AUDIT OF PROCUREMENT PRACTICES RELATED TO THE SOURCE SEPARATED ORGANICS CONTRACT (2011 - 2014)

VÉRIFICATION DES PRATIQUES D’APPROVISIONNEMENT – CONTRAT DE DÉCHETS ORGANIQUES SÉPARÉS À LA SOURCE

July 9, 2014
Le 9 juillet 2014
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Office of the Auditor General
July 9, 2014
EXECUTIVE SUMMARY

Introduction
The Audit of Procurement Practices was included as part of the Auditor General’s 2011 Audit Plan approved by Council on April 13, 2011. The Source Separated Organics (SSO) contract was to be included as a part of the Audit of Procurement Practices. However, during the course of our audit work it became apparent that there were numerous issues related to the Source Separated Organics contracting process, and that this element required its own report. Therefore it was severed from the procurement audit for presentation on its own.

This report was originally intended to be tabled, as part of the Auditor General’s 2011 annual report, in November 2012. The report was issued to management on August 30, 2012 in order for management to provide responses to the audit recommendations. We were subsequently informed, on September 22, 2012, that management was unable to issue management responses at that time. However, management further advised the Office of the Auditor General that once a related arbitration process has concluded, management would respond. Therefore, the Audit of Procurement Practices - Source Separated Organics Contract was not included in the 2011 Annual Report and is now being tabled.

Management subsequently provided additional information in December 2013 and up until April of 2014 to the Office of the Auditor General to substantiate their position on this project.

Our review of the information was done to assure ourselves and management that all relevant information had been considered, verified and where appropriate we included the new information in a revised draft audit report.

Background
On July 15, 2005, City of Ottawa Council approved the "Implementation of an Organics Collection Program within the next solid waste collection contracts with organics collection envisioned to commence in 2008, and that staff report back with the details of the program in the fall of 2005." The decision to move forward with a city-wide source separated organics (SSO) program came after several years’ experience with pilot initiatives from 2001 to 2005, adoption of an Integrated Waste Management Master Plan, and evaluation of potential impacts, costs, and benefits. The decision was also made by the need to identify new ways to divert waste away from landfill and in recognition of the limited lifespan of the City’s available landfill space and the difficulties inherent in finding or establishing new landfills.
Implementation and future expansion of the SSO program was dependent upon the development of one or more appropriately designed, sited, and operated organics processing facilities. The City believed it would only achieve a diversion rate of approximately half of the Ministry of the Environment (MOE) 60% target. Accordingly, it was clear that, without a significant change in its solid waste program, the City would not be able to meet its own objective, nor the provincial target. Recognizing that organics still comprised a significant portion of the material sent to landfill, the implementation of a Source Separated Organics Program remained one of the only viable means by which the City could divert a larger portion of its waste away from landfill. The July 15, 2005 report to Council recommended that immediate work begin to "solicit Expressions of Interest from the private sector for organics processing technology to assess the level of interest, and report back with recommendations to Committee."

As such, the Environmental Services Department for the City of Ottawa, using a tiered approach, sought, in 2005, proposals to provide project management advisory services for the planning, design, and implementation of a private or private-public partnership initiative for the processing of SSO collected from private residences. On March 9, 2007, Environmental Services Department sought proposals to secure an Agreement for the processing of SSO and marketing of the resulting product(s), for SSO materials collected by the City.

The Request for Proposals (RFP) was launched on March 9, 2007, the prospective contractor was identified, notified, and the presentation for final approval was delivered to Council on October 10, 2007.

The eventual contract with Orgaworld Canada Ltd has an estimated minimum value of $140,000,000 over its 20-year lifecycle. The agreement was signed on March 27, 2008.

Due to organizational changes within Public Works, the group responding to queries or providing information for the SSO contract will be referred to generically as Environmental Services Department throughout our audit report.

Below is a representation of significant project milestones (refer to Appendix B of the full report for a more detailed timeline).
Audit Scope

The scope of the audit encompassed the Source Separated Organics contract, including the determination of metrics (i.e., such as estimated facility’s capacity utilization and curb-side participation rate), and internal approval.

Summary of Key Findings

In 2008, the City completed the negotiation of the Source Separated Organics contract. The 20-year contract was for an organic waste processing facility whose capacity is 100,000 tonnes per year, including both food and leaf and yard waste.

The file was a complex one and required analysis of numerous facets of the endeavour, including detailed evaluations of the volumes that would be generated, the establishment of guaranteed levels of organics for payment purposes and what the facility’s system could process.

The oversight of the project remains unclear as the management review, assessment and approval required on key elements of the project could not be located in the corporate records and were not provided to us by departmental staff.

De facto direct reporting from the Environmental Program group directly to the Deputy City Manager, Public Works and Services (PWS) was in place, circumventing the normal chain of command and the associated control. This type of reporting is unusual within the City. While the Draft Project Charter indicated the intended management and oversight process, it was never formally approved. It did not contain the guidelines for documentation, approvals or periodic updates.

Moreover, it did not delineate the roles and responsibilities of staff and managers involved for oversight and control from the operational department, Legal Services and Supply Branch.
The data from the pilot projects, in our opinion, was not correctly interpreted with respect to the impact of mandatory measures such as bi-weekly collection and bag limits which inherently serve to increase the participation and diversion rates. In our opinion the analysis had fundamental errors in arriving at the metrics leading to the eventual contract.

Our analysis of the data available from the pilot projects indicates that the range of available organic matter, excluding leaf and yard waste, (as indicated in Table A below) was between approximately 21,000 and 57,000 tonnes per year, in 2005/06, not 100,000 tonnes per year. Dissenting opinions from other Environmental Services staff regarding the validity of these metrics were dismissed by senior project staff. As of December 2013 the actual volume of food waste is 41,160 tonnes per year (as per the City’s consultant HDR Corporation June 2013 Report), one year after implementation of bi-weekly garbage collection.

Table A: OAG Analysis of Organics Projections

<table>
<thead>
<tr>
<th>Study</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Curbside Waste Characterization Study (Fall 2004)</td>
<td>Available food waste: 57,470 tonnes per year (100% Diversion Rate)</td>
</tr>
<tr>
<td>Organics Composition Study (2004-2005)</td>
<td>Available food waste: 42,900 tonnes per year</td>
</tr>
<tr>
<td>Compost+ (2005)</td>
<td>Available food waste: 20,862 tonnes per year</td>
</tr>
<tr>
<td>Residential Waste Characterization Study (2005)</td>
<td>Available food waste: 46,350 tonnes per year</td>
</tr>
</tbody>
</table>

In 2009, the City collected and processed 38,038 tonnes of leaf and yard waste at Trail Road. The City continues to separately collect the seasonal peak leaf and yard waste. The City estimates that approximately 60% of the available peak volume (peak refers to the two five-week periods of higher than normal leaf and yard waste volumes in the Spring and Fall where separate collection is in effect) is separately collected. The peak leaf and yard waste, approximately 20,000 tonnes
per year, is collected in separate vehicles as there is simply too much volume for it to be co-collected with any other waste stream. Since there is no saving related to its collection it would have been beneficial to direct separately collected leaf and yard waste to Trail Road for processing at a much lower cost; a net cost of $15.65 per tonne versus $103.77 per tonne at Orgaworld (2014 rates).

Current arrangements for leaf and yard waste (LYW) collection are in part based on current contract targets of 400 tonnes per day and a desire to meet minimum put-or-pay thresholds.

The possible cost savings related to internally processing separately collected leaf and yard waste do not appear to have been factored into the business case for establishing a 100,000 tonne capacity or an 80,000 tonne put-or-pay threshold in the current contract with Orgaworld.

The impact of including the 38,038 tonnes of leaf and yard waste that was going to Trail Road for processing at a much lower cost; a net cost of $15.65 per tonne versus $103.77 per tonne at Orgaworld (2014 rates), is approximately $3.35 million per year and $67 million over the 20 year contract. This premium was never brought to Council's attention during the review and approval process.

The absence of any documented and approved assumptions as well as documented (finalized, dated, and agreed-upon by management) analysis, in conjunction with an absence of a documented review and approval function necessary to corroborate management’s acceptance of the metrics for the requirement of a 100,000 tonnes capacity to process organic waste, including food and leaf and yard waste, demonstrates a lack of due diligence.

This also indicates a lack of involvement and due diligence on behalf of senior management in a contract with an estimated minimum value of $140,000,000 over its 20-year lifecycle.

Environmental Services Department staff involved in the contracting process did not follow through with the advice from the City’s external legal counsel, to include a ramp up period in the contract. The rationale for non-acceptance is not documented in the corporate records. A ramp up period should have been considered in the RFP.

Furthermore, Environmental Services Department staff involved in the contracting process did not accept the recommendation from Supply Management for the negotiation of a smaller processing facility once bids had been reviewed and assessed. The rationale for non-acceptance is not documented in the corporate records.
Communication to Council was ambiguous. It was unclear that leaf and yard waste was to be included in the 100,000 tonne threshold of the contract, and it gave the impression that the 100,000 tonnes would be easily achievable. The communications contained little or no discussion of the options and risks and were only provided after the Request for Proposal process had been completed. Individuals identified as the point of contact could not provide the requested supporting documentation during the course of our audit.

Between October 2007 and the 2010 Planning Budget Update, there were five distinct follow-up reports to Committee and/or Council in relation to work required to the Barnsdale landfill site development for the reception of leaf and yard waste. These communications in and around the time of the contract award to Orgaworld may have reinforced the perception that leaf and yard waste was to be excluded from the SSO facility.

The consultants who provided support for the development of metrics that were used in the Request for Proposal for the SSO contract did not raise concerns about the estimated quantities of total available organic material until after the Request for Proposal process had been completed and the contract had been awarded.

The City has paid approximately $4,700,000 for unutilized capacity between January 2010 and December 13, 2013 as a result of not meeting the put-or-pay threshold. The City has paid a premium of $3,000,000 for the separately collected LYW from January 2010 until December 2013, for the incremental cost of processing separately collected leaf and yard waste at Orgaworld for an estimated projected total overpayment of approximately $7,700,000 to date (refer to Table B).

Table B: Total Estimated Unnecessary Payments under Constraints of Existing Contracts 2010-2013:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual payment for unutilized minimum guaranteed processing level of organic waste (put-or-pay provision). [Refer to Appendix F of the full report]</td>
<td>$ 4,700,000</td>
</tr>
<tr>
<td>Estimated premium paid due to the fact that some separately collected leaf and yard waste delivered to the Trail Road facility is factored into the minimum put-or-pay threshold calculations; i.e., in order to meet the minimum put-or-pay threshold. [2010-2013] [Refer to Appendix G of the full report]</td>
<td>$ 3,000,000</td>
</tr>
<tr>
<td>Total estimated unnecessary payments 2010 – 2013</td>
<td>$ 7,700,000</td>
</tr>
</tbody>
</table>
The Request for Proposal states that the City will be producing 100,000 tonnes of organics, including both food and leaf and yard waste, once in a “mature state”. Our assessment of the City’s forecasted numbers indicates it will not produce 100,000 tonnes of organics, including all leaf and yard waste, under the best case scenario, until the 19th year of the 20 year contract.

Environmental Services would not have been in a position to know the true costs of the proposed contract as a critical piece of the necessary analysis to support the eventual decision to proceed with the Source Separated Organics contract, the determination of incremental collection (trucking) costs, was not conducted until March 2014, two years after the initial audit recommendation and four years after contract award.

Had the City entered into a contract with a reasonable minimum put-or-pay threshold, where there was no need to send the separately collected peak leaf and yard waste to Orgaworld for processing, we believe a further potential saving of $4,900,000 (based on 60% of peak LYW being separately collected) over the remaining life of the contract could have been achieved as outlined in the following table.

Table C: Total Estimated Potential Unnecessary Costs under Constraints of Existing Contracts [2010-2029]

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual payment for unutilized minimum guaranteed processing level of organic waste (put-or-pay provision). [Refer to Appendix F of the full report]</td>
<td>$4,700,000</td>
</tr>
<tr>
<td>Estimated premium paid due to the fact the separately collected leaf and yard waste is delivered to the Trail Road facility is factored into the minimum put-or-pay threshold calculations; i.e., in order to meet the minimum put-or-pay threshold. [2010-2013] [Refer to Appendix G of the full report]</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>$7,700,000</td>
</tr>
<tr>
<td>Estimated potential unnecessary cost associated with the processing of the separately collected seasonal peak leaf and yard required to meet the minimum put-or-pay threshold of the contract. [2014-2023: It is expected the minimum threshold will be met in 2023 without using separately collected LYW ] [Refer to Appendix H of the full report]</td>
<td>$4,900,000</td>
</tr>
<tr>
<td>Total estimated unnecessary payments 2010 – 2029</td>
<td>$12,600,000</td>
</tr>
</tbody>
</table>
Orgaworld’s proposal indicated that leaf and yard waste was required as part of the processing of organics. The Orgaworld proposal indicated that “Orgaworld requires this material at an acceptable price”. A negotiated transfer of leaf and yard waste to serve as a bulking agent, even at no charge, would have potentially reduced the overall cost to the City by reducing the volume of organics to be processed at City expense. There was no documentation on file to demonstrate that City staff considered the offer.

Environmental Services did not clearly define, nor quantify in the Request for Proposal or contract the extent of leaf and yard waste required as a bulking agent in the organics treatment process, which is currently referred to as 30%.

The put-or-pay threshold of the eventual contract was raised from 70,000 tonnes to 80,000 tonnes through an amendment issued during the Request for Proposal stage of the procurement process. The financial impact to the City of the decision to increase the minimum put-or-pay threshold from 70,000 tonnes to 80,000 tonnes is approximately $3,000,000 (refer to Appendix C of the full report) from the inception of the project to the end of 2013. While there may be some reduction in tipping fees at the increased threshold, there is no documentation on file to rationalize the decision to increase the threshold.

During the Spring and Fall peak collection periods, whenever the City was delivering quantities in excess of 320 tonnes a day, but less than the 400 tonnes per day of the contract (up to +/- 35% or 540 tonnes per day), Orgaworld would raise concerns that the leaf and yard waste was not part of the SSO as per the contract and request the City to redirect additional material; this may be indicative of a capacity issue facing Orgaworld.

Our preliminary unaudited assessment of the Orgaworld facility indicates an organics processing capacity range from 46,000 to 94,000 tonnes per year. This is less than the 135,000 tonnes Orgaworld is contractually bound to accept. Staff should initiate steps to determine actual capacity and take follow-up actions as appropriate based on the results of the analysis.

The absence of complete and thorough corporate records to support the decision making process related to SSO processing has had a significant impact on the legal costs associated with the current arbitration process in relation to the SSO contract with Orgaworld. As of June 2014, approximately $1,700,000 of external legal costs were incurred. These costs included the equivalent of over three months of hearings for the commercial arbitration process. Had there been complete corporate records,
and had the hearings lasted only the anticipated two weeks, costs could have potentially been reduced to approximately $250,000, saving the City $1,450,000.

There have been changes in the market place for the processing of SSO. For example, the City of Gatineau has obtained a significantly better cost per tonne than the City of Ottawa for a contract issued shortly after the effective date of the Orgaworld agreement. Substantial potential savings of approximately $30,700,000 in the period from 2016 to 2029 are illustrated in the Table D. These savings would be reduced by any cost to cancel the existing contract as determined by Legal Services.

Table D: Total Estimated Potential Savings under Alternative Contract to Process Organic Material Provided under Current Orgaworld Contract

<table>
<thead>
<tr>
<th>Cost to Process Organic Waste for the period of 2016-2029</th>
<th>Gatineau Provider Equivalent</th>
<th>Orgaworld</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Processing Cost</td>
<td>$109,800,000</td>
<td>$140,500,000</td>
</tr>
<tr>
<td>Estimated Potential Savings</td>
<td></td>
<td>$30,700,000*</td>
</tr>
</tbody>
</table>

*These potential savings would be reduced by any costs to cancel the existing contract

In light of the changes in the market place for processing the SSO and the premiums paid for processing separately collected leaf and yard waste, it may be in the City’s best interest to examine the impact and cost of exercising the early termination clause of the contract and assess other options including construction of a City-owned and operated facility.

Recommendations and Management Responses

Recommendation 1
That the City update its most recent projections on the volumes of organic material to be processed for the balance of the contract, and present the findings to Council, on a regular and periodic basis, including any future put-or-pay payments and marginal cost implications for separate leaf and yard waste processing and collection.
The results of the Multi-residential Waste Diversion Stakeholder Consultation Group initiated in June 2011 should be included in this update.

**Management Response**
Management agrees with this recommendation.

Management provided updated projections to Environment Committee and Council in April 2011 as part of the Solid Waste Collection Service Level Review Report (ACS2011-ICS-ESD-0002). Management has subsequently updated the forecast of organics diversion for 2015 and beyond. A memorandum with regard to the most recent projections will be circulated to Members of Council in Q3 2014 and will be provided thereafter on an annual basis.

Feedback from the Multi-residential Waste Diversion Stakeholder Consultation Group was incorporated, to the extent possible, into the service delivery changes launched in 2012 and the Solid Waste Collection Design Guidelines for Multi-unit Residential Development, which were approved by Council on October 31, 2012. The working group has subsequently disbanded as a formal working group.

**Recommendation 2**
That the City conduct the necessary analysis to determine the estimated “put-or-pay” penalty for the life of the contract as well as the marginal cost implications for separate leaf and yard waste collection.

**Management Response**
Management agrees with this recommendation.

Management has conducted a preliminary analysis and acknowledges that this analysis, conducted earlier this year, is representative of the type of analysis that should have been presented to Council and informed the decision to award the contract in 2007.

The City Manager will highlight the results of the preliminary analysis, which includes consideration of processing and collection costs, alternative facility capacity options, inclusion of leaf and yard waste, and all payments made under the City’s minimum tonnage guarantee, at the tabling of the Audit. An update of that analysis will be presented to Council in conjunction with the results of the work to be conducted by staff in response to Recommendation #3.
Recommendation 3
That the City conduct the necessary analysis to determine the cost implications and benefits of pursuing the early termination clause of the SSO contract and provide that analysis to Council.

As part of the consideration of the cost implications of terminating the existing agreement with Orgaworld, the City should conduct a comprehensive cost assessment to determine the feasibility to design, build and operate a City-owned facility to process the SSO waste, based on current market conditions and inclusive of all collection costs.

Management Response
Management agrees with this recommendation.

During the course of negotiations for the Orgaworld contract, the issue of termination at the discretion of the City became significantly contentious due, at least in part, to events surrounding the cancellation of the light rail contract and the resultant litigation. A summary of the negotiations, as well as an explanation of the Termination for Convenience Clause, was the subject of a confidential update by the City Clerk and Solicitor to City Council on March 11, 2008.

The Termination for Convenience clause in the contract provides a formula for calculating termination payments. As these payments decline over the life of the contract, the City Clerk and Solicitor Department analysis of the termination costs and other legal implications would necessarily depend on the timing of the termination.

Apart from the financial consequences of terminating the contract, consideration must also be had to the non-monetary implications of doing so.

Under the contract, the City retains significant control over the source and composition of the organics processed at the Orgaworld facility. Pursuant to those provisions, Orgaworld is precluded from accepting waste from other jurisdictions, or waste that is not of the same composition as that which is supplied through the City’s Green Bin program, without the consent of the City. Absent these contractual limitations, and recognizing that the Environmental Review Tribunal in 2010 agreed to expand Orgaworld’s Certificate of Approval to allow the facility to accept plastics, sanitary products and pet waste, Orgaworld would be free to accept an SSO stream from other sources (e.g. City of Toronto, commercial sectors, etc.) that would contain organics other than kitchen and leaf and yard waste, such as diapers and pet feces.

Further, there is currently no local supplier with sufficient capacity to process the City’s SSO waste stream.
The cancellation of the current contract would require staff to undertake a review of the City’s Integrated Waste Management Master Plan and analysis of the City’s overall waste management program, including a comprehensive technology review, and thereby reconfirm City Council’s direction in respect of the various elements of the City’s program and waste management policies. Such an analysis, which would necessarily include the impact of such things as the future implementation of the Plasco waste-to-energy technology, would also examine the current estimated lifespan of the Trail Road Waste Disposal Facility, as well as other local landfill capacity and availability. The results of this analysis will be provided to Members of Council in 2015.

**Recommendation 4**
That the City ensure that staff on projects with key roles in program analysis and development have appropriate qualifications and are adequately trained and supervised.

**Management Response**
Management agrees with this recommendation.

Management is committed to ensuring that the right people are in the right positions for all work including priority projects. The implementation of the City’s SSO program was a complex project that required coordination among a number of staff in various departments and disciplines. Management agrees that additional oversight could have helped to avoid the issues identified earlier, namely the failure on the part of staff to reconfirm with Council the critical elements of the design of the City’s SSO program.

**Recommendation 5**

a) That the City ensure that in future projects of importance, such as SSO, that a project charter be fully documented, approved (by Executive Management Committee), implemented and periodically updated in order to identify the scope, objective and milestones of the project. It should delineate roles and responsibilities of the staff and managers involved for oversight and control from the operational department, Legal Services and Supply Management.

b) That the City should establish for Executive Management Committee specific project criteria (i.e., dollar value, duration of contract, potential impact on the public) for when this recommendation would apply.
Management Response
Management agrees with this recommendation.

A corporate project management policy has been developed and adopted to ensure that appropriate project management methodologies are used in a consistent manner for future projects. Criteria have been established to determine when a comprehensive project charter needs to be developed and provided to executive management for approval. Project charters include the identification of key roles, required competencies and management oversight that will be applied to the project.

Recommendation 6
That the City ensure the retention of sufficient and adequate documentation to support the decision making process; and ensures that documentation is retained for a full seven years after project completion.

Management Response
Management agrees with this recommendation.

The Corporation has a Records Retention and Disposition By-law that determines the required retention periods for official business records. In addition, the City has a Records Management Policy, which defines what an Official Business Record is, staff responsibilities regarding records management and a records classification scheme that directs staff on how records should be classified and their corresponding retention periods.

It appears that the policy was not properly applied with respect to some key areas of this project. As a result, management has taken the following action to prevent a reoccurrence: at its meeting of June 3, 2013, Executive Committee approved a new “E-Records Strategy” presented by the City Clerk and Solicitor, wherein it was proposed that BIMS, the City’s electronic records management system, would be made mandatory for senior managers and their respective office so that all of the formal decisions of the Corporation will be available and accessible in an electronic format. Following a one-year review of this pilot approach, the mandatory requirement for BIMS will be further extended into the Corporation to all levels of management and, thereafter, all City staff.

Notwithstanding the above, the Audit’s suggestion that the lack of documentation led to a direct increase in the City’s legal costs fails to account for the fact that the determination of any additional legal costs that may have been avoided had better documentation been available defies easy quantification. While the ability to cogently and persuasively present a particular version of events may reduce the requirement for evidence given by witnesses, legal proceedings may become
protracted by a range of factors, including the need for expert evidence, the range and complexity of legal issues, as well as the need to resolve procedural issues that arise during the course of the proceeding. As a result, while it is possible that the total length of the Orgaworld hearing could have been reduced had better documentation been available, this is extremely difficult to verify at this point in time. As noted in the Audit, the lack of documentation made difficult the process of determining the rationale underlying the decision staff made in the design of the SSO program and the award of the contract to Orgaworld. However, that complication may not necessarily translate directly into an increase in the length of the hearing and/or its costs, as suggested.

**Recommendation 7**
That the City ensure that all future reports to Council are clear, concise and define options and risks associated with the initiative.

**Management Response**
Management agrees with this recommendation.

The City has existing procedures for the completion of reports to Committee and Council and these are aligned with the “Corporate Standard Report Template”, which includes mandatory fields that require input from the report writer. One of these fields entitled “Risk Management Implications” prompts the writer to provide general risk information, details, rationale and associated impacts related to the report. It also provides contact information for the Corporate Risk Management Co-ordinator should questions arise. In addition, the City Clerk and Solicitor’s office offers support with regard to the drafting requirements for any reports and are in the process of implementing training sessions on report writing for employees who require it.

Adherence to these procedures did not occur in this instance. Going forward, executive management will review all reports associated with projects or initiatives that are subject to compliance with project management policy before they are submitted for Committee or Council consideration.

**Recommendation 8**
That the City ensure that all future reports to Council for major contractual requirements are submitted for approval prior to the Request for Proposal (RFP) process, so that the terms, conditions and options of the RFP are clear to Council prior to tendering.
Management Response
Management agrees with this recommendation.

Staff should have reconfirmed the scope/nature of the program for which they were procuring a processing facility, prior to the RFP. Such an approach has been adopted for large-scale projects such as the LRT, where Council was asked to approve design elements that would constrain options in the future (e.g. electric v. diesel) and pre-determine certain other program elements. While program elements contained in the Integrated Waste Management Master Plan influenced the later choices to be made in terms of defining the SSO program (i.e. the inclusion of leaf and yard waste within the Green Bin as opposed to a kitchen-only program), these should have been reconfirmed with Council prior to the issuance of the RFP.

Contracts are awarded in accordance with Council-approved delegated authority and the City’s Procurement By-law. The existing procurement by-law contains an article with regard to prescribed Council approval. In those instances where Council approval has not been expressly delegated, the procurement strategy, evaluation criteria and basis of selection will be subject to Council consideration and approval prior to the release of the bid solicitation document.

In those instances where the project management policy applies, the fundamental business terms of a potential contract will be presented to Council prior to commencing the procurement process. This requirement will be specified in the project charter. Additionally, senior management and the Chief Procurement Officer have been reminded of the importance of ensuring that prior to proceeding with the procurement of major contracts, that consideration is given to bringing the procurement strategy to Council for consideration and approval where warranted.

Recommendation 9
That the City ensure that the individuals listed as the point of contact on all reports to Council or Committee are able to provide all necessary documentation and information.

Management Response
Management agrees with this recommendation.

As outlined in the Management Response to Recommendation #7, the City has formal procedures regarding the generation of Committee and Council reports. Every submission to Committee and Council identifies an appropriate point of contact. These contacts are able to provide all of the necessary information in relation to the matter being discussed. This requirement will be highlighted in the
roles included in the project charter for major projects and initiatives going forward.

**Recommendation 10**
That the City exercise its contractual right to audit the capacity of Orgaworld as per clause 7.18: Accounts and Audit, and takes appropriate action based on the results.

**Management Response**
Management agrees with this recommendation.

Earlier this year, the City delivered a Notice of Dispute to Orgaworld questioning the extent of the built capacity of the Ottawa facility and seeking appropriate compensation for any unnecessary put-or-pay payments made to Orgaworld pursuant to the minimum tonnage guarantee.

**Potential Savings**
We estimate that under the current Separated Source Organics contract, the City has made approximately $7,700,000 in unnecessary payments to date. Further, the City could make additional unnecessary payments of approximately $4,900,000 between 2014 and 2023, for a total of up to $12,600,000 in unnecessary payments over the term of the contract.

Alternately, the City of Gatineau has entered into a contract with a provider with a significantly lower rate and is not tied to minimum contractual quantities (put-or-pay threshold). If the City was to cancel and re-tender the current requirements, this could provide a further potential saving of $30,700,000 over the life of the contract. These savings would be reduced by any costs to cancel the existing contract with Orgaworld.

**Conclusion**
In 2008, the City completed the negotiation of the Source Separated Organics contract. Project reporting circumvented the normal chain of command and the associated control that normally would be in place. The governance and oversight of the project remains unclear as the management review, assessment and formal approval function required on key elements in the development of the necessary business case for the project does not appear in the corporate records nor does the rationale for decision making on key elements of this project.

The planning process to establish the total volume of organic material available for processing, both food and leaf and yard waste, did not adequately consider the fact...
that approximately 20,000 tonnes of leaf and yard waste was available for separate collection. This separate collection could have been directed to Trail Road for processing at $15.65 per tonne versus $103.77 per tonne at Orgaworld at 2014 rates.

Based on the studies conducted in the years preceding the issuance of the Request for Proposal and the premium that the City pays for processing the approximately 20,000 tonnes of separately collected peak leaf and yard waste at Orgaworld rather than internally, it is unclear how the Source Separated Organics contract with Orgaworld is the most cost effective solution for the City to process all collected organics.

Management failed to provide appropriate information to Council, in order that Council could make an informed decision on such an important contract.

In light of the changes in the market place for processing the SSO and the premiums paid for processing separately collected leaf and yard waste, it may be in the City’s best interest to examine the impact and cost of exercising the early termination clause of the contract and assess other options including construction of a City-owned and operated facility.

**Acknowledgement**

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.
RÉSUMÉ

Introduction

La vérification des pratiques d’approvisionnemment faisait partie du plan de vérification de 2011 du vérificateur général approuvé par le Conseil, le 13 avril 2011. Le contrat relatif aux déchets organiques séparés à la source (DOSS) devait être inclus dans la vérification des pratiques d’approvisionnement. Toutefois, lors de notre vérification, il est apparu évident que le contrat DOSS soulevait beaucoup de problèmes et que, cela étant, il nécessitait un rapport distinct. Par conséquent, il a été retiré de la vérification des pratiques d’approvisionnement pour être présenté séparément.

Au départ, ce rapport devait être déposé en novembre 2012 en tant que volet du rapport annuel de 2011 du vérificateur général. Le rapport a été remis à la direction le 30 août 2012 pour lui permettre de répondre aux recommandations de la vérification. Nous avons été avisés subséquemment, soit le 22 septembre 2012, que la direction n’était pas en mesure de fournir des réponses à ce moment-là. Toutefois, la direction a informé le Bureau du vérificateur général que lorsque le processus d’arbitrage afférent en cours serait achevé, la direction répondrait. Par conséquent, le rapport de la vérification des pratiques d’approvisionnement reliées au contrat relatif aux déchets organiques séparés à la source n’a pas été inclus dans le rapport annuel de 2011 et nous le déposons maintenant.

La direction a fourni ultérieurement au Bureau du vérificateur général des renseignements complémentaires en décembre 2013, et ce, jusqu’en avril 2014 pour appuyer sa position à l’égard de ce projet.

Nous avons analysé l’information pour nous assurer et pour assurer la direction que tous les renseignements pertinents ont été pris en compte et vérifiés et, lorsqu’il y a lieu, nous avons inclus les nouvelles informations dans une version révisée de notre rapport de vérification provisoire.

Contexte

Le 15 juillet 2005, le Conseil municipal de la Ville d’Ottawa a approuvé « la mise en œuvre d’un programme de collecte de déchets organiques dans le cadre des prochains contrats de collecte de déchets solides en prévoyant que la collecte des déchets organiques allait commencer en 2008 et que le personnel soumettrait un rapport décrivant les détails du programme à l’automne de 2005 ». La décision d’aller de l’avant et de mettre en œuvre un programme de collecte de déchets organiques séparés à la source (DOSS) a été prise après plusieurs années.

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d’expérimentation dans le cadre de projets pilotes, soit de 2001 à 2005, et après l’adoption d’un Plan directeur de la gestion intégrée des déchets et d’une évaluation de des répercussions, des coûts et des avantages potentiels. La décision était également motivée en raison de la nécessité de trouver des moyens pour réacheminer les déchets et prendre en compte la durée de vie limitée de l’espace disponible dans les sites d’enfouissement de la Ville ainsi que les difficultés inhérentes à la recherche et à l’établissement de nouvelles décharges.

La mise en œuvre et l’expansion future d’un programme de collecte des DOSS reposaient sur l’établissement d’une ou de plusieurs installations de traitement de déchets organiques conçues, localisées et exploitées de façon satisfaisante. La Ville croyait qu’elle ne pouvait atteindre d’ici 2008, qu’un taux de réacheminement supérieur à environ la moitié de l’objectif de 60 % du ministère de l’Environnement. Par conséquent, il était évident que, sans modification importante à son programme de déchets solides, la Ville ne serait pas en mesure d’atteindre son propre objectif ni la cible provinciale. Consciente du fait que les déchets organiques représentaient encore une partie importante des déchets envoyés dans les sites d’enfouissement, la mise en œuvre d’un programme de collecte de déchets organiques séparés à la source constituait l’un des seuls moyens viables qui permettraient à la Ville de réacheminer une plus grande quantité de déchets. Le rapport du 15 juillet 2005 au Conseil recommandait d’entreprendre immédiatement les démarches pour « solliciter des expressions d’intérêt du secteur privé à l’égard du traitement des déchets organiques dans le but d’évaluer le degré d’intérêt pour ces technologies, et soumettre un rapport et formuler des recommandations au Comité ».

Ainsi, les Services environnementaux de la Ville d’Ottawa, dans le cadre d’une approche échelonnée, ont sollicité en 2005 des soumissions afin d’obtenir des services-conseils en gestion de projet pour la planification, la conception et la mise en œuvre d’une initiative privée ou d’un partenariat public-privé en vue du traitement de déchets organiques séparés à la source provenant de résidences privées. Le 9 mars 2007, les Services environnementaux ont sollicité des propositions pour conclure une entente de traitement des DOSS recueillis par la Ville et de mise en marché des produits résultants.

La demande de propositions (DDP) a été lancée le 9 mars 2007, l’entrepreneur éventuel a été choisi et avisé de sa sélection. La présentation pour l’approbation définitive a été faite devant le Conseil le 10 octobre 2007.

La valeur du contrat éventuel conclu avec Orgaworld Canada Ltd est estimée à 143 000 000 $ pour la durée du contrat de 20 ans. L’entente a été signée le 27 mars 2008.
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À cause des changements apportés au Service des travaux publics, aux fins de désigner le groupe répondant aux demandes d’information ou fournissant de l’information sur le contrat DOSS, dans notre rapport de vérification, nous faisons référence de façon générique aux Services environnementaux.

Ci-après, une présentation des étapes importantes du projet (voir l’annexe B du rapport intégral pour un calendrier plus détaillé).

Figure 1 : Calendrier du projet DOSS

Portée de la vérification

Cette vérification porte sur le contrat relatif aux déchets organiques séparés à la source, y compris la détermination des paramètres (c’est-à-dire la capacité de traitement estimée de l’installation et le taux de participation à la collecte en bordure de rue), et sur l’approbation à l’interne.

Sommaire des principales constatations En 2008, la Ville a achevé la négociation du contrat relatif aux déchets organiques séparés à la source. Le contrat de 20 ans portait sur une usine de traitement de déchets organiques dont la capacité est de 100 000 tonnes par année, y compris les déchets alimentaires et les feuilles et résidus de jardinage.

Le dossier était complexe et exigeait l’analyse de nombreux aspects du projet, y compris l’évaluation détaillée des volumes qui seraient générés, l’établissement de niveaux garantis de déchets organiques aux fins de paiement et la capacité de traitement de l’installation.

La supervision du projet demeure imprécise, car la documentation entourant le processus d’examen, d’évaluation et d’approbation par la direction requise pour des
éléments importants du projet n'a pas été retrouvée dans les dossiers de la Ville et ne nous a pas été remise par le personnel du Service.

Les Services environnementaux faisaient de facto rapport au directeur municipal adjoint des Services et travaux publics, ce qui contournait la voie hiérarchique habituelle et les contrôles associés. Cette façon de faire rapport est inhabituelle au sein de l’administration municipale. Même si la charte provisoire du projet décrivait le processus de gestion et de surveillance voulu, elle n’a jamais été officiellement approuvée. La charte ne contenait pas de lignes directrices relatives aux pièces justificatives, aux approbations et aux rapports périodiques. De plus, elle ne précisait pas les rôles et les responsabilités du personnel et des gestionnaires affectés à la surveillance et au contrôle provenant du service chargé des opérations, des Services juridiques et de la Direction de l’approvisionnement.

Selon nous, les données des projets pilotes n’ont pas été interprétées correctement eu égard aux répercussions qu’auraient les mesures obligatoires, comme la collecte de déchets toutes les deux semaines et la limitation du nombre de sacs pour accroître les taux de participation et de réacheminement. À notre avis, l’analyse qui a générée les paramètres du contrat éventuel comportait des erreurs fondamentales.

Notre analyse des données des projets pilotes indique que le volume de déchets organiques disponibles excluant les feuilles et les résidus de jardinage (comme indiqué au tableau A ci-après) était approximativement de 21 000 à 57 000 tonnes par année en 2005-2006 et non pas de 100 000 tonnes par année. Les opinions divergentes d’autres membres du personnel des Services environnementaux quant à la validité de ces paramètres ont été rejetées par les responsables principaux affectés au projet. En décembre 2013, le volume réel de déchets alimentaires était de 41 160 tonnes par année (conformément au rapport de juin 2013 de la firme HDR Corporation), un an après l’entrée en vigueur de la collecte des déchets aux deux semaines.

Tableau A : Analyse des prévisions de déchets organiques

<table>
<thead>
<tr>
<th>Prévisions du BVG des déchets organiques sur la base d'études diverses [voir l'annexe E du rapport intégral]</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Étude</td>
<td></td>
</tr>
<tr>
<td>Déchets résidentiels recueillis en bordure de route</td>
<td>Déchets alimentaires disponibles : 57 470 tonnes par année (Taux de réacheminement 100 %)</td>
</tr>
<tr>
<td>Étude de caractérisation (automne 2004)</td>
<td></td>
</tr>
<tr>
<td>Étude de la composition des déchets</td>
<td>Déchets alimentaires disponibles :</td>
</tr>
</tbody>
</table>
Prévisions du BVG des déchets organiques sur la base d'études diverses [voir l'annexe E du rapport intégral]

<table>
<thead>
<tr>
<th>Étude</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>organiques (2004-2005)</td>
<td>42 900 tonnes par année</td>
</tr>
<tr>
<td>Compost+ (2005)</td>
<td>Déchets alimentaires disponibles : 20 862 tonnes par année</td>
</tr>
<tr>
<td>Déchets résidentiels Étude de caractérisation (2005)</td>
<td>Déchets alimentaires disponibles : 46 350 tonnes par année</td>
</tr>
</tbody>
</table>

En 2009, la Ville a recueilli et traité à la décharge du chemin Trail 38 038 tonnes de feuilles et de résidus de jardinage durant la période de pointe saisonnière. La Ville continue de recueillir séparément les feuilles et les résidus de jardinage. La Ville estime qu’environ 60 % du volume disponible en période de pointe (il s’agit des deux périodes de cinq semaines au printemps et à l’automne lorsque les volumes de feuilles et de résidus de jardinage sont plus élevés que de coutume où la collecte séparée se déroule) est recueilli séparément. Les volumes de pointe de feuilles et de résidus de jardinage, soit environ 20 000 tonnes par année, sont recueillis dans des véhicules distincts, car les volumes sont tout simplement trop élevés pour être recueillis en même temps que d’autres déchets. Étant donné qu’il n’y a pas d’économies reliées à leur collecte, il aurait été avantageux d’acheminer séparément les feuilles et les résidus de jardinage recueillis au chemin Trail aux fins de traitement à un coût bien moindre, soit un coût net de 15,65 $ la tonne contre 103,77 $ la tonne à l’usine d’Orgaworld (taux de 2014).

Les dispositions actuelles concernant les feuilles et les résidus de jardinage sont basées en partie sur les 400 tonnes de déchets organiques à livrer par jour en vertu du contrat et parce qu’on veut respecter le seuil minimal convenu pour éviter d’avoir à payer (seuil « livrer ou payer »).

Les économies potentielles reliées au traitement séparé des feuilles et des résidus de jardinage recueillis par la Ville ne semblent pas avoir été prises en compte dans l’étude de rentabilité qui a déterminé une capacité de traitement de 100 000 tonnes par année et un seuil minimal de 80 000 tonnes à livrer sous peine de payer dans le contrat actuel avec Orgaworld.

L’incidence d’inclure les 38 038 tonnes de feuilles et de résidus de jardinage qui étaient acheminées au chemin Trail pour un traitement à coût bien moindre, soit un coût net de 15,65 $ la tonne contre 103,77 $ la tonne à l’usine d’Orgaworld (taux de 2014), est d’environ 3 350 000 $ par année, soit 67 000 000 $ pour la durée du
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contrat de vingt ans. Ce supplément n’a jamais été porté à l’attention du Conseil durant l’examen et le processus d’approbation.

L’absence d’hypothèses dûment documentées et approuvées, l’absence d’analyses documentées (achevées, datées et approuvées par la direction) et l’absence d’un processus d’examen et d’approbation par la direction documenté pour confirmer l’acceptation des paramètres utilisés pour déterminer la capacité de traitement des matières organiques de 100 000 tonnes par année, incluant les déchets alimentaires et les feuilles et résidus de jardinage, démontrent un manque de diligence raisonnable.

Cela indique également un manque de participation et de diligence raisonnable de la part de la haute direction lors de la négociation d’un contrat d’une valeur minimum estimée à 143 000 000 $ sur 20 ans.

Le personnel des Services environnementaux participant à la négociation du contrat n’a pas donné suite à l’avis des conseillers juridiques externes de la Ville d’inclure une période d’augmentation dans le contrat. La raison n’est pas expliquée dans les dossiers de la Ville. Il aurait fallu prévoir une période d’augmentation dans la DDP.

Par ailleurs, le personnel des Services environnementaux participant à la négociation du contrat n’a pas non plus accepté la recommandation de la Direction de l’approvisionnement de négocier une usine de traitement de taille plus restreinte une fois les soumissions examinées et évaluées. La raison n’est pas expliquée dans les dossiers de l’organisation.

Les informations transmises au Conseil municipal étaient ambiguës. Il n’était pas clair que les feuilles et les résidus de jardinage devaient être inclus dans la capacité de 100 000 tonnes du contrat et les informations donnaient l’impression qu’il serait facile d’atteindre le seuil de 100 000 tonnes par année. Les communications discutaient peu des options et des risques et elles ont été fournies uniquement une fois le processus de demande de propositions achevé. Les personnes identifiées comme personnes-ressources n’ont pas été en mesure de nous fournir les pièces justificatives demandées durant la vérification.

D’octobre 2007 à la mise à jour de la planification budgétaire de 2010, cinq rapports de suivi distincts ont été remis au Comité ou au Conseil municipal, ou au deux, en lien avec les travaux d’aménagement à faire au site d’entreposage Barnsdale pour qu’il puisse recevoir les feuilles et les résidus de jardinage. Il se peut que ces communications autour du moment de l’attribution du contrat à Orgaworld aient
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renforcé la perception comme quoi les feuilles et les résidus de jardinage ne seraient pas envoyés à l’usine de traitement des DOSS.

Les experts-conseils qui ont contribué à l’élaboration des paramètres utilisés pour la demande de propositions et le contrat de DOSS n’ont émis de doutes sur les quantités totales estimées de matières organiques disponibles qu’une fois le processus de demande de propositions terminé et le contrat octroyé.

La Ville a déboursé environ 4 700 000 $ pour la capacité de traitement non utilisée de janvier 2010 au 13 décembre 2013 pour ne pas avoir atteint le seuil « livrer ou payer ». La Ville a versé un supplément de 3 000 000 $ pour les feuilles et résidus de jardinage recueillis séparément de janvier 2010 à décembre 2013, soit la différence de coût pour le traitement séparé fait à l’usine d’Orgaworld des feuilles et des résidus de jardinage recueillis, ce qui donne un paiement total excédentaire prévu à ce jour d’environ 7 700 000 $ (voir le tableau B).

Tableau B : Estimation du total des paiements inutiles en vertu des contraintes des contrats actuels, 2010-2013:

<table>
<thead>
<tr>
<th>Description</th>
<th>Montant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paiement réel pour le niveau minimum garanti de capacité de traitement des déchets organiques non utilisée (clause « livrer ou payer »). [voir l’annexe F du rapport intégral]</td>
<td>4 700 000 $</td>
</tr>
<tr>
<td>Estimation de la prime payée parce qu’une certaine quantité de feuilles et de résidus de jardinage recueillis séparément et livrés à l’installation du chemin Trail est prise en compte dans le calcul du seuil minimum « livrer ou payer », c’est-à-dire pour atteindre le seuil minimum « livrer ou payer ». [2010-2013] [voir l’annexe G du rapport intégral]</td>
<td>3 000 000 $</td>
</tr>
<tr>
<td>Estimation totale des paiements inutiles 2010-2013</td>
<td>7 700 000 $</td>
</tr>
</tbody>
</table>

La demande de propositions indique que la Ville produira 100 000 tonnes de matières organiques, comprenant à la fois les déchets alimentaires et les feuilles et résidus de jardinage, une fois le « système rodé ». Notre évaluation des chiffres avancés par la Ville indique que celle-ci ne produira pas 100 000 tonnes de déchets organiques, comprenant la totalité des feuilles et des résidus de jardinage, dans le meilleur des cas, avant la dix-neuvième année du contrat de vingt ans.

Les Services environnementaux ne pouvaient pas connaître les véritables coûts du contrat proposé. En effet, un volet essentiel de l’analyse nécessaire pour appuyer la décision éventuelle d’aller de l’avant avec le contrat relatif aux déchets organiques séparés à la source (DOSS), à savoir l’établissement des coûts différentiels de la
collecte, n’a pas eu lieu avant mars 2014, soit deux ans après la recommandation à cet effet de la vérification initiale et quatre ans après l’attribution du contrat.

Si le seuil « livrer ou payer » du contrat conclu par la Ville avait été raisonnable et n’avait pas forcé la Ville à livrer à l’usine d’Orgaworld aux fins de traitement les feuilles et les résidus de jardinage recueillis séparément en période de pointe, nous croyons que des économies additionnelles potentielles de 4 900 000 $ (basé sur une collecte séparée de 60 % des feuilles et des résidus de jardinage) pour le reste de la durée du contrat auraient pu être réalisées, comme illustré dans le tableau suivant.

**Tableau C : Estimation du total des coûts inutiles en vertu des contraintes des contrats actuels [2010-2029]**

<table>
<thead>
<tr>
<th>Description</th>
<th>Montant ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paiement réel pour le niveau minimum garanti de capacité de traitement des déchets organiques non utilisée (clause « livrer ou payer »). [voir l’annexe F du rapport intégral]</td>
<td>4 700 000</td>
</tr>
<tr>
<td>Estimation de la prime payée parce qu’une certaine quantité de feuilles et de résidus de jardinage recueillis séparément et livrés à l’installation du chemin Trail est prise en compte dans le calcul du seuil minimum « livrer ou payer », c’est-à-dire pour atteindre le seuil minimum « livrer ou payer » [2010-2013] [voir l’annexe G du rapport intégral]</td>
<td>3 000 000</td>
</tr>
<tr>
<td>Sous-total</td>
<td>7 700 000</td>
</tr>
<tr>
<td>Estimation du coût potentiel inutile associé au traitement des feuilles et des résidus de jardinage recueillis séparément en période de pointe pour satisfaire à la clause du seuil minimum « livrer ou payer » du contrat. [2014-2023: Le seuil minimum devrait être atteint en 2023 sans utiliser les feuilles et résidus de jardinage recueillis séparément] [voir l’annexe H du rapport intégral]</td>
<td>4 900 000</td>
</tr>
<tr>
<td>Estimation totale des paiements inutiles 2010-2029</td>
<td>12 600 000</td>
</tr>
</tbody>
</table>

La proposition d’Orgaworld indiquait que le traitement des matières organiques exigeait des feuilles et des résidus de jardinage et qu’il les exigeait à un prix acceptable. La négociation d’un transfert de feuilles et de résidus de jardinage afin de les utiliser comme agent gonflant, même sans frais, aurait éventuellement fait baisser le coût global pour la Ville en réduisant le volume de matières organiques à traiter aux frais de la Ville. Les dossiers ne contiennent pas de
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documentation indiquant que le personnel de la Ville a pris en considération la
proposition d’Orgaworld.

Les Services environnementaux n’ont pas clairement défini ni précisé dans la
demande de propositions ou dans le contrat la quantité de feuilles et de résidus de
jardinage requis comme agent gonflant pour le traitement des déchets organiques;
on parle actuellement de 30 p. cent.

Le seuil « livrer ou payer » du contrat éventuel a été augmenté de 70 000 tonnes à
80 000 tonnes en vertu d’une modification apportée durant la phase de demande de
propositions du processus d’approvisionnement. Les répercussions financières pour
la Ville de la décision d’augmenter le seuil minimum « livrer ou payer » de 70 000
tonnes à 80 000 tonnes sont d’environ 3 000 000 $ (voir l’annexe C du rapport
intégral) à compter du lancement du projet jusqu’à la fin de 2013. S’il est possible
que les frais de déchargement diminuent à cause du seuil plus élevé, il reste qu’il
n’y a rien au dossier pour justifier la décision d’augmenter ce seuil.

Au cours des périodes de collecte de pointe du printemps et de l’automne, lorsque
la Ville livrait à Orgaworld des quantités supérieures à 320 tonnes par jour, mais
inférieures aux 400 tonnes par jour prévues au contrat (jusqu’à + ou — 35 p. cent
ou 540 tonnes par jour), Orgaworld protestait que les feuilles et les résidus de
jardinage ne faisaient pas partie des DOSS en vertu du contrat et demandait à la
Ville de rediriger cette matière additionnelle. Il s’agit peut-être d’un signe comme
quoi Orgaworld était aux prises avec des problèmes de capacité.

Notre évaluation préliminaire non vérifiée de l’usine d’Orgaworld indique que sa
capacité de traitement de matières organiques varie de 46 000 tonnes à 94 000
tonnes par année. Cette capacité est inférieure aux 135 000 tonnes qu’Orgaworld
est tenu par contrat d’accepter. Le personnel de la Ville devrait prendre des
mesures pour déterminer la capacité réelle de l’usine d’Orgaworld et, au besoin,
prendre des mesures de suivi sur la base des résultats de l’analyse.

L’absence de dossiers complets et rigoureux à la Ville en appui au processus
décisionnel eu égard au traitement des DOSS a eu une incidence importante sur
les frais juridiques associés au processus d’arbitrage actuel en ce qui a trait au
contrat de DOSS avec Orgaworld. En date de juin 2014, environ 1 700 000 $ en
frais juridiques ont été engagés. Ces frais comprennent trois mois d’audiences
pour le processus d’arbitrage commercial. Si les dossiers de la Ville avaient été
complets et si les audiences n’avaient duré que les deux semaines prévues, les
frais auraient pu être réduits à environ 250 000 $, ce qui aurait permis à la Ville
d’épargner 1 450 000 $. Des changements sont survenus dans le marché en ce qui
concerne le traitement des DOSS. Par exemple, la Ville de Gatineau a obtenu un

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bien meilleur prix la tonne de DOSS que la Ville d’Ottawa pour un contrat octroyé peu après la date d’entrée en vigueur du contrat avec Orgaworld. Des économies substantielles potentielles d’environ 30 700 000 $ pour la période de 2016 à 2029 sont illustrées dans le tableau D.

Ces économies potentielles seraient réduites par les coûts nécessaires pour annuler le contrat actuel tel qu’établi par les Services juridiques.

**Tableau D** : Estimation du total des économies potentielles en vertu d’un contrat différent de l’actuel contrat avec Orgaworld pour le traitement de matières organiques

<table>
<thead>
<tr>
<th>Coût pour le traitement de déchets organiques pour la période de 2016 à 2029</th>
<th>Gatineau - Fournisseur équivalent</th>
<th>Orgaworld</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coût total de traitement</td>
<td>109 800 000 $</td>
<td>140 500 000 $</td>
</tr>
<tr>
<td>Estimation des économies potentielles</td>
<td>30 700 000 $*</td>
<td></td>
</tr>
</tbody>
</table>

* Ces économies potentielles seraient réduites par les coûts nécessaires pour annuler le contrat actuel tel qu’établi par les Services juridiques.

À la lumière des changements survenus dans le marché du traitement des DOSS et des suppléments payés pour le traitement séparé des feuilles et des résidus de jardinage recueillis, il pourrait s’avérer dans l’intérêt supérieur de la Ville d’examiner l’impact et le coût d’activer la clause de résiliation anticipée du contrat et d’évaluer d’autres options, notamment la construction d’une installation appartenant à la Ville et exploitée par celle-ci.

**Recommandations et réponse de la gestion**

**Recommandation 1**

Que la Ville actualise ses plus récentes prévisions de volumes de matières organiques à traiter pour le reste du contrat et qu’elle présente les résultats au Conseil sur une base régulière et périodique, y compris l’information sur tout futur paiement « livrer ou payer » et sur les répercussions en termes de coûts marginaux du traitement et de la collecte séparés de feuilles et de résidus de jardinage.

Les résultats de la consultation lancée en juin 2011 auprès des intervenants sur le réacheminement des déchets de logements multiples devraient être inclus dans cette mise à jour.
**Management Response**

La direction est d'accord avec cette recommandation.


Les commentaires du Groupe de travail des intervenants sur le réacheminement des déchets domestiques de logements multiples ont été inclus, dans la mesure du possible, dans les changements à la prestation de service lancés en 2012 et les Lignes directrices en matière de conception de la collecte des déchets solides pour l'aménagement d'immeubles à logements multiples, qui ont été approuvées par le Conseil municipal le 31 octobre 2012. Le groupe de travail a été par la suite dissous en tant que groupe de travail officiel.

**Recommandation 2**

*Que la Ville procède à l'analyse nécessaire pour établir les coûts et les avantages d'activer la clause de résiliation avant terme du contrat relatif aux déchets organiques séparés à la source (DOSS) et la présente au Conseil.*

**Réponse de la gestion**

La direction est d'accord avec cette recommandation.

La direction a effectué une analyse préliminaire et reconnaît que cette dernière, réalisée plus tôt cette année, correspond au type d'analyse qui aurait dû être présenté au Conseil en 2007 pour étayer la décision d'octroyer le contrat.

Le directeur municipal soulignera les résultats de cette analyse préliminaire, qui comprend la prise en compte des coûts de traitement et de collecte, d'autres options relatives à la capacité de l'installation, de l'inclusion des feuilles et des résidus de jardinage et de tous les paiements versés en vertu de la clause de tonnage minimum garanti, au moment du dépôt de la vérification. Une mise à
Vérification des pratiques d’approvisionnement -
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Jour de cette analyse sera présentée au Conseil avec les résultats du travail effectué par le personnel en réponse à la Recommandation 3.

**Recommandation 3**
Que la Ville procède à l’analyse nécessaire pour établir les coûts et les avantages d’activer la clause de résiliation avant terme du contrat relatif aux déchets organiques séparés à la source (DOSS) et la présente au Conseil.

Dans le cadre de l’analyse des conséquences financières de la résiliation du contrat actuel avec Orgaworld, la Ville devrait réaliser une évaluation globale des coûts afin de déterminer la faisabilité de concevoir, de bâtir et d’exploiter une installation municipale pour le traitement des DOSS sur la base des conditions actuelles du marché et en tenant compte de tous les coûts afférents à la collecte.

**Réponse de la direction**
La direction est d’accord avec cette recommandation.

Au cours de la négociation du contrat avec Orgaworld, la question de la résiliation du contrat à la discrétion de la Ville est devenue très litigieuse à cause, du moins en partie, des événements entourant l’annulation du contrat du train léger sur rail et du litige qui s’en est suivi. Un résumé des négociations, ainsi qu’une explication de la clause de résiliation pour des raisons de commodité, a fait l’objet d’un rapport confidentiel du greffier municipal et chef du contentieux au Conseil municipal le 11 mars 2008.

La clause de résiliation pour des raisons de commodité du contrat contient une formule de calcul des paiements de résiliation. Comme ces paiements diminuent plus le contrat avance, l’analyse du Service du greffier municipal et chef du contentieux des coûts afférents à la résiliation et d’autres conséquences juridiques dépendrait nécessairement du moment où surviendrait la résiliation.

Outre les conséquences financières de résilier le contrat, il faut aussi prendre en compte les répercussions non monétaires de la résiliation.

En vertu du contrat, la Ville conserve une mainmise importante sur la source et la composition des matières organiques traitées par l’usine d’Orgaworld. Conformément à ces dispositions, Orgaworld n’a pas le droit d’accepter de déchets d’autres municipalités ni de déchets dont la composition est différente de celle des déchets provenant du programme de bacs verts de la Ville, sans obtenir au préalable le consentement de la Ville. À défaut de ces contraintes contractuelles, et sachant que le Tribunal de l’environnement a accepté en 2010 d’étendre le Certificat d’approbation d’Orgaworld pour permettre à l’usine
d'accepter des matières plastiques, des produits sanitaires et des déchets d'origine animale, Orgaworld serait libre d’accepter un flux de DOSS provenant d’autres sources (p. ex. Ville de Toronto, de secteurs commerciaux, etc.) qui contiendraient des matières organiques autres que des déchets alimentaires, des feuilles et des résidus de jardinage, par exemple des couches ou des excréments d'animaux.

En outre, il n’existe pas présentement de fournisseur local ayant la capacité suffisante pour traiter le flux de déchets organiques séparés à la source provenant de la Ville.


**Recommandation 4**
Que la Ville s'assure que les employés affectés à des projets et dont les rôles sont importants dans l’analyse et l’élaboration des programmes ont les compétences voulues et qu’ils sont suffisamment formés et supervisés pour s’acquitter de leurs fonctions.

**Réponse de la direction**
La direction est d'accord avec cette recommandation.

La direction s’engage à faire en sorte que les bonnes personnes occupent les postes qui conviennent pour tous les types de travail y compris des projets prioritaires. La mise en œuvre du programme municipal de collecte des DOSS était un exercice complexe qui nécessitait de la coordination à l’échelle de plusieurs employés dans divers services et champs d’activités. La direction convient qu’une surveillance plus étroite aurait pu éviter les problèmes soulevés précédemment, nommément le manquement de la part du personnel de valider à nouveau auprès du Conseil les éléments critiques de la conception du programme municipal de collecte de DOSS.
Recommandation 5

a) Que la Ville s’assure que les prochains projets d’envergure, comme celui de la collecte des DOSS, ont une charte de projet complètement étayée et approuvée (par le Comité de la haute direction) et que cette charte est mise en œuvre et actualisée périodiquement afin de définir la portée, le but et les étapes du projet. Cette charte devrait préciser les rôles et les responsabilités du personnel et des gestionnaires provenant du service chargé des opérations, des Services juridiques et de la Gestion de l’approvisionnement affectés à la surveillance et au contrôle du projet.

b) Que la Ville établisse à l’intention du Comité de la haute direction des critères propres au projet (c’est-à-dire la valeur en dollars, la durée du contrat, les répercussions potentielles sur le public) pour le moment où cette recommandation s’appliquerait.

Réponse de la direction

La direction est d’accord avec cette recommandation.

Une politique municipale de gestion de projets a été élaborée et adoptée pour s’assurer d’une utilisation uniforme et constante de méthodes de gestion de projets efficaces dans d’éventuels projets. Des critères ont été définis pour déterminer à quel moment il est nécessaire de produire une charte de projet globale et de la faire approuver par les cadres dirigeants. Une charte de projet définit les rôles importants au sein du projet, les compétences requises par le personnel affecté au projet et la surveillance qu’exercera la direction sur le projet.

Recommandation 6

Que la Ville s’assure de conserver les pièces justificatives pertinentes et la documentation suffisante pour expliquer les décisions prises et s’assure que ces documents sont conservés sept ans après l’achèvement du projet.

Réponse de la direction

La direction est d’accord avec cette recommandation.

La Ville a un règlement sur la conservation et le déclassement des documents qui établit les périodes requises de conservation de documents officiels. En outre, la Ville a une politique de gestion des documents qui définit ce qu’est un document officiel et précise les responsabilités du personnel relativement à la gestion des documents; elle a aussi une procédure de classification des documents qui indique au personnel la façon de classer les documents et la période de conservation correspondante.
Il semble que cette politique n’a pas été appliquée comme il se devait en ce qui a trait à certains aspects clés de ce projet. Par conséquent, la direction a pris les mesures suivantes pour éviter qu’une telle situation se produise à nouveau : à sa réunion du 3 juin 2013, le Comité de la haute direction a approuvé une nouvelle « stratégie en matière de documents électroniques » présentée par le greffier municipal et chef du contentieux en vertu de laquelle les cadres dirigeants et leur bureau respectif seront tenus d’utiliser BIMS, le système de gestion des informations d’entreprise de la Ville, de manière à ce que toutes les décisions officielles de la Ville soient saisies et soient accessibles en format électronique. Après le suivi sur un an de cette approche pilote, l’exigence d’utiliser BIMS sera étendue à tous les échelons de la direction municipale et, par la suite, à tout le personnel de la Ville.

Nonobstant ce qui précède, la suggestion émise dans la vérification comme quoi le manque de pièces justificatives est ce qui a entraîné directement une hausse des frais juridiques pour la Ville ne prend pas en compte le fait que les frais juridiques additionnels qu’une meilleure documentation aurait pu permettre d’éviter ne sont pas facilement quantifiables. Quoique la capacité de présenter de façon pertinente et convaincante une version particulière des événements puisse réduire la nécessité d’avoir recours à des éléments de preuve fournis par des témoins, divers facteurs peuvent entraîner le prolongement de procédures judiciaires, notamment le besoin d’expertise, la gamme et la complexité des questions juridiques et la nécessité de régler les questions de procédure qui surgissent en cours d’audiences. Par conséquent, il est possible que la durée totale des audiences entourant Orgaworld ait pu être diminuée si on avait eu accès à une documentation plus complète, mais la chose est très difficile à vérifier à ce moment-ci. Comme mentionné dans la vérification, à cause du manque de pièces justificatives, il a été difficile de déterminer les raisons des décisions du personnel entourant la conception du programme de collecte de DOSS et l’attribution du contrat à Orgaworld. Toutefois, cette complication ne se traduit pas nécessairement et directement par une prolongation des audiences ou une augmentation des coûts, ou les deux, comme suggérés.

**Recommandation 7**

Que la Ville s’assure que tous les futurs rapports soumis au Conseil sont clairs et concis et qu’ils présentent les options et les risques liés à l’initiative.

**Réponse de la direction**

La direction est d’accord avec cette recommandation.
La Ville a des procédures de production de rapports au Comité et au Conseil. Elles sont harmonisées au modèle de rapport uniformisé de la Ville qui comprend des champs obligatoires à remplir. Dans un champ intitulé « Répercussions liées à la gestion de risque », on demande au rédacteur du rapport de fournir de l'information générale sur les risques, des détails, l'argumentaire et les conséquences correspondantes. On fournit aussi les coordonnées du coordonnateur de la gestion du risque pour la Ville si des questions survenaient. En outre, le Bureau du greffier municipal et chef du contentieux fournit un soutien en ce qui concerne les exigences de rédaction de tous les rapports et il s'apprête à donner des formations sur la rédaction de rapport aux employés qui en ont besoin.

Ces procédures n'ont pas été respectées dans le cas qui nous occupe. À l'avenir, les cadres dirigeants réviseront tous les rapports reliés à des projets ou des initiatives assujettis à la politique de gestion de projets de la Ville avant de les soumettre au Comité ou au Conseil aux fins d'examen.

**Recommandation 8**

Que la Ville s'assure que tous les futurs rapports déposés au Conseil traitant d'exigences contractuelles importantes lui sont soumis aux fins d'approbation avant le processus de demande de propositions (DDP) afin que les conditions, les modalités et les options de la DDP soient claires pour le Conseil avant de procéder à l'appel d'offres.

**Réponse de la direction**

La direction est d'accord avec cette recommandation.

Le personnel aurait dû confirmer à nouveau, avant la DDP, la portée et la nature du programme pour lequel il faisait l'acquisition d'une usine de traitement. Ce type d'approche a été utilisé dans le passé pour des projets d'envergure comme le TLR. On a demandé au Conseil d'approuver des éléments de conception qui auraient pour effet de limiter les options à l'avenir (p. ex. électrique par rapport au diesel) et de déterminer à l'avance certains autres éléments du programme. Les éléments de programme contenus dans le Plan directeur de la gestion intégrée des déchets ont influencé les décisions ultérieures relatives au programme de collecte des DOSS (c'est-à-dire le fait d'inclure les feuilles et résidus de jardinage dans le programme des bacs verts plutôt que d'avoir un programme de collecte réservé uniquement aux déchets alimentaires), mais ces éléments auraient dû être validés à nouveau par le Conseil avant l'émission de la DDP.
Vérification des pratiques d'approvisionnement -
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Les contrats sont attribués conformément aux pouvoirs délégués approuvés par le Conseil et en vertu du Règlement municipal sur les achats. Le règlement actuel sur les achats contient un article lié à l'approbation prescrite du Conseil. Dans les cas où l'approbation du Conseil n'a pas été expressément déléguée, la stratégie d'approvisionnement, les critères d'évaluation et les bases de la sélection seront assujettis à l'examen du Conseil et à son approbation avant la publication de la demande de propositions.

Dans les cas où la politique de gestion de projets s'applique, les conditions commerciales fondamentales du contrat potentiel seront présentées au Conseil avant de lancer le processus d'approvisionnement. Cette exigence sera précisée dans la charte du projet. En outre, on a rappelé à la haute direction et au chef de l'approvisionnement l'importance de s'assurer qu'avant de procéder à l'acquisition afférente à des contrats importants qu'ils devaient tenir compte de la nécessité, lorsqu'il y a lieu, de soumettre la stratégie d'approvisionnement au Conseil aux fins d'examen et d'approbation.

**Recommandation 9**
Que la Ville s'assure que les personnes nommées à titre de répondants dans tous les rapports au Conseil ou au Comité sont en mesure de fournir toutes les pièces justificatives et l'information requises.

**Réponse de la direction**
La direction est d'accord avec cette recommandation.

Comme indiqué dans la réponse de la direction à la recommandation 7, la Ville a des procédures officielles eu égard à la production de rapports pour le Comité et le Conseil. Dans tous les rapports soumis au Comité ou au Conseil, un répondant est identifié. Ces répondants sont en mesure de fournir tous les renseignements nécessaires liés à la question traitée. À l'avenir, cette exigence sera mise en relief dans les rôles définis dans les chartes de projets et d'initiatives d’envergure.

**Recommandation 10**
Que la Ville exerce son droit contractuel en vertu de la clause 7.18 : Comptes et vérification de vérifier la capacité de traitement d’Orgaworld et qu’elle prenne les mesures appropriées sur la base des résultats.

**Réponse de la direction**
La direction est d'accord avec cette recommandation.
Vérification des pratiques d’approvisionnement -
Contrat de déchets organiques séparés à la source

Plus tôt cette année, la Ville a signifié un avis de différend à Orgaworld contestant la capacité de traitement de l'usine d'Ottawa et réclamant un dédommagement approprié pour tout paiement « livrer ou payer » inutile versé à Orgaworld en vertu de la garantie de tonnage minimum.

Économie potentielles

Nous estimons qu’en vertu du contrat actuel de déchets organiques séparés à la source, la Ville a versé pour environ 7 700 000 $ en paiements inutiles à ce jour. Par ailleurs, la Ville pourrait effectuer d'autres paiements inutiles d'environ 4 900 000 $ de 2014 à 2023, pour atteindre un total de 12 600 000 $ en paiements inutiles sur la durée du contrat.

En revanche, la Ville de Gatineau a conclu un contrat avec un fournisseur à un taux substantiellement plus bas et n'est pas liée par des quantités contractuelles minimales (seuil « livrer ou payer »). Si la Ville résilieait le contrat actuel et retournait en soumission sur la base des exigences actuelles, elle pourrait économiser 30 700 000 $ de plus pour la durée du contrat. Ces économies seraient diminuées par les coûts reliés à la résiliation du contrat actuel avec Orgaworld.

Conclusion

En 2008, la Ville a achevé la négociation du contrat relatif aux déchets organiques séparés à la source. Les rapports entourant le projet ont contourné la voie hiérarchique habituelle et les contrôles afférents normalement en place. La gouvernance et la surveillance du projet demeurent imprécises, car le processus d'examen, d'évaluation et d'approbation formelle requis pour les principaux éléments de l'analyse de rentabilité du projet n'est pas documenté dans les dossiers de la Ville pas plus que la justification des décisions prises entourant des volets importants de ce projet.

Le processus de planification pour déterminer le volume total de matières organiques disponibles aux fins de traitement, à la fois les déchets alimentaires et les feuilles et résidus de jardinage, n'a pas pris suffisamment en compte le fait qu'environ 20 000 tonnes de feuilles et de résidus de jardinage étaient disponibles pour une collecte séparée. Cette collecte séparée aurait pu être acheminée au chemin Trail aux fins de traitement à raison de 15,65 $ la tonne plutôt que 103,77 $ la tonne à l'usine d'Orgaworld aux taux de 2014.

Sur la base des études réalisées dans les années précédant l'émission de la demande de propositions ainsi que du supplément que paie la Ville pour le traitement d'environ 20 000 tonnes de feuilles et de résidus de jardinage recueillis...
Vérification des pratiques d’approvisionnement -
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séparément en période de pointe à l’usine d’Orgaworld plutôt qu’à l’interne, il n’est pas clair que le contrat relatif aux déchets organiques séparés à la source avec Orgaworld est la façon la plus rentable pour la Ville de traiter tous les déchets organiques recueillis.

La direction n’a pas fourni au Conseil les informations pertinentes pour lui permettre de prendre une décision éclairée relativement à un contrat d’une telle importance.

À la lumière des changements survenus dans le marché du traitement des DOSS et des suppléments payés pour le traitement séparé des feuilles et des résidus de jardinage recueillis, il pourrait s’avérer dans l’intérêt supérieur de la Ville d’examiner les répercussions et le coût d’activer la clause de résiliation anticipée du contrat et d’évaluer d’autres options, notamment la construction d’une installation appartenant à la Ville et exploitée par celle-ci.
1 INTRODUCTION
The Audit of Procurement Practices was included as part of the Auditor General’s 2011 Audit Plan approved by Council on April 13, 2011. The Source Separated Organics (SSO) contract was to be included as a part of the Audit of Procurement Practices. However, during the course of our audit work it became apparent that there were numerous issues related to the Source Separated Organics contracting process, and that this element required its own report. Therefore it was severed from the procurement audit for presentation on its own.

This report was originally intended to be tabled, as part of the Auditor General’s 2011 annual report, in November 2012. The report was issued to management on August 30, 2012 in order for management to provide responses to the audit recommendations. We were subsequently informed, on September 22, 2012, that management was unable to issue management responses at that time. However, management further advised the Office of the Auditor General that once a related arbitration process has concluded, management would respond. Therefore, the Audit of Procurement Practices - Source Separated Organics Contract was not included in the 2011 Annual Report and is now being tabled.

Management subsequently provided additional information in December 2013 and up until April of 2014 to the Office of the Auditor General to substantiate their position on this project.

Our review of the information was done to assure ourselves and management that all relevant information had been considered, verified and where appropriate we included the new information in a revised draft audit report.

2 BACKGROUND
On July 15, 2005, City of Ottawa Council approved the "Implementation of an Organics Collection Program within the next solid waste collection contracts with organics collection envisioned to commence in 2008, and that staff report back with the details of the program in the fall of 2005." The decision to move forward with a city-wide source separated organics (SSO) program came after several years’ experience with pilot initiatives from 2001 to 2005, adoption of an Integrated Waste Management Master Plan, and evaluation of potential impacts, costs, and benefits. The decision was also made by the need to identify new ways to divert waste away from landfill and in recognition of the limited lifespan of the City’s available landfill space and the difficulties inherent in finding or establishing new landfills.
Implementation and future expansion of the SSO program was dependent upon the development of one or more appropriately designed, sited, and operated organics processing facilities. The City believed it would only achieve a diversion rate of approximately half of the Ministry of the Environment (MOE) 60% target. Accordingly, it was clear that, without a significant change in its solid waste program, the City would not be able to meet its own objective, nor the provincial target. Recognizing that organics still comprised a significant portion of the material sent to landfill, the implementation of a Source Separated Organics Program remained one of the only viable means by which the City could divert a larger portion of its waste away from landfill. The July 15, 2005 report to Council recommended that immediate work begin to "solicit Expressions of Interest from the private sector for organics processing technology to assess the level of interest, and report back with recommendations to Committee."¹

As such, the Environmental Services Department for the City of Ottawa, using a tiered approach, sought, in 2005, proposals to provide project management advisory services for the planning, design, and implementation of a private or private-public partnership initiative for the processing of SSO collected from private residences. On March 9, 2007, Environmental Services Department sought proposals to secure an Agreement for the processing of SSO and marketing of the resulting product(s), for SSO materials collected by the City².

The Request for Proposals (RFP) was launched on March 9, 2007, the prospective contractor was identified, notified, and the presentation for final approval was delivered to Council on October 10, 2007.

The eventual contract with Orgaworld Canada Ltd has an estimated minimum value of $140,000,000 over its 20-year lifecycle³. The agreement was signed on March 27, 2008.

Due to organizational changes within Public Works, the group responding to queries or providing information for the SSO contract will be referred to generically as Environmental Services Department throughout our audit report.

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¹ RFP No. 00405-91875-P19
² RFP No. 00407-96871-P01
³ 80,000 tonnes per year at initial contractual processing rate of $89.40/tonne for twenty years
3 AUDIT SCOPE
The scope of the audit encompassed the Source Separated Organics contract, including the determination of metrics (i.e., such as estimated facility's capacity utilization and curb-side participation rate), and internal approval.

4 OBJECTIVE AND APPROACH
4.1 Source Separated Organics
To assess whether the City had an effective and sound procurement process in order to assure the City that an adequate level of due diligence has been executed in the lifecycle procurement activities with respect to the Source Separated Organics contract. The lifecycle components include the consultants assisting with the RFP (including the metrics provided), the statement of work definition, the Source Separated Organics RFP, the selection and evaluation process, as well as the appropriate level of approvals required throughout the process.

5 DETAILED FINDINGS, OBSERVATIONS AND RECOMMENDATIONS
5.1 Pilot Programs
The City of Ottawa has run various pilot organics programs since October 2001. Compost+, a curbside collection program for source separated organics, operated in nine neighbourhoods comprised of approximately 5,300 households. On average, these households successfully diverted an additional 17% of household
kitchen waste away from landfill by separating out their organics for collection and composting. Compost+ was voluntary, received modest promotion, and was not subject to the lower garbage bag limit; therefore, greater diversion rates were anticipated by staff under a mandatory, well publicized and structured SSO program.

The Residential Curbside Waste Characterization Study conducted in 2004 found that approximately 42% of household waste was organic, including leaf and yard waste, 29% in apartments, so the potential for improvement was, and remains (per the City) significant.

The Ottawa Compost+ pilot experienced a 52% participation rate resulting in a 48.5% achieved diversion rate. A comparison of other cities involved in a similar SSO program includes the following:

<table>
<thead>
<tr>
<th>City</th>
<th>Participation Rate</th>
<th>Diversion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markham</td>
<td>91%</td>
<td>70%</td>
</tr>
<tr>
<td>Peel Region</td>
<td>93%</td>
<td>45%</td>
</tr>
<tr>
<td>Toronto</td>
<td>90%</td>
<td>61%</td>
</tr>
<tr>
<td>Southgate Township</td>
<td>n/a</td>
<td>60%</td>
</tr>
<tr>
<td>Hamilton</td>
<td>62%</td>
<td>50%</td>
</tr>
<tr>
<td>Ottawa – Compost+</td>
<td>52%</td>
<td>49%</td>
</tr>
</tbody>
</table>

The Province of Ontario established a potential target of 60% diversion rate to be achieved by larger cities by year end 2008. Based on the information available, it is understood that, some if not all, the above listed cities have implemented measures to encourage residents to participate in the SSO program such as

4 PowerPoint presentation entitled: We all WIN!, dated November 22, 2005.

imposing bi-weekly curbside collection of waste and a bag limit. The City of Ottawa had not implemented, at the time of the SSO RFP, bi-weekly garbage collection and was not enforcing the bag limit. Management expected the implementation of mandatory measures to increase the participation and diversion rates.

In addition, the Compost+ pilot results, collected from 5,300 households, indicated that an average of 34 tonnes per month of organics was produced. This organic waste, extrapolated to the City's 271,000 households, translates into 20,862 tonnes of annual organic waste (excluding leaf and yard waste). This volume is corroborated by the assumptions presented in the bidders meeting deck, where the annual food waste tonnage to be collected was calculated at 21,680 tonnes per year.

We believe from the information available to us during the audit that, without new mandatory measures approved by Council, the ability to achieve the annual projected 100,000 tonnes of organic waste based on the results of the Compost+ pilot should have been seen as unlikely, and should have been presented to Council as such, and it was not.

We were advised by management that the decision to proceed with a 100,000 tonnes per year facility was based on the fact this capacity would be needed by the end of the contract period.

While we found that limited analysis had been conducted by the City, no complete analysis to support the decision to proceed with a 100,000 tonne facility could be located as it is not adequately documented in the corporate records. In fact, the City will not achieve 100,000 tonnes of organics, both food and leaf and yard waste, until the 19th year of the 20 year contract and they would never achieve 100,000 tonnes without including separately collected leaf and yard waste.

In our opinion, the information available at the time of the audit was too optimistic about the impact and likelihood of introducing the mandatory measures such as, bi-weekly pick-up, bag limits and enhanced promotion. A key document provided to us at the time of our audit was the Residential Curbside Waste Characterization

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6 The bidders’ conference was held on January 19, 2006: 271,000 households at 80 kg of food waste.

7 The actual capacity under contract is stated as 400 tonnes per day +/- 35%, which translates into a high of 135,000 tonnes per year.
Studies which were conducted in 2004 and 2005. Our analysis\(^8\) of these documents indicates that, with 100% participation and 100% diversion at each of the 271,000 households in the City, 100,000 tonnes of organics, including Leaf and Yard Waste are available as an absolute maximum. This volume is not likely achievable without the mandatory measures in place. Council approved bi-weekly garbage collection in 2011, to begin on October 29, 2012 (four years after the contract was awarded). While this decision resulted in a substantial increase in volume, staff had no assurance on whether Council would approve it or if so, when, nor did they make it clear to Council that bi-weekly collection was necessary to meet projected volumes.

The staff analysis to support a 100,000 tonne facility does not reflect the results of the Organics Composition Study of 2004-2005 which indicates that non-leaf and yard organic waste constitutes roughly 13% of the organic waste stream on an annual basis.

The Residential Waste Characterization Study (2005), concluded that organic food wastes represent approximately 37% of the waste sent to landfill, recorded as 10.1 kg per household per week. This represents an annual volume of approximately 46,350 tonnes of total annual food waste, based on the estimated 238,500\(^9\) households that would be supplied with Green Bins at the commencement of the program. This volume is based on a 100% diversion rate while most municipalities are achieving 60% diversion rates.

Based on our review of the file, we identified several source documents that were produced in the years before the decision to issue a Request for Proposals to process the City generated SSO. We understand that the table below addresses only kitchen waste and that the City also generate leaf and yard waste.

\(^{8}\) 365 kg/household/year * 271,000 households = 98,915 tonnes annually

\(^{9}\) The 238,500 households referred to will receive green bins at start of the initiative. The 271,000 refers to the total number of City households.
Table 2: OAG Analysis of Organics Projections

<table>
<thead>
<tr>
<th>Study</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Curbside Waste Characterization Study (Fall 2004)</td>
<td>Available food waste: 57,470 tonnes per year (100% Diversion Rate)</td>
</tr>
<tr>
<td>Organics Composition Study (2004-2005)</td>
<td>Available food waste: 42,900 tonnes per year</td>
</tr>
<tr>
<td>Compost+ (2005)</td>
<td>Available food waste: 20,862 tonnes per year</td>
</tr>
<tr>
<td>Residential Waste Characterization Study (2005)</td>
<td>Available food waste: 46,350 tonnes per year</td>
</tr>
</tbody>
</table>

The above table demonstrates that the information available for decision making was mixed at best. For example:

- The best case scenario projects available kitchen waste at 57,000 tonnes, at 100% diversion. It was known that other jurisdictions were getting 60% diversion rates during the time of the Compost+ pilot.
- The City, as of December 2013, is achieving a 58% diversion rate. This resulted in approximately 41,000 tonnes of kitchen waste, one year after the implementation of bi-weekly garbage collection and four years after the contract award.

It is worth noting that concurrently the City are already processing 38,038 tonnes of leaf and yard waste (2009, prior to Orgaworld contract commencement) at their Trail Road facility. Furthermore, the analysis of the incremental cost of separate collections of kitchen waste and leaf and yard waste had not been conducted.

A review of the four composting study results highlights that there is no clear evidence that 100,000 tonnes of organics are available recognizing that organics include both kitchen waste and leaf and yard waste.

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10 Organics Composition Study: Table 3, page 5.
Our analysis of the documentation available indicates that the 80,000 tonne minimum could not be met without including leaf and yard waste and it wasn’t clear whether it was to include the separately collected peak\textsuperscript{11} season material.

The possible cost savings related to internally processing separately collected leaf and yard waste do not appear to have been factored into the business case for establishing a 100,000 tonne capacity or an 80,000 tonne put-or-pay threshold in the current contract with Orgaworld.

In 2009, the City collected and processed 38,038 tonnes of leaf and yard waste at Trail Road. The 2009 peak leaf and yard waste, approximately 20,000 tonnes, was collected in separate vehicles as there is simply too much volume for it to be co-collected with any other waste stream.

The City continues to separately collect approximately 60\% of peak leaf and yard waste. Since there is no saving related to its collection it would be beneficial to direct it to Trail Road for processing at a much lower cost; a net cost of $15.65 per tonne versus $103.77 per tonne at Orgaworld (2014 rates).

Current collection arrangements are in part based on current contract targets of 400 tonnes per day and a desire to meet minimum put-or-pay thresholds.

Given the analysis conducted to support the business case and that the ultimate decision to proceed with a 100,000 tonnes SSO processing facility could not be found in the official business records, it is difficult to ascertain the adequacy of the analysis. However, it would appear that the cost effectiveness of directing the separately collected leaf and yard waste to Trail Road was not adequately factored into the calculations of eventual volumes of organics that should be sent to Orgaworld.

The impact of including the 38,038 tonnes of leaf and yard waste that was going to Trail Road for processing at a much lower cost; a net cost of $15.65 per tonne versus $103.77 per tonne at Orgaworld (2014 rates), is approximately $3.35 million per year and $67 million over the 20 year contract. This premium was never brought to Council’s attention during the review and approval process.

\textsuperscript{11} Peak refers to the two five-week periods of higher than normal LYW volumes in the Spring and Fall where separate collection is in effect.
It would appear that those responsible for the overall planning of the destination of the waste streams did not adequately consult with the City staff responsible for Operations related to garbage collection.

Based on the above, it is difficult to understand how the contract awarded to Orgaworld represents the most cost effective solution for the City.

### 5.2 Facility Capacity

As indicated above, the City of Ottawa, in the Fall of 2005, issued an RFP to seek proposals to “provide project management advisory services for the planning, design, and implementation of a private or private-public partnership initiative for the processing of source separated organics (SSO) collected from private residences…”12. The file entrusted to the successful proponent was a complex one and its analysis included numerous facets of the endeavour, including the detailed evaluations of the volumes the facility’s system could process.

While the awarded contract was to build a facility that could sustain an annual organic waste volume of 100,000 tonnes per year, it remains unclear how the facility’s required capacity was derived. We have been advised by management that the requirement for 100,00013 tonnes per year of processing capacity was based on the estimated volume of organics, including the leaf and yard waste necessary for the composting process, the desire to avoid building an under-capacity facility and the “best value” analysis of the facility size versus price per tonne conducted following receipt of the bid during the RFP.

However, the extent of leaf and yard waste required as a bulking agent in the process, currently quoted by Environmental Services as 30%, was never clearly defined, nor quantified in the Request for Proposal or in the contract. The requirement of the bulking agent was not disclosed to Council and was only discussed after the contract implementation. Orgaworld’s proposal indicated that leaf and yard waste was required as part of the processing of organics. The Orgaworld proposal indicated that “Orgaworld requires this material at an acceptable price”. A negotiated transfer of leaf and yard waste to serve as a bulking agent, even at no charge, would have potentially reduced the overall cost to the City.

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12 RFP No. 00405-91875-P19.

13 The actual capacity under contract is stated as 400 tonnes per day +/- 35%, which translates into a high of 135,000 tonnes per year.
by reducing the volume of organics to be processed at City expense. There was no documentation on file to demonstrate that City staff considered the offer.

In discussion with City staff involved in the project and following a review of the key documents, it was noted that the RFP issued to obtain a subject matter expert to assist in the development of the SSO RFP included a guideline to assist the proponents in assembling their bids. This guideline stated that “by 2009, the annual quantities of SSO that would require processing are expected to be between 60,000 and 100,000 tonnes per year”. We were unable to determine how this processing range was derived.

Upon review of the consultant’s work plan and the deliverable section of their proposal, it was noted that the consultant acknowledged the importance to review and confirm the potential quantity and composition of [SSO] that would be generated and captured by City programs, in both the short and longer terms. Throughout the term of the project, the processing range of the organics\(^{14}\) fluctuated slightly but remained at the initial suggested level of 60,000 to 100,000 tonnes per year.

Our review of documents (such as emails or spreadsheets) and staff journals indicate that the range was discussed, perhaps even questioned, however, a formal documentation and justification of this processing range to validate and accept the accuracy of the metrics could not be located in the corporate records. The consultant’s documentation or validation steps undertaken to assess the City provided processing range could not be located in the corporate records either. Nor could any detailed analysis or scrutiny undertaken by City staff of the processing range proposed by the consultant be located.

In light of the importance of this metric, we expected to see a high standard of diligence and thorough documentation of the assessment of the processing range based on the estimated current and future City organic output.

During the period leading up to the contract award, including the period when the consultant provided the subject matter expertise necessary to draft the SSO RFP to the period of negotiation with the successful proponent on the SSO RFP, the processing range metrics appear to have fluctuated frequently. While the

\(^{14}\) The SSO RFP defines the organics as both the kitchen organic waste and the leaf and yard waste.
fluctuations were expected and likely due to changes in assumptions utilized in the compilation and analysis of the data, and in the direction provided by the leaders of the project, it is our opinion that the design of a processing facility of organic waste of this magnitude should be founded on solid and accepted metrics by all parties involved in the project.

In our opinion, the Manager, Solid Waste Services and the Director of Utilities or the individual’s supervisor in the absence of an incumbent, were ultimately responsible for the final decision that established the processing volume to be pursued. However, this is not reflected in the corporate records.

The SSO is defined in the RFP\textsuperscript{15} to include leaf and yard waste. In our discussion with City staff, it came to our attention that while the City was contemplating the construction of the organic processing facility, the City managed a leaf and yard waste processing facility at the Trail Road site. During our review of calculated estimation of the facility’s processing capacity, it was noted that the organics volumes included a mix of food waste and leaf and yard waste; these numbers were supplemented with an additional leaf and yard waste volume to factor seasonal peaks experienced due to an increased level of yard work. In light of the fact that the processing cost of the organics is significantly greater than the internal processing cost of the leaf and yard waste at the City landfill, it is unclear as to why the analysis was blurred\textsuperscript{16} by combining the two inputs which could have been processed at significantly different rates.

Management advised in December 2013 that leaf and yard waste was necessary for proper composting of food wastes, though the inclusion of this waste stream within the organics contract would mean higher costs for processing.

We appreciate the convenience element from a resident’s point of view (all organics can be accumulated in one bin, instead of two) as well as the consideration of the logistical complexity and additional costs related with the collections of two types of organics. However, the analysis should have included a detailed costing model to determine the incremental cost of separate collection of leaf and yard waste to account for long-term system costs and the results formally accepted and approved for the record. Additionally, this information regarding a requirement for a bulking

\textsuperscript{15} Appendix 6 of the SSO RFP, as well as Annex A and Annex F-3 discuss the definition of SSO.

\textsuperscript{16} Volumes are based on an assumption which includes 80kg food waste + 115kg yard waste per household annually (41:59 ratio of food waste to yard waste).
agent should have been presented to Council prior to deciding on the most cost effective course of action.

To put things in perspective, the City is contractually obligated to pay an organic processing fee, based on the cost as at contract commencement in 2010, of $95.93 per tonne for leaf and yard waste delivered by the City which could be processed internally at approximately $17.25 per tonne (2010 rates).

Actual volumes of SSO organics, including both kitchen waste and leaf and yard waste, processed at the Orgaworld facility are:

2010: 52,056 tonnes
2011: 54,576 tonnes
2012: 55,264 tonnes
2013: 69,436 tonnes

Our projections of the SSO organics currently processed by the Orgaworld facility are such that the 80,000 tonnes per year minimum put-or-pay volume will not be met until 2024 unless a portion of the separately collected seasonal peak leaf and yard waste currently processed at Trail Road is directed to Orgaworld. Today, this would incur a processing premium of approximately $88.12 per tonne (2014 contract cost of $103.77 per tonne less Trail Road cost of $15.65).

The Environmental Services Department has, four years after contract award, provided an analysis of the cost of separate collection of non-peak leaf and yard waste outside of the two 5-week periods of peak activity in the Spring and Fall. The analysis appears to offset the increased costs for processing of this organic material through Orgaworld. However, the analysis should have been conducted prior to the contract award to Orgaworld to demonstrate this assumption.

In our opinion, the absence of any documented and approved assumptions and documented (finalized, dated, and agreed-upon by management) analyses, in conjunction with an absence of a documented review and assessment function necessary to corroborate management’s acceptance of the metrics for the requirement of a 100,000 tonne capacity to process organic waste, demonstrates a lack of due diligence in the management of a project of this magnitude. Management should have ensured that the project team was properly resourced. The individual responsible for the primary analysis did not appear to have the appropriate background or experience to be tasked with an initiative of this scope and magnitude without appropriate supervision.
The absence of the corporate documentation, or audit trail, demonstrating how the metrics were compiled, reviewed, assessed, and accepted by management is concerning.

The review of the available documentation indicates that the initial projected volumes are based on assumptions that the City would implement mandatory measures to entice residents to participate in the program. These measures may include the imposition of bag limits, the implementation of bi-weekly curbside waste collection, and even fines. We were informed that while the City has a bag limit, it remains unenforced. More importantly, Council did not, at the time the SSO contract was awarded, approve the move to a bi-weekly\textsuperscript{17} garbage pick-up. The approval came in 2011, with an implementation date of October 2012.

The importance of the bi-weekly waste collection was reiterated, by staff, to the City staff responsible for the file prior to the SSO contract award. In particular, City staff raised the issue that Council approval of implement bi-weekly garbage was necessary to meet the required level of diversion to obtain the funding\textsuperscript{18} offered by the federal government\textsuperscript{19}.

This was corroborated through discussion with City staff who also indicated that it was widely understood\textsuperscript{20} that the target would not be reached unless Council approved bi-weekly pick-ups.

### 5.2.1 Orgaworld’s Notional Current Processing Capacity

The current contract stipulates that Orgaworld must be able to process the contractual volume of 400 tonnes per day (which translates into 100,000 tonnes per year based on 250-day year). In addition, they must be able to accommodate the variability in the daily volume collected +/- 35% of the daily maximum, an additional 140 tonnes daily or 35,000 tonnes per year.

\textsuperscript{17} The importance of bi-weekly collection is that it has a direct correlation to the organic waste placed in the green bin as residents will be motivated to avoid putting their organic waste in a waste receptacle which is not collected weekly (due to smell, maggots, ...).

\textsuperscript{18} We were advised on December 13, 2011, that the City is awaiting the finalization of the results for the grant funding. The deadline for submission is February 2012.

\textsuperscript{19} Email from City staff. While there is an issue of the City receiving funding, the more important concern is that the diversion level would not be obtained without the bi-weekly approval.

\textsuperscript{20} RFP 00407-96871-P01 has a mention of uncertainty with respect to the Council “the max tonnage scenario would reflect the implementation of bi-weekly garbage collection by the City.”
Orgaworld has six processing tunnels that, individually, can hold 300 tonnes of organic waste. The tunnels, however, are filled using volume as a measurement, not weight. The organic matter must remain in its tunnel for a period of 7 to 10 days\(^{21}\).

In our notional assessment of Orgaworld’s capacity we made several assumptions:

- Recirculation of active material is over and above the 300 tonnes per tunnel;
- Maturation period is 7-10 days; and,
- Maturation period is assumed to include the time it takes to load and unload the organic matter into the tunnel and out of the tunnel at the end of the process.

The notional assessment above indicates that the facility capacity ranges from 46,000 to 94,000 tonnes per year. This would be less than the 135,000 tonnes Orgaworld is contractually bound to accept. Staff should initiate steps to determine actual capacity and take follow-up actions as appropriate based on the results of the analysis.

It is unclear how Orgaworld would meet the contractual obligation if and when the City provides the maximum 540 tonnes per day (135,000 tonnes per year) of organic waste to their facility.

We were advised during the site visit that another complicating factor is that leaf and yard waste is somewhat lighter by cubic metre than organic waste (kitchen) and this can cause Orgaworld logistical problems in receiving peak volume material.

During interviews with City staff, we were advised that during the Spring and Fall peak collection periods, whenever the City was delivering quantities in excess of 320 tonnes a day, but less than the 400 tonnes per day of the contract (up to +/- 35% or 540 tonnes per day), Orgaworld would raise concerns that the leaf and yard waste was not part of the SSO as per the contract and request the City to redirect additional leaf and yard waste material; this may be indicative of a capacity issue facing Orgaworld.

\(^{21}\) Study: Stantec Presentation to the NY Federation: 2011 Conference on Organics Diversion in Ontario states the maturation process is 7-10 days. (Note: Orgaworld, during the tour of the facilities, indicted that the maturation period was approximately 10 days).
5.3 Minimum Tonnage Guarantee

The concept of the minimum tonnage guarantee, or “put-or-pay”, appears to have been introduced to the City SSO working group by the consultant hired to provide subject matter expertise in the drafting of the SSO RFP. The intent of the minimum tonnage guarantee is to assist the supplier in minimizing its risks when entering a capital intensive solution, such as the construction of a facility. The minimum volume guarantee is a procurement mechanism designed to increase access to favourable pricing. There is a risk that without a minimum volume guarantee, the cost proposed by the supplier will be increased in order to compensate for the uncertainty, or risk, involved in the project. It is reasonable to say that this is an accepted industry practice.

The SSO RFP indicates that the City offered a guarantee to “put-or-pay” for 70% (or 70,000 tonnes) of the total annual tonnage of SSO awarded to the successful proponent for that operating year. The minimum tonnage guarantee was subsequently increased to 80% (or 80,000 tonnes) via the RFP addendum #3 issued May 8, 2007, before the close of the bidding period, June 18, 2007. The increase of the threshold to 80% is unsupported in the corporate records. We were provided with only a limited email exchange between City staff with no discussion or rationale justifying the change in the minimum threshold.

The financial impact to the City of this increase in the minimum put-or-pay threshold is approximately $3,000,000 (refer to Appendix C) from the inception of the project to the end of 2013. While there may be some reduction in tipping fees at the increased threshold, there is no documentation on file to rationalize the decision to increase the threshold.

As discussed under Facility Capacity, the development of metrics utilized in the decision to proceed with a 100,000 tonne capacity facility leaves the City vulnerable to annual unnecessary payments for the non-processing of projected organic waste. The amount applied for the unused capacity is calculated at the full processing rate.

City staff currently estimates the unnecessary payments attributable to put-or-pay at approximately $4,700,000. Our own calculations confirm the reasonableness of this amount.

5.4 Absence of Ramp-up Period

“Ramp up” is a term widely used to describe the period leading up to the point in time where the processing facility is operating at, or has the ability to operate at, full capacity. It is often the period between the process development, and maximum
capacity processing ability, characterized by process experimentation and improvement.

Environmental Services Department staff involved in the contracting process did not follow through with the advice from the City’s external legal counsel, to include a ramp up period in the contract. The rationale for non-acceptance is not documented in the corporate records. A ramp up period should have been considered in the RFP.

In our discussion with City staff and review of the documents, it is noted that the idea of a ramp up period had been previously considered by the City staff in discussions, and in SSO working groups. However, the ramp up clause does not appear in the SSO contract. It would appear that the clause was removed largely for fear of proponent(s) backing out of the agreement.

Management has informed us that;

“…staff attempted to negotiate relief from the Put-or-Pay provision, in the way of either a reduced limit or a phasing-in (i.e. ramp up) of the obligation”.

Again, we were not able to find within the City’s corporate records a documented rationale for the exclusion of this important clause or any subsequent steps by staff to negotiate relief from the put-or-pay provision.

5.5 Bid Submission Options

The RFP makes clear that the City anticipates collection of approximately 100,000 tonnes/year of SSO once the SSO collection program reaches a mature state. The RFP invites bidders to submit proposals at three tonnage options; 25,000, 50,000 and 100,000 tonnes per year. Several bidders submitted proposals at the various levels. (Note: Orgaworld bid $125/tonne for 25,000 tonnes, $94/tonne for 50,000 tonnes and $88/tonne for 100,000 tonnes for the 20 year period as per evaluation summary information).

The senior procurement manager for the City suggested that there was an opportunity to negotiate a 50,000 tonne contract with a phased implementation of the other 50,000 tonnes. However, we were advised that staff from Supply Management did not participate in final negotiations which were managed by the Environmental Services Department directly. There is no documentation on file to demonstrate why Environmental Services staff did not consider the advice from Supply Management or involve them in the final negotiations with Orgaworld.
In our opinion, this indicates that the City had a last opportunity to enter into a contract that more reasonably reflected their realistic requirements while allowing for growth.

5.6 Oversight

Initially, when the project was launched in 2005, the Director Utilities, reporting to the Deputy City Manager of Public Works and Services (PWS), inherently assumed the responsibility of the project. The Manager, Solid Waste Services was tasked with the operational responsibility. The Environmental Program Branch provided the project management expertise on the project. In 2007, the City reorganized the Utility Branch into two separate units: Water Division and Solid Waste. The reorganization’s impact on the responsibility hierarchy is further complicated by the fact that several key individuals in the project have since left the City.

Based on documentation available, there was a Draft Project Charter developed in November 2005 to provide for some reporting structure in the project. The Charter does not appear to have been formally reviewed and approved or signed by the individuals concerned. While the Charter was not signed, we have been advised by the key individuals who remain with the City that the roles and responsibilities were generally understood to be reflected in the draft document. The Draft Charter makes note of several reporting relationships which are outside of the normal hierarchy and “chain of command”. For example, knowledgeable staff members in the City’s Solid Waste operations such as the Program Manager, Waste Processing and Disposal, and the Program Manager, Collection Operations, were not included in the Project Charter (see figure 2 below). In our opinion, this contributed to the overall lack of oversight and appropriate review, assessment and critique of assumptions and metrics.
Resource or subject matter deficiencies identified internally were supplemented by the external consultants. The overall oversight of the project remains unclear as the challenge function required on the key elements or the project does not appear in the corporate records nor does the rationale for decision making on the key elements of this project. It appears that the actual reporting relationship in place was one of direct reporting from the Environmental Program group to the Deputy City Manager of Public Works and Services (PWS). We were advised that this was done at the direction of the Deputy City Manager, PWS and we could not identify any documentation in the City’s records to demonstrate why this was done.

We were advised that one of the key individuals involved throughout the life of the project was the Manager, Solid Waste Services. This individual is no longer
employed with the City. There is some documentation available that the Deputy City Manager, PWS did receive information at various times during the project; in particular the Council Report immediately prior to the contract award.

We believe that while the responsibility for such a major undertaking ultimately rests with the Deputy City Manager, PWS, there should have been a direct oversight at the director level or an equivalent incumbent which would include an appropriate review and approval process to ensure the quality of the business case to support the eventual decisions in the process. The inclusion of other employees in the organization’s reporting structure (such as the Program Manager, Collection Operations and the Program Manager, Waste Processing and Disposal), who were excluded from the Charter, could have provided for a more rigorous assessment of the options and risks for eventual success.

5.7 Communication to Council Prior to Approval

The SSO processing facility is a complex file and required a significant level of effort from the Environmental Services Department, the subject matter expert, and the Division of Environmental Programs as project management expertise. The file includes complex notions of the facility’s capacity to handle current and future projected organic waste volumes, the establishment of the minimum tonnage guarantee, the determination of the proper ramp up period to mention a few.

A historical look at the communication provided to Council and its Committees reveals that information provided would make it challenging, in our opinion, for Councillors to obtain a holistic appreciation of the facts and the extent of the challenges in meeting the minimum tonnage guarantee offered by the City. It is our opinion that the Project Manager of the Environmental Program Division tasked with the project management responsibility, and the lead for presentations to Committees and Council, should have taken appropriate steps to ensure communication to Council was appropriate, thoroughly analysed, and supported.

For example, the Report to Planning and Environment Committee and Corporate Services and Economic Development\textsuperscript{22}, dated September 24, 2007\textsuperscript{23}, states that the successful proponent:

\begin{flushright}
\textit{\textsuperscript{22} Report dated 24 September 2007 submitted by RG Hewitt.}
\textsuperscript{23} Refer to Appendix B for details
\end{flushright}
“…was identified as a result of a comprehensive, competitive two-stage procurement exercise to secure processing and marketing services for approximately 100,000 tonnes of organics per year, representing upwards of one third of the City’s residential waste stream.”

The report goes on to say that:

“It should be noted that all of the firms that qualified under the RFQ process expressed significant concerns regarding the City’s Fall 2008 implementation deadline.”

and that:

“Staff considered the issues raised and the potential of receiving no competitive bids and determined that it was advisable to postpone program implementation to Spring 2009. As a result of the overall best value analysis, staff recommend contract award to [successful proponent] for 100,000 tonnes per year for a contract period of 20 years. This recommendation is based on the assumption that the City of Ottawa will supply a minimum of 80,000 tonnes of Source Separated Organics per year.”

There is no discussion about the ability to meet the minimum tonnage guarantee, set at 80% of the facility’s processing capacity, other than to say that:

“Extensive public consultation was done from 1996 through to 2005 on organics implementation including open houses, a public liaison committee, phone and paper survey feedback, and pilot monitoring and feedback from two separate pilots. This feedback has been presented in a number of reports to council, including the most comprehensive report that was presented in 2003…”

Furthermore, it was indicated that the:

“matter was brought before the Environmental Advisory Committee in July 2005 and again in December 2006, at which times EAC endorsed implementation of a SSO program. Planning & Environment Committee last addressed this issue in March 2007 at which time representation from the public was heard in support of the initiative.”

Furthermore, there is no discussion of the risks associated with meeting minimal targets, such as proceeding without having the elements such as bi-weekly pick up in place even though City staff indicated these mandatory measures are a necessary course of action if the minimum tonnage was to be met.
Audit of Procurement Practices Related to the Source Separated Organics Contract

In addition to the above-noted omissions from the Planning and Environment Committee report dated September 24, 2007 (Annexe A), we believe the following items in the report did not assist the Councillors in their efforts to fully understand what was being proposed by City staff:

- This report, most importantly, is presented after the Request for Proposal has closed and a winning proponent has been selected, although not formally approved, nor announced.
- The Committee report opens with a comment that the City collects 330,000 tonnes of waste and 35% is organic, including leaf and yard waste. It is our understanding that you would need a 100% participation rate diverting 85% of the organics to meet the maximum 100,000 tonnes the contract envisions.

There is no discussion that these above participation levels are very optimistic. In 2013, after a full year of bi-weekly garbage collection, the City’s diversion rate for kitchen waste is 58%, or roughly 41,000 tonnes per year.

There is no discussion of the incremental cost of separate collection of leaf and yard waste and the rationale for including it in the contract given that the City was successfully collecting and processing approximately 38,038 tonnes (2009) of leaf and yard waste annually, at a substantially lower cost. The impact of including the 38,038 tonnes of leaf and yard waste that was going to Trail Road for processing at a much lower cost; a net cost of $15.65 per tonne versus $103.77 per tonne at Orgaworld (2014 rates), is approximately $3.35 million per year and $67 million over the 20 year contract.

- There is no discussion of the challenges of including medium density housing, apartments and rural residences. There is no supporting documentation about the operational dates of their inclusion/participation.
- There is limited discussion with respect to the decision to have an externally owned, operated facility or one owned and operated internally (or other permutations).
- There is no discussion of how the actual 100,000 tonnes threshold was determined. Discussion should be based on pilot program results using reasonable diversion, extrapolations, and participation rates.
- The report did not specifically confirm that the contract was to include leaf and yard waste. The discussion on the removal of organic waste from Institutional, Commercial and Industrial (IC&I) (e.g., restaurants grocers and hotels) could lead the reader to assume that 100,000 tonnes will be met as this source represents an additional 60,000 tonnes of organic waste which could be diverted.
The Request for Proposal states that the City will be producing 100,000 tonnes of organics once in a “mature state”. While the term mature state is not defined, the City’s current forecast indicates it will not produce 100,000 tonnes of organics, under the best case scenario, until the 19th year of the 20 year contract.

In our opinion, the report gives the impression that the 100,000 tonnes is readily achievable.

In a related matter, we communicated with the contact person noted in the Report to the Planning and Environment Committee dated September 24, 2007, to obtain the appropriate documentation to support key information utilized in the decision to proceed with the organic processing facility. The Manager, Strategic & Environmental Programs was requested to provide the supporting documentation corroborating the information presented to the Committee; this information could not be completely provided. As the individual listed as the point of contact on the report, we would have expected him to be able to provide all necessary documentation and information.

Additionally, in the minutes of Executive Management Committee (EMC) meetings over the four year period from 2008 to 2011, there is no indication that the Green Bin Program or the Orgaworld contract was discussed. This indicates a lack of involvement of senior management in a contract with an estimated minimum value of $140,000,000 over its 20-year lifecycle24.

It appears by perusing the various presentations made to Council or its Committees that City staff did not have a briefing strategy with respect to this procurement element of the SSO facility. An overarching vision, or roadmap of the direction for the complete SSO processing facility venture and the challenges it realistically faces, should have been developed and presented to Council in order for Councillors to appreciate the magnitude as well as the complexity of the project prior to the contract award to the successful proponent of the SSO request for proposal.

Not only does it appear that Council was not briefed adequately on the vision, its inherent costs and its challenges, but rather that Council was presented with select information on the project at hand.

_____________________

24 Based on information from the signed agreement with Orgaworld, dated March 27, 2008: 80,000 tonnes at $89.40 processing fee per tonne, for 20 years.
The RFP is clear in that the leaf and yard waste is included in the Source Separated Organics definition:

Per Annex F-3 of the RFP: “Source Separated Organic fraction of the waste stream generally includes any organic material that is compostable, including but not limited to: fruit and vegetable peelings, food scraps, meat, bones, eggs and shells, vegetable oil and fat, paper towels and napkins, soiled newspaper, paper bags, waxed and/or soiled corrugated containers, wood shavings, and yard waste (twigs, weeds, grass clippings, etc).”

Extracts and analyses prepared during the pre-RFP stage, however, do not provide clear guidance on the City’s vision with respect to the inclusion of leaf and yard waste in the organics processing facility. This absence of a clear pre-RFP vision on leaf and yard waste resulted in fluctuating processing volume ranges during the pre-RFP stage through to the negotiation of the agreement with Orgaworld, which was undertaken in the months following the contract award. Our review of the documents presented to us indicates calculated volumes of 21,760 tonnes of organic waste (excluding leaf and yard waste) to expected/stated volume highs of 97,000 tonnes per annum (including leaf and yard waste).

We believe this demonstrates another example of the ambiguity which contributes to the reader’s misunderstanding whether or not leaf and yard waste is included in the mix of the SSO presentation to be considered for approval.

In addition, during the course of our audit work, we noted an implication for the Barnsdale site (4041 Moodie Drive) in the processing of leaf and yard waste. Between October 2007 and the 2010 Planning Budget Update, there were five distinct follow-up reports to Committee and/or Council in relation to work required at the Barnsdale site.

- Planning Committee Report 15A October 10, 2007, page 58, Compost Pad Relocation
- 2008 Capital Budget – Solid Waste Services – page 315 – Barnsdale $200,000
- April 14, 2009 Treasurer Capital Adjustments – project 904690 – requesting an additional $100,000 for ditch work
- 2009 Q2 Update September 2009 – Barnsdale Budget $300,000, spent $200,000
- 2010 Planning Budget Update – page 80 - project 904690

Environmental Services Department has advised us during the course of this audit that the pad on Barnsdale was cleared in the winter/early spring of 2007. The pad
was used for leaf and yard waste in the fall of 2007. Council extended a $500,000 approval to the Solid Waste Division to deal with Emerald Ash Borer (EAB) in 2008. The impact of Emerald Ash Borer was not until 2008 and the pad was already in use. Some of that money was used to do additional preparation at the Barnsdale Site. In 2008, the budget for Barnsdale was $200,000. In 2009, an additional $100,000 was moved from Project 902358 – Trail Road Expansion & Development. A total of $316,717 was eventually spent on the site.

The pad continued to be used to process leaf and yard waste until the end of 2009. Environmental Services Department staff has advised us that the pad area will be used as the landfill gets developed and the current Trail Road pad has to be moved. While there are some variables involved, City staff expect that the Barnsdale site will be used within the next two years to receive and process leaf and yard waste during peak periods.

Notwithstanding the actual implementation of the Barnsdale site as the facility to receive leaf and yard waste during peak periods, the continued reference to the development of this site in Council documents during the period concurrent with the Request for Proposal for the Source Separated Organics contract, may have contributed to an understanding that leaf and yard waste was never intended to be included in the eventual contract. The five follow-up reports to Committee and/or Council in relation to work required at the Barnsdale site do not reference the Emerald Ash Borer issue and leave the impression the site would be used for routine leaf and yard waste processing. This represents a further ambiguity in the overarching communication to Council in relation to staff’s approach to the management of Source Separated Organics and leaf and yard waste in particular.

It is our belief that Council should be at the forefront of the decision process. The bidders should be made aware that final decision rests with Council and at the same time, providing Council with the opportunity to effectively decide on the situation at hand. In situations where Council’s approval is required, staff should not award or offer a preliminary successful communication to the proponent prior to the approval of Council.
5.8 Updated Projection from Environmental Services Department

In addition to the documentation directly related to the actual SSO process, we have reviewed the documents supporting when targets\(^{25}\) would be met, as set out in the contract with Orgaworld, as provided by Environmental Services Department, on December 13, 2013. Our comments on the revised projection, “City of Ottawa Organic Tonnage Projections (updated)”, are documented below:

- The most recent updated analysis of the City of Ottawa organic tonnage projections was provided in December 2013, four years after the contract with Orgaworld became operational.
- Without diverting separately collected leaf and yard waste, the guaranteed minimum volumes are still not achieved by 2013, four years after the introduction of bi-weekly garbage collection.
- The Environmental Services Department has recently provided analysis (March 2014) of the incremental cost of separate collection of leaf and yard waste outside of the two 5-week periods of peak activity in the Spring and Fall. The analysis appears to offset the increased costs for processing of this organic material through Orgaworld. However, the analysis should have been conducted in the planning process to demonstrate this planning assumption.
- Projections are aimed at meeting the minimum 80,000 tonnes and no analysis if the 100,000 tonne contract level would ever be achieved.
- The City’s current projection, as provided by the City’s consultant HDR Corporation, indicates that the City has reached the minimum 80,000 tonnes by end of 2013. However, the analysis does not address the fact that in order to achieve the minimum put-or-pay threshold the City paid a premium of $3,000,000 in the first four years of the contract (2010-2013) for processing a portion of the 60% of separately collected leaf and yard waste that should have been diverted to Trail Road for a less costly processing of the waste.

During the course of the audit, we became aware of the City of Ottawa’s participation in the City of Gatineau tender as an effort to minimize losses by selling

\(^{25}\) Projections were provided during the course of the audit, on February 14, 2012. Of note, these projections are undated.
the unutilized capacity at Orgaworld to others and minimize the financial burden of the contractual obligation. Our audit work determined that:

- In 2009, the City of Ottawa and Orgaworld negotiated an agreement that allowed Orgaworld to tender on the Gatineau bid while providing the City with some relief from our “put–or-pay” provisions. Orgaworld proposed $90/tonne and was the fourth highest bidder of five bids submitted.
- The collection of Gatineau’s compostable material from its residents was performed under the terms and conditions of another City contract. The Gatineau RFP was for the collection of organic material at a transfer site and the composting of the material.
- The winning bidder proposed an all-inclusive fee for 2010 of $64.30/tonne, $83.10/tonne in 2011 and $83.20/tonne in 2012, $83.40 for 2013 and $79.50 for 2014. The contract is from April 2010 to March 2014 with three additional “one-year” options. There is no minimum tonnage guarantee requirement. At the time we were conducting audit work (winter 2014), they were composting more than 20,000 tonnes a year (which includes leaf and yard waste); the objective is to reach 60% composting which would represent 29,000 tonnes annually.

The eventual contract awarded to Orgaworld was to build a facility that could sustain an annual organic waste volume of 100,000 tonnes per year for a 20 year period.

As noted earlier, a formal documentation of the assumptions, the analyses, the justification of this processing range to validate the accuracy of the metrics, as well as the documented management review and assessment function necessary to corroborate management’s acceptance of the metrics and ultimate business case to support the need for a 100,000 tonne processing capacity could not be located in the corporate records. In our opinion, as a minimum, the cost of separate collection streams for kitchen and leaf and yard waste should have been developed prior to contract award in order to analyse the true cost and capacity requirements to process the City’s organic waste in the most cost effective means possible.

The potential additional costs to the City over the life of the current contract are outlined in the following table.
Table 3: Total Estimated Unnecessary Payments under Constraints of Existing Contracts

<table>
<thead>
<tr>
<th>Actual payment for unutilized minimum guaranteed processing level of organic waste (put-or-pay provision). [Refer to Appendix F]</th>
<th>$4,700,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated premium paid due to the fact that some separately collected leaf and yard waste delivered to the Trail Road facility is factored into the minimum put-or-pay threshold calculations; i.e., in order to meet the minimum put-or-pay threshold. [2010-2013] [Refer to Appendix G]</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>Total estimated unnecessary payments 2010 – 2013</td>
<td>$7,700,000</td>
</tr>
</tbody>
</table>

Had the City entered into a contract that had a reasonable minimum put-or-pay threshold, and where there was no need to send a portion of the separately collected peak leaf and yard waste to Orgaworld for processing, we believe a further potential saving of $4,900,000 (based on 60% of peak LYW being separately collected) over the remaining life of the contract would have been achieved as outlined in the following table.

Table 4: Total Estimated Potential Unnecessary Costs under Constraints of Existing Contracts [2010-2029]

<table>
<thead>
<tr>
<th>Actual payment for unutilized minimum guaranteed processing level of organic waste (put-or-pay provision). [Refer to Appendix F]</th>
<th>$4,700,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated premium paid due to the fact the separately collected leaf and yard waste is delivered to the Trail Road facility is factored into the minimum put-or-pay threshold calculations; i.e., in order to meet the minimum put-or-pay threshold. [2010-2013] [Refer to Appendix G]</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>Sub-total</td>
<td>$7,700,000</td>
</tr>
</tbody>
</table>

26 The estimated unnecessary payments above are calculated from the best information available using current actual volumes including CPI and population growth.
Estimated potential unnecessary cost associated with the processing of the separately collected (seasonal peak leaf and yard required to meet the minimum put-or-pay threshold of the contract. [2014-2023: It is expected the minimum threshold will be met in 2023 without using separately collected LYW]. [Refer to Appendix H]

| Estimated potential unnecessary cost associated with the processing of the separately collected (seasonal peak leaf and yard required to meet the minimum put-or-pay threshold of the contract. [2014-2023: It is expected the minimum threshold will be met in 2023 without using separately collected LYW]. [Refer to Appendix H] | $ 4,900,000 |
| Total estimated unnecessary payments [2010 – 2029] | $ 12,600,000 |

As previously noted, based on the recent and existing nearby municipality of Gatineau’s contract award, there may be significant savings available to the City of Ottawa in future contract awards. These savings would be dependent on numerous variables as the processing cost per tonne varies greatly in the Ontario market depending on the technology utilized, the quality of the organics collected and delivered for processing, and the extent of contaminants in the waste stream.

Projected processing costs under the current contract are estimated at $140,500,000 for the period of 2016 to 2029. The estimated processing costs for the same volume under the cost structure of the nearby municipality’s tender, would be approximately $109,800,000. The difference is due to the agreed upon processing cost.

For example, the City of Gatineau has obtained a significantly better cost per ton than the City of Ottawa for a contract issued shortly after the effective date of the Orgaworld agreement. Substantial potential savings are illustrated in Table 5.

These savings would be reduced by any cost to cancel the existing contract as determined by Legal Services.
Table 5: Total Estimated Potential Savings under Alternative Contract to Process Organic Material Provided Under Current Orgaworld Contract

<table>
<thead>
<tr>
<th>Cost to Process Organic Waste for the period of 2016-2029</th>
<th>Gatineau Provider Equivalent</th>
<th>Orgaworld</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing Rate per tonne for 2016</td>
<td>$86.77 (1)</td>
<td>$107.96</td>
</tr>
<tr>
<td>Total Processing Cost</td>
<td>$109,800,000</td>
<td>$140,500,000</td>
</tr>
<tr>
<td>Estimated Potential Savings</td>
<td></td>
<td>$30,700,000 (2)</td>
</tr>
</tbody>
</table>

(1) Refer to Appendix D
(2) These potential savings would be reduced by any costs to cancel the existing contract

The ability to obtain the above rates, however, is dependent on the ability to find a facility with the available capacity and similar rate structure over the next 16 years. Processing cost savings to be realized, however, need to consider the charges related to the cancellation of the existing contract.

Calculations are based on the 2016-2029 period in order to allow sufficient time for a re-tender process in fair, open, and transparent fashion.

In our opinion, in light of the actual volumes for organic waste excluding leaf and yard waste currently realized are significantly less than the minimum guaranteed volumes, it may be in the City’s best interest to conduct the necessary analysis to determine the cost implications and benefits of pursuing the early termination clause of the contract.

A component of this analysis would be a fully developed cost assessment of the implications of entering into a design, build, and operation of a City-owned facility.

In a related note, we were advised that a Multi-residential Waste Diversion Stakeholder Consultation Group has been established to address challenges to waste diversion in medium and high density housing. It was initiated in June 2011 and work is ongoing.

5.9 Impact of Incomplete Corporate Records on Arbitration Process and Costs

The Arbitration process started on or about June 18, 2012.

We were advised by internal Legal Counsel that, due to the belief that the contractual issues under dispute were relatively straightforward to litigate, it was
originally anticipated that the level of effort for the arbitration process to be approximately two weeks.

However, the process required substantially more time due to the absence of clear and concise corporate records. This contributed to the necessity to prepare twice as many witnesses as Orgaworld, thereby adding to the length and the legal cost of the hearing process.

Internal Legal Counsel informed us that the advantage of corporate records, such as approved minutes and records of decisions, is that they do not change their statements as a witness can under the stress of cross examination. We were further advised that it requires a great deal of time and money to locate, interview and document the statements of participants after the fact, and to prepare the witnesses before they take the stand. These requirements would have been much less if there had been a clear and concise corporate record of the discussions, recommendations and decisions related to the file.

As of June 2014, approximately $1,700,000 of external legal costs were incurred. These costs included the equivalent of over three months of hearings for the commercial arbitration process. Had there been complete corporate records to support the decision making process related to SSO processing and had the hearings lasted only the anticipated two weeks, costs could have potentially been reduced to approximately $250,000, saving the City $1,450,000.

Environmental Services Department has not tracked internal costs associated with the arbitration.

Although the financial impact of the arbitration resulting from the incomplete corporate records cannot be identified, nor quantified, it would certainly be significant.

5.10 Recommendations and Management Responses

Recommendation 1
That the City update its most recent projections on the volumes of organic material to be processed for the balance of the contract, and present the findings to Council, on a regular and periodic basis, including any future put-or-pay payments and marginal cost implications for separate leaf and yard waste processing and collection.

The results of the Multi-residential Waste Diversion Stakeholder Consultation Group initiated in June 2011 should be included in this update.
Management Response

Management agrees with this recommendation.

Management provided updated projections to Environment Committee and Council in April 2011 as part of the Solid Waste Collection Service Level Review Report (ACS2011-ICS-ESD-0002). Management has subsequently updated the forecast of organics diversion for 2015 and beyond. A memorandum with regard to the most recent projections will be circulated to Members of Council in Q3 2014 and will be provided thereafter on an annual basis.

Feedback from the Multi-residential Waste Diver...
City-owned facility to process the SSO waste, based on current market conditions and inclusive of all collection costs.

Management Response
Management agrees with this recommendation.

During the course of negotiations for the Orgaworld contract, the issue of termination at the discretion of the City became significantly contentious due, at least in part, to events surrounding the cancellation of the light rail contract and the resultant litigation. A summary of the negotiations, as well as an explanation of the Termination for Convenience Clause, was the subject of a confidential update by the City Clerk and Solicitor to City Council on March 11, 2008.

The Termination for Convenience clause in the contract provides a formula for calculating termination payments. As these payments decline over the life of the contract, the City Clerk and Solicitor Department analysis of the termination costs and other legal implications would necessarily depend on the timing of the termination.

Apart from the financial consequences of terminating the contract, consideration must also be had to the non-monetary implications of doing so.

Under the contract, the City retains significant control over the source and composition of the organics processed at the Orgaworld facility. Pursuant to those provisions, Orgaworld is precluded from accepting waste from other jurisdictions, or waste that is not of the same composition as that which is supplied through the City’s Green Bin program, without the consent of the City. Absent these contractual limitations, and recognizing that the Environmental Review Tribunal in 2010 agreed to expand Orgaworld’s Certificate of Approval to allow the facility to accept plastics, sanitary products and pet waste, Orgaworld would be free to accept an SSO stream from other sources (e.g. City of Toronto, commercial sectors, etc.) that would contain organics other than kitchen and leaf and yard waste, such as diapers and pet feces.

Further, there is currently no local supplier with sufficient capacity to process the City’s SSO waste stream.

The cancellation of the current contract would require staff to undertake a review of the City’s Integrated Waste Management Master Plan and analysis of the City’s overall waste management program, including a comprehensive technology review, and thereby reconfirm City Council’s direction in respect of the various elements of the City’s program and waste management policies. Such an analysis, which would necessarily include the impact of such things as
the future implementation of the Plasco waste-to-energy technology, would also examine the current estimated lifespan of the Trail Road Waste Disposal Facility, as well as other local landfill capacity and availability. The results of this analysis will be provided to Members of Council in 2015.

**Recommendation 4**
That the City ensure that staff on projects with key roles in program analysis and development have appropriate qualifications and are adequately trained and supervised.

*Management Response*
Management agrees with this recommendation.

Management is committed to ensuring that the right people are in the right positions for all work including priority projects. The implementation of the City’s SSO program was a complex project that required coordination among a number of staff in various departments and disciplines. Management agrees that additional oversight could have helped to avoid the issues identified earlier, namely the failure on the part of staff to reconfirm with Council the critical elements of the design of the City’s SSO program.

**Recommendation 5**

a) That the City ensure that in future projects of importance, such as SSO, that a project charter be fully documented, approved (by Executive Management Committee), implemented and periodically updated in order to identify the scope, objective and milestones of the project. It should delineate roles and responsibilities of the staff and managers involved for oversight and control from the operational department, Legal Services and Supply Management.

b) That the City should establish for Executive Management Committee specific project criteria (i.e., dollar value, duration of contract, potential impact on the public) for when this recommendation would apply.

*Management Response*
Management agrees with this recommendation.

A corporate project management policy has been developed and adopted to ensure that appropriate project management methodologies are used in a consistent manner for future projects. Criteria have been established to determine when a comprehensive project charter needs to be developed and provided to executive management for approval. Project charters include the
identification of key roles, required competencies and management oversight that will be applied to the project.

**Recommendation 6**

That the City ensure the retention of sufficient and adequate documentation to support the decision making process; and ensures that documentation is retained for a full seven years after project completion.

**Management Response**

Management agrees with this recommendation.

The Corporation has a Records Retention and Disposition By-law that determines the required retention periods for official business records. In addition, the City has a Records Management Policy, which defines what an Official Business Record is, staff responsibilities regarding records management and a records classification scheme that directs staff on how records should be classified and their corresponding retention periods.

It appears that the policy was not properly applied with respect to some key areas of this project. As a result, management has taken the following action to prevent a reoccurrence: at its meeting of June 3, 2013, Executive Committee approved a new “E-Records Strategy” presented by the City Clerk and Solicitor, wherein it was proposed that BIMS, the City’s electronic records management system, would be made mandatory for senior managers and their respective office so that all of the formal decisions of the Corporation will be available and accessible in an electronic format. Following a one-year review of this pilot approach, the mandatory requirement for BIMS will be further extended into the Corporation to all levels of management and, thereafter, all City staff.

Notwithstanding the above, the Audit’s suggestion that the lack of documentation led to a direct increase in the City’s legal costs fails to account for the fact that the determination of any additional legal costs that may have been avoided had better documentation been available defies easy quantification. While the ability to cogently and persuasively present a particular version of events may reduce the requirement for evidence given by witnesses, legal proceedings may become protracted by a range of factors, including the need for expert evidence, the range and complexity of legal issues, as well as the need to resolve procedural issues that arise during the course of the proceeding. As a result, while it is possible that the total length of the Orgaworld hearing could have been reduced had better documentation been available, this is extremely difficult to verify at this point in time. As noted in the Audit, the lack of documentation made difficult the
process of determining the rationale underlying the decision staff made in the design of the SSO program and the award of the contract to Orgaworld. However, that complication may not necessarily translate directly into an increase in the length of the hearing and/or its costs, as suggested.

**Recommendation 7**

That the City ensure that all future reports to Council are clear, concise and define options and risks associated with the initiative.

**Management Response**

Management agrees with this recommendation.

The City has existing procedures for the completion of reports to Committee and Council and these are aligned with the “Corporate Standard Report Template”, which includes mandatory fields that require input from the report writer. One of these fields entitled “Risk Management Implications” prompts the writer to provide general risk information, details, rationale and associated impacts related to the report. It also provides contact information for the Corporate Risk Management Co-ordinator should questions arise. In addition, the City Clerk and Solicitor’s office offers support with regard to the drafting requirements for any reports and are in the process of implementing training sessions on report writing for employees who require it.

Adherence to these procedures did not occur in this instance. Going forward, executive management will review all reports associated with projects or initiatives that are subject to compliance with project management policy before they are submitted for Committee or Council consideration.

**Recommendation 8**

That the City ensure that all future reports to Council for major contractual requirements are submitted for approval prior to the Request for Proposal (RFP) process, so that the terms, conditions and options of the RFP are clear to Council prior to tendering.

**Management Response**

Management agrees with this recommendation.

Staff should have reconfirmed the scope/nature of the program for which they were procuring a processing facility, prior to the RFP. Such an approach has been adopted for large-scale projects such as the LRT, where Council was asked to approve design elements that would constrain options in the future (e.g. electric v. diesel) and pre-determine certain other program elements. While program elements contained in the Integrated Waste Management Master Plan
influenced the later choices to be made in terms of defining the SSO program (i.e. the inclusion of leaf and yard waste within the Green Bin as opposed to a kitchen-only program), these should have been reconfirmed with Council prior to the issuance of the RFP.

Contracts are awarded in accordance with Council-approved delegated authority and the City’s Procurement By-law. The existing procurement by-law contains an article with regard to prescribed Council approval. In those instances where Council approval has not been expressly delegated, the procurement strategy, evaluation criteria and basis of selection will be subject to Council consideration and approval prior to the release of the bid solicitation document.

In those instances where the project management policy applies, the fundamental business terms of a potential contract will be presented to Council prior to commencing the procurement process. This requirement will be specified in the project charter. Additionally, senior management and the Chief Procurement Officer have been reminded of the importance of ensuring that prior to proceeding with the procurement of major contracts, that consideration is given to bringing the procurement strategy to Council for consideration and approval where warranted.

**Recommendation 9**
That the City ensure that the individuals listed as the point of contact on all reports to Council or Committee are able to provide all necessary documentation and information.

**Management Response**
Management agrees with this recommendation.

As outlined in the Management Response to Recommendation #7, the City has formal procedures regarding the generation of Committee and Council reports. Every submission to Committee and Council identifies an appropriate point of contact. These contacts are able to provide all of the necessary information in relation to the matter being discussed. This requirement will be highlighted in the roles included in the project charter for major projects and initiatives going forward.

**Recommendation 10**
That the City exercise its contractual right to audit the capacity of Orgaworld as per clause 7.18: Accounts and Audit, and takes appropriate action based on the results.
Management Response
Management agrees with this recommendation.

Earlier this year, the City delivered a Notice of Dispute to Orgaworld questioning the extent of the built capacity of the Ottawa facility and seeking appropriate compensation for any unnecessary put-or-pay payments made to Orgaworld pursuant to the minimum tonnage guarantee.

Potential Savings
We estimate that under the current Separated Source Organics contract, the City has made approximately $7,700,000 in unnecessary payments to date. Further, the City could make additional unnecessary payments of approximately $4,900,000 between 2014 and 2023, for a total of up to $12,600,000 in unnecessary payments over the term of the contract.

Alternately, the City of Gatineau has entered into a contract with a provider with a significantly lower rate and is not tied to minimum contractual quantities (put-or-pay threshold). If the City was to cancel and re-tender the current requirements, this could provide a further potential saving of $30,700,000 over the life of the contract. These savings would be reduced by any costs to cancel the existing contract with Orgaworld.

Conclusion
In 2008, the City completed the negotiation of the Source Separated Organics contract. Project reporting circumvented the normal chain of command and the associated control that normally would be in place. The governance and oversight of the project remains unclear as the management review, assessment and formal approval function required on key elements in the development of the necessary business case for the project does not appear in the corporate records nor does the rationale for decision making on key elements of this project.

The planning process to establish the total volume of organic material available for processing, both food and leaf and yard waste, did not adequately consider the fact that approximately 20,000 tonnes of leaf and yard waste was available for separate collection. This separate collection could have been directed to Trail Road for processing at $15.65 per tonne versus $103.77 per tonne at Orgaworld at 2014 rates.

Based on the studies conducted in the years preceding the issuance of the Request for Proposal and the premium that the City pays for processing the approximately 20,000 tonnes of separately collected peak leaf and yard waste at Orgaworld rather than internally, it is unclear how the Source Separated Organics contract with
Orgaworld is the most cost effective solution for the City to process all collected organics.

Management failed to provide appropriate information to Council, in order that Council could make an informed decision on such an important contract.

In light of the changes in the market place for processing the SSO and the premiums paid for processing separately collected leaf and yard waste, it may be in the City’s best interest to examine the impact and cost of exercising the early termination clause of the contract and assess other options including construction of a City-owned and operated facility.

**Acknowledgement**

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.
APPENDIX A: Report to Planning and Environment Committee

Report to / Rapport au:

Planning and Environment Committee
Comité de l’urbanisme et de l’environnement

and / et

Corporate Services and Economic Development
Comité organisationnels et du développement économique

and Council / et au Conseil

24 September 2007 / le 24 septembre 2007

Submitted by/Soumis par:
R.G. Hewitt, Deputy City Manager / Directeur municipal adjoint
Public Works and Services / Services et Travaux publics

Contact Person/Persone ressource: Felice Petti, Manager/ Gestionnaire
Strategic & Environmental Programs / Services stratégiques et environnementaux
613-580-2424 x 22226, felice.petti@ottawa.ca

City Wide/A l’échelle de la Ville Ref N°: ACS2007-PWS-UTL-0019

SUBJECT: APPROVAL OF SOURCE SEPARATED ORGANICS (SSO) PROGRAM IMPLEMENTATION

OBJET: APPROBATION DE LA MISE EN OEUVRE DU PROGRAMME DES DECHETS ORGANIQUES SEPARES A LA SOURCE

REPORT RECOMMENDATIONS

1. That the Planning and Environment Committee recommend that Council approve:

   a) The city-wide implementation of a Source Separated Organics (SSO) program to commence 1 March 2009.

   b) The transfer in 2007 of one-time capital funds of $7.013 million from the Solid Waste Compensation Reserve Fund to enable program implementation.

2. That the Planning and Environment Committee recommend to Corporate Services & Economic Development Committee that Council approve:
a) The award of RFP No. 00407-96871-P01 to Orgaworld Canada Ltd. for the processing and marketing of the City’s residential source separated organics for a period of 20 years.

RECOMMANDATIONS DU RAPPORT

Que le Comité de l’urbanisme et de l’environnement recommande au Conseil d’approuver :

a) la mise en œuvre, à partir du 1er mars 2009, du Programme des déchets organiques séparés à la source dans toute la ville;

b) le transfert, en 2007, de fonds pour dépenses en capital ponctuels d’un montant de 7,013 millions de dollars du Fonds de réserve compensatoire du Services de gestion des déchets solides afin de permettre la réalisation du programme.

Que le Comité de l’urbanisme et de l’environnement recommande au Comité des services organisationnels et du développement économique de recommander à son tour au Conseil d’approuver :

a) l’octroi de la DP n° 00407-96871-P01 à Orgaworld Canada Ltd. en vue du traitement et de la commercialisation des déchets organiques séparés à la source pour une période de 20 ans.
BACKGROUND

Ottawa generates almost 330,000 tonnes of residential waste per year. Over 35% of the residential waste stream is organic and compostable (leaf and yard waste, and kitchen waste.) At present, most residential organic kitchen waste goes to landfill, with a small percentage processed through the City’s Compost Plus+ pilot project, or back yard composted by residents.

The City’s 2002 Integrated Waste Management Master Plan (IWMMP) recommends implementation of a source separated organics program (SSO) to divert this waste from landfill, and in 2005 Council directed staff to plan for city-wide rollout of the program. Specifically, staff was directed to:

- Draft the 2006 solid waste collection contracts to enable the separate collection of organics;
- Apply to the Federation of Canadian Municipalities’ Green Municipal Enabling Fund for grants and loans to support implementation;
- Solicit interest from vendors of organics processing and marketing; and
- Achieve 60% residential diversion from landfill by the end of 2008 through the above and related promotional and educational measures.

Accordingly, staff have:

- Drafted a new collections contract that provides for the addition of separate collection of organics;
- Secured a Federation of Canadian Municipalities (FCM) grant valued up to $1 million of the eligible costs to support program implementation;
- Set aside twenty-five million dollars in capital reserves for project implementation; and
- Run a competitive proposal for the processing and marketing of the City’s source separated organics program commencing spring 2009.

As per Council direction, this report presents the results of the procurement process, and provides the rationale for recommending that the contract be awarded to Orgaworld Canada Ltd.. It also outlines the other implementation requirements and costs associated with city-wide rollout of the SSO program, namely the:

- Purchase and distribution of organics collection carts;
- Notification of collection contractors, purchase of new fleet, and hiring and training of staff;
- Development of a Communication Plan; and
- Development of an Implementation Plan.

The benefits of this program are:

- Delay the need to develop a new landfill site for up to thirty years which could cost up to $120 million;
- Improve the diversion rate of residential waste from landfills to 60%;
- Reduce odour generation at local landfills and reduce impacts on neighbouring communities;
• Produce environmentally friendly soil thus reducing the need for chemical fertilizers;
• Reduce Green House Gas (GHG) emissions from local landfills;
• Create a potential for increased food waste diversion by the IC&I sector by providing a processing facility within local hauling distance; and
• Implement the City’s IWMMP in keeping with current Provincial policy direction.

The net annual incremental cost of the SSO program, with weekly residual garbage collection, on Solid Waste Services Division annual operating costs is estimated at approximately $13.1 million, which equates to $34/household/year (or $0.65/week).

Ottawa residents generate almost 330,000 tonnes of waste per year, of which 27% is kitchen organic waste (refer to Figure 1.) Currently, the City’s recycling programs successfully diverts approximately 32% of residential waste from landfill through paper and container recycling and leaf & yard waste composting. Separate collection and processing of kitchen organic waste is needed for Ottawa to achieve the 60% residential diversion target set out in the City’s Integrated Waste Management Master Plan.

**Figure 1: Characterization of Ottawa’s Residential Waste Stream**

![Waste Stream Diagram]

Source: SWS, 2004 residential waste audit

Households that comply with the City’s waste by-law by participating in the blue and black programs and the kitchen organics program will produce, on average, less than two bags of residual waste every two weeks. Staff estimates that 60% to 80% of their waste will be picked up through the City’s organics and recycling programs.
DISCUSSION

Source Separated Organics (SSO)

Landfills are nearing capacity throughout Ontario, and new or expanded facilities are not only costly, but also increasingly unacceptable to the public and therefore difficult to locate. Ottawa will have a landfill disposal shortfall within 10 years unless further action is taken to do more to increase diversion, expand landfills, or implement other processing and disposal methods.

A citywide source separation program would remove nearly 100,000 tonnes of organics going to landfill. Local development of this technology could facilitate diversion of food wastes originating from restaurants, grocers, hotels etc.—potentially diverting upwards of 60,000 t/y from landfill. Diverting this material could provide an additional 20 to 30 years of life to our existing landfill site.

SSO has been the subject of a number of reports to council, including the most comprehensive report that was presented in 2003 as ACS2003-TUP-UTL-0001. This matter was brought before the Environmental Advisory Committee in July 2005 and again in December 2006. Planning & Environment Committee last addressed this issue in March 2007.

In 2001, Council approved implementation of a pilot source separated organics (SSO) program: Compost Plus+. Since then, the City has offered collection of household organics to nine (9) communities comprising 5,300 households on a voluntary basis. The program has successfully captured and diverted approximately 2,000 tonnes annually of residential organics.¹ Diversion rates in participating communities averaged 49%, which is 15% greater than the City’s average diversion rate.

In June 2004, the Province issued Ontario’s 60% Waste Diversion Goal: A Discussion Paper, which sets out several approaches the Province is contemplating for the regulation of Ontario wastes. Key matters of note in the Discussion Paper are the following:

- “Diversion of organics through composting must be enhanced” to reach 60% diversion; and, “in the residential sector, the largest gains are likely to come from increased diversion of organics, both food and yard waste.”; and
- The Province indicates that it may phase in a waste diversion target of 60% by 2008 for municipalities with greater than 250,000 people (households or population to be confirmed): “These municipalities already have limited centralized composting infrastructure in place or have plans to develop centralized composting in the near future.”

Currently, over 3.5 million people in thirteen Ontario cities participate in source separated organics programs. Some municipalities, like the Town of Markham and Region of York, are already diverting over 70% of their waste.

¹ It costs the City $30/tonne to compost these organics.
The Province has stated its intention to mandate 60% residential waste diversion rates, with mandatory diversion of organics as the intended means to achieving that target.

In 2005, Council directed staff to undertake the steps needed to enable city-wide implementation of a household kitchen organics collection program, in keeping with the City’s 60% diversion target. Specifically, staff was directed to:

- Draft the 2006 solid waste collection contracts to enable the separate collection of organics;
- Make application to the FCMs’ Green Municipal Enabling Fund to support implementation;
- Solicit interest from vendors of organics processing and marketing; and
- Achieve 60% residential diversion from landfill by end of 2008 through the above measures.

As directed, the new residential waste collections contract provides for the separate collection of organics; successful application was made for a grant and loan from the FCM\(^1\) to support implementation of a residential organics program; and, a procurement process was undertaken to secure organics processing and marketing services.

As requested by Council in approval of report ACS2007-PWS-UTL-0007 in April 2007, this report contains the all-in costs for implementation of a city-wide residential organics program. The estimated capital and operating costs are within the budgets set out in the City’s Long Range Financial Plan (LRFP). Accordingly, staff recommends approval to implement a city-wide SSO program.

**SSO Processing & Marketing Contract**

The costs set out in this report are based upon acceptance of a bid from Orgaworld Canada Ltd. to process and market the City’s residential organics. Orgaworld was identified as a result of a comprehensive, competitive two-stage procurement exercise to secure processing and marketing services for approximately 100,000 tonnes of organics per year, representing upwards of one third of the City’s residential waste stream.

The process followed the requirements of the City’s Purchasing By-law, and was overseen by an independent third-party Fairness Commissioner.\(^2\) Appendix A summarizes the process followed, and analysis carried out to enable identification of a preferred bid.

It should be noted that all of the firms that qualified under the RFQ process expressed significant concerns regarding the City’s Fall 2008 implementation deadline. Specifically, the firms felt that proposed regulatory approval and construction timelines were optimistic, and were unwilling to commit to them. Staff considered the issues raised and the potential of receiving no competitive bids and determined that it was advisable to postpone program implementation to Spring 2009.

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\(^1\) FCM has approved a loan in the amount of $7.25M or up to 28.4% of eligible costs at 1.5% below Bank of Canada rate; and a grant in the amount of $1M or up to 3.9% of the eligible costs.

\(^2\) Twelve firms responded to the City’s 2006 Request for Qualifications (RFQ) with six firms qualified through the evaluation process. Subsequently, four teams responded to the City’s March 2007 Request for Proposal (RFP), with only two teams meeting the minimum 80% technical score and their financial bids opened.
As a result of the overall best value analysis, staff recommend contract award to Orgaworld Canada Ltd. for 100,000 tonnes per year for a contract period of 20 years. This recommendation is based on the assumption that Ottawa will supply a minimum of 80,000 tonnes of Source Separated Organics per year.

Orgaworld Canada Ltd. has secured an option to purchase an 8.9 ha. property immediately north of the City’s Trail Waste Facility, east of the Hwy. 416 on which to build its processing plant. Material unloading and the first stage of composting will occur inside an air quality and climate-controlled building. After a period of intense material breakdown, the composted product will be transported outside, and off-site if required, for further composting and curing. Key odour reduction elements include two biofilters and a bioscrubber with a 40 m stack. All design and operational details for the facility are subject to approval by the Ministry of Environment prior to commissioning.

Orgaworld proposes to phase construction of the facility to meet the capacity requirements of the City. The first phase of construction will allow for roll-out of the program in Spring 2009, with subsequent phases in place to address the peak of organic waste typically received in the Fall, and projected maximum processing requirements by early 2010.¹ The City will work with Orgaworld over the next several months to refine the implementation plan, and will report back to Council with details in the new-year.

This report does not include alternative schedule options for residual garbage collection (bi-weekly). However, staff will be reviewing contract negotiations with the City’s three collection contractors and will present findings to Committee and Council for consideration at the same time as a detailed SSO Implementation Plan is tabled in Q1 of 2008.

It is estimated that introducing bi-weekly collection of residual waste while implementing weekly organics collection would:

- Increase program participation and help to ensure that the 60% diversion rate is achieved;
- Reduce collection costs by approximately $1.89 million per year;
- Increase revenues from Waste Diversion Ontario (WDO) and increased market revenue from additional recycling capture by $1.5 million per year;
- Increase participation in the City’s recycling program, which in turn will boost revenues and funding received from Waste Diversion Ontario (WDO);
- Prolong the life of Trail Waste Facility; and
- Significantly reduce the enforcement requirements budgeted for the program.

¹ Projected maximum volumes will only be generated if the City implements bi-weekly collection of residual waste.
ENVIRONMENTAL IMPLICATIONS

Implementation of a residential source separated organics program will yield several environmental benefits. The most obvious benefit is the potential diversion of 60% of residential waste from landfill, the extended life of Trail Waste Facility and, therefore, the deferred need to expand or establish new landfills with consequent impacts on the natural and built environment. Other benefits of a residential organics program include:

- Diverting organics from landfill will help to reduce odour generation at local landfills;
- Reducing Green House Gas (GHG) emissions;
- Reducing the impacts of local landfills on neighbouring communities;
- Producing environmentally friendly soil, which reduces the need for chemical fertilizers;
- Potentially increasing food waste diversion by the IC&I sector by providing a processing facility within local hauling distance.

RURAL IMPLICATIONS

As currently conceived, the SSO program will be made available in rural villages and country estate communities.

CONSULTATION / PUBLIC NOTIFICATION

Extensive public consultation was done from 1996 through to 2005 on organics implementation including open houses, a public liaison committee, phone and paper survey feedback, and pilot monitoring and feedback from two separate pilots. This feedback has been presented in a number of reports to council, including the most comprehensive report that was presented in 2003 as ACS2003-TUP-UTL-0001. This matter was brought before the Environmental Advisory Committee in July 2005 and again in December 2006, at which times EAC endorsed implementation of a SSO program. Planning & Environment Committee last addressed this issue in March 2007 at which time representation from the public was heard in support of the initiative.

FINANCIAL IMPLICATIONS

The implementation of SSO, including the approval of the award of the SSO processing contract, will have the following budget impacts:

Capital Budget

Funding of $9.75 million for the organics containers has already been approved in the 2007 Capital Budget in Capital Account 900351 Waste Management Alternatives.
Total remaining capital budget authority of $7.013 million is required in 2007 upon approval of this report for program implementation. Funding for this requirement is available in the Solid Waste Compensation Reserve Fund, which had a balance of $14.9 million as of 1 July 2007.

**Operating Budget**

Approval of this report has no Operating Budget or tax implications for 2007 and 2008 since the implementation of SSO is not scheduled until the spring of 2009. The total annual net operating budget requirements and tax implications of SSO for 2009 and 2010 are summarized in Table 5.

The net annual incremental cost of the SSO program, with weekly residual garbage collection, on Solid Waste Services Division annual operating costs is estimated at approximately $13.1 million, which equates to $34/household/year (or $0.65/week).

The 2009 part year costs/pressures and 2010 full year annualization of these costs will be identified in the 2008-2010 LRFP Operating Budget Pressures. Costs for 2011 and beyond will be subject to regular inflation for CPI contract increases and growth pressures due to changes in tonnages.

**DISPOSITION**

1. Public Works & Services will undertake the steps necessary to enable city-wide implementation of the SSO program commencing 1 March 2009.
2. Public Works & Services in cooperation with Supply Management will negotiate final contract terms and execute an agreement with Orgaworld Canada Ltd.
3. Financial Services will transfer funding from the Solid Waste Compensation Reserve Fund for the 2007 Capital Budget Authority requirements for program implementation.
4. Public Works and Services will identify additional operating costs in the 2008 LRFP for 2009 and 2010.

**SUPPORTING DOCUMENTATION**

Document 1 – RFP Process
Document 2 - Fairness Commissioners Report, Cover Letter
Document 1 - RFP Process

The objective of the RFP was to secure SSO processing and marketing services for 100,000 tonnes of kitchen organics annually. The RFP was structured to allow proponents to bid one or more delivery options to enable staff to identify the terms that would yield the best overall value for the City:

Service Contract (SC) to provide 25 kilotonnes (kt), or 50kt, or 100kt annual processing capacity at an existing approved facility for a period of 10 years, or 15 years, or 20 years.

Design, Build, Own, Operate (DBOO) a facility on private property to provide SSO processing and marketing for 25kt, or 50kt, or 100kt annually for a period of 10 years, or 15 years, or 20 years.

Design, Build, Operate (DBO) a 25kt, or 50kt, or 100kt capacity processing facility, on City property\(^27\), for a period of 10 years, or 15 years, or 20 years.

Design, Build, Own, Operate & Transfer (DBOOT) a 25kt, or 50kt, or 100kt processing facility, on City property, for a period of 10 years, or 15 years, or 20 years.

Two firms met the mandatory submission requirements and achieved a minimum technical score of 80%: Conporec Inc. and Orgaworld Canada Ltd., which submitted several pricing options. Four system options were developed and evaluated based upon the submissions received, as outlined in Table 1.

<table>
<thead>
<tr>
<th>System</th>
<th>Proposal, Type and Tonnage Option</th>
<th>Contract Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orgaworld Canada Ltd. (DBOO), 100,000 t/yr&lt;br&gt;Lowest bid system.</td>
<td>20 years</td>
</tr>
<tr>
<td>2</td>
<td>Orgaworld Canada Ltd. (DBOO), 50,000 t/yr&lt;br&gt;Conporec Inc. (DBO), 50,000 t/yr&lt;br&gt;Lowest bid system that provided for City-owned facility</td>
<td>20 years</td>
</tr>
</tbody>
</table>

\(^{27}\) PWS worked in cooperation with RPAM to identify and evaluate City properties for this purpose. 4041 Moodie Drive, which is secured by Solid Waste Services for the processing of leaf and yard waste, was identified to bidders as the potential site on which the facility would be situated, pending Council approval.
<table>
<thead>
<tr>
<th>System</th>
<th>Proposal, Type and Tonnage Option</th>
<th>Contract Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Orgaworld Canada Ltd. (DBOO), 50,000 t/yr Conporec Inc. (DBO), 50,000 t/yr Lowest bid system that provided for City-owned facility over shorter contract period</td>
<td>15 years</td>
</tr>
<tr>
<td>4</td>
<td>Orgaworld Canada Ltd. (DBOO), 50,000 t/yr Conporec Inc. (DBOOT), 50,000 t/yr Lowest bid system that provided for City-owned facility without upfront capital financing</td>
<td>20 years</td>
</tr>
</tbody>
</table>
Best Overall Value Evaluation

In accordance with the RFP, the study team undertook a “Best Overall Value” analysis of the four “systems” using comparative evaluation criteria that considered:

- The annual cost of each system, based on the gross Full Cost per Tonne;
- The ability of each system to be expanded;
- The degree of redundancy to mitigate risk; and
- The ability of each system to provide long-term capacity.

When assessed against the first criterion, System 1 was the only option that came within the budget set out in the Long Range Financial Plan (LRFP) and within the balance of the Waste Reserve Fund. All other options were a minimum of 25% more expensive and would require debt financing.

When assessed against the other three criteria, System 2 had several advantages over System 1, specifically:

- Ability to expand by 100% to 200,000 t/yr to serve IC&I sector;
- Provision of 50% redundancy provided through operation of two separate plants;
- Ability of one plant to expand to meet full capacity requirement if required;
- Guaranteed provision of 50,000 t/yr long-term capacity through facility ownership;
- Ownership of fully paid facility at end of 20-year contract with an approximate residual value of $15+ million and 10 years remaining operating life; and
- Significantly reduced tipping fee during last 10 years of operation (i.e. operating cost and capital replacement fund only.)

However, the System 2 option would have entailed construction of two facilities in close proximity to each other, and at considerable additional cost (over $20 million beyond the monies available in the Waste Reserve Fund). The advantages of System 2 may have weighed more heavily in its favour if the two facilities were at either end of the City (resulting in lower hauling costs and greenhouse gas emissions); and, had there been a less significant difference in the capital and operating costs of the two systems which met Council’s direction to implement a program “within the financial resources set aside for this purpose….” Given the above overall best value analysis, staff recommend contract award to Orgaworld Canada Ltd. for 100,000 tonnes per year for a contract period of 20 years.

Orgaworld Canada Ltd. is a joint venture company comprised of Orgaworld International B.V. of The Netherlands, and Conestoga-Rovers & Associates Limited (CRA) a North American environmental management firm. Orgaworld designs, builds, owns, and operates several composting facilities in The Netherlands and was retained in 2005 by the Region of York to construct a 40,000 t/y facility (expandable to 150,000 t/y) for the composting of SSO. CRA operates across Canada, with an office in Ottawa, and will provide detailed design, construction and approvals management, and related engineering and planning services to the consortium.
Orgaworld Canada Ltd. has secured an option to purchase an 8.9 ha. property immediately north of the City’s Trail Waste Facility, east of the Hwy. 416 on which to build its processing plant. Material unloading and the first stage of composting will occur inside an air quality and climate-controlled building. After a period of intense material breakdown, the composted product will be transported outside, and off-site if required, for further composting and curing. Key odour control elements include two biofilters and a bioscrubber with a 40 m stack. All design and operational details for the facility are subject to approval by the Ministry of Environment prior to commissioning.

Orgaworld proposes to phase construction of the facility to meet the capacity requirements of the City. The first phase of construction will allow for roll-out of the program in Spring 2009, with subsequent phases in place to address the peak of organic waste typically received in the Fall, and projected maximum processing requirements by early 2010.1 The City would work with Orgaworld over the next several months to refine the Implementation Plan, and will report back to Committee and Council with details in the new-year.

**Implementation Requirements and all-in Program Costs**

Over the past five years, the City’s Compost Plus+ pilot has been used to assess different containers and bins, equipment, collection schedules, incentives and communication tools, and other options for the implementation of a source separate organics program. A detailed Implementation Plan will be developed for approval by Committee and Council next year based upon the lessons learned, feedback provided by the 5,300 households that have participated, and consultations with other municipalities.

In the meantime, the following tables outline the key implementation requirements and full cost implications of the program:

- **Table 2** presents the draft schedule for citywide implementation of a SSO curbside collection program.

- **Table 3** presents the one time capital costs required to implement the SSO program across the City, including the additional requirements for the City’s In House Collection Group that collects waste in Zone 3. Capital authority to be funded from the Solid Waste Compensation Reserve Fund will be required in 2008 and will be identified in the 2008 Draft Capital Budget.

- **Table 4** presents the regular on going operating costs are required to operate and maintain the SSO program. Note that changes in waste streams caused by the implementation of organics have impacts on other waste streams and their associated costs.

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1 Projected maximum volumes will only be generated if the City implements bi-weekly collection of residual waste.
### Table 2 – Draft Implementation Schedule

<table>
<thead>
<tr>
<th>ITEM</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>‘10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td><strong>Processing Facility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Contract Award</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Detailed Design &amp; Approval</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Commission&lt;sup&gt;7&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Collection Carts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Manufacture/Shipping</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Delivery to Households</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Collection Contract &amp; Fleet</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Contract Negotiation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tender New Fleet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Fleet Production &amp; Delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Collections Staff Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communications &amp; Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Communication Planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Design &amp; Production</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Implementation</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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<sup>7</sup> Phase I of construction to be completed by 1 March 2009, with additional capacity added over the remainder of the year.
### TABLE 3 - SSO Capital Costs

<table>
<thead>
<tr>
<th>Requirement</th>
<th>2007 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Purchase &amp; distribution of organics bins³</td>
<td>11,925,000</td>
</tr>
<tr>
<td>• Communications, Education and Compliance Promotion</td>
<td>1,450,000</td>
</tr>
<tr>
<td>• Start up costs for Zone 3 City In-House Collection Group</td>
<td></td>
</tr>
<tr>
<td>• Organics Collection Vehicles (9 @ $312,000)</td>
<td>2,808,000</td>
</tr>
<tr>
<td>• Facility Upgrades for the In-House Group</td>
<td>485,000</td>
</tr>
<tr>
<td>• Vehicles for Additional Inspector and Supervisor</td>
<td>95,000</td>
</tr>
<tr>
<td><strong>Total Capital Requirements</strong></td>
<td>16,763,000</td>
</tr>
<tr>
<td>- Authority approved in 2007 Capital Budget</td>
<td>(9,750,000)</td>
</tr>
<tr>
<td><strong>Balance of Capital Authority Required in 2007 to be funded from Solid Waste Compensation Reserve Fund</strong></td>
<td>7,013,000</td>
</tr>
<tr>
<td>*<em>Minus FCM Grant up to $1 million.</em></td>
<td></td>
</tr>
</tbody>
</table>

Fund Balance at July 1, 2007 - $15.7 million

*Exact value of grant to be determined based upon detailed Implementation Plan and actual costs.

### TABLE 4 - SSO Operating Costs

<table>
<thead>
<tr>
<th>ITEM</th>
<th>2009 $</th>
<th>2010 $</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collection Contracts³</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• New Organics Collection</td>
<td>4,327,000</td>
<td>7,436,000</td>
</tr>
<tr>
<td>• Savings in Residual/Regular Garbage Collection</td>
<td>(1,856,000)</td>
<td>(3,234,000)</td>
</tr>
<tr>
<td>• Savings in Leaf and Yard Collection</td>
<td>(1,003,000)</td>
<td>(1,686,000)</td>
</tr>
<tr>
<td>• Increase in Recycling Collection</td>
<td>1,261,000</td>
<td>1,431,000</td>
</tr>
<tr>
<td><strong>Net Increase of Collection Contracts (A)</strong></td>
<td>2,729,000</td>
<td>3,947,000</td>
</tr>
<tr>
<td><strong>RFP-Based Processing Contracts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Organics Processing</td>
<td>5,744,000</td>
<td>7,474,000</td>
</tr>
<tr>
<td>• Recycling Processing (fibre and container)</td>
<td>225,000</td>
<td>310,000</td>
</tr>
<tr>
<td><strong>Total Impact on Processing Contracts (B)</strong></td>
<td>5,969,000</td>
<td>7,784,000</td>
</tr>
<tr>
<td><strong>In-House Collection Group for Zone 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 9 Vehicle Operator FTE’s to Operate New Organics Collection Vehicles and 1 Supervisor</td>
<td>565,000</td>
<td>585,000</td>
</tr>
</tbody>
</table>

---

³ Assumes distribution to approximately 265,000 households (curbside pick-up) @ $55/household.

³ As approved by Council based on weekly pick-up of residual waste. If the City moves to bi-weekly collection of residual waste, the net costs could decrease.
TABLE 4 – SSO Operating Costs

<table>
<thead>
<tr>
<th>ITEM</th>
<th>2009 $</th>
<th>2010 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet Operating Costs for New Organics and Supervisor Vehicles (10 in total)</td>
<td>800,000</td>
<td>1,005,000</td>
</tr>
<tr>
<td>Total In-House Collection Group (C)</td>
<td>1,365,000</td>
<td>1,590,000</td>
</tr>
<tr>
<td><strong>Other Costs and Revenues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Additional Waste Inspector (Including Fleet O&amp;M costs for 1 Vehicle)</td>
<td>82,000</td>
<td>82,000</td>
</tr>
<tr>
<td>Ongoing Communications, Compliance Promotion and Program Support Costs</td>
<td>416,000</td>
<td>416,000</td>
</tr>
<tr>
<td>Estimated increase in Recyclable Revenues and Waste Diversion Ontario Funding</td>
<td>(565,000)</td>
<td>(757,000)</td>
</tr>
<tr>
<td>Total Other Costs and Revenues (D)</td>
<td>(67,000)</td>
<td>(259,000)</td>
</tr>
<tr>
<td><strong>Total Net Operating Costs (A+B+C+D)</strong></td>
<td>9,996,000</td>
<td>13,062,000</td>
</tr>
</tbody>
</table>

Approximate Tax Increase in Each Year

1.0% 0.3%

TABLE 5 – Summary of SSO Operating Budget

<table>
<thead>
<tr>
<th>ITEM</th>
<th>2009 $</th>
<th>2010 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Impact on Collection Contracts</td>
<td>2,729,000</td>
<td>3,947,000</td>
</tr>
<tr>
<td>Total Impact on Processing Contracts</td>
<td>5,969,000</td>
<td>7,784,000</td>
</tr>
<tr>
<td>Total In-House Collection Group</td>
<td>1,365,000</td>
<td>1,590,000</td>
</tr>
<tr>
<td>Total Other Costs and Revenues</td>
<td>(67,000)</td>
<td>(259,000)</td>
</tr>
<tr>
<td><strong>Total Net Operating Costs</strong></td>
<td>9,996,000</td>
<td>13,062,000</td>
</tr>
</tbody>
</table>

Estimated Tax Increase in Each Year

1.0% 0.3%

Approximate Share of IC&J Taxation (29%) 2,898,840 3,787,980

Balance Funded from Residential Taxation 7,097,160 9,274,020

Total Cost per Household\(^{10}\) (average assessment) $25.84 $33.66

Cost per Household per week\(^{11}\) $0.59 $0.65

Based upon assessment to average home of $279,000.

2009 based upon 44 weeks from date of implementation.
August 08, 2007

Ms. Sally McIntyre
Program Manager
Environmental Programs
City of Ottawa
800 Green Creek Drive
Gloucester, ON
K1J 1A6

Sally.McIntyre@ottawa.ca

Processing and Marketing of Source Separated Organics
Fairness Commissioner Report No. 2

Dear Sally:

We are pleased to submit our Fairness Commissioner Report No. 2 which provides our review and commentary on the implementation of the Processing and Marketing of Source Separated Organics procurement initiative.

This Report covers the procurement management activities undertaken during the Request for Proposals (RFP) Stage Two of the procurement initiative.

In our opinion, all the procurement management activities to-date have been conducted in an open, fair and transparent manner without any actual or perceived conflicts of interest; without any compromise to the fair and equitable treatment of all qualified proponents; and without any compromise to the integrity of the process as a whole.

Sincerely,

Joan Ramsay
Principal
APPENDIX B: Detailed Timeline

[Diagram showing a detailed timeline of events related to the procurement process, including key dates and milestones such as the approval of the SSO concept in July 2005, the selection of contractors in 2006, and the start of the project in 2007.]
### APPENDIX C: Cost Impact of Increasing the Put-or-Pay Threshold from 70,000 tonnes to 80,000 tonnes annually

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen and LYW</td>
<td>52,056</td>
<td>54,576</td>
<td>55,264</td>
<td>69,436</td>
</tr>
<tr>
<td>organics sent to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orgaworld (tonnes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LYW organics sent to</td>
<td>9,178</td>
<td>8,910</td>
<td>11,714</td>
<td>13,560</td>
</tr>
<tr>
<td>Trail Road (tonnes)(^{28})</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic - Total</td>
<td>61,234</td>
<td>63,486</td>
<td>66,978</td>
<td>82,996</td>
</tr>
<tr>
<td>(tonnes)(^{29})</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Processing Rate(^{30})</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>80,000 tonne Threshold:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put-or-Pay Shortfall</td>
<td>18,766</td>
<td>16,514</td>
<td>13,022</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Cost of Put-or-Pay</td>
<td>$1,800,22</td>
<td>$1,631,41</td>
<td>$1,327,20</td>
<td>-</td>
<td>$4,758,843</td>
</tr>
<tr>
<td>Shortfall</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70,000 tonne Threshold:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put-or-Pay Shortfall</td>
<td>8,766</td>
<td>6,514</td>
<td>3,022</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Cost of Put-or-Pay</td>
<td>$840,922</td>
<td>$643,518</td>
<td>$308,002</td>
<td>-</td>
<td>$1,792,443</td>
</tr>
<tr>
<td>Shortfall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cost impact of increasing the Put-or-Pay threshold from 70,000 tonnes to 80,000

| $959,300 | $987,900 | 0 | - | $2,966,40 |

---

\(^{28}\) Volumes below daily maximums and refused by Orgaworld.

\(^{29}\) The Environmental Services Department includes this volume in the Put-or-Pay calculations.

\(^{30}\) Contractual processing rate regardless of volume processed.
LYW: Leaf and Yard Waste

NOTE: While there may some reduction in tipping fees at the increased threshold, there is no documentation on file to support such a reduction in fees.
### APPENDIX D: Processing Rates per Tonne

1. **Year** | **(A) Orgaworld** | **(B) Municipality of Gatineau** | **(C) Model Based on (B)**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$95.93</td>
<td>$64.30</td>
</tr>
<tr>
<td>2011</td>
<td>$98.79</td>
<td>$83.10</td>
</tr>
<tr>
<td>2012</td>
<td>$101.92</td>
<td>$83.20</td>
</tr>
<tr>
<td>2013</td>
<td>$102.63</td>
<td>$83.40</td>
</tr>
<tr>
<td>2014</td>
<td>$103.77</td>
<td>$79.50</td>
</tr>
</tbody>
</table>

**Estimated (Previous Year’s Rate * CPI at 2%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>(A) Orgaworld</th>
<th>(B) Municipality of Gatineau</th>
<th>(C) Model Based on (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$105.85</td>
<td>$81.09</td>
<td>$86.77</td>
</tr>
<tr>
<td>2016</td>
<td>$107.96</td>
<td>$82.71</td>
<td>$88.50</td>
</tr>
<tr>
<td>2017</td>
<td>$110.12</td>
<td>$84.37</td>
<td>$90.27</td>
</tr>
<tr>
<td>2018</td>
<td>$112.32</td>
<td></td>
<td>$92.08</td>
</tr>
<tr>
<td>2019</td>
<td>$114.57</td>
<td></td>
<td>$93.92</td>
</tr>
<tr>
<td>2020</td>
<td>$116.86</td>
<td></td>
<td>$95.80</td>
</tr>
<tr>
<td>2021</td>
<td>$119.20</td>
<td></td>
<td>$97.72</td>
</tr>
<tr>
<td>2022</td>
<td>$121.58</td>
<td></td>
<td>$99.67</td>
</tr>
<tr>
<td>2023</td>
<td>$124.01</td>
<td></td>
<td>$101.66</td>
</tr>
<tr>
<td>2024</td>
<td>$126.50</td>
<td></td>
<td>$103.70</td>
</tr>
<tr>
<td>2025</td>
<td>$129.02</td>
<td></td>
<td>$105.77</td>
</tr>
<tr>
<td>2026</td>
<td>$131.61</td>
<td></td>
<td>$107.89</td>
</tr>
<tr>
<td>2027</td>
<td>$134.24</td>
<td></td>
<td>$110.04</td>
</tr>
<tr>
<td>2028</td>
<td>$136.92</td>
<td></td>
<td>$112.25</td>
</tr>
<tr>
<td>2029</td>
<td>$139.66</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. **(1)** Note: The table reflects contract rates in place at present. However, the City’s contract with Orgaworld was issued in 2008 and rates per tonne reflect market conditions at that time.

2. **(2)** Model C was based on Gatineau’s supplier having structured the pricing of the contract so that it would be attractive for Gatineau to exercise the option years (see low price in 2014). In our calculations CPI of 2% was applied starting in 2015 to the 2013 (dropping the low 2014 price) price to be conservative and more representative of the market rates. [i.e., Gatineau’s 2013 rate per tonne of $83.40 x 1.02 (for 2015) x 1.02 (for 2016) = $86.77]
## APPENDIX E: Study Comparison

<table>
<thead>
<tr>
<th>Study</th>
<th>Key Finding</th>
<th>Calculations</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compost+ (2005)</td>
<td>5,300 households produced 34 tonnes on non-LYW organics per month.</td>
<td>271,000 households would produce 20,862 tonnes of non-LYW organics per year.</td>
<td>20,862 Tonnes per year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>271,000 hh / 5,300 phh X 34 tpm X 12 months = 20,862 tpy</td>
<td></td>
</tr>
<tr>
<td>Residential Curbside Waste Characterization Study (Fall 2004)</td>
<td>Each household produces 365kg(^{31}) of organics annually.</td>
<td>Assuming a 100% participation and 100% diversion, the total non-leaf and yard organics output is 57,470 tonnes per year.</td>
<td>57,470 Tonnes per year</td>
</tr>
<tr>
<td></td>
<td>Of the 365kg waste setout, 58.1(^{32})% was observed to be food waste.</td>
<td>Diversion rate in 2011 were 36% (as per HDR). Therefore tonnage expected to be diverted to Orgaworld would be approximately 20,689 tonnes per year.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Due to the timing of the audit, minimum – if any - leaf and yard setouts were observed.</td>
<td>365kg X 271,000hh x 58.1% = 57,470tpy x 36% diversion = 20,689 tpy.</td>
<td></td>
</tr>
</tbody>
</table>

\(^{31}\) *Residential Curbside Waste Characterization Study*: Page 3. Organics include food waste, textiles, diapers and sanitary products, pet waste, tissue and toweling, kraft paper, as well as other papers.

\(^{32}\) *Residential Curbside Waste Characterization Study*: Food waste accounts for 58.1% of the organics. Page 20, Figure 8-1
# Audit of Procurement Practices Related to the Source Separated Organics Contract

<table>
<thead>
<tr>
<th>Study</th>
<th>Key Finding</th>
<th>Calculations</th>
<th>Volume</th>
</tr>
</thead>
</table>
| Organics Composition Study<sup>33</sup> (2004-2005) | Kitchen organic wastes account for 13%<sup>34</sup> of waste stream.                         | Report to council indicates that organics (both kitchen and leaf and yard waste) is 35% of 330,000 tonnes of waste produced in Ottawa, or 115,500 tonnes annually. Trail Rd, in 2009, processed 38,038 tonnes of LYW.  

\[
330,000 \text{ tpy x 13\%} = 42,900 \text{ tpy} + 38,038 \text{ tpy (Trail Road)} = 80,938 \text{ tpy}
\]
|                                                 |                                                                                               |                                                                                                  | 42,900 Tonnes per year (food waste)  
|                                                 |                                                                                               |                                                                                                  | 38,038 Tonnes per year (LYW processed at Trail Rd in 2009)  
|                                                 |                                                                                               |                                                                                                  | Total 80,938 Tonnes per year |
| Residential Waste Characterization Study (2005) | Per Environmental Services Department, organic food waste is 37% of all waste sent to landfill, 10.1kg per week | 37% of food waste translates into 46,350 tonnes per year assuming 100% diversion and participation rate. | 46,350 Tonnes per year |

(The above calculations ignore population growth of approximately 1.33% per annum)

hh: Households.

phh: Pilot Study participating households

tpy: tonnes per year

tpm: tonnes per month.

---

<sup>33</sup> Organics Composition Study: Table 3, page 5.

<sup>34</sup> Organics Composition Study: Page 5 and 6.
APPENDIX F: Put-or-Pay Payment Breakdown

<table>
<thead>
<tr>
<th>(in Tonnes)</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>[NOTE]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen Waste</td>
<td>23,349</td>
<td>24,208</td>
<td>26,954</td>
<td>41,757</td>
<td>1, 2, 6</td>
</tr>
<tr>
<td>LYW comingled with Kitchen Waste</td>
<td>17,806</td>
<td>18,460</td>
<td>18,811</td>
<td>19,382</td>
<td>1, 2, 6</td>
</tr>
<tr>
<td>Comingled Peak LYW sent to OCL</td>
<td>10,901</td>
<td>11,908</td>
<td>9,499</td>
<td>8,297</td>
<td>1, 2</td>
</tr>
<tr>
<td>Separately Collected LYW sent to Trail Road</td>
<td>9,178</td>
<td>8,910</td>
<td>11,714</td>
<td>13,560</td>
<td>3</td>
</tr>
<tr>
<td>Total SSO Organic Waste</td>
<td>61,234</td>
<td>63,486</td>
<td>66,978</td>
<td>82,996</td>
<td></td>
</tr>
<tr>
<td>Contractual Put-or-Pay Threshold</td>
<td>80,000</td>
<td>80,000</td>
<td>80,000</td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>Put-or-Pay Shortfall</td>
<td>18,766</td>
<td>16,514</td>
<td>13,022</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(in dollars)</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing Rate</td>
<td>$95.93</td>
<td>$98.79</td>
<td>$101.92</td>
<td>$102.63</td>
</tr>
<tr>
<td>Kitchen Waste</td>
<td>$2,239,870</td>
<td>$2,391,508</td>
<td>$2,747,152</td>
<td>$4,285,521</td>
</tr>
<tr>
<td>LYW comingled with Kitchen Waste</td>
<td>$1,708,130</td>
<td>$1,823,663</td>
<td>$1,917,217</td>
<td>$1,989,175</td>
</tr>
<tr>
<td>Comingled Peak LYW sent to OCL</td>
<td>$1,045,733</td>
<td>$1,176,391</td>
<td>$968,138</td>
<td>$851,521</td>
</tr>
<tr>
<td>Separately Collected LYW sent to Trail Road</td>
<td>$880,446</td>
<td>$880,219</td>
<td>$1,193,891</td>
<td>$1,391,663</td>
</tr>
<tr>
<td>Total Cost of SSO Organic Waste Processing</td>
<td>$5,874,179</td>
<td>$6,271,781</td>
<td>$6,826,398</td>
<td>$8,517,880</td>
</tr>
<tr>
<td>Total Cost at Put-or-Pay Threshold</td>
<td>$7,674,400</td>
<td>$7,903,200</td>
<td>$8,153,600</td>
<td>$8,210,400</td>
</tr>
<tr>
<td>Cost of Put-or-Pay Shortfall</td>
<td>$1,800,222</td>
<td>$1,631,418</td>
<td>$1,327,202</td>
<td></td>
</tr>
</tbody>
</table>
## Audit of Procurement Practices Related to the Source Separated Organics Contract

### (in Tonnes)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cost of Put-or-Pay Shortfall</td>
<td></td>
<td></td>
<td></td>
<td><strong>$4,758,842</strong></td>
</tr>
</tbody>
</table>

### [NOTE]

- **[NOTE 1]**: Allocation of Volumes between "peak" or Separately Collected LYW based on the HDR June 2013 Projections and 2009 data on the LYW collected by the City of Ottawa.
- **[NOTE 2]**: Volumes provided by Environmental Services Department and confirmed through Orgaworld Weigh Scale Tickets (in aggregate).
- **[NOTE 3]**: Volumes provided by Environmental Services Department and confirmed through Trail Road Weigh Scale Tickets.
- **[NOTE 4]**: Processing rates confirmed through invoice documents.
- **[NOTE 5]**: Cost is estimated.

**OCL**: Orgaworld  
**LYW**: Leaf and Yard Waste
# APPENDIX G: Incremental Cost (2010-2013)

Incremental Cost for Including Separately Collected Leaf and Yard Waste in the Put-or-Pay Calculated Volumes

<table>
<thead>
<tr>
<th>(in tonnes)</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>[NOTE]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak LYW: Processed at Trail Road</td>
<td>9,178</td>
<td>8,910</td>
<td>11,714</td>
<td>13,560</td>
<td>1</td>
</tr>
<tr>
<td>Adjustment: Tonnage exceeds max daily contractual quantity of 540 tonnes</td>
<td>(1,512)</td>
<td>(1,545)</td>
<td>(2,699)</td>
<td>(2,994)</td>
<td>3</td>
</tr>
<tr>
<td>Adjustment: Tonnage in excess of 80,000 put-or-pay threshold</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(2)</td>
<td>3</td>
</tr>
<tr>
<td>Total adjusted Peak LYW available for Trail Road processing</td>
<td>7,666</td>
<td>7,365</td>
<td>9,015</td>
<td>10,564</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(in dollars)</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing Rate: OCL</td>
<td>$95.93</td>
<td>$98.79</td>
<td>$101.92</td>
<td>$102.63</td>
<td>2</td>
</tr>
<tr>
<td>Processing Rate: Trail Road (net of revenue)</td>
<td>$17.25</td>
<td>$13.54</td>
<td>$13.88</td>
<td>$15.34</td>
<td>3</td>
</tr>
<tr>
<td>Processing Rate: Incremental Difference</td>
<td>$78.68</td>
<td>$85.25</td>
<td>$88.04</td>
<td>$87.29</td>
<td></td>
</tr>
<tr>
<td>Estimated incremental cost of processing the separately collected Peak LYW sent to Trail Road</td>
<td>$603,161</td>
<td>$627,866</td>
<td>$793,681</td>
<td>$922,306</td>
<td></td>
</tr>
<tr>
<td>2010-2013 Total</td>
<td></td>
<td></td>
<td></td>
<td>$2,947,014</td>
<td></td>
</tr>
</tbody>
</table>

[NOTE 1]: Volumes provided by Environmental Services Department and confirmed through Trail Road Weigh Scale Tickets.
[NOTE 2]: Processing rates confirmed through invoice documents.
[NOTE 3]: Provided by Environmental Services Department.

OCL: Orgaworld
LYW: Leaf and Yard Waste
### APPENDIX H: Incremental Cost (2014-2029). Processing Separately Collected Leaf and Yard Waste under the Current Contractual Agreement with Orgaworld (i.e., 60%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Available LYW (peak and non-peak)</td>
<td>41,790</td>
<td>42,348</td>
<td>42,913</td>
<td>43,486</td>
<td>44,066</td>
<td>44,655</td>
<td>45,251</td>
<td>45,855</td>
<td>46,467</td>
<td>47,087</td>
<td>47,716</td>
<td>48,353</td>
<td>48,999</td>
<td>49,653</td>
<td>50,316</td>
<td>50,987</td>
</tr>
<tr>
<td>60% of Peak LYW volume (3 of the 5 zones) available for Trail Road processing</td>
<td>13,289</td>
<td>13,467</td>
<td>13,646</td>
<td>13,828</td>
<td>14,013</td>
<td>14,200</td>
<td>14,390</td>
<td>14,582</td>
<td>14,777</td>
<td>14,974</td>
<td>15,174</td>
<td>15,376</td>
<td>15,582</td>
<td>15,790</td>
<td>16,000</td>
<td>16,214</td>
</tr>
<tr>
<td>Adjustment: Tonnage exceeds max daily contractual quantity of 540 tonnes</td>
<td>(1,374)</td>
<td>(1,392)</td>
<td>(1,411)</td>
<td>(1,430)</td>
<td>(1,449)</td>
<td>(1,468)</td>
<td>(1,488)</td>
<td>(1,508)</td>
<td>(1,528)</td>
<td>(1,548)</td>
<td>(1,569)</td>
<td>(1,590)</td>
<td>(1,611)</td>
<td>(1,633)</td>
<td>(1,654)</td>
<td>(1,676)</td>
</tr>
<tr>
<td>Adjustment: Tonnage in excess of 80,000 put-or-pay threshold.</td>
<td>(2,730)</td>
<td>(3,834)</td>
<td>(4,953)</td>
<td>(6,087)</td>
<td>(7,237)</td>
<td>(8,401)</td>
<td>(9,581)</td>
<td>(10,777)</td>
<td>(11,989)</td>
<td>(13,217)</td>
<td>(14,462)</td>
<td>(15,723)</td>
<td>(17,001)</td>
<td>(18,296)</td>
<td>(19,608)</td>
<td>(20,938)</td>
</tr>
<tr>
<td>Total adjusted Peak LYW available for Trail Road processing.</td>
<td>9,185</td>
<td>8,240</td>
<td>7,282</td>
<td>6,311</td>
<td>5,328</td>
<td>4,331</td>
<td>3,320</td>
<td>2,297</td>
<td>1,259</td>
<td>208</td>
<td>(857)</td>
<td>(1,936)</td>
<td>(3,030)</td>
<td>(4,139)</td>
<td>(5,262)</td>
<td>(6,400)</td>
</tr>
<tr>
<td>--------------</td>
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<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Processing  Rate: OCL</td>
<td>$103.77</td>
<td>$105.85</td>
<td>$107.96</td>
<td>$110.12</td>
<td>$112.32</td>
<td>$114.57</td>
<td>$116.86</td>
<td>$119.20</td>
<td>$121.58</td>
<td>$124.01</td>
<td>$126.50</td>
<td>$129.02</td>
<td>$131.61</td>
<td>$134.24</td>
<td>$136.92</td>
<td>$139.66</td>
</tr>
<tr>
<td>Processing  Rate: Trail Road (net of revenue)</td>
<td>$15.65</td>
<td>$15.96</td>
<td>$16.28</td>
<td>$16.60</td>
<td>$16.94</td>
<td>$17.28</td>
<td>$17.62</td>
<td>$17.97</td>
<td>$18.33</td>
<td>$18.70</td>
<td>$19.07</td>
<td>$19.45</td>
<td>$19.84</td>
<td>$20.24</td>
<td>$20.65</td>
<td>$21.06</td>
</tr>
<tr>
<td>Processing  Rate: Incremental Difference</td>
<td>$88.12</td>
<td>$89.89</td>
<td>$91.68</td>
<td>$93.52</td>
<td>$95.39</td>
<td>$97.30</td>
<td>$99.24</td>
<td>$101.23</td>
<td>$103.25</td>
<td>$105.32</td>
<td>$107.42</td>
<td>$109.57</td>
<td>$111.76</td>
<td>$114.00</td>
<td>$116.28</td>
<td>$118.60</td>
</tr>
<tr>
<td>Estimated incremental cost of processing the separately collected Peak LYW sent to Trail Road</td>
<td>$849,246</td>
<td>$781,797</td>
<td>$710,161</td>
<td>$634,158</td>
<td>$553,603</td>
<td>$468,302</td>
<td>$378,056</td>
<td>$282,656</td>
<td>$181,886</td>
<td>$75,524</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Total Incremental Processing Cost of Peak LYW</td>
<td>$849,246</td>
<td>$781,797</td>
<td>$710,161</td>
<td>$634,158</td>
<td>$553,603</td>
<td>$468,302</td>
<td>$378,056</td>
<td>$282,656</td>
<td>$181,886</td>
<td>$75,524</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>2014-2029  Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$4,915,389</td>
</tr>
</tbody>
</table>

Notes: Refer to Appendix G