

REGION OF OTTAWA CARLETON
RÉGION D'OTTAWA CARLETON

REPORT
RAPPORT

Our File/N/Réf. **50 17-1999-0001-H**
Your File/V/Réf.

DATE 07 May 1999

TO/DEST. Co-ordinator
 Planning and Environment Committee

FROM/EXP. Director, Solid Waste Division
 Environment and Transportation Department

SUBJECT/OBJET **PUBLIC CONSULTATION - TRAIL ROAD LANDFILL ASSET
MANAGEMENT AND LANDFILL OPTIMIZATION STUDY**

DEPARTMENTAL RECOMMENDATIONS

That the Planning and Environment Committee recommend Council approve:

- 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.**

BACKGROUND

The Planning and Environment Committee, at its meeting of 27 October 1998, received a report entitled, "Final Draft - Trail Road Landfill Asset Management and Landfill Optimization Study" (Landfill Optimization Report). This preliminary technical feasibility study identifies a number of options to extend the life of the landfill. The report concluded that the Trail Road Landfill could continue to be operated for many years by adopting any or all of these design options, and the preliminary analysis suggested that optimization is cost effective compared to the Greenfield site alternative. The staff report gave a brief overview of the technical report and indicated that the

Department would implement a preliminary public consultation process and report back to the Committee on the results of the consultation. This report outlines the results of the consultation process.

DISCUSSION

1. Landfill Optimization Report Summary

The Landfill Optimization Report represents a summary of a number of technical investigations that have been undertaken for the Trail Road Landfill. First, the report determined the current life expectancy of the landfill by analyzing the site dynamics (geometry, compression, biodegradation) and different disposal scenarios (diversion rate, impact of other landfills in Ottawa-Carleton). With the current site life expectancy established, the estimated time requirements for events such as approvals and construction were determined.

Three basic options to extend the life of the landfill were identified: i) increase the height of the landfill, ii) increase the size (footprint) of the landfill, and iii) landfill reclamation (mining). Cost information was added by determining the cost of the optimization options and comparing it against the cost of landfill replacement. The report presents different options and combinations of options with estimated costs and site life extensions. Again, as noted above, the report concludes that there are feasible and cost effective options available to extend the life of the Trail Road Landfill Site.

The Optimization Report has estimated the remaining life of the Trail Road Landfill to be 10 years, given current disposal rates. Should regulatory approval or unforeseen technical problems halt the optimization process, the Region of Ottawa-Carleton would be required to commence a more involved process to secure new disposal capacity in advance of the estimated closure of the Trail Road Landfill Site. Pursuing the option of optimizing the Trail Road Landfill Site at this time, therefore, is both necessary and timely.

2. Public Consultation

The preliminary public consultation focused on a fairly general question and that is whether the current landfill resource should be optimized (as long as it makes economic, environmental and operational sense) or should the Region start looking at other options for its future waste disposal needs. The components of the consultation were:

- News Release (15 April 1999)
- Window On Your Region advertisement (22 March to 16 April 1999)
- Question and Answer brochure (mailed out)
- Region's Web Page
- Presentation to Nepean Public Works Committee (12 April 1999)

- Mailouts to Community, Business and Environmental Stakeholders Groups
- Open Houses
- A Telephone Survey (400 households)
- Consultation Packages to neighbours surrounding the landfill

The overall conclusion of the consultation process is that there is broad public support for optimizing the Trail Road Landfill. Details of the consultation are included in Annex A. Brief highlights of the consultation are as follows:

a) Individuals

Comments from members of the public were received either by electronic mail, comment forms from the open houses or mail. Almost all comments received are in favour of optimizing the landfill. Some residents specifically supported the Region's diversion programs and a few supported incineration as a method of disposal. Local land owners also expressed property value concerns.

b) Stakeholder Groups

The Gloucester Environmental Advisory Committee submitted a communication supporting optimization. The Barrhaven Sewer Action Committee, while making deputation at the Nepean Public Works Committee, advised the Committee that it supports the principle of the Optimization Study in that it forms a solid basis for the long-term management of the landfill site.

c) Nepean Public Works

Staff presented the Optimization Report to the Nepean Public Works Committee as a courtesy, in light of Nepean's role as "host municipality". The report was received by the Committee and minutes of the meeting are included in Annex B.

d) Open Houses

Two open houses were held and approximately 50 people attended. In general, there was support for the optimization program from the residents who attended. Understandably, many of the close neighbours of the landfill expressed their concern about optimization.

e) Telephone Survey

The telephone survey found that a large percentage of the public is aware of the potential problem of running out of disposal capacity (86%). The majority of those surveyed indicated an equal support for extending the life of the landfill and for incineration as a solution (40%). Other options, such as finding a new landfill site in the Region and exporting waste (9%), received little public support.

Sound environmental practice is the most important factor for the public. Ninety-seven (97%) believe that minimizing the environmental impacts on soil, water and air quality is important. Minimizing these environmental impacts is not important to only 2% of the public. There was also strong support for increased diversion programs. Keeping costs as low as possible is important to 64% of respondents, whereas only 12% of respondents believe keeping costs low was not important. A summary of the findings of the telephone survey is included as Annex C.

4. Related Issues

As Committee and Council are aware, the Region is currently working towards a leachate treatment and disposal solution for the Trail Road Landfill. Leachate handling is one of many operational issues that must be addressed during the ongoing operation and subsequent closure and perpetual care stages of running a landfill. Although some of the options related to landfill mining have potential to further enhance the environmental protection of the groundwater, the operating obligations with respect to groundwater impacts must be met regardless. Therefore, decisions required with respect to optimization can proceed independently of the leachate issue.

5. Next Steps

Committee and Council are not being asked at this time to select which option(s) they prefer. It is anticipated that should this process proceed through the appropriate approval phases, the results of subsequent studies will determine which option(s) is the most feasible. Should Committee and Council, after consideration of the technical report and the results of the public consultation, choose to proceed with optimization at Trail Road, the Department will enter into preliminary discussion with the Ministry of the Environment (MOE) to determine how to proceed with optimization under the Environmental Assessment (EA) process. It is important to note that should the Region pursue optimization under the EA process, further consultation will be required.

A significant feature of Ontario's EA approvals process, as a result of changes in January 1997, is that proponents are required to prepare a Terms of Reference (T of R) for undertakings that are subject to the *Environmental Assessment Act* (EAA). In the past, the

formal EA approval process began with the submission of an EA to the MOE. Now the EA process begins with the submission to the Ministry of a proposed T of R for the preparation of an EA. Once approved by the Minister, the T of R provides a framework for preparing the EA, and also serves as a benchmark for reviewing the EA. Following the Minister's approval of the T of R, the proponent (the Region) in preparing its EA will only be required to deal with matters falling within the provisions of the approved T of R.

Subject to Council direction, staff will pursue the T of R process for optimization, which will be a key component of the discussions with the Ministry.

EXPENDITURE JUSTIFICATION

The Region has a long-term responsibility for the disposal of residential solid waste. The optimization study outlines, on a preliminary basis, a number of options that appear to be technically feasible and economically advantageous to the residents of Ottawa-Carleton. The study offers a preliminary estimate of savings related to the various optimization options when compared to the alternative of securing new disposal capacity. Funds are available for further work on this project under Capital Budget Project Number 900347.

CONCLUSION

The consultation process has concluded that there is broad public support for optimizing the Trail Road Landfill. The public has a high level of understanding regarding waste disposal and the challenges that diminishing capacity potentially presents to the community. The importance of sound environmental practice, including increased diversion efforts, was a common theme throughout the consultation. Residents whose properties surround the landfill have expressed some concerns, and the Region should continue to work in a fair and equitable manner to address these concerns.

The Department recommends that the "Trail Road Landfill Asset Management and Landfill Optimization Study" be accepted by Council as a technical feasibility report that outlines a number of design options to extend the operational life of the Trail Road Landfill for many years. Staff should then proceed to investigate both the various detailed design options and the approvals required to carry out these options.

*Approved by
P. McNally, P.Eng.*

KHW/mm

Attach. (3)

TRAIL ROAD LANDFILL OPTIMIZATION SUMMARY OF COMMENTS RECEIVED

1. Individual Comments

<i>Date</i>	<i>Summary</i>	<i>Form of Contact</i>
03/25/99	Supports optimization - "elsewhere" is someone's backyard, increase waste diversion, reduce packaging at the source.	e-mail
03/29/99	Supports optimization and new site. Create a feasible alternative plan now.	mail
03/27/99	Fully supports optimization - not using a resource to its fullest is simply compounding the problem of waste.	e-mail
03/30/99	Supports optimization - by delaying requirement for a new disposal system emerging technologies may develop which we will be able to implement.	e-mail
03/30/99	Supports optimization - make Trail the only landfill to force conservation, put in waste limits, encourage bulk sales to avoid packaging, ban plastic bags, increase diversion education.	e-mail
03/31/99	Supports optimization - support for incineration, description of a complete ecological system which makes use of energy from incineration, efficient vehicles, composting etc.	e-mail
04/03/99	Believes that the current landfill site should be optimized as much as feasible, taking into account economic, environmental and operational factors.	e-mail
04/04/99	Supports optimization, use bar codes to automate sorting of recycling, use tax incentives to discourage use of materials not recyclable.	e-mail
04/07/99	Supports optimization, specifically landfill mining.	e-mail
04/06/99	The money you spend on more land can be put into buying an incinerator now and ashes can be put in the existing remaining landfill.	mail
04/06/99	Definitely use existing site for as long as possible. Educate/encourage public to compost, recycle as much possible. Research alternative strategies.	mail
04/08/99	Full agreement with optimization.	mail
04/08/99	Yes optimization within enviro, operation, economic guidelines. Must now look at future waste disposal needs.	mail
04/14/99	Why not have tags for garbage? Where this is implemented, citizens pay more attention to recycling and buy with less packaging.	mail
04/14/99	It should be optimized but we should also have another landfill closer to east end of the city.	mail
04/14/99	We should work toward 100% recycling and elimination of the need for landfill. Technology is possible so why don't we do it?	mail
04/14/99	We should optimize and look in case first option does not work. We should pay for garbage by bag and consider privatizing collection.	mail
04/14/99	Believe that we can use the current landfill resources for the present time, but should look for future site.	mail

<i>Date</i>	<i>Summary</i>	<i>Form of Contact</i>
04/26/99	Region should support optimizing current landfill as long as it makes sense.	mail
04/17/99	Supports optimization. Trail Road is a holding area and new technologies may help restore it to natural use, moving to a new location only makes it worse.	open house
04/17/99	Supports optimization as long as it is not cost prohibitive, identifying a good alternative site makes sense too.	Open house
04/20/99	Feasibility of incinerator, should ban the use of plastic bags	mail
04/22/99	Supports optimization, reduce and divert as much as possible and incinerate whatever is left.	open house
04/26/99	Prefer new site, concerned about property values	mail
05/14/99	Supports optimization, will allow time to explore and assess other possible sites. Should consider environmental implications and mitigate the impact on the surrounding community.	Fax
05/14/99	Optimization should start right away, not in favour of exporting waste, investigate latest incineration methods and other technologies.	Fax

2. Stakeholder Groups

Gloucester Environmental Advisory Committee

This Committee wishing to convey their support of the optimization of the existing Trail Road Landfill Site.

Barrhaven Sewer Action Committee

Minutes of the 12 April 1999 meeting of the Nepean Public Works Committee

Mr. Joe King, representative of the Barrhaven Sewer Action Committee, advised that the Action Committee supports the principle of this study.

In a response to a question from Councillor Harder, Mr. King qualified his statement by indicating that the Barrhaven Sewer Action Committee supports this Study because its general principle looks at the long term management of the landfill site. He added the Study forms a solid basis and congratulated the Region on its report.

South Keys / Greenboro Community Association

The South Keys / Greenboro Community Association recommends optimization of the current landfill. It makes more sense to increase the size of the landfill, to increase its height and/or to mine the already filled areas than it does to look elsewhere for future waste disposal needs at this time. When optimization at the Trail Road Landfill is no

longer feasible, another type of waste disposal technology, such as a very efficient incinerator or similar high-end technology disposal device should be explored. A type of incinerator in which the by-product could be recycled is worth exploring.

The following is an excerpt from the Minutes of the City of Nepean's Public Works Committee meeting held on 12 April 1999:

The following report was submitted by Mr. A.C. Bellinger, Commissioner of Public Works, for Committee's consideration:

03 Report No. 035-99 - Trail Road Landfill Optimization Study - Presentation by Region of Ottawa-Carleton cont'd:

SUBJECT:

Trail Road Landfill Asset Management/Landfill Optimization Study.
File No. T09-99-TRA

LOCATION:

Trail Road, South Nepean.

RECOMMENDATION:

That Committee receive the presentation by Regional Staff as information.

REPORT:

Staff of the Region's Environment and Transportation Department have requested an opportunity to make a 10 minute presentation to Committee on the Asset Management/Landfill Optimization Study for the Trail Road Landfill. Prior to presenting the results of this report to Regional Council a preliminary public consultation program is being initiated. As the host municipality for the landfill, a presentation to Committee was considered an important part of this consultation.

Attached for Committee's information, are the Executive Summary from the report, a copy of the advertisement advising of the preliminary public consultation program, and Questions and Answers about the Landfill Optimization Program. Public comments will be received up until May 14, 1999, and a report incorporating the public input is tentatively scheduled to be presented to the Region's Planning & Environment Committee on May 25, 1999.

FINANCIAL IMPLICATIONS:

N/A

PUBLIC NOTIFICATION/CONSULTATION:

Regular notification process: Nepean Clarion, all Community Associations, Access Nepean section of the public libraries, City voice mail boxes, City of Nepean website (www.city.nepean.on.ca) and news media.

ATTACHMENTS included in the Agenda with Report No. 035-99:

1. Executive Summary - Trail Road Landfill Asset Management / Landfill Optimization Study.
2. Public Consultation advertisements.
3. Questions and Answers - Landfill Optimization Program.

DISCUSSION:

Mr. Pat McNally, Director, Solid Waste Division, Region of Ottawa-Carleton, presented the report, noting that this Optimization Study is a result of three other studies that have been conducted since 1990. He advised that the last study conducted looked at reviewing possible options available to increase the usage of the landfill site, and that the Optimization Study included in this report is a direct lead-off from this third study.

Mr. McNally advised that this Optimization Study is only a technical feasibility study that looked at waste management, and which allowed the Region an opportunity to review when the current Landfill site would be filled to capacity.

Mr. McNally advised that based on space calculations, the Trail Road Landfill could potentially remain in operation until 2008/2009, and he reviewed the options considered as indicated in Attachment No.1 to Public Works Report No. 035-99.

Mr. McNally advised that if the Region chooses to do nothing, it will be necessary to commence the process for securing new disposal facilities or technologies within the next two years. He added that theoretically it would cost approximately \$100,000,000 to develop a new landfill site with a twenty to twenty-five year life span.

Mr. McNally advised that this report was scheduled to be presented to the Region's Planning and Environmental Committee on May 14th, and then to Regional Council on June 15, 1999, and if support is received from Council to research the options further, they would enter into further discussions with the public.

In response to a question from Councillor Sullivan, Mr. McNally advised that staff has considered the possibility that waste may increase if some residents choose not to participate in the expanded recycling program recently undertaken by the Region, (i.e. black boxes). He added that in fact, since introducing recycling, and public participation promotions, the amount of material being recycled has increased from 30,000 to 50,000 tonnes per year. However, he noted there may be issues related to the expanded recycling program that will have to be monitored and addressed at a later date.

In response to a question from Councillor Farnworth, Mr. McNally advised that the \$40,000,000 referenced in the report would cover the costs of initiating a new landfill site that would only have a five year capacity, whereas the \$100,000,000 he referred to in his oral presentation would cover the costs of initiating a new landfill site with a lifetime capacity of twenty to twenty-five years.

In response to a question from Councillor Farnworth, Mr. McNally indicated that the Region did not have a reserve fund large enough to cover the \$40,000,000 expenditure. He added however, that he did not have any solid financial details at this time.

In response to a question from Councillor Harder, Mr. McNally advised that based on the figures from this preliminary Optimization Study, the landfill site could be built up another 11 metres.

In response to a question from Councillor Harder, Mr. McNally advised that all four stages, even the two already capped (Stages 1 and 2), would be included in the application of any options chosen.

In response to a question from Councillor Harder, Mr. McNally advised that with regard to Stages 1 and 2, they would only remove a portion of the cap at a time, mine the landfill, and take advantage of the opportunity to install a liner. He added that by re-opening these two closed off sites, it provided an opportunity to go back and enhance the existing storage applications used.

In response to questions from Councillor Harder, Mr. McNally advised that in essence this Optimization Study could also be considered as part of the beginning of a search for a new landfill site. He noted that any options applied to treating the current leachate will be driven by an Environmental Assessment, and that optimizing this site is not related to this issue.

Mr. Joe King, representative of the Barrhaven Sewer Action Committee, advised the Action Committee supports the principle of this study.

In response to a question from Councillor Harder, Mr. King qualified his statement by indicating that the Barrhaven Sewer Action Committee supports this Study because its general principle looks at the long term management of the landfill site. He added the Study forms a solid basis, and congratulated the Region on their report.

Councillor Rywak, Chair, moved a motion to not support any proposed extensions of the use of this site.

Chair Rywak advised that the current method of burying garbage is outdated, and that new emerging technologies are available which provide better solutions. She indicated that the current problems with leachate also have to be considered. For these, and other related reasons, she asked that the Public Works Committee support her motion.

Councillor Chiarelli indicated that he was not comfortable supporting this motion without speaking to the Nepean Environmental Committee as it should be given an opportunity to review this Study and provide an opinion. He added that he would like to see this matter referred to them, and moved a motion to defer consideration of Councillor Rywak's motion in order to afford the Environmental Committee this opportunity.

Chair Rywak advised that if this matter is deferred until the Environmental Committee has had a chance to review the Study, she would like an opportunity to speak before them to relay her concerns.

Councillor Harder advised she would not support a referral of this matter to the Nepean Environmental Committee, noting that this is a Public Works Committee issue. She added that

the Environmental Committee has their own workplan to contend with, and noted that staff is only asking this Committee to receive the Region's presentation as information.

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Councillor Farnworth noted that although she was in support of having the Environmental Committee review this study, she was concerned with the tight time-line, as the deadline for public consultation is May 14, and added the Environmental Committee has their own time-lines, and workload commitments.

Moved by Councillor Chiarelli

BE IT RESOLVED THAT consideration by the Public Works Committee to support the permanent closure of the landfill site be deferred until such time as the Nepean Environmental Committee has had an opportunity to review and provide their expert opinion on the Optimization Study included in Public Works Report No. 035-99.

- Motion Lost -

Mayor Pitt, Councillors Phillips, Farnworth and Harder dissented

Moved by Councillor Rywak

WHEREAS the Trail Road Landfill site is owned and operated by the Regional Municipality of Ottawa-Carleton, and is situated in the City of Nepean;

AND WHEREAS the site, which has been operating for approximately 20 years, will be full in 2005;

AND WHEREAS, through various design changes and the optimization of operational practices, including extending the site's footprint and a program to reclaim landfill (mining old site), the Regional Municipality of Ottawa-Carleton proposes to extend the life of the site to 2009;

AND WHEREAS this site is situated on sand with numerous recharge areas in the underlying aquifer, that flows toward the Jock River;

AND WHEREAS this site is experiencing substantial leaching, which now requires a method, or methods, of disposal;

BE IT RESOLVED THAT Nepean City Council inform the Regional Municipality of Ottawa-Carleton that it strongly denounces any proposal to extend the use of the site to 2009, and strongly supports permanent closure of the site in 2005 to eliminate greater increase in the amount of leachate which will be produced in the future;

AND BE IT FURTHER RESOLVED THAT a copy of this Resolution be sent to the Minister for the Environment for the Province of Ontario.

- Motion Lost -

Mayor Pitt, Councillors Phillips, Farnworth, Chiarelli, Sullivan and Harder dissented

Moved by Councillor Harder

BE IT RESOLVED THAT the Public Works Committee receive the presentation by Regional staff as information.

- Carried -

David Redmond and Associates

TRLS Optimisation Telephone Survey Executive Summary

Survey methodology

The findings presented in this summary are based on a telephone survey of a representative sample of 392 households in the Region. The survey was conducted from April 16 - 26.

The public supports optimisation of TRLS and incineration

Public awareness and concern about this waste management problem is high. Only 4% of respondents did not voice an opinion on a possible solution to the limited life of the TRLS.

The public supports optimisation and incineration as the two best ways to deal with the problem of the limited life of the Trail Road Landfill Site. Top of mind, 45% of respondents preferred incineration and 37% preferred extending the life of the Trail Road Landfill Site as the best way to deal with solid waste when the current site is full in eight to 10 years. After being given some additional information, opinion shifted slightly so that support was equal for incineration (41%) and extending the life of the Trail Road Landfill Site (40%). There are some differences among demographic groups in the levels of support for these two solutions but none are very large.

There is little public support for other solutions

Other solutions to the solid waste problem received little public support. Finding a site and building a new landfill site in the Region was preferred by only 9% of residents. Similarly, finding a site outside the Region and transporting waste to the site was the preferred solution of just 9% of residents.

Excavation and increasing the land area are supported to optimise the TRLS

Respondents were asked about three possible options for optimising the Trail Road site. Increasing the land area covered by the site by 20% to extend its life by seven years received the support of 58% of respondents; just 16% disagreed with this option (the rest were neutral). Support for increasing the height of the landfill by 10 metres to extend its life by eight years received less support: 42% agreed with this option while 32% disagreed.

A majority of the public (61%) supports excavating the Trail Road site to reclaim space and to recycle some of the materials. Disagreement with excavating the site is quite low at 17%.

Environmental factors lead public opinion about solid waste disposal

Sound environmental practices are the most important factors to the public: 97% said that minimising the environmental impacts on soil, water and air quality is important, including 85% who rated this as very important. Minimising these environmental impacts is unimportant to only 2% of the public.

Minimising the physical impacts of the landfill such as sight and smell is important to 83% of respondents (and very important to 54%). The rated importance of minimising the impacts on local residents (82%) is very similar.

Keeping costs as low as possible is important to 64% of respondents (and very important to 43%). However, costs are not important to only 12% of respondents. Like public opinion about the leachate issue, costs become important once the more important environmental issues have been taken care of. The public will trade off costs for high environmental standards.

Recycling programs are strongly supported to reduce the demand for landfill

A very large segment of the public supports recycling programs as part of the solution to the landfill problem. Respondents made many comments during the survey in addition to the quantitative data captured by the questionnaire. Almost all of these dealt with recycling. There were two main themes in these comments. First, many people believe that more education on the benefits of recycling and on how to recycle will contribute to the solution. Secondly, many people think that manufacturers should take more responsibility to reduce packaging so that there would be less waste to recycle. Some respondents said that they are starting to reach the limit of their ability to recycle. These respondents said they would still do more if they could but believe that packaging creates problems that they do not have the ability to solve.

More specifically, there is strong public support for enhanced recycling initiatives. Overall, 95% of respondents agreed that the Region should expand recycling programs to keep as much waste as possible out of landfill. Similarly, 95% of the public said they are willing to do more to prepare and sort garbage and recyclables to keep waste out of landfill. Support drops slightly to 87% among people aged 60 and over. Support for the recycling of organics is also high. Overall, 86% of respondents said they would be willing to sort and recycle organics such as kitchen and food waste to keep waste out of landfill. Support for recycling organics ranges from a low of 79% in the 60 plus age category to a high of 91% in the 40 to 49 age category.