



**STAFF REPORT
ACTION REQUIRED**

**Biosolids and Residuals Master Plan
Peer Review Panel Report**

Date:	May 14, 2008
To:	Public Works and Infrastructure Committee
From:	Lou Di Gironimo, General Manager, Toronto Water
Wards:	All
Reference Number:	P:\2008\Cluster B\TW\pw08011 (AFS#3131)

SUMMARY

This report summarizes the results of a Peer Review conducted on the draft Biosolids and Residuals Master Plan (BRMP) and details how the results will be incorporated into updating the Master Plan document.

The Peer Review sought to determine whether the decision making model and scoring process used in the BRMP was appropriate. The Peer Review Panel concluded that the decision-making model used in the City of Toronto’s BRMP was a reasonable model which is commonly used in master plans and environmental assessments but suggested some improvements to provide greater clarity to the Master Plan

City staff have prepared a 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. UMA AECOM (formally KMK Consultants) will complete the work outlined under this Terms of Reference as part of the original BRMP project.

RECOMMENDATIONS

The General Manager of Toronto Water recommends that:

1. Authority be granted to increase the Purchase Order No. 6011297 for professional engineering services with UMA AECOM (formally KMK Consultants) to update and finalize the draft Biosolids and Residuals Master Plan, taking into consideration the findings of the peer review report, by an additional amount of

\$173,500.00 net of GST, revising the current value from \$816,338.320 to \$989,838.32 net of GST.

2. This report be forwarded to the Board of Health for information.

FINANCIAL IMPACT

There are no financial impacts resulting from this report as funding is available in the 2008 Toronto Water Capital Budget in WBS Element CWW010-101 - Ashbridges Bay WWTP Biosolids Improvements & Studies.

DECISION HISTORY

At its meeting on March 8, 2005, Works Committee requested that the General Manager of Toronto Water, together with the Medical Officer of Health, undertake a peer review of the decision model and methodology used to determine the recommended management options in the Biosolids and Residuals Master Plan (BRMP).

At its May 26, 2005 meeting, the Works Committee approved the model to undertake the peer review proposed by staff and requested that staff develop a Terms of Reference for the hiring of a facilitator to undertake a peer review of the BRMP and that the Terms of Reference be presented to the Works Committee prior to its release. City Council subsequently endorsed this recommendation at its meeting on June 14, 15 and 16, 2005.

<http://www.toronto.ca/legdocs/2005/minutes/committees/wks/wks050526.pdf>

At its July 11, 2005 meeting, the Board of Health requested that this report be prepared jointly by Toronto Water and the Medical Officer of Health and that it be presented to both the Board of Health and the Works Committee for consideration.

<http://www.toronto.ca/legdocs/2005/minutes/committees/hl/hl050711.pdf>

At its meeting on April 25, 26 and 27, 2006, City Council amended and approved the Draft Terms of Reference for the Peer Review of the Biosolids and Residuals Master Plan Decision Making Model.

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

ISSUE BACKGROUND

In the fall of 2002, the City of Toronto initiated a Biosolids and Residuals Master Plan (BRMP) that was to provide direction on the future management of biosolids and water

residuals generated by the City's water and wastewater treatment plants to the year 2025. The BRMP was undertaken in accordance with the Class Environmental Assessment process as defined in the *Environmental Assessment Act*.

A draft of the BRMP was released for a 30-day public comment period on September 16, 2004, and was subsequently extended by the Works Committee. The public review period is currently still open.

As a result of concerns raised about the recommended biosolids management options identified in the draft BRMP, Works Committee requested that the General Manager of Toronto Water, together with the Medical Officer of Health, undertake a peer review of the decision-making model and methodology used to assess various biosolids management options in the BRMP.

City staff consulted with other municipalities, industry experts and scientific organizations that regularly undertake peer review processes to establish the best methodology for completing a review of the BRMP. It was determined that the most objective way to undertake a peer review would be by forming an expert panel with selected qualified, independent panel members whose expertise match the specific needs of the project. Panel members were chosen for their unbiased perspective and knowledge of multiple disciplines so that they could contribute insight into issues of environmental decision making. The panel members were chosen with the help of an independent facilitator, hired by the City through a Request for Proposal (RFP) process.

COMMENTS

(1) The Peer Review Process

In May 2007, Ehl Harrison Consulting Inc. (EHC), in partnership with Genivar, was retained by the City of Toronto to manage, co-ordinate and facilitate the peer review process through a competitive RFP process. A copy of the Executive Summary of the Final Report can be found as Attachment 1 to this report. A complete copy of the Final Report and Appendices can be obtained at the following links:

http://www.toronto.ca/wes/techservices/involved/wws/biosolids/pdf/brmp_final_panel_report.pdf

http://www.toronto.ca/wes/techservices/involved/wws/biosolids/pdf/brmp_peer_review_report_a_pp_a_b_c.pdf

http://www.toronto.ca/wes/techservices/involved/wws/biosolids/pdf/brmp_peer_review_report_a_pp_d_e_f.pdf

Based upon a set of selection criteria and public and staff input, a seven member Expert Panel was retained. Potential Panel members were sought through input from various sources including community stakeholders, Councillors, City staff and the external facilitation team. After compiling a list of names, research and telephone interviews were carried out to determine their suitability and availability. The selected Panel

members were experts drawn from a broad range of fields including economics, microbiology, health sciences and the biosolids management and operations industry. Knowledge of biosolids and wastewater operations was considered an asset but not a prerequisite in the selection of the individual Expert Panel members.

(2) Expert Panel Meetings

The Expert Panel met three times between October and December 2007. Prior to the meetings, Panel members were provided with extensive BRMP documentation to review. During parts of the first and second meetings, the panel focussed on further developing the set of charge questions that had been provided to them from the City's Project Team. The second and third meetings were used to respond to the charge questions that were formulated. Numerous conversations were also held via e-mail and over the telephone with the facilitation team.

(3) Stakeholder and City of Toronto Staff Involvement

The peer review process was jointly overseen by staff from Toronto Water and Toronto Public Health. At the first panel meeting, Toronto Water staff presented information on the City's current biosolids management program and UMA AECOM presented the methodology used to prepare the draft Biosolids and Residuals Master Plan.

Soon after retaining the facilitator, a stakeholder involvement plan was created to provide information to and receive input from interested stakeholders. Among those who participated were members of the Ashbridges Bay Treatment Plant Environmental Assessment Implementation Compliance and Monitoring Committee (ICMC) and Ashbridges Bay Treatment Plant Neighbourhood Liaison Committee (NLC). All stakeholder feedback was provided to Panel members, as submitted.

Stakeholders participated and provided input during several stages of the peer review process including:

- An open meeting to review the preferred make up of the Expert Panel, screening of potential Panel members and charge questions;
- Presentations at the second Expert Panel meeting including submissions to the Panel. Ten public submissions were made, along with presentations from Councillors Sandra Bussin and Paula Fletcher; and
- A question and answer session at the final panel meeting.

In addition, two briefing sessions were held with interested members of Toronto City Council in order to provide updates on the activities of the Expert Panel. The Medical Officer of Health attended both meetings, along with staff representatives from Toronto Water, Toronto Public Health and the Mayor's office. All input received at these sessions was provided to the Panel.

(4) Peer Review Conclusions and Recommendations

The Expert Panel concluded that the decision-making model used in the City of Toronto's BRMP was a reasonable model that is commonly used in master plans and environmental assessments. The report recommended some improvements that could be made to the decision making process to provide more clarity to the Master Plan. The Panel's critical comments are summarized as follows:

- The way that the relationship between the Mediation Agreement and the Master Plan is reflected;
- A lack of detail and clarity in the BRMP documentation;
- The limited reach of the consultation and consultation tools used;
- Absence of incorporation of "public perception" of risk; and
- The process of weighting criteria and scoring of alternatives.

In total, the Panel submitted a number of recommendations for consideration. City staff reviewed the final recommendations and the detailed comments provided by the Expert Panel and plan to incorporate as many of the relevant recommendations as possible into the updated BRMP. These are summarized as follows:

- Change the planning horizon from 20 years to 50 years and incorporate a five year review process;
- Remain open to new and developing technologies and policies for biosolids management while at the same time recognizing the critical importance of both public education and public buy-in;
- Enhance the definitions in the BRMP to improve clarity;
- Review criteria and criteria weightings in the decision making model and clearly document the steps taken in performing calculations and scoring so results can be easily replicated;
- Use additional statistically valid surveying tools to get input from individuals more "statistically representative of their communities" to get a broader sense of stakeholder preference and to evaluate public acceptance;
- Convey through the BRMP the fact that, while no biosolids management option remains completely risk free, the City is following all regulations and best management practices to mitigate risk;
- Educate the public about wastewater and biosolids management issues on an on-going basis; and
- Review and update industry best practices and viable biosolids management options in the BRMP.

Beyond the scope of the Peer Review Terms of Reference, the Panel also provided comments on the relationship between the BRMP and the 1999 Mediation Agreement (MA) signed by the City and specific members of the public concerned with the

Ashbridges Bay Treatment Plant Environmental Assessment. The Panel noted that parts of the MA relevant to the BRMP are ambiguous and allow for conflicting interpretations by different stakeholders. Nonetheless, “the Panel felt that it would be beneficial if the City remained open to new and developing technologies and policies for biosolids management, while at the same time recognizing the critical importance of both public education and public buy-in.” Furthermore, at the time of the preparation of the BRMP, the City Solicitor reviewed the MA to ensure that the City was not in contravention of the commitments made in the MA. It was found that the consideration of incineration in the BRMP did not violate the MA and that it should be considered under the requirements of the Environmental Assessment Act. As such, staff are not recommending any specific changes in approach to updating the BRMP as it relates to the MA.

The Panel also suggested the City consider adding a “risk assessment” for each of the technologies and practices under consideration by the BRMP. Toronto Water staff have considered this recommendation and have concluded that this would be costly, time consuming and in this instance would not add significantly to the decision making process. Specifically, the decision making model took a holistic risk assessment approach in considering not just health related factors, but factors surrounding the environment, community, cost, operations and safety.

As a highly regulated industry, the mitigation of environmental and public health risks is diligently dealt with by the various provincial and federal regulators. Regulations that govern the municipal wastewater and biosolids industry include the *Nutrient Management Act*, the *Environmental Protection Act*, the *Ontario Water Resources Act*, and the *Clean Water Act*. Regulators have and continue to assess the levels of risk associated with many of the technologies and practices surrounding biosolids management. These governing acts and accompanying regulations were incorporated into the BRMP decision making process for each management option considered. Any further risk assessment reviews beyond those already incorporated within the BRMP’s decision making model are unwarranted and instead the City should continue to work with the Ministries of the Environment and Agriculture and Food to improve the regulatory framework associated with managing biosolid nutrient materials.

(5) Next Steps

A Terms of Reference to update the BRMP has been prepared taking into consideration the comments made by the Peer Review Expert Panel and is included as Attachment 2 to this report. Public consultation during the BRMP updating process will include two sets of Public Information Sessions to be held in 5 locations during key milestones of the project. Newsletters to track study progress will also be issued and the project website will be maintained with updated information.

Ipsos Reid Public Affairs has been retained by the City of Toronto to provide public opinion research services as required. Ipsos Reid will be used to undertake public opinion surveying in the form of telephone surveys and/or focus groups during the

BRMP project update. The information gathered will be incorporated into the decision making model and scoring of the BRMP.

The updated BRMP will be released for a 30 day public review period upon completion. All written submissions will be answered during this time in addition to the written submissions received during the first review period of the draft Master Plan. It is anticipated that it will take approximately 12 months to complete this process.

CONTACT

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SIGNATURE

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ATTACHMENTS

Attachment 1 – Executive Summary, February 2008 Peer Review Report, Ehl Harrison Consulting & Genivar (p:\2008\Cluster B\TW\pw08011-1)
Attachment 2 - Terms of Reference for the update and finalization of the Biosolids and Residuals Master Plan (p:\2008\Cluster B\TW\pw08011-2)