

REGION OF OTTAWA-
CARLETON

REPORT

RÉGION D'OTTAWA-CARLETON

RAPPORT

Our File/N/Réf. **50** 17-99-0007-H, 17-99-0002-H, 02-00-0068
Your File/V/Réf.

DATE 15 August 2000

TO/DEST. Coordinator
 Planning and Environment Committee

FROM/EXP. Environment and Transportation Commissioner

SUBJECT/OBJET **COUNCIL INQUIRY -
EXTERNAL ANAEROBIC DIGESTER**

DEPARTMENTAL RECOMMENDATION

That Planning and Environment Committee receive this report for information.

BACKGROUND

The purpose of this memorandum is to respond to an inquiry raised by Councillor Peter Hume at the Council meeting on 12 July 2000.

That the Commissioner of Environment and Transportation report to the Planning and Environment Committee on the status of the motion passed by Council on 9 June 1999 with particular reference to part 4 regarding an external anaerobic digester for leachate from cell 3 of the Trail Road Waste Facility/Landfill.

DISCUSSION

On 09 June 1999, Council approved the Planning and Environment Committee report, dated 07 May 1999, titled *Public Consultation - Trail Road Asset Management and Landfill Optimization Study*, with the following recommendations and amendments:

1. *The summary results of the public consultation process for Trail Road Landfill Optimization be received for information;*
2. *The concepts outlined in the Trail Road Landfill Asset Management and Landfill Optimization Study be accepted;*
3. *Staff be directed to pursue the options outlined in the Trail Road Landfill Asset Management and Landfill Optimization Study.*
4. *Staff be directed to include the proposals from the Citizens Review Committee (anaerobic digester and poplar forest capping) in their consideration of options for optimizing the Trail Road site.*
5. *Staff be directed to include the concept of incineration as:*
 - a) *a possible enhancement to the existing landfill;*
 - b) *as a cost comparator to optimization at Trail Road Landfill.*

Recommendations 1 and 2 required no further follow-up. Recommendation 5 was the subject of a report, dated 28 June 1999, which was approved by Planning and Environment Committee on 31 July 1999 and Council on 08 September 1999. Activities related to recommendations 3 and 4 are discussed in the body of this report.

The proposal of an anaerobic digester was first raised by the Citizens Review Committee during discussion of this report at the Planning and Environment Committee meeting on 25 May 1999. The report details the consultation process that was completed for the *Trail Road Asset Management and Landfill Optimization Study*. The consultant's report and the related staff report outlined the potential savings of tens of millions of dollars if the existing landfill site were to be optimized. *Optimization* is described as securing more "airspace" for disposal of waste by increasing the footprint of the landfill, extending the height of the material landfilled, or mining the present landfill. *Optimization* does not preclude other waste reduction options or the use of emerging waste handling technologies.

Staff are proceeding with an approach that, if successful, would solve the waste disposal needs of this community well into the 21st Century by *optimizing* the existing asset. In pursuing the optimization of the Trail Road Landfill Site, however, as required by the Ministry of the Environment (MOE), a *structured* environmental assessment (EA) process must be followed. Since 1997, the MOE has allowed a proponent to focus the scope of a proposed EA. The May 1999 report suggested using the *Trail Road Asset Management and Landfill Optimization Study* as a technical basis for a scoped EA.

The Region also continues to have the option of conducting a *broader* EA to address its long-term waste disposal needs and look at various other alternatives. Through the 1980's, the Greater Toronto Area spent over \$170 million on a similar process and was unsuccessful in solving its long-term disposal

problems. The City of Toronto is presently trying to resolve its waste disposal needs while concurrently looking at waste diversion and emerging technologies.

At the Planning and Environment Committee meeting on 25 May 1999, the Citizens Review Committee (CRC) proposed that an anaerobic digester be added to the leachate circulation line and that poplar forest capping be considered. Staff was directed to include these proposals when considering optimization options for the Trail Road Landfill Site. Again, at the Planning and Environment Committee meeting on 13 July 1999, during the discussion of the leachate pipeline and research report, the subject was presented. Once more, the CRC's position was made clear, that leachate should be considered in conjunction with forest irrigation and that an anaerobic digester be provided to pre-process the leachate from Stages 3 and 4 of the Trail Road Landfill Site. In the context of the *Optimization Study*, these are operational techniques for handling leachate, and do not significantly contribute to the goal of increased air space.

Through the fall of 1999, staff retained a firm to assist with the development of the Terms of Reference for an EA that will be submitted to the MOE in order to proceed with the optimization initiative. Consultation on this project began with the Open House at the Trail Road Waste Facility on 26 February 2000. Representatives from the CRC attended that session, and also the follow-up workshop on 17 April 2000. The CRC submitted follow-up questions and staff responded to the questions on 11 May 2000. Subsequently, a special meeting was arranged with the CRC on 18 May 2000. At that meeting, it was explained that the scope of the Trail Road Landfill EA was to be limited to issues that require approval by the MOE, that is *addition to airspace*. The treatment of leachate (anaerobic digestion, use of a poplar forest or other techniques) is more of an operational design detail to be addressed when the method of optimization is approved. To the best of our knowledge, the CRC understood this explanation. At the same time, staff suggested that a CRC representative join the Technical Advisory Committee (TAC), formed with representatives from interested groups and regional staff, to research leachate pre-treatment. Staff suggested that this would be the best venue to test and evaluate innovative technologies for handling leachate.

Once again, on 24 May 2000, in response to a CRC e-mail, staff wrote:

As per our correspondence of 11 and 19 May and meeting of 18 May 2000, the CRC is welcome to submit proposals for these technologies to the Leachate Pre-Treatment Research Project to demonstrate that they will work at the Trail Road Waste Facility site. Notwithstanding, anaerobic digestion and poplar tree cap, as well as other design alternatives will be considered as part of the conceptual design and mitigation strategy for the preferred optimization/expansion alternative (i.e., higher, wider, reclamation or combination) in the EA. It is expected that alternative designs will be considered for leachate management, landfill gas and landfill cover for proven approaches only.

(underlining added in this report for emphasis)

Despite the fact that the CRC was an original advocate of the research project and asked to be a member of the Technical Advisory Committee, they chose not to participate.

Although the Draft EA Terms of Reference did not specifically state that anaerobic digestion or poplar forest will be considered a leachate management option, that will be corrected in the final version submitted to the Ministry.

SUMMARY

In summary, securing additional landfill disposal capacity can be a vexatious problem for a community. The Greater Toronto Area tried in the late 1980's to follow the EA search process, spent \$170 million in the process and today still does not have a long-term solution. With recent changes to the *Environmental Assessment Act*, there is an opportunity to narrow the scope of the review, and hopefully increase the likelihood of success. Supported by the *Landfill Optimization Study*, approved by Regional Council, staff and its consultant are trying to navigate a very confined course to secure more disposal capacity at the existing site. Based on preliminary consultation, this approach is well supported by our community. The options with respect to the handling of leachate have not yet been addressed because we have not arrived at that point in the process; but, it will be addressed later in the EA process as directed by Council. In the interim, the true opportunity to address innovative technologies exists in the leachate research project. Staff did advise the CRC of this option, and has met and will continue to dialogue with the CRC and other interested parties.

Approved by
M.J.E. Sheflin, P.Eng.