. Nicholls, utilizing Anaergia Inc. technology submitted a Base and an Alternative Proposal.

The RFP was structured as a "two-envelope" process. Each submission included a detailed Technical Proposal (Envelope 1) and a separate sealed envelope with a Cost of Services Proposal (Envelope 2). All Proposals satisfied the mandatory submission requirements, and their Technical Base Proposals were evaluated. A formal selection committee comprised of five (5) City staff from Solid Waste Management Services (SWMS) and Engineering & Construction Services (ECS) Divisions evaluated each of the Technical Base Proposals. In addition two (2) members of the consulting team provided non-scoring assistance to the City's evaluators. The evaluation process was facilitated by the senior project buyer from PMMD.

Technical base proposals were evaluated against the criteria set out in the RFP and assigned a score out of a possible 60 points, with 45 points (75 percent) being the minimum score required for submissions to proceed to the next step of the evaluation process. The Evaluation Committee determined that AECOM's - Base and W.S. Nicholls's - Base technical proposals met or exceeded the minimum technical score requirement and therefore were eligible to proceed to the next stage of the evaluation process.

The Cost of Services Proposals corresponding to the AECOM - Base and W.S. Nicholls - Base proposals were opened and evaluated by the Financial Evaluation Committee comprised of five (5) City staff from SWMS Division and one (1) City staff from ECS Division. A cost score was calculated for each base proposal and added to the technical score to produce a total score for each base proposal. The W.S. Nicholls - Base Proposal achieved the highest technical score and the highest cost score (i.e. lowest price) resulting in the highest total score.

Upon completion of this stage of the evaluation process, the W.S. Nicholls - Base Proposal was ranked first with the highest total score by the Evaluation Committee. The Evaluation Committee consulted with PMMD and Legal and advised that only the alternative proposal for the overall highest scoring proposal should be considered (including opening the

alternative proposal cost envelope) after completing a determination of the highest scoring proposal. Following identification of the highest scoring technical proposal and consulting with PMMD and Legal, the Cost of Services information (base and alternative) for W.S. Nicholls was provided to the consulting team members that participated in the technical/non-scoring evaluation, for comparison of W.S. Nicholls Cost of Services to the engineer's estimate. AECOM's alternative proposal was not reviewed nor considered because AECOM's – Base Proposal was not deemed to have the highest score.

A detailed review of W.S. Nicholls's cost proposal was completed by the City's Engineering Consultant for the project, GHD (formerly Conestoga-Rovers and Associates (CRA)). GHD's review outlined the key areas where W.S. Nicholls's proposal pricing differs substantially from the then GHD's earlier engineer's estimate. GHD notes that the Proponents' risk perception of the relatively short term of the operating agreement may have contributed to increased capital pricing. GHD further identified a number of areas where more detailed exploration of W.S. Nicholls' proposed approach and corresponding clarification of the project's requirements may offer opportunities for savings.

The engineering estimate (March 2014) for the design, construction and commissioning phases of the work was \$50.04 million net of HST and including 19% contingency. The estimated costs were based on current actual costs for the construction of similar buildings in the Greater Toronto Area and was noted to be accurate to +/- 20 to 30 percent (\$40-65M), based on the conceptual level of design information available at the pre-design stage.

As a result of the cost proposals exceeding available project funding, PMMD and SWMS staff are recommending not to cancel the procurement call. The RFP yielded a fair procurement process with two (2) technical submissions that met the required evaluation threshold, and two (2) cost proposals that reflected a fair and competitive procurement process. As a result, authority is being sought to amend the project capital budget to address the underfunding, to allow entering into agreements for the design, build and commission, and operate and maintain engagements with the highest ranking proponent.

Reissuing the RFP with as-is or with a revised scope of work is not recommended as it would not be expected to yield additional value to the City. Given the importance of this project to the City's waste diversion goals, the limited availability of organic waste processing capacity in the market place and the importance of this project within SWMS's business plan, the General Manager of SWMS, is requesting City Council grant authority to increase the capital budget and enter into agreements with W.S. Nicholls to design, build, commission and to operate and maintain an expanded SSO processing plant at the Dufferin Transfer Station.

Further information, including the Proponents' scores and staff analysis of the evaluation results can be provided to Councillors in an in-camera presentation if requested by members of Committee.

The Fair Wage Office has reported that the recommended firm has indicated that it has reviewed and understands the Fair Wage Policy and Labour Trades requirements and has agreed to comply fully.

## **CONTACTS**

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## **SIGNATURES**

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Solid Waste Management Services

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