

DRAFT ONLY

MASTER WORK PLAN

1986-1995

SEPARATION AT SOURCE PROGRAM

REGIONAL MUNICIPALITY OF HALTON

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## PREAMBLE

This report addresses the requirement to develop, in conjunction with the Region-Area Staff Separation at Source Committee, a 10-year Master Work Plan for the Halton Source Separation Program, for the period 1986 to 1995. This requirement was identified on February 20, 1985, by the Council for the Regional Municipality of Halton (Report #CAO 62/85). A Regional Separation at Source Co-ordinator would be hired to develop and implement the Plan. The requirement included that this Plan "shall be brought to Regional Council and the Area Municipalities, as appropriate, for approval." Further, the Separation at Source Co-ordinator, in conjunction with the Region-Area Staff Separation at Source Committee, in developing the Halton Source Separation Master Work Program, report back to the Solid Waste Management Committee within one year, on the implementation program necessary to make separation at source and recycling a mandatory program throughout the Region.

Halton's Council identified these requirements as a result of extensive reviews on the historical background, opportunities and markets for recycling in Halton.

1. BACKGROUND AND INTRODUCTION

The historical development of recycling in Halton is well-documented. The Official Plan for the Region includes the provision to investigate alternative ways and means of solid waste reduction and pursue, in conjunction with appropriate agencies and Area Municipalities, active public education programs to this end.<sup>(1)</sup> As well, it provides for the encouragement and active support of ways and means of conserving material and energy resources, and to seek out long term viable markets for materials.

In 1980, a report on Solid Waste Source Separation Market Development Program was completed for the Region by Resource Integration Systems Inc. It recommended the regionalization of separation at source programs and identified waste diversion rates for a three year program.

Subsequent to these two initiatives, and after thorough review of the history of recycling in Halton, the Chief Administrative Officer's office developed a "Proposal for a Separation at Source Program for Halton - Final Report" on February 15, 1985. This report, which recommended the regionalized, co-ordinated separation at source program, formed the basis of Council's resolution of February 20, 1985.

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(1). Official Plan for Halton Planning Area, Regional Municipality of Halton. 1982.12.15 Office Consolidation. (D3.1)

The resolution included the requirement to establish a regional handling facility, to contract out the marketing and operations aspects of Halton's separation at source program; to hire a Separation at Source Co-ordinator; and to attain funding from the Ministry of the Environment.

The suggested program, contained in the "Proposal for a Separation at Source Program for Halton - Final Report" is detailed below, and includes the actions completed to January 1, 1986.

#### 1985

#### Actions

- |    |                                                                                                                     |                                                                                              |
|----|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1. | Submit expanded funding request to the MOE                                                                          | approved                                                                                     |
| 2. | Continue Regional/Area Separation at Source Staff Committee                                                         | ongoing                                                                                      |
| 3. | Hire Separation at Source Co-ordinator                                                                              | Sept. 3/85                                                                                   |
| 4. | Introduce Regional advertising, promotional and education program (minimizing duplication with area municipalities) | Contained as part of this Work Plan                                                          |
| 5. | Relocate and expand Materials Handling and Processing Facility                                                      | HRR leases additional space Oct. 1/85. Overview study of Regional facility contained herein. |
| 6. | Negotiate formal agreement between Halton's Recycled Resources Ltd. and the Region.                                 | Completed- Dec. 18/85.                                                                       |
| 7. | Expand recycling in commercial, industrial, institutional and volunteer sectors.                                    | Underway - in accordance with work Plan herein                                               |

8. Pay waste diversion Credit on behalf of Burlington and Milton, maintaining full MOE subsidy for Oakville deficit and obtaining MOE subsidy for Halton Hills deficit. ongoing
9. Develop 5 - 10 year Separation at Source Plan and review proposed division of roles and responsibilities. Contained herein.

Proposals for the 1986-1995 portion of the program are contained herein and form part of the Master Work Plan.

What follows is a detailed Program for the Separation at Source of recyclable materials in Halton for the period 1986-1995. It includes the establishment of objectives for the program; a description of the roles and responsibilities of the Regional Municipality of Halton, the area municipalities and the Contractor (Halton's Recycled Resources Ltd.). It details the steps necessary to achieve the objectives, and the implementation plan required. In addition, financial perspectives including staffing requirements are discussed in Appendix A. It provides a process whereby the program can be evaluated and updated on an annual basis which will accommodate changes in the waste stream, demands on the Contractor, facility requirements and other eventualities.

The program is geared to increasing the volumes of diverted wastes from the landfill, through the setting and achievement of targets. Three levels of achievement are detailed herein, with a work plan designed for the selected level. The main program is supplemented with additional activities to enhance public awareness and waste-diversion potential.

the Region will maintain direct involvement with the procurement of commodities, from the industrial/commercial/Institutional sectors within the Region. Through its Agreement with Halton's Recycled Resources Ltd., it will provide residential curbside collection to area municipalities, with the exception of Halton Hills, for agreed time periods. The handling, processing and marketing of these commodities will be managed at the Regional level. Monitoring of the program will also be conducted by Halton. The Staff/Area Separation at Source Committee will continue to act as liaison with the Region, municipalities and Ministry of the Environment. It will suggest revisions to the Regional program as time progresses.

#### The Role of Area Municipalities

Local advertising and promotional activities and the maintenance of curbside collection programs are primarily the responsibilities of the area municipalities. It is expected that each area will set annual recovery targets. Through agreements with the Region, aimed at the residential sectors, each municipality can encourage the maintenance of curbside collection of recyclable materials; implementation and/or enforcement of anti-scavenging by-laws and programs to enhance existing volumes. Direct participation in the Regional program will be maintained through the Staff/Area Separation at Source Committee. When required, Committee representatives will promote the smooth transition of regional goals for specific municipalities to implementation. In addition, the Region will supply collection data to municipalities to assist them in monitoring results

against local targets.

### The Role of the Contractor

Collection and handling of recyclable materials at the curbside and industrial/commercial sectors is a major responsibility of the Contractor. Assistance to the region and its area municipalities in the development and implementation of advertising and promotional programs is seen to be an essential role. Marketing and the customer service aspect of commodity procurement is included in the Contractor's activities, overseen by the Regional Co-ordinator and Staff/Area Separation at Source Committee.

### Performance of Participants

Over the past year, the Region, area municipalities and the Contractor have understood and provided the commitment to their roles as defined in the Region's February 1985 proposal. Few changes have occurred. In the area of financing (s.2.2) Area municipalities were shown as having a major responsibility. This has been adjusted to "minor" in light of the conceptual changes in the program. As well, item 2.5 suggests major municipal responsibility in the monitoring and payment of agreements with areas and Halton's Recycled Resources Limited. This has changed as a result of the Region's agreement with Halton's Recycled Resources Ltd. The responsibilities that have been adjusted are marked with an asterisk. It is expected that in 1986, municipalities will determine their promotional programs in alliance with the Regional Master Plan, set targets and continue

Region of Halton Separation at Source Program  
Proposed Division of Roles and Responsibilities

| <u>Function</u>                                          | <u>Region</u> | <u>Area Municipalities</u> | <u>Contractor</u> |
|----------------------------------------------------------|---------------|----------------------------|-------------------|
| 1. <u>Co-ordination</u>                                  |               |                            |                   |
| 1.1 Region, Area Municipalities, Contractor              | Major         | Minor                      | Minor             |
| 1.2 Ministry of the Environment                          | Major         | Minor                      | Minor             |
| 1.3 Other Staff, Departments, Solid Waste Contractors    | Major         | ----                       | Minor             |
| 1.4 Industrial/Commercial generators, haulers, recyclers | Major         | Minor                      | Major             |
| 2. <u>Administration</u>                                 |               |                            |                   |
| 2.1 Planning & Budgeting                                 | Major         | Minor                      | Major             |
| 2.2 Financing                                            | Major         | Minor*                     | Minor             |
| 2.3 Provincial Funding negotiations                      | Major         | Minor                      | Major             |
| 2.4 Reports to Committee/Council                         | Major         | Minor                      | Minor             |
| 2.5 Agreements (monitoring & payment)                    | Major         | Minor*                     | Minor             |
| 2.6 Monitoring Volumes/participation rates               | Major         | Minor                      | Major             |

|     |                                                                               |       |        |       |
|-----|-------------------------------------------------------------------------------|-------|--------|-------|
| 3.  | <u>Advertising/Promotion<br/>/Education</u>                                   |       |        |       |
| 3.1 | Incentives - investigation,<br>funding, implementation                        | Major | Minor  | Minor |
| 3.2 | Local information &<br>promotion                                              | Minor | Major  | Minor |
| 3.3 | Regional information &<br>promotion                                           | Major | Minor  | Minor |
| 3.4 | Specialized promotion tied<br>to monitoring of<br>volumes/participation rates | Major | Minor  | Minor |
| 3.5 | Development of Educational<br>package(s)                                      | Major | Minor  | Minor |
| 4.  | <u>Collection and Handling</u>                                                |       |        |       |
| 4.1 | Curbside pick up                                                              | ----  | Major  | Major |
| 4.2 | Depots/Containers/Transfer<br>Station                                         | Major | ----   | Major |
| 4.3 | Enforcement (scavenging)                                                      | ----  | Major  | Major |
| 4.4 | Complaint                                                                     | Minor | Minor* | Major |
| 4.5 | Handling Facility                                                             | Major | Minor  | Major |
| 5.  | <u>Marketing</u>                                                              |       |        |       |
| 5.1 | Customer Service                                                              | Major | ----   | Major |
| 5.2 | Market Development                                                            | Major | ----   | Major |

\*Indicates items changed from February, 1985 proposed division of responsibilities

to maintain a high community profile. The Region will establish the program identity through the implementation of the promotional plan, contained in Section 5. Informal liaison between area municipalities and the Region will continue on a frequent basis through meetings, telephone conversations and special events planning. Formal liaison will be provided through the continuation of the Staff Area Separation at Source Committee.

It is recommended that on an annual basis the role of participants and the performance of responsibilities as part of the Regional Program will be evaluated. The Region will make recommendations and adjustments necessary to ensure the smooth running of the program and the achievement of program objectives.

4. STEPS NECESSARY TO ACHIEVE THE OBJECTIVES

4.1 Regional Agreement - Recycling Contractor

On December 18, 1985 the Regional Municipality of Halton approved a 10 year agreement with Halton's Recycled Resources Ltd. This contract, administered by the Separation at Source Co-ordinator, contains provision for:

- the handling, processing, marketing and monitoring of recyclable materials generated exclusively within Halton Region;
- the provision of such services in Regionally-owned facilities at such time as these become available at an equitable rental rate;
- providing collection services in participating municipalities, and collection services to the industrial, commercial, institutional and voluntary sectors;
- the payment of a waste diversion credit to the contractor, as well as an incentive to maximize diverted tonnage volumes;
- the payment of costs incurred by the Contractor in the event of an operating deficit, net of funding allocations from the provincial Ministry of the Environment, the Waste Diversion Credit, and/or other funding sources;

and

- other responsibilities to be undertaken by the Contractor, as detailed in the Master Plan.

The agreement spans the time frame addressed by this Master Plan, and contains provisions for annual review of the compensation formula and Master Plan adjustments as they affect the Contractor.

#### 4.2 Regional Agreements - Area Municipalities

An essential step in the Region's recycling program is to underscore the commitment of the Region and its four area municipalities in providing for a long-term recycling program for its residential, commercial, industrial and institutional sectors. The Regional Municipality of Halton, in its Official Plan, and later supported by a Resolution of Regional Council (previously discussed), outlines the commitment held by the Region to conduct a 10 year program for separation at source. In December, 1985 the Region entered into a 10 year Agreement with Halton's Recycled Resources Ltd. (see S.4.1 above), to provide for the collection, handling, processing and marketing of recyclable materials for the Region. This agreement is dependent on the provision of municipal curbside recyclables to its program over the long term. It has been clearly enunciated, and is understood that area municipalities are responsible for the curbside collection of residential wastes. The Region has overall responsibility for providing disposal facilities for those wastes. It is desirable that the Region's collection contractor should collect the recyclable materials from curbside to effect the best economies, but it is not essential to the success of the program. It is necessary however, that the materials are supplied to the Region's contractor for processing and marketing.

The commitment between the Region and its four area municipalities should be formally enunciated through agreements

between each municipality and the Region. Therefore, the Region and each area municipality may enter into agreements to ensure that :

- a. each area municipality undertakes to maintain curbside collection, depots and other incentives for recyclable materials, for a minimum period of ten years, and supply those commodities to the Region;
  - b. each area municipality will permit Halton's Recycled Resources Ltd. to collect source separated materials for a specified term, with the exception of the curbside collection program run by the Town of Halton Hills;
  - c. each area municipality will implement the necessary anti-scavenging by-laws to ensure the viability of the Regional program;
  - d. the complete definition of the role of the Region and the role of the area municipality, as defined in the Master Plan, subject to annual review;
- and
- e. the agreement between the Region and the Town of Halton Hills will permit Halton's Recycled Resources Ltd. to continue to store, handle, process and/or broker source separated materials collected by and/or for the Town of Halton Hills for a minimum of ten years.

It is recommended that the Region enter into recycling agreements with its area municipalities. The authority for this is contained in Report No. PW.32/86, approved by Regional Council on December 18, 1985.

#### 4.3 Financial Review/Program Planning/Marketing

The essence of the Region's recycling program is the ability to adequately market commodities procured through the regional program, either through recycling or re-use. Markets for recyclable commodities are highly volatile and can change very

quickly. Revenues derived from commodities are also subject to rapid fluctuation. While some markets appear stable (e.g. corrugated, fine paper, tin, aluminum and glass) as we enter 1986, predictions for the newsprint market, contained in the February 1985 proposal, have proven vulnerable - markets have tightened and prices have dropped. Circumstances such as these must be taken into account within this Master Plan format. Decisions on storage and disposal of commodities affected by weak markets will be made by the Region through consultation with the Staff/Area Separation at Source Committee. In the case of newsprint, there exists a Regional By-law which prohibits landfilling of this commodity to maintain recycling potential.

Therefore, it is recommended that annual reviews will be conducted of the Program's financial aspects, relating to operational costs and commodity marketing, and availability of funds. Adjustments will then be made to the Master Plan. These reviews will be undertaken by August of each year, to tie in with the review of the Region/Contractor agreement. Agreements between the Region and its area municipalities will also be adjusted dependent upon the results of the review, and agreement at the Staff/Area Separation at Source Committee.

Every effort will be made to establish markets for new commodities, as well as identify new buyers for existing recyclable materials. It is inherent in this Plan that the targets set for waste stream diversion depend upon effective marketing and smooth flow-through of wastes at the recycling

facility.

#### 4.4 Analysis of Volumes and Recycling Targets - 1986-1995

Various sources available in the Region have been gleaned in an attempt to assess the recyclable, re-usable components of the waste stream generated in the Region of Halton. Currently, a per capita waste generation rate of .7 tonnes per annum exists in Halton, which is well below the national average. However, in 1985, a waste stream volume of 190,924 tonnes occurred, 9209 tonnes greater than 1984, demonstrating a generally increasing waste generation rate. Predictions provided by C.N. Watson & Associates, (financial consultants to the Region on Halton's future landfill requirements), indicate a gradual waste generation increase of approximately 1.8% per annum after 1988.

Generalized data is available on the composition of municipal wastes generated from curbside collections. Resource Integration Systems Ltd., in their 1980 Study "Solid Waste Source Separation Market Development Program...System Design Analysis" reviewed two relevant studies and adapted Halton's municipal waste stream according to population demographics. These data have proven useful in determining municipal targets for recyclables. However, in some cases, (e.g. Old News, Oakville) current collection volumes exceed the predicted total news generation rate.

The amount of recyclable materials generated for disposal in the commercial/industrial/institutional sectors is unclear. From an Industrial Waste Survey conducted in 1983 for Halton, it has been

determined that large volumes of recyclables are being disposed of in the landfill. Commercial/industrial sources generate over 50% of the waste stream. This conclusion is further supported by a cursory review of the materials handled at the landfill site from charge customers. Discussions with commercial/industrial waste haulers confirm readily available recyclables in their loads.

In order to adequately ascertain the volumes of recyclable materials from the commercial/industrial sectors a review must be undertaken during the initial stages of the Region's Source Separation Program. It is recommended that a study be conducted, for completion by August, 1986, to analyse the waste stream composition, and that data generated therefrom be used to revise the interim targets suggested in this report. Each industry or commercial area's waste stream within the Region should be assessed. These assessments will generate approximate volumes of recyclable materials information on storage in a computer data base. Priority levels can be assigned as to their importance within the source separation program. Once this analysis is complete, it will be a relatively easy process to approach a potential target with information and educational materials. If necessary, the appropriate incentives or disciplines can be developed to ensure material recovery.

In the interim, targets have been set for the first five years of the program as follows:

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TARGETS FOR SOURCE SEPARATED MATERIALS

(metric tonnes)

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|              | 1986   | 1987   | 1988   | 1989   | 1990   |
|--------------|--------|--------|--------|--------|--------|
| Low range    | 11,700 | 15,000 | 18,000 | 21,000 | 25,000 |
| Medium range | 15,000 | 20,000 | 25,000 | 30,000 | 35,000 |
| High range   | 20,000 | 25,000 | 30,000 | 35,000 | 40,000 |

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Low Range

C.N. Watson & Associates Ltd., consultants to the Region on the landfill component of the solid waste management Plan, have reviewed these targets, and selected the low range on a conservative basis for determining needed landfill capacity over the 20-year planning period - 1988 - 2008.

The low range indicates a 37% increase over 1985 in 1986 and represents an additional 28% increase in 1987 over 1986. By the year 1990, the five year increase will represent three times the 1985 volume. This 1990 volume, at the low range, represents 12% of the estimated waste stream forecast by C.N. Watson & Associates Ltd., in their "Region of Halton EPA Review of Waste Quantities Projection", December 21, 1985. (See Chart 2).

Medium Range

Medium Range forecasts indicate rises to 8% of the total waste stream in 1986, 10% in 1987, 12% in 1988, 15% in 1989 and 17% of the total waste stream by 1990. This range is seen to be

achievable in light of the amount of materials available in the commercial sector, and those readily and immediately available through contacts made by Halton's Recycled Resources Ltd., and the waste haulers.

### High Range Forecast

Halton Region, in its efforts to conserve existing (1986-1988) landfill space, has determined to maximize the waste diversion rate from the landfill site. As well Halton is committed to separation at source through the 4 R's - Recycling, Reuse, Reduce and Recover. In light of these commitments, an aggressive program in the source separation area is required to make an immediate impact on volumes being disposed of either through landfilling or export. Ultimately, the Region's solid waste management plan calls for self-sufficiency in waste disposal. This is anticipated as early as 1988 when the new landfill site comes on stream. This will be supplemented by 1996 with an Energy From Waste Facility.

The high range forecasts developed for the separation at source program (1986-1990) call for a diversion rate of 20% of total generated refuse by the year 1990, at a level of 40,000 metric tonnes per annum. In the event that the waste generation forecasts (Chart 2) fluctuate, the percentage of the waste stream diverted could change quite substantially. The Plan therefore addresses an immediate, dramatic increase in the commercial/industrial sector materials to 10,000 metric tonnes

WASTE FORECASTS - CHART 2

| Year | Population | Waste Forecasts | Low Range | %  | Medium Range | %  | High Range | %  |
|------|------------|-----------------|-----------|----|--------------|----|------------|----|
| 1986 | 262,000    | 190,000         | 11,700    | 6  | 15,000       | 8  | 20,000     | 10 |
| 1987 | 269,000    | 195,000         | 15,000    | 8  | 20,000       | 10 | 25,000     | 13 |
| 1988 | 276,200    | 200,450         | 18,000    | 9  | 25,000       | 12 | 30,000     | 15 |
| 1989 | 279,700    | 203,000         | 21,000    | 12 | 30,000       | 17 | 35,000     | 17 |
| 1990 | 283,700    | 205,900         | 25,000    | 12 | 35,000       | 17 | 40,000     | 20 |

Based on: C.N. Watson & Assoc. Ltd. "Region of Halton E.P.A. Review of Waste Quantities  
Projection " December, 1985 pp. 10-13.

Adapted to metric tonnes and source separation targets

1986-1987 - best guestimates for population and waste forecasts, Dept. of Public  
Works, Region of Halton.

for 1986, and a continued increase at the municipal/residential level. It is pointed out here, that area municipalities are primarily responsible for municipal collection, and promotion of special programs, to encourage increases in municipal curbside collection and this is not seen as a major part of the Regional mandate (Section 3 - Role of Participants). The City of Burlington, for example, is taking an aggressive view to increasing volumes at the curb. The Burlington curbside target alone of 4100 tonnes would account for more than 40% of the Region's projected residential total of 10,000 tonnes in 1986.

The Towns of Oakville, Milton and Halton Hills anticipate continued growth throughout the next five years. A continued upswing of volumes for the separation at source program is anticipated in 1987 as more businesses participate. As well, a significant impact on the residential communities can be expected as a result of local advertising, spin-off awareness through school board/school programs and employee orientation programs at the industrial/commercial level.

Reviewing the requirements of the landfilling operation in Halton, it appears that approximately 90,000 tonnes per annum of refuse are landfilled under the current plan, with the balance of the refuse being exported. The high range forecast predicts diversion of 62,500 tonnes of material from the waste stream between January 1986 and July 1988. This diversion rate will substantially impact on landfill life and the expense incurred in solid waste shipments to the Occidental Energy from Waste Facility in New York State or other export arrangements.

In light of the obvious benefits of the high range forecasts to the separation at source program, and to the Regional waste disposal issues, the Master Plan has been developed to achieve these targets.

To summarize, it is recommended that the following steps are taken:

1. Accurately ascertain the volumes of recyclable wastes available in the Region through a study of industrial/commercial waste streams, using existing documentation and telephone surveys. To be available no later than August, 1986.
2. Select the high range target of 20,000 tonnes for 1986 as an interim measure until the data are available from the study detailed in Step 1. 5-year Targets will be adjusted at that time, and where necessary, the Work Plan will be changed to accommodate these.

#### 4.5 Regional Recycling Facility

Regional Council, in its February 1985 Resolution, authorized the establishment of a Regionally-owned "proper material handling and processing facility to separate, clean, package, store and ship the expected increased volume of source separated material", and further authorized "that Regional staff, in conjunction with Halton's Recycled Resources Ltd. commence a search for location(s) for an expanded Materials Handling and Processing Facility and report back to Council with suggested locations and recommendations".

At the current time, Halton's Recycled Resources Ltd., occupies two buildings, totalling approximately 21,000 sq. ft. on Industrial Road in Burlington. Up until August, 1985, their one building had reached capacity and it was necessary for expansion immediately to handle existing volumes. An initial review of the feasibility of a Regional Handling Facility coming on stream, on time to deal with the expanded program - at any level - showed that it was totally impossible to construct a facility in time. Therefore, interim actions were taken independently, through liaison with the Region, to allow for rented facilities to handle current and projected volumes for the time being. The first building now handles newsprint and corrugated cardboard, with the second building handling fine papers. Bottles and cans are handled at Burlington Public Works Yard and the Regional landfill site. While the space is adequate to handle the predicted "high range" volumes to 1987, certain modifications have to be made to the buildings to allow for the receipt of bulk shipments from waste haulers, and to provide adequate flow-through and handling. The expenses for these modifications are accounted for in the Contractor's 1986 budget. Further, with these modifications, the building will provide a basis for the design of Halton's permanent recycling facility. The market experience gained during this period will permit evaluation of the need for long term commodity storage, in the event of specific market sector slow-downs.

### Need for a Regional Recycling Facility

Even with the proposed modifications to the current leased premises of Halton's Recycled Resources Ltd., (i.e. constructing driveways, and asphalt pavement to accommodate predicted volumes), there are certain needed adjustments which cannot be made. Thus, a new properly designed Recycling Centre is needed for the long term. For example, ceilings at the current facilities are not high enough to provide for unloading and loading of containers for corrugated shipments. A new facility is required to accommodate Halton's specific requirements, particularly sizing, height, driveways, storage and adequate staff facilities.

### Facility Location

Extensive reviews have been conducted within the Region for acceptable existing buildings on a lease or purchase basis, from which the Regional program can operate. None have been found. Therefore, in mid-1985, it was determined that if there was to be a new Regional Recycling Centre, then it should be built by the Region, on Regionally-owned land. The preferred site is adjacent to the proposed Mid-Halton Water Pollution Control Plant and Operations Centre site as it is near the centroid of waste generation in Halton and because it would be in the immediate vicinity of other public works facilities. Discussions with Public Works, Property, Law and Finance staff at the Region have resulted in a positive indication that land will be made available at that location.

## Approvals

It is necessary to obtain the following approvals in order to commence construction:

1. Site Plan approval by the Town of Oakville. The lands are zoned 05 which permits public works, public utilities and private utilities authorized by a government authority, subject to municipal approval, and subject to regulations set out in Section 78(2) of the Zoning By-Law of the Town of Oakville. The Town also requires site plan approval for any use within the Parkway Belt.<sup>(2)</sup>
2. Certificate of Approval. A certificate of approval for a waste disposal site has been applied for at the Ministry of the Environment, Environmental Approvals Branch on December 23, 1985. It is our understanding that this project is exempt from the Environmental Assessment Act, (confirmation of this is expected.)

## Financial Considerations

Land: The Recycling Facility located adjacent to the Mid-Halton Water Pollution Control Plant and Operations Centre site necessitates the acquisition of lands by the Region. A "Conditional Offer to Purchase" was approved by Regional Council on November 27, 1985 in Report CAO 302-85. This offer is conditional on receiving MOE approval or exemption for the project.

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2. Letter from Pat Murphy, Deputy Planning Director, Town of Oakville, October 29, 1985.

Building: The building should be two storeys, totalling 22,000 sq. ft. with an exterior storage facility of 5,400 sq. ft. One estimate indicates basic costs for a finished building could be \$832,000 (1985 dollars) with additional costs of approximately \$500,000 for exterior work. These figures exclude architectural and engineering costs, landscaping, site servicing, site fencing, signage, etc. The building will be designed to allow for future expansion.<sup>(3)</sup> It is suggested that an additional "order of magnitude" estimate is requested, to confirm requirements or suggest amendments.

Current budget allocations for this facility at the Region are \$525,000, indicating a shortfall of approximately \$1 million. A request has been filed with the Ministry of the Environment for consideration of a capital grant of up to 50% of the total costs. Halton's Recycled Resources Ltd., the Region's Contractor, currently leases space at \$3 per sq. ft. The Contractor's agreement with the Region (see Section 4.1) contains the provision that fair market rental will be paid to the Region for its Recycling Centre. It is indicated that rents for comparable facilities within the Region range from \$2.75/sq. ft. to \$5.00 per sq. ft. It is therefore envisaged that an annual revenue of approximately \$75,000 can be generated from this building, subject to market fluctuation at the time of building delivery.

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(3). Order of Magnitude Cost Estimate, prepared by R.V. Anderson Associates Ltd., September 30, 1985.

Timing: Taking into account the approvals process necessary, including obtaining the necessary funding, as well as the term for the existing leased facility design should begin in 1986 with tender in late 1986/early 1987 and a construction start date of Spring 1987.

It is recommended that pre-planning, design, site plans, and other necessary approvals for the Recycling Centre should be commenced immediately, in the absence of complete funding, in light of the fact that with rental income alone, Halton can potentially re-coup its total capital outlay over a 20-year period.

#### 4.6 Municipal Curbside Collection Programs

The current tonnage diverted from the landfill, through municipal curbside collection programs within the Region is approximately 7,400 tonnes (1985). This represents an increase of (28%) since 1984. As described earlier, it is the responsibility of each municipality to conduct promotional and advertising programs within their jurisdiction. It is imperative that each area maintain and enhance their established local identity, within the purview of a Regionally co-ordinated program. For this reason, municipalities maintain their own recycling program personnel and have developed individual promotional plans for 1986. It is expected that this will continue throughout the duration of this Plan. These programs maintain local identity and can be tailored

to suit each community's particular needs.

The role of the Region in municipal programs is to co-ordinate advertising and promotional activities, and from time to time, tie in Regional programs with local initiatives. For example, Recycling Week and Environment Week provide an excellent opportunity for municipalities and Regional staff to work together. Educational programs at the school level are also tied to municipal activities.

The Region has taken the initiative to provide educational and promotional tools for use by area municipalities. A slide show, display booth and brochures/flyers are planned to complement municipal efforts. As previously noted, and detailed on Chart 3 herein, municipal volumes are expected to increase through local initiatives, with Regional targets set by municipalities through consultation with the Staff/Area Separation at Source Committee. Section 5, Promotional Programs, discusses the various communications programs to be co-ordinated from the Regional offices.

#### 4.7 Commercial/Industrial Sector Programs

This sector represents 55% of the solid waste stream in Halton. In light of this, and the currently unknown quantities of recyclable, re-useable wastes generated from these Sectors, a series of promotional programs has been developed to generate interest, participation and information geared to cost savings (i.e. tipping fees, haul charges, etc.) financial incentives may

be offered to encourage participation. Crucial to the 1986-1990 volumes, the commercial/industrial sector's co-operation is based on specially designed employee/employer orientation, waste stream analysis, plant recovery programs and reliability of collection. In some cases, savings/revenues may be realized by corporations packaging and processing wastes in accordance with standard specifications - designed by Halton's Recycled Resources Ltd. and Regional staff. As well as independent discussions with senior management and/or owners of the commercial/industrial sector, negotiations are planned with waste haulers to develop methods to extract recyclables from haulage volumes, at source. The impact of these negotiations on the solid waste contracts between haulers and area municipalities, where applicable will be explored through consultations with affected municipalities. Section 5, Promotional Programs, details specific methods of ensuring commercial/industrial sector involvement.

The commitment of senior level Regional representatives, i.e. Regional Chairman, Mayors, Councillors, the CAOs' offices and waste managers, is a pre-requisite to the success of this program. Educational orientation tools will be developed to supplement the orientation process - i.e., an audio-visual program, brochures in employee pay cheques, employer/employee seminars.

#### 4.8 Institutional Sectors

Halton Regional Police, Boards of Education, Hospitals and

Community Colleges will be brought on stream in 1986. Currently underway are proposals to the Halton Regional Police and the Boards of Education. At the current time, detailed programs for implementation at the local level will be completed in the first part of 1986. This sector is a key to the success of the overall program. It is recommended that mandatory recycling programs are implemented in institutional sectors within Halton's jurisdiction by 1987.

#### 4.9 PROGRAM EVALUATION

Annual evaluations will be conducted by the Regional Co-ordinator to review the Program's progress against the objectives and targets. Appropriate adjustments will be recommended as a result of the evaluation. Specifically, the following aspects will be reviewed each year:

1. Responsibilities of the Participants
2. Regional Agreements with the Contractor and Area Municipalities
3. Financial Aspects
4. Markets
5. Recycling targets and waste volumes - municipal and Region-wide
6. Education and Promotional Strategies.
7. Changed or new initiatives and/or programs as required.

The Staff/Area Separation at Source Committee will consider the evaluations and oversee any changes to the Plan. It is important that any impact of changes to the Plan on the area municipalities and the Ministry of the Environment, be thoroughly reviewed by this Committee.

## 5. AN EDUCATIONAL AND PROMOTIONAL STRATEGY

### 5.1 Introduction

This strategy is designed to span the time period January 1, to December 31, 1986. It is developed as part of the Separation at Source Master Work Plan, and its components can be adapted to meet the future requirements of the program. It is based on the assumption that a 20% total waste diversion rate is required through Separation at Source by 1990. In August of each year, the strategy will be reviewed to accommodate diversion targets, experience and future programming.

### 5.2 Educational and Promotional Program Goals

The following goals are designed to accomplish diversion targets established by the Region for 1986:

- a. Encourage the residential, commercial, industrial, institutional and volunteer sectors to participate in separation at source activity consistent with the Region's waste reduction objectives;
- b. stimulate a public awareness of the Region's comprehensive waste management program;
- c. develop and maintain information, consultation and education programs within the Region in support of objective (a) above;  
and
- d. provide Regional participants with positive feedback relating to their efforts.

### 5.3 Strategy Components

The strategy is comprised of four parts: consultation, information, education and publicity. Each part is discussed and specific techniques are detailed in order to achieve the waste diversion target for 1986.

#### 5.3.1 Consultation

Important in developing target audiences and communication approaches suitable to motivate these audiences, is consultation with key citizens. Consultation with these individuals is seen as essential to the success of the promotional plan, and its objectives. It is proposed that a small, informal, Regionally representative group be formed to advise the Separation at Source Co-ordinator. The first meeting of this group took place in January, 1986. The Area Recycling Committee may address the following :

- promotional techniques for residential, commercial, industrial sectors;
- Review the effectiveness of specific promotional approaches; and their impact on diversion rates.
- incentives in residential and industrial communities;
- develop community voluntary networks to promote separation at source;
- suggest education and information tools and packaging; and distribution techniques, taking into account staff and budget constraints.

It is envisaged that the committee meet quarterly to review progress and finetune the promotional program.

### Area Recycling Committee

This volunteer committee currently consists of the following area representatives, from across the Region:

- Industry
- Chamber of Commerce
- Educator
- Residents' Association/Condominium Corporation
- Environment Group/voluntary sector
- Regional Councillor
- Municipal representative
- Individuals (2)
- Separation at Source Co-ordinator.

It is recommended that the Area Recycling Committee maintain an informal structure, and that participation is open to interested parties, at the discretion of the group and the Separation at Source Co-ordinator.

### Industry, Commercial, Institutional Sector Consultations

Halton's Recycled Resources Ltd. is currently in a position to accept increased volumes in curbside materials and fine papers. Corrugated paper will enter in volume in the first part of 1986 with the acquisition of a suitable baler.

Throughout 1986, consultations with industry, institutional and commercial sectors on ways to achieve recycling in office buildings, plants and schools will take place. Once these approaches have been made a plan will be developed, taking into

account the cost factor of suitable receptacles and feasibility for collection. Special fact sheets may be developed for each sector.

Through these consultations, an immediate increase is anticipated in certain key target areas: Halton Regional Police and Boards of Education.

#### 5.3.2 Educational Programs

To develop an awareness in Regional residents over the long term, the first year will serve as an introduction of the recycling issue into the schools, levels K-12, community colleges, associations, industry and commercial sectors. Packages will be developed to suit each target audience, utilizing existing print and audio materials, tailored to Halton's specific circumstances. The kits will be designed to enable the pupil to include his parent or peers. Along with the kits, a speaker's roster is being developed comprised of municipal and Regional staff and citizens. It is anticipated that there will be a high demand for speakers and demonstrations at the school and organization level. Sessions with speakers and educators will be held to ensure consistency of the Regional message. Through this approach, the residential community promotional program will be enhanced.

Development of the following key elements aimed at all sectors has commenced and will continue through 1986.

- Education kits - utilizing existing information geared to teachers of grades K-12;
- Industrial Seminars - if appropriate after initial consultations;

- Mailers - including fact sheets on recycling, adjusted to target audiences, promoting speaker availability, recycling benefits and methods to:

Industry  
Merchants Associations  
Office Building owners and tenant groups  
Apartment building owners and tenant groups  
Boards of Education and school principals  
Residents' associations/voluntary groups/environment.

- Contests - Developed in co-operation with schools, residents' associations and industry.

Other recommended educational approaches such as a demonstration van will be developed early in 1986.

#### 5.3.3 Information Program

It is clearly demonstrated in separation at source programs that awareness of the need and purpose of source separation is key to any successful program. From discussions with Regional residents - information and convenience are the two most significant motivational factors. A series of simple and effective communications tools are in development, to support Halton's promotional plan. These tools will be used in each municipality, as part of their publicity programs, as well as by the Region.

Assuming that information can be distributed to our target participants, the question of how to make source separation easy must be addressed. Two factors appear as significant: the first - time involved in preparing materials for collection; and the second - storage space.

It is clearly demonstrated that the time factor is overcome when

the significance of recycling is better understood. However, the space problem is real. Research shows that special containers improve curbside participation dramatically. This issue will be addressed by the Area Recycling Committee and the Region through reviewing incentives (e.g. special containers or recyclable coloured bags), with a recommendation made by May 1, 1986.

### Information Tools

The following information tools are being developed:

- Newsletter: quarterly newsletter distributed to:

- Source Separation mailing list
- libraries
- information centres
- liquor stores
- municipal offices
- environmental organizations
- appropriate corner stores
- media
- associations

The purpose of this publication is to give an up-to-date report on the Regional recycling program, by municipality, announce special events, report on interest items, and publicize contests. Consideration may be given to incorporating it into other Regional publications with similar distribution patterns, once the program is established.

- Brochure - The brochure will be distributed in target communities as well as inserts in organizational mailings. It will be used in commercial, industrial and institutional employee pay envelopes, as well as by municipalities. One page, which can stand alone, could be inserted with Regionally and municipally-

issued cheques, utility or water bills. Distribution by summer students, service clubs, boy scouts/guides, or other social service or job creation employment programs could be considered.

- Display: - A regional recycling display has been developed with financial assistance from the City of Burlington. It stands alone, with racks for brochures, and can be staffed as a demonstration or publicity backdrop. It will be shipped on a rotation basis to shopping centres, schools, libraries, fairs, annual meetings etc., and can be used by area municipalities.

- Slide/Tape Shows: two slide/tape shows will be developed - the first addressing the residential community, and the second aimed at the industrial/commercial sector. The former will be distributed for use by associations, and Special Events; the latter will be used for employer/employee orientation programs.

#### 5.3.4 Publicity

As demonstrated by the experience of area municipalities and others - promotion through comprehensive advertising results in immediate curbside volume increases. Various alternatives have been considered: TV, radio commercials, newspaper and newsletter advertisements; signs on refuse packers and litter bins, mascots, contests, among others. Area municipalities will focus largely on community programs. Regional support will be provided through the following:

- quarterly advertisements in print and audio media;
- news releases on special events and personal interest stories;
- contests for a regional slogan and mascot.

It is recommended that the Proposed Educational and Promotional strategy be adopted to support the achievement of the interim target of 20,000 tonnes in 1986.

CHART 3: PROMOTIONAL PROGRAM - TIMETABLE - 1986

| ACTIVITY                  | January | February | March | April | May   | June  | July  | August | Sept. | Oct.  | Nov.  | Dec.   |
|---------------------------|---------|----------|-------|-------|-------|-------|-------|--------|-------|-------|-------|--------|
| <u>Consultation</u>       |         |          |       |       |       |       |       |        |       |       |       |        |
| Area Recycling Committee  | --      |          |       | --    |       |       |       | --     |       |       | --    |        |
| Industry Education        | -----   | -----    | ----- | ----- | ----- | ----- | ----- | -----  | ----- | ----- | ----- | -----> |
| Review material           | --      |          |       |       |       |       |       |        |       |       |       |        |
| Develop kits              | -----   | -----    |       |       |       |       |       |        |       |       |       |        |
| Mailers                   |         | --       |       |       | --    |       |       |        | --    |       |       | --     |
| Speakers & Demonstrations |         |          |       | ----- | ----- | ----- | ----- | -----  | ----- | ----- | ----- | -----> |
| Industry Seminars         |         |          |       | --    |       |       |       |        | --    |       |       |        |
| <u>Information</u>        |         |          |       |       |       |       |       |        |       |       |       |        |
| Newsletter                |         | --       |       |       | --    |       |       |        | --    |       |       | --     |
| Brochure                  |         | -----    | ----- | ----- | ----- | ----- | ----- | -----  | ----- | ----- | ----- | -----> |
| Display                   | -----   | -----    | ----- | ----- | ----- | ----- | ----- | -----  | ----- | ----- | ----- | -----> |
| Slide shows               |         | -----    | ----- | ----- | ----- | ----- | ----- | -----  | ----- | ----- | ----- | -----> |
| fact sheets               |         | -----    | ----- | ----- | ----- | ----- | ----- | -----  | ----- | ----- | ----- | -----> |
| <u>Publicity</u>          |         |          |       |       |       |       |       |        |       |       |       |        |
| Advertising               |         | --       |       |       | --    |       |       |        | --    |       |       | --     |
| Contests                  |         |          |       | ----- | ----- |       |       |        | ----- | ----- |       |        |

## SPECIAL PROGRAMS

A series of special programs have been developed for implementation. These programs will enhance the possibility for a greater diversion rate than the high range forecast, and in addition, will contribute substantially to the achievement of the high range forecasts.

### 6.1 Waste Exchange

Discussions have been held with the Ontario Research Foundation relating to possible inter-connection with a Regional waste exchange program, and the Canadian Waste Exchange Program. It is proposed here that during the study on recyclable waste generation rates, proposed in section 4.4, materials will be identified that can be exchanged, or listed in a Regional exchange. Canvassing, specifically for this program, will be included in the study. For example, to demonstrate the potential effectiveness of this approach, our initial industry survey in Burlington, in November, 1985, has identified wastes that are readily exchangeable and available in their current form. The Regional Municipality of Waterloo has run a waste exchange program for the past two years with some success.

Data are unavailable on the "waste exchange rate" of existing programs. Materials are listed but not monitored either by the Ontario Waste Exchange program, or the Regional Municipality of Waterloo. No marketing or developing of potential markets is carried out in either program. Halton's program will contain the following elements:

1. Waste Exchange Newsletter - on a quarterly basis or as required;
2. computerized data base of wastes transferred to other users;
3. monitoring of volumes diverted from the landfill site through this program;
4. listing will be made available to the Canadian Waste Exchange Program, if requested by participating industry.
5. updates on the success of the program on an annual basis.

It is recommended that a detailed plan for a Waste Exchange Program for Halton will be developed for implementation in 1986, with suggestions for management by Halton, and program operation by Halton's Recycled Resources Ltd., who have conducted an informal waste exchange in Halton for two years.

## 6.2 Composting

Yard wastes and compostibles (sawdust, animal and food wastes, wood) represent approximately 30% of the municipal waste stream. In the Region of Waterloo, a test curbside program for the collection of grass clippings was carried out for a period of 5 months for 1000 households. Approximately 40 tonnes were generated during this period.

Composting on a wider scale, is carried out in several jurisdictions in the United States and Canada. In Southold, New York, 35% of the total incoming volume of refuse no longer has to be buried, greatly extending the life of the landfill site. In addition, the nutrient end-product replaces the need to buy thousands of cubic yards of topsoil cap, at great cost savings to the municipality.

It is suggested that a feasibility study be conducted in 1986 on creating a Halton Composting Facility and that this study review the siting possibilities, as well as the possibilities for top soil generation and the cost/benefit analyses. In the interim The City of Burlington is preparing to bring on stream a composting program to collect 1,000 tonnes of yard wastes from Burlington homes through curbside collection in alliance with Halton's Recycled Resources Ltd. The Town of Oakville already encourages households to compost, through its leaf and brush program. The Town currently composts all leaves and compostible debris collected from the streets.

Composting has the proven capability of succeeding in many other jurisdictions. It is therefore recommended that in order to maximize the waste diversion rate, a composting program be established, if feasible, in 1987.

### 6.3 Mandatory Separation at Source Program

If separation at source programs are to be completely successful, and to maximize the potential for collection of commodities, a mandatory program could be important for Halton. Programs will be reviewed in other jurisdictions to ascertain their success.

In 1985, Regional staff identified three programs where mandatory programs are in effect - Bloomsberg, Pennsylvania, Saanich B.C., and the Village of Hamburg, New York. It should be pointed out that there is, in Halton, a by-law which prevents disposal of newspapers at the Regional landfill site. The by-law is little

known, and has never been enforced. Consideration should be given to the immediate opportunity to raise the profile of this by-law if Council so wishes, subject to market conditions.

From an initial review of the three programs mentioned, the programs cover small populations, and have a varying impact. For example, in Saanich B.C. 28,000 households are covered. These homes are supplied with white, 20-litre buckets for easy storage. Newsprint is the only mandatory commodity. The city council decided to start with mandatory recycling of newsprint, as it represented a large portion of the waste (15%) and is the easiest from the homeowners' point of view. The program is enforced through the refuse collectors. The penalty is up to \$500 for offences, but this fine has not yet been applied. Community residents were not consulted prior to by-law implementation. Advertising through newspapers and a newsletter to all 28,000 homes has been the only means of communication to participants. 75% of households have the buckets, and there is an 18% - 40% participation rate. According to the Vancouver Island Recycling Society, Program Manager, there has not yet been an opportunity to properly inform the participating publics, resulting in a lack of awareness which is reflected by low participation. Publicity tools are planned, for example a calendar, to each household, to give the program higher visibility. When compared to the Town of Oakville, for example, where there is approximately a 70% - 85% participation rate, without special containers or mandatory programs, it is clear that the success of any program will still be determined by the extent of the publicity and awareness,

rather than mandatory ordinances or by-laws alone.

Halton's Regional and municipal representatives visited The Village of Hamburg, New York State, in January 1986. The program being conducted has been in operation since November, 1981. Out of a population of 10,500, only 12 households do not participate. Village residents were consulted in advance of the local law being passed. Enforcement is through strippable notices which are placed on a bag of garbage or a garbage container, advising them of the program. Citizens were given one month for orientation into the program. Door knockers are also used to outline how the material should be separated. This door knocker advises of the scavenging ordinance. If the lack of participation continued, a letter was sent to the householder explaining the program and suggesting co-operation. Waste oil, as well as tins, glass and newspaper are separated in this program. Up until the implementation of the mandatory program in 1981, a voluntary recycling program had been conducted. It involved residents separating their refuse, and taking it to the recycling centre operated by the Village of Hamburg. It appears that the difference may stem from the curbside collection of the refuse, rather than citizens delivering recyclables to the centre. It is impossible to determine whether it is the local law, the increased communications, or the curbside collection, or a combination of these that has made the program such a success. An important point is that in Hamburg's case, the mandatory program was necessary to ensure adequate volumes for economic viability.

Little information has been available on the Bloomsberg, Pa. program. Investigations will continue relating to other programs with an emphasis on similar populations, and demography, in Canada. Firm recommendations will be made late in 1986 or early 1987, once our total educational and promotional strategy has been implemented, and awareness of recycling in Halton maximized.

### User-Pay Garbage Collection

Regional Council requested that staff research the feasibility of a "user-pay" system relating to garbage collection, to tie in with a possible mandatory program. Preliminary discussions with experts in the field indicate that the "user-pay" system is connected to reducing costs of waste disposal, rather than an incentive to recycle. In light of this, the system appears to have greater impact on the area municipalities. It is proposed that in year 1 of this Master Plan, a study on "user-pay" and mandatory recycling programs will be conducted and an implementation plan will be presented to Regional Council for consideration. It is the view of staff at the current time, that the proposed 20% diversion rate through a voluntary program, over a five year time span is an ambitious program. Indications are that Halton's communities will be receptive to a voluntary plan.

In the event that Regional waste diversion targets are not being met, despite the intensive voluntary effort set out herein, then the implementation strategy for mandatory recycling, which, as stated above, will be developed this year, could be brought into force.

It is therefore recommended that the study on mandatory and "user-pay" programs be continued, with an implementation plan prepared in the event that diversion targets through a voluntary program are not achieved by 1990.

#### 6.4 Special Wastes Days

As part of the Region's separation at source program, household hazardous wastes can be separated, stored and recycled or safely disposed of twice a year through special waste days. Several Ontario communities have launched special waste days, most notably the Regional Municipality of Waterloo. The Ministry of the Environment has developed guidelines for municipalities to conduct special waste days, and is expected to announce funding for municipalities for up to 50% of their anticipated costs.

Documentation on similar programs has been reviewed and analysed from the Region's perspective. Success is determined by the extent of the publicity and public awareness, the co-operation of groups and individuals living in the community, and easy access to the location where wastes are to be collected. Stringent safety precautions must be taken as well as permissions sought from various agencies - e.g., the Ministry of the Environment, fire department, etc.

Hazardous wastes were not part of the source separation program at the time of Plan development. However, the waste exchange program, and the special waste days, provide excellent forums for hazardous waste recycling, re-use or safe disposal opportunities.

It may be possible to tie an educational program on hazardous industrial or household wastes, to the efforts of the Ontario Waste Management Corporation. Investigations on these possibilities will continue throughout 1986. It is expected that the programs will generally enhance the public awareness of waste issues, with positive impact on recycling. Halton's 1986 Budget allocates \$43,000 for one special waste day. However, it is recommended that the Region conduct two special waste days in each year of its program, providing that Ministry of the Environment funding is available to cover 50% of the costs, one in late Spring (May/June) and one in the late fall (October/November).

#### 6.5 Communications with Other Jurisdictions

Halton was the first Regional Municipality in Ontario to appoint a Source Separation Co-ordinator, and the first to adopt a Regional approach. Since that time (February, 1985), many Regional municipalities and County governments are reviewing and implementing regional programs. In light of this fact, each regional municipality is developing master plans, and special communications to effect their programming. Links with overall waste management programs are being developed, and in particular, connections between energy from waste plants, or refuse derived fuel facilities are being reviewed. As a result of the increased activity and interest at the municipal level in recycling, staff members involved have a lot to offer each other in terms of ideas, networks, markets, financing, etc. It is recommended that Halton sponsor a Think Tank session in 1986, for municipalities

with recycling programs to discuss their programs, develop ideas,  
and exchange information. This program can be offered at reasonable cost, with participants sharing in the expenses. A great deal of interest has been expressed in this idea, from communities such as Windsor/Essex, Durham Region, Peel, Niagara and Metropolitan Toronto. In the context of generally improving public awareness, promotion of a single recycling "image" across the Golden Horseshoe is being considered for special occasions, e.g., Recycling Week, Environment Week. A separate report will be brought forward to Council in March, 1986 regarding organization, funding, timing, location and program, if Council adopts this Master Plan.

## 7. SUMMARY & RECOMMENDATIONS

To summarize, the Master Work Plan details steps necessary to achieve the objectives and the waste diversion targets established (for the interim) for the five year period - 1986 to 1990.

The schematic shown in Chart 4, indicates the timing for each activity. For each year, a complete promotional plan will be developed, to support established targets.

The Plan ties in directly with other regional waste management initiatives, goals of municipalities for source separation targets and initiatives from other jurisdictions.

As implementation of the Plan proceeds beyond year one, certain changes will occur, hinging on targets, financial aspects, markets and other eventualities. These changes will be triggered through the annual evaluation process.

It is recommended that:

1. the objectives for the Source Separation Master Work Plan be adopted;
2. the role of participants and the performance of responsibilities as part of the Regional program will be evaluated annually;
3. the Region enter into recycling agreements with its area municipalities;
4. annual reviews will be conducted of the program's financial aspects, relating to operating costs and commodity marketing and availability of funds. Adjustments will then be made to the Master Plan. These reviews will be conducted in August

MASTER WORK PLAN  
SEPARATION AT SOURCE PROGRAM  
1986 - 1995

[illegible]

of each year, to tie in with Halton's agreement with the Contractor and area municipalities.

5. the following steps are taken:
  - (a) accurately ascertain the volumes of recyclable wastes available in the Region through a study of industrial/commercial waste streams, using existing documentation and telephone surveys. To be available no later than August, 1986;
  - (b) select the high range target of 20,000 tonnes for 1986 as an interim measure until the data are available from the study. 5-year target will be adjusted at that time, and, where necessary, the Work Plan will be changed to accommodate these;
6. that pre-planning, design, site plans and other necessary approvals for the Recycling Centre should be commenced immediately, in the absence of complete funding, in light of the fact that with rental income alone, Halton can potentially re-coup its total capital outlay over a 20-year period;
7. that mandatory recycling programs are implemented in institutional sectors within Halton's jurisdiction by 1987.
8.
  - (a) that the Area Recycling Committee maintain an informal structure, and that participation is open to interested parties, at the discretion of the group and the Separation at Source Co-ordinator.
  - (b) that the proposed Educational and Promotional Strategy be adopted to support the achievement of the interim target of 20,000 tonnes in 1986;
9. that a detailed plan for a Waste Exchange Program for Halton will be developed in 1986 for implementation;
10. in order to maximize the waste diversion rate, a composting program be established, if feasible in 1987;
11. the study on mandatory recycling and "user-pay" programs be continued, with an implementation plan prepared in the event that diversion targets through a voluntary program are not achieved by 1990.
12. the Region conduct two special waste days in each year of its program, providing Ministry of the Environment funding

is available to cover 50% of the costs.

13. Halton Region sponsor a "Think Tank" session in 1986, for Municipalities with recycling programs to discuss their programs, develop ideas and exchange information.

## SEPARATION AT SOURCE MASTER WORK PLAN

### APPENDIX A

#### PROGRAM IMPLEMENTATION: STAFFING AND FINANCIAL ASPECTS

The programs detailed in the Master Work Plan support an aggressive Separation at Source activity, particularly in the first two years (1986-1988). At the current time, a Separation at Source Co-ordinator has been hired on a contract basis (September 1, 1985 - August 31, 1986) to design, administer and implement the program. Minimal clerical support at the level of approximately 2 hours per week is available from the Waste Disposal Division, Department of Public Works. These resources are inadequate to support the Master Work Plan.

The Halton 1986 Separation at Source Program budget was developed for a diversion rate of 10,000 tonnes. It is adequate to support that level :

#### Budget Allocation, 1986

|                                          |          |           |
|------------------------------------------|----------|-----------|
| Office supplies                          | \$ 3,000 |           |
| Payments to Contractor                   | 134,900  |           |
| Payments to Halton Hills                 | 37,800   |           |
| Costs for modifications to buildings     | 5,000    |           |
| Advertising                              | 17,500   |           |
| Expenses                                 | 3,000    |           |
| Administration chargeback (Co-ordinator) | 30,000   | \$231,200 |

#### Budget Allocations, Revenues

|                                     |                |                |
|-------------------------------------|----------------|----------------|
| Ministry of the Environment Subsidy | <u>100,800</u> |                |
| Cost to Region:                     |                | <u>130,400</u> |

As well, \$43,000 is allocated for a Community Special Waste Day,

and \$525,000 in capital cost budget for the new Recycling Centre

It is important to note that the impact of the proposed diversion rate of 20,000 tonnes in 1986 requires an expenditure of \$162,000, based on an estimated 1986 diversion credit of \$8.10/tonne (4% inflationary increase over the 1985 level of \$7.85/tonne). The contractor is expected to show, at a minimum, a break-even position at the 20,000 tonne level, making a further regional payment for operating deficit unnecessary. There is the additional potential that an operating surplus may occur (determined by market prices for commodities). However, in this first year, it is assumed that the service fee payable to the Contractor of \$3.00/tonne diverted will equal up to \$60,000. (\$3.00/tonne x 20,000 tonnes).

The compensation formula in the Region's agreement with HRR allows for any operating surplus to be deducted from the service fee payment. For example, the service fee payable on 20,000 tonnes is \$ 60,000. - in the event of an operating surplus of \$20.000. - the fee payable to HRR would be reduced to \$40,000.

In addition to this, the Ministry of the Environment announced in October, 1985, provincial funding for 1986 of \$2.8 million. It is expected that MOE funding will continue for five years instead of the existing three. In this event, funding for Burlington (ineligible for MOE funding since October 1984), and Oakville, (expiring in March, 1986) will become eligible for at least 10% of operating costs for a further two years. Additional funds for special projects, such as the recyclable waste stream

analysis may also be available.

At this time, we have taken the most conservative view regarding a possible operating surplus and increased MOE subsidies, as these are hard to predict. Therefore, these are NOT included as additional funds in the increased budget needs.

As well as the additional funds required to support the waste diversion credit and service fee payments, additional staff and physical resources are required to support the proposed expanded program, as follows:

#### Separation at Source Co-ordinator

In light of the 10-year term of the program, as spelled out in the Contractor's Agreement with the Region, and the Master Work Plan, it is strongly recommended that the position be made permanent. The Co-ordinator's responsibilities will be increased in light of this Master Plan and the expanded program to achieve a 20% total diversion rate by the year 1990. Thus, we anticipate the salary for the Separation at Source Co-ordinator will have to increase to the \$35,000 range to attract a competent person on a permanent basis. Current salary for the contract position is approximately \$25,000 per annum.

In order to ensure the "high range" recyclable target is achieved as quickly as possible, two additional contract positions and certain office changes are recommended:

- i) Addition of a Program Assistant - Contract
- ii) Full-time Clerk-Typist - Contract
- iii) Two additional Work Stations

### Program Assistant

Commercial/industrial waste stream surveys, site visits, commodity procurement, educational presentations and work in the residential communities (e.g. apartment buildings and block programs), are all part of the assistant's responsibilities, under the direct supervision of the Co-ordinator. It is expected that this full-time position will have a minimum term of two years. At the formative stages however, and as we are unclear as to the extent of commodities available, we would suggest a two year contract at a pay level of \$18,000 per annum.

### Clerical Support

As previously noted, the current level of clerical effort is approximately 2 hours per week. Mailing lists, reports, newsletters, direct mailers, scheduling of speaking engagements, contact with the public, news releases and other normal clerical work requires full-time clerical support at the level of 35 hours/week. It is important that the program clerk is aware of activities, schedules, etc. Approximately 30 calls per day are currently being received at the Co-ordinator's office. A one-year contract for this position is suggested, at a level of \$15,000 per annum. The purpose of a contractual approach here is to assess the true clerical needs of the Source Separation Program before recommending a permanent full-time approach.

### Physical Requirements - Additional Work Stations

In light of the increase in personnel, two additional work stations will be required. As the current office space facilities for the

program are limited, several options are being explored - including a trailer annexed to the Public Works building, facilities at Halton's Recycled Resources Ltd., and the water treatment plant on Winston Churchill Drive. In the long term, it will make sense to have the program staff at the new recycling centre in 1987.

#### Advertising and Promotion

The Region's role in advertising and promotion is to co-ordinate the programs of each area municipality and promote commodity procurement in the commercial/industrial/institutional sectors. Currently, through assisting municipalities to ensure advertising is placed at frequent and appropriate intervals, the expense of local promotion will be borne by each municipality. \$17,500 is available in the Regional budget, and this is thought to be sufficient if the level of co-operation between the Region and area municipalities is maintained. In the event that local advertising programs are discontinued, Regional budgets may have to be increased. This is not anticipated in 1986.

Current and Proposed Program Budget - 1986Effective  
March 1, 1986  
Proposed Budget

|                                                                     | <u>Current</u>   |                  |
|---------------------------------------------------------------------|------------------|------------------|
| Separation at Source Co-ordinator<br>(including benefits pro-rated) | \$ 30,000        | \$ 33,541        |
| Program Assistant - March-December 1986,<br>(including benefits)    | -                | 17,250           |
| Clerical Support (March-December 1986)<br>(including benefits)      | -                | 14,375           |
| Industrial/Commercial Waste Survey and<br>Data Base Management      | -                | 12,000           |
| Composting Program - Feasibility Study                              | -                | 7,500            |
| W/P, Office Equipment and Supplies                                  | -                | 15,000           |
| Waste Diversion Credit )                                            |                  | 162,000          |
| Service Fee )                                                       | 134,900          | 60,000           |
| Office Supplies                                                     | 3,000            | -                |
| Expenses                                                            | 3,000            | 3,000            |
| Payments to Halton Hills - Flow Through<br>of MOE Subsidy           | 37,800           | 37,800           |
| Advertising                                                         | 17,500           | 17,500           |
|                                                                     | <u>\$231,200</u> | <u>\$379,966</u> |

This is an increase of \$148,766 over the 1986 budget allocation.

At the proposed level of expenditure (\$100,800 MOE, \$279,166 Region) the waste disposal cost is \$20/tonne. Deducting the MOE subsidy, it is reduced to \$14.50/tonne.