

Delegation of Authority to Procure Beneficial Use and Disposal Services for Biosolids

Date:	January 20, 2009
To:	Public Works and Infrastructure Committee
From:	General Manager, Toronto Water
Wards:	All
Reference Number:	P:\2009\Cluster B\TW\pw09004

SUMMARY

The purpose of this report is to seek delegated authority to procure beneficial use and/or disposal services on a sole source basis for biosolids from the Ashbridges Bay Treatment Plant (“ABTP”). In addition, this report provides a status update on the biosolids management emergency measures taken by the City resulting from Republic Services no longer accepting biosolids at its Carleton Farms landfill facility in Michigan. The last status update was provided to City Council at its meeting on September 26 and 27, 2007.

Since 2006, staff have put in place various contracts to manage and dispose of biosolids generated at the ABTP. These contracts vary in length and provide the City a variety of beneficial use and disposal options. However, some of these contracts have now expired. In addition, the commissioning of the Pelletizer Facility which was to have been completed in late 2007, has encountered difficulties resulting in the need to dispose of biosolids that would otherwise have been processed by the Pelletizer.

To ensure the ABTP continues to operate in compliance with its Certificate of Approval and all other environmental legislation and regulations, staff recommend the continued diversification of the biosolids management program by seeking out additional service providers until long term recommendations anticipated as part of the Biosolids Master Plan can be considered and approved by City Council.

RECOMMENDATIONS

The General Manager of Toronto Water Recommends that:

1. The General Manager, Toronto Water, be authorized to procure additional beneficial use and landfill disposal services for biosolids from the Ashbridges Bay Treatment Plant on a sole source basis and on such terms and conditions as he considers appropriate until such time as Council has considered and approved a Biosolids Management Master Plan;
2. Subject to the adoption of the recommendation in (1) above, the General Manager, Toronto Water, be authorized to execute one or more contracts and/or agreements on terms and conditions satisfactory to him and in a form satisfactory to the City Solicitor;
3. In the event that the General Manger, Toronto Water identifies disposal services in the United States and wishes to contract with a United States disposal site operator for such services, he be authorized to proceed to arrange the necessary due diligence reviews, including physical/geologic setting, compliance history, facility design, spill/release/incident history, operational concerns, financial status, and waste acceptance procedures, and if the results are acceptable to the General Manger, Toronto Water, and the Deputy City Manager, enter into and execute such agreements on terms and conditions satisfactory to them and in a form satisfactory to the City Solicitor;
4. Staff report back to Council on the outcome of steps taken pursuant to these recommendations.

Financial Impact

The financial implications of this report will be dependant on the contract(s) secured for additional biosolids capacity. At present, there are no anticipated financial impacts as budgets for the ABTP facility contain sufficient funds for the beneficial use and/or disposal of biosolids based on prices and unit rates as currently contracted.

If additional funds over and above the approved amounts are required to procure additional biosolids services, this can be accommodated from the 2009 Toronto Water operating budget in Cost Centre WW100 (Wastewater Treatment) and will be made available in the 2010 Toronto Water operating budget under the same account.

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

DECISION HISTORY

At its June 14, 15 and 16, 2005, meeting Council approved a recommendation from Works Committee requesting the General Manager, Toronto Water, together with the Medical Officer of Health, undertake a peer review of the decision making model and methodology used to determine the recommended management options in the draft Biosolids and Residuals Master Plan (BRMP). The decision document can be found at:

<http://www.toronto.ca/legdocs/2005/agendas/council/cc050614/cofa.pdf>

At its April 25, 26 and 27, 2006 meeting, Council approved the Terms of Reference to undertake the peer review of the draft BRMP decision making model as proposed by staff. The decision document can be found at:

<http://www.toronto.ca/legdocs/2006/agendas/council/cc060425/cofa.pdf>

At its April 25, 26 and 27, 2006, meeting, Council adopted Clause 17 in Works Committee Report 2, as amended, authorizing staff to issue a Request for Expression of Interest to identify potential service providers to achieve a target of 100 percent Beneficial Use of biosolids processed at the ABTP. The decision document can be found at:

<http://www.toronto.ca/legdocs/2006/agendas/council/cc060425/cofa.pdf>

At its May 23, 24, and 25, 2006 meeting, Council adopted Notice of Motion J (22) authorizing staff to issue a procurement call for contingency disposal capacity to be utilized in the event of a closure of the U.S. - Canada border or conditions that adversely impact the City's ability to dispose of solid waste, water and wastewater treatment plant by-products and street sweepings in the U.S. The decision document can be found at:

<http://www.toronto.ca/legdocs/2006/agendas/council/cc060523/cofa.pdf>

At its June 27, 28 and 29, 2006 meeting, Council adopted Notice of Motion J (32) authorizing staff in relation to biosolids management emergency issues to act in accordance with confidential instructions to staff and directing a report back on the outcome of the steps subsequently taken by staff. The decision document can be found at:

<http://www.toronto.ca/legdocs/2006/agendas/council/cc060627/cofa.pdf>

At its June 27, 2007 meeting, Public Works and Infrastructure Committee received an update on the outcome of steps taken by staff pursuant to the confidential instructions to staff and the authority given by Council, at its meeting on June 27, 28 and 29, 2006, by the adoption of Motion J (32). The decision document can be found at:

<http://www.toronto.ca/legdocs/mmis/2007/pw/bgrd/backgroundfile-5593.pdf>

At its July 16, 17, 18 and 19, 2007 meeting, Council authorized staff to finalize and execute the Operations, Maintenance and Pellet Marketing Services Agreement (“OM&M Agreement”) with Veolia Water Canada, Inc. (“Veolia”). The decision document can be found at:

<http://www.toronto.ca/legdocs/mmis/2007/cc/decisions/2007-07-16-cc11-dd.pdf>

At its July 15, 16 and 17, 2008 meeting, Council received the findings of the Peer Review and authorized staff to increase Purchase Order No. 6011297 for professional engineering services with AECOM (formally KMK Consultants) to update and finalize the draft Biosolids and Residuals Master Plan, taking into consideration the findings of the peer review panel. The decision document can be found at:

<http://www.toronto.ca/legdocs/mmis/2008/cc/decisions/2008-07-15-cc23-dd.pdf>

ISSUE BACKGROUND

Biosolids Master Plan:

In the fall of 2002, the City initiated the Biosolids and Residuals Master Planning process to prepare a long-term strategy for the management of the City’s wastewater treatment biosolids and water treatment residuals generated at all its facilities up to the year 2025. The Biosolids and Residuals Master Plan (BRMP) was undertaken in accordance with the Class Environmental Assessment process as defined in the *Environmental Assessment Act*. Input was sought during the preparation of the BRMP from a variety of affected stakeholders including the public, regulators, farming and rural organizations and other interest groups. A draft BRMP was released for 30 day public comment in the fall of 2004. The comment period remains open.

To address concerns from stakeholders regarding the validity of the decision making model used in selecting the preferred biosolids management options, a Peer Review of the BRMP model was completed in the fall of 2007. A revised BRMP incorporating the findings of the Peer Review as well as an update of the technologies and options available to the City should be completed by the fall of 2009.

Biosolids Management:

In August 2003, a fire occurred during the final commissioning stage of the Pelletizer Facility rendering it inoperable. As a result, the 25,000 dry tonnes of biosolids that would have been processed by the Pelletizer Facility was redirected through the City’s contingency biosolids management plan to the Carleton Farms Landfill in Michigan, owned and operated by Republic Services.

On May 31, 2006, Republic Services declared that effective August 1, 2006, they would no longer accept biosolids at the Carleton Farms Landfill in breach of Republic Services' agreement with the City.

With the City's biosolids disposal capacity in jeopardy, immediate actions, authorized by Council, were taken by staff in order to protect the City's interests, avoid any adverse environmental impacts and to implement emergency measures. As a result, the General Manager, Toronto Water, entered into sole source contracts to secure the disposal and/or beneficial use of the more than 43,000 dry tonnes (or approximately 160,000 wet tonne) of biosolids cake generated at the ABTP annually.

Pelletizer Facility:

Reconstruction of the Pelletizer Facility commenced in 2005 and the facility was to have been ready for Secondary Testing by July 2007. During this time, biosolids that were to have been processed by the Pelletizer were directed to Carleton Farms and later, following August 1, 2006, to the service providers secured on an emergency basis in July and August 2006. In anticipation of the start of Secondary Testing, Council, in July 2007, approved the execution of the OM&M Agreement with Veolia for the operation and maintenance of the facility as well as the marketing of pellets.

COMMENTS

To address the unexpected loss of the Republic Services' landfill disposal site, staff in August 2006 put in place four (4) contracts to provide emergency biosolids management services until a long term biosolids management strategy could be identified (through the BRMP) and the rebuild of the Pelletizer Facility could be completed.

The following outlines the current status of these contracts:

1. GSI Environmental Ltd. ("GSI"):

GSI entered into a three (3) year contract with the City which may be extended by mutual agreement of the parties for two additional one-year periods. The first one year extension option will commence in August of 2009. In addition, should GSI develop and make available to the City an Ontario-based biosolids management site, GSI will have the right to extend the agreement for a further two years.

GSI is currently contracted to manage (including transportation) a minimum of approximately 35,000 wet tonnes a year. Originally, the biosolids were to be managed by co-composting (with other organic waste streams), mine degradation and rehabilitation at sites in Quebec, and by landfilling at sites in New York State. Since then co-composting operations have been discontinued and replaced by the application of biosolids to agricultural lands in Eastern Ontario and they continue to dispose of biosolids at various landfill sites.

2. Integrated Municipal Services Inc. (“IMS”):

IMS entered into a three (3) year contract with the City which may be extended by mutual agreement of the parties for two additional one-year periods. The first one year extension option will commence in October of 2009.

IMS is currently contracted to manage a minimum of 10,000 wet tonnes per year of biosolids at their N-Viro technology site in New York State. The N-Viro technology involves adding an alkaline material to the biosolids in order to further stabilize it. The resulting material is used as a fertilizer. The services provided by IMS include transport and haulage to the site and marketing of the fertilizer produced.

There is provision in the contract for the parties to mutually agree to increase the volume sent to IMS provided IMS is able to secure additional biosolids management sites and the City is in need of additional capacity. In 2008, IMS provided additional service by transporting and disposing of a volume of biosolids at a landfill site in New York State.

3. Ferti-Val:

The Ferti-Val contract provided co-composting services and had an initial term of one year with a City option for an extension of one additional year. However, due to financial difficulties, Ferti-Val went into receivership and no biosolids haulage occurred beyond April 2007.

4. Modern Landfill:

The Contract with Modern landfill required it to accept escalating biosolids quantities to a maximum of 50,000 wet tonnes of biosolids in 2007. This contract ended on December 31, 2007 and, as such, no biosolids have since been hauled to this site.

Other Agreements:

1. Terratec Environmental (“Terratec”):

As reported previously, Terratec’s four year agreement with the City expired on March 15, 2007. The City and Terratec had executed an Amendment Agreement which, among other things, extended the terms of the expired services agreement to allow for continued and uninterrupted service while the parties completed their negotiations regarding a new multi-year agreement for the transport, handling and application of biosolids to agricultural lands in Southwestern Ontario and hauling to various disposal sites (including Green Lane landfill, when directed to do so by the City). Those negotiations have now concluded and, as such, the parties are in the process of finalizing and executing that agreement.

The application of biosolids to agricultural land in Ontario continues to be highly variable due to factors such as inclement weather and land availability.

2. Green Lane Landfill Site:

In 2007 the City began disposing of some of its biosolids from the ABTP at the Green Lane Landfill. Terratec transports the biosolids to Green Lane for disposal. While the City has been able to divert some biosolids to its Green Lane Landfill, this capacity is currently limited due to restrictions in the landfill's Certificate of Approval.

3. Pelletizer Operation:

Successful completion of the Secondary Testing of the Pelletizer has not been achieved by Veolia as required under its agreement with the City. While Secondary Testing of the Pelletizer was completed on December 19, 2008, the results, as determined by the City's Consultant, R.V. Anderson Limited, indicate that the facility has deficiencies making it unable to process the 25,000 dry tonnes per year that is required under the City's design build agreement with Veolia.

Presently, the Pelletizer Facility is not in production pending analysis and consideration of the options available to the City. As a result, Toronto Water in the interim must put in place alternative plans to beneficially use and/or dispose of the biosolids that the Pelletizer Facility is unable to process.

Biosolids Master Plan (BMP):

In May of 2008, City staff prepared Terms of Reference to update and finalize the BRMP, taking into consideration the findings of the Peer Review Report and the changes that have occurred in the environment driving the considerations used in formulating the draft BRMP.

AECOM (formally, KMK Consultants) is currently completing the work outlined under the Terms of Reference as part of the original BRMP project.

When completed, it is anticipated that the BRMP will provide a long term strategy for biosolids management for all four of the City's wastewater treatment plants and, specifically, outline a viable long term management strategy for biosolids management at the ABTP. In the interim, staff must secure additional short and medium term contracts for biosolids management at ABTP in order to ensure the City meets its regulatory requirements.

It is expected that the BRMP will be completed in the fall of 2009.

CONCLUSION

Due to the loss of the Ferti-Val and Modern landfill contracts and the difficulties being experienced in commissioning the Pelletizer Facility, the City requires additional biosolids management contract(s) to dispose of the biosolids generated at the ABTP.

Ensuring biosolids are removed from the ABTP on a consistent basis prevents the deterioration of plant effluent water quality that is discharged to Lake Ontario. In

addition, proper solids inventory management at ABTP helps minimize odour impacts to the surrounding community.

It is also important to note that a biosolids inventory backup within ABTP can also adversely impact the effluent water quality at the Humber and North Toronto Wastewater Treatment Plants as biosolids from these plants are co-managed at the ABTP.

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SIGNATURE

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