

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON
MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

REPORT
RAPPORT

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DATE 7 May 1998

TO/DEST. Co-ordinator
Planning and Environment Committee

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

SUBJECT/OBJET **HOUSEHOLD SPECIAL WASTE STRATEGY**

DEPARTMENTAL RECOMMENDATIONS

That the Planning and Environment Committee recommend that Council approve the following Household Special Waste (HSW) Strategy:

- 1. The “*Take It Back!*” program be promoted and expanded to increase the number of participating partners and include a greater variety of HSW products;**
- 2. The permanent HSW Depot at Trail Road continue to operate with a review of the operating season;**
- 3. The mobile HSW Depots continue to operate, as support to the product stewardship program, by providing service to the central and eastern areas of the Region;**
- 4. The efforts continue to simplify the handling of material from Small Quantity Generators, including ongoing discussion with Provincial and Federal regulators;**
- 5. The addition of new infrastructure such as a permanent depot in the east end not be considered as this would be counter to the present product stewardship approach.**

BACKGROUND

Household Special Waste is waste material generated in homes that may be hazardous to either human health or the environment and should not be disposed of in the regular garbage collection

system. Examples of HSW include paint, oil, antifreeze, herbicides, pesticides, aerosol containers, batteries, propane tanks and pharmaceutical drugs. These materials must be carefully handled and sent for recycling or disposal at specialized facilities. Disposal into streams, rivers, sewers and even some landfill sites is inappropriate and represents not only an environmental threat but is also a costly problem to correct once it has occurred.

A trial permanent HSW depot was opened in August 1992 at the Trail Road Landfill Site that provides service on Saturdays. The Trail Road Landfill Site is located in the south central area of the Ottawa-Carleton and is remote from the populated areas. Surveys of the users of the HSW Depot at Trail Road indicated that residents in the eastern part of the Region wanted this service provided closer to their communities. A study of the HSW program was commissioned in 1994. The Planning and Environment Committee approved the following four recommendations in June 1995 as a result of this study:

1. *That the Regional Municipality of Ottawa-Carleton (RMOC) continue the existing Household Special Waste services at the Trail Road Landfill Site;*
2. *That staff develop an implementation plan to establish a trial mobile depot service for the east end of the Region, as soon as possible;*
3. *That staff develop a cost recovery service for small quantity generators subject to Ministry of Environment and Energy approval;*
4. *That the RMOC continue to promote product stewardship and public education as a means to reduce the generation of household special waste within Ottawa-Carleton using existing staff and resources.*

The Solid Waste 3Rs Study was also approved by Council on 22 March 1995 and identified over 100 different diversion options. Option #3 in the 3Rs Study dealt with encouraging voluntary return-to-vendor systems within the Region by promoting and facilitating these systems whenever possible. In addition, Options #94, #95, #96 and #98 provide additional support to return-to-vendor systems. Option #93 in the 3Rs Study dealt with the possible expansion of the HSW service to redress the current imbalance in the geographic distribution of the service.

DISCUSSION

This evaluation of the HSW services provided by the Region was conducted by staff with the goal of increasing the diversion of HSW to appropriate disposal alternatives, eliminating duplication of services, and reducing costs to the Region. The results of that evaluation and resulting HSW strategy are as follows:

"Take it Back!" Product Stewardship Program

A number of industries and retailers in Ottawa-Carleton presently have return-to-vendor systems to deal with the waste they produce. By forming partnerships with these and other companies to increase the number of sites and materials eligible for the product stewardship program, the RMOC will gain efficiencies, and customers will be better served with no increase in costs.

Return-to-vendor systems are more convenient, cost effective for the Region, and educate the retailer and the consumer about their responsibilities for the waste that they produce.

In accordance with Option #3 of the 3Rs Study, in November 1997, the Region implemented “*Take it Back!*”, a product stewardship program in partnership with local companies, to establish a sustainable return-to-vendor infrastructure for a variety of HSW materials. The program will focus on adding products that can be returned directly to the vendor for re-use, recycling or for proper disposal. Currently, residents can now take back: used motor oil, tires, car batteries, antifreeze and propane cylinders to automotive retailers as well as unused and expired medication to local pharmacies. Establishing a “*Take it Back!*” system for paint and other materials over the next year will ultimately, significantly reduce the quantities of these materials brought to the permanent and mobile depots and eventually decrease the demand on these facilities.

The Region will raise community interest and participation in the “*Take it Back!*” program through ongoing education and by actively promoting “*Take it Back!*” partners. Consumers will be made aware of the convenient options for disposing of their HSW. Companies will be assisted in the long-term planning and creation of product-specific return infrastructures.

Permanent Trail Road Household Special Waste Depot

Participation at the permanent HSW Depot at the Trail Road Landfill Site has increased since its opening in August 1992. Annex A indicates the participation in the HSW Depot for each of the years since its opening. The permanent depot has been operating from mid-March to mid-December since 1996. The peak period of use is between May and November.

The annual and per-vehicle costs to operate the permanent depot are also provided in Annex A. The main component of the costs relates to the contracted services for appropriate removal from site and subsequent reuse, recycling or disposal. The operating cost of the HSW Depot dropped in 1997, due, in part, to the purchase of an automated paint-bulking machine which reduced the labour costs to process the paint.

Beginning this year, the operating season of the permanent depot has been shortened. It is anticipated that this will result in modest cost savings as less staff time will be required. By maintaining the same advertising levels, it is anticipated that participation at the permanent depot over the shorter period will remain the same as in previous years. Cost savings will be realized by operating over a shorter season.

Mobile Household Special Waste Program

In 1995, the RMOC initiated a pilot program to hold one-day HSW collection events at various locations throughout the Region. Nine events have been held in Ottawa-Carleton since December 1995. Locations had to be carefully selected based on zoning and area available for traffic management, ease of access/egress, and materials management. In addition, appropriate Ministry of Environment (MOE) approvals had to be obtained to operate the depot.

These events are an example of a public/private partnership. The contractor is responsible for unloading, packaging and disposal or reprocessing of HSW, while Regional staff are responsible

for co-ordinating the activity, providing the appropriate site, controlling traffic, and registering the participants.

All mobile HSW events were open to the public from 9:00 a.m. to 4:00 p.m. Most of the mobile HSW events were very well attended. A summary of the participation for each of the events since December 1995 is provided in Annex B, as well as the costs involved. Please note that the unit cost for the one-day event at the Diefenbunker in the Township of West Carleton is relatively high compared to the other events due to low participation. The low participation was likely due to low population density and relatively close proximity to the permanent HSW Depot. Annex C provides a breakdown of participation by municipality for the nine events.

To date, municipal sites have been used for these one-day events as they are well distributed throughout the eastern part of the Region, are familiar to staff, and are easily available during weekends. In the past, use of private waste management sites or commercial properties was considered and rejected for the following reasons: there would be limited competition during contract bidding for the dual requirements of supplying an appropriate site and providing the disposal/recycling service, and in some cases there are liability concerns. Subject to approval of 1998 funding, the option of using private sector sites will be considered and evaluated based on possible cost savings, effectiveness of potential locations as it relates to participation, and subject to appropriate approvals from other authorities including the MOE.

The mobile HSW Depots should continue to operate in the central and eastern areas of the Region. Three mobile HSW events and an optional event are proposed for 1998 and the locations have been targeted to improve customer convenience, based on past participation. The three proposed locations are Lansdowne Park, the Ministry of Transportation Works Yard at Trim Road and Highway 17, and the Regional Works Yard at 735 Industrial Avenue. An optional fourth event, possibly at a private site, has been provided for, should it be feasible. The private sector option would be evaluated considering cost savings, location and anticipated participation. The number and location of the mobile events will be reviewed annually.

East-end Permanent Depot

The 3Rs Study suggested that a permanent HSW Depot may be warranted in the east-end of the Region to evenly distribute this service, the capital cost to establish a permanent depot is estimated to be approximately \$800,000. The discrepancy in the level of service has been addressed, in part, by establishing a mobile depot system to collect HSW in the east end. The siting of a permanent depot may require land purchases, zoning changes, a Certificate of Approval from the Province, and public participation. Typically, the siting of a HSW depot results in the NIMBY (Not In My Backyard) syndrome. Without a significant increase in permanent depot participation, a second permanent depot would likely result in increased operating costs to support twice the infrastructure that now exists. This is not to suggest a doubling of the cost as disposal is a unit-cost contract. The capital cost to establish a permanent depot is estimated to be approximately \$800,000.

The addition of a new infrastructure such as a permanent depot is counter to the present product stewardship approach. A successful product stewardship program will result in many local disposal options through retailers throughout the Region. A number of "*Take It Back!*" locations

already exist in the east end, therefore, a new east end permanent facility is not recommended because of the capital cost and product stewardship efforts.

Small Quantity Generators

Many Industrial, Commercial and Institutional (IC&I) establishments produce small quantities of hazardous waste. The IC&I hazardous waste generators are known as Small Quantity Generators (SQGs). SQGs are not regulated by the MOE with respect to disposal requirements; however, transporting small quantities is subject to other regulations. The MOE has recently given the Region permission to conduct a pilot program to accept hazardous material from SQGs. Transportation regulations, however, make it difficult to expand the program to IC&I establishments.

An internal hazardous waste management pilot program was implemented at 111 Lisgar, in December 1997, to collect hazardous waste generated in an office building setting, as part of the initiatives to “green” the Region’s internal operations. The materials collected at 111 Lisgar are transported to the permanent depot at the Trail Road Landfill site for storage until disposal can be arranged. Material types and quantities received from this pilot will be closely monitored. An evaluation of the success and problems associated with this program, and suitability of expanding the service to other Regional facilities will be conducted at the end of 1998. Discussions will continue with the MOE and Transport Canada to review the requirements of transporting SQG hazardous waste.

CONSULTATION

The Solid Waste 3Rs Study addressed the return-to-vendor system and possible expansion of the HSW program to include the eastern area of the Region. Extensive consultation was completed on the Solid Waste 3Rs Study. Residents using the permanent Household Special Waste Depot at the Trail Road Landfill Site are asked to complete a survey where they have the opportunity to provide comments or questions. Many of the comments provided in the surveys suggest an east-end depot for hazardous waste. These needs will continue to be addressed through mobile depots and expansion of the “*Take it Back*” program.

FINANCIAL IMPLICATIONS

All activities related to the handling of HSW are funded from the Compensation Fund and not the Solid Waste Fund. The estimated 1998 budget for the “*Take it Back!*” program is \$200,000. An additional \$539,000 has been budgeted for the permanent depot; however, a favourable contract has already been awarded for services in 1998. In addition, the mobile HSW depots are estimated to cost \$240,000 for three events (with an optional fourth event at a private site if required). It is expected that these budgeted amounts will be required until product stewardship initiatives begin to have an impact on waste quantities. It is suggested that over time the Region’s activity and spending should evolve from a role of direct service provider to one of support, education and promotion.

CONCLUSION

Inappropriate disposal of HSW represents a significant cost potential and environmental threat. Proper disposal is also constrained by handling regulations and procedures that currently make it costly and at times inconvenient. The Region's statutory waste management role pertains to the disposal of residential solid waste. It has, however, a broader role to play with respect to environmental management and sustainability. The Region's role with respect to HSW should continue to evolve to support both consumer and supplier awareness and responsibility.

In order for the Region's HSW strategy to be comprehensive, it must incorporate product stewardship into its overall HSW strategic plan. The cost savings to be achieved by the elimination of many products from the HSW depot collection are potentially high. It is recommended that the Region adopt a three-part approach to handling HSW: (1) the continued promotion of the "*Take it Back!*" product stewardship program to increase industry's participation in re-use, recycling and disposal systems, and increase consumers participation, (2) the continued operation of the permanent HSW Depot at Trail Road, and (3) continuation of the Mobile Depots. The permanent and mobile depots will act as support for the eventual development of broader re-use, recycling or disposal systems operated by industry.

Approved by
P. McNally, P. Eng

MH/TJC/PM/md

PERMANENT HSW DEPOT - ANNUAL COST SUMMARY

Year	Total Cost	No. of Vehicles	No. of Weeks Open	Cost per Vehicle
1992	\$192,100	3,652	20	\$52.60
1993	\$597,744	9,512	52	\$62.84
1994	\$517,699	10,017	52	\$51.68
1995	\$425,298	10,369	40	\$41.02
1996	\$434,688	11,411	40	\$38.09
1997	\$379,948	11,073	40	\$34.31

PER VEHICLE COST FOR EACH MOBILE DEPOT EVENT

Location	Event of Date	Total Cost	No. of Vehicles	Cost per Vehicle
Cumberland Yard on Trim Road, Cumberland	16/12/95	\$35,142	564	\$62.30
Robert O. Pickard Centre, Gloucester	15/06/96	\$37,716	1,110	\$33.98
Lansdowne Park, Ottawa	21/09/96	\$81,338	1,823	\$44.62
Industrial Rd. Works Yard, Ottawa	02/11/96	\$55,623	1410	\$39.45
Robert O. Pickard Centre, Gloucester	10/05/97	\$34,072	732	\$46.55
MTO Works Yard, Trim Rd & Hwy. 17, Gloucester	21/06/97	\$46,607	1,055	\$44.18
Lansdowne Park, Ottawa	06/09/97	\$52,914	1,390	\$38.07
Diefenbunker, Twp. of West Carleton	04/10/97	\$26,676	348	\$76.66
Industrial Rd. Works Yard, Ottawa	01/11/97	\$64,962	1,705	\$38.10

PARTICIPATION AT MOBILE EVENTS BY MUNICIPALITY

MUNICIPALITY	Trim Road	Pickard Centre	Lansdowne Park	Industrial Rd.	Pickard Centre	MTO Works Yard	Lansdowne Park	Diefenbunker	Industrial Rd.
Gloucester	52%	54%	22%	45%	57%	41%	20%	<1%	35%
Cumberland	36%	11%	<1%	12%	21%	47%	5%	<1%	15%
Ottawa	11%	25%	65%	38%	17%	6%	66%	3%	45%
Vanier	<1%	8%	<1%	<1%	1%	<1%	1%	0	<1%
Rockcliffe Park	0	2%	<1%	<1%	<1%	0	<1%	0	<1%
Nepean	<1%	<1%	<1%	<1%	<1%	0	6%	1%	1%
Kanata	<1%	0	<1%	<1%	<1%	0	<1%	20%	<1%
Goulbourn	0	0	<1%	<1%	0	0	<1%	11%	<1%
West Carleton	<1%	0	<1%	<1%	0	0	0	64%	<1%
Rideau	0	0	<1%	<1%	0	0	<1%	0	0
Osgoode	<1%	<1%	<1%	<1%	0	<1%	<1%	0	1%