



Implementation of a Sustainable Financing System For Solid Waste Management in Ontario

Implementation Manual

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1. Introduction and Background

Over the past decade, waste management and diversion programs offered by Ontario municipalities have become more robust and sophisticated which in turn has resulted in increasing costs and management requirements. These financial and operational challenges are further compounded by restricted municipal budgets and increasing competition for them. This situation has signalled a need by municipalities to gain greater control and autonomy over their solid waste management system finance and operations. Municipalities have identified a need to better understand options that would permit them to:

- Establish a self-financing system that enables the waste management entity to charge households directly for waste management services through designated waste management fees, thus avoiding continued reliance on the property tax base for funding;
- Establish a funding system that enables the waste management entity to keep the money that is generated for its services and is protected from other municipal budget demands;
- Use alternative financing approaches to promote waste diversion and other beneficial outcomes;
- Establish an independent waste management entity that retains control over its decision-making process and finances thus leading to a more efficient solid waste management and recycling system;
- Establish a separate, independent waste management capital and operating budget that no longer competes with other municipal services (e.g. road maintenance, social services, police and ambulance) during budget deliberations.

Information was needed to help Ontario municipalities examine sustainable financing options for solid waste management to achieve the goals under the existing and evolving municipal regulatory and financial environment. In response, Stewardship Ontario with support from City of Ottawa and City of London provided E&E funding to explore issues and options for a municipality or group of municipalities to establish a sustainable solid waste management financing structure. A series of discussion papers were developed under the guidance of the Sustainable Financing Steering Committee to help Ontario municipalities become better informed about the opportunities and challenges to implementing a solid waste management sustainable financing structure.

Seven Discussion Papers were developed as part of the project to address specific issues raised by municipalities and members of the Project Advisory Committee and to augment the information provided in this Implementation Manual:

Discussion Paper

1. Issues Regarding the amended Ontario Municipal Act, 2001
2. Financing and Governance Arrangements for Selected Self Financing Entities For Solid Waste Management
3. Solid Waste Management Fee Structures and Billing Approaches
4. Household Fees and PAYT Rates to Finance Municipal Solid Waste Management Systems in Canadian Communities
5. Sustainable Financing Options for Multi Family Buildings
6. Practical Implementation Experience
7. Financing and Charging Features Which Improve Recovery of Recyclables. Impacts of Move to Utility on Costs and Diversion

The Implementation Manual is the culmination of all the research, survey work and meetings conducted during the project. Major changes to the amended *Municipal Act, 2001* that occurred during the project and major announcements by the City of Ottawa and City of Toronto that they were taking all or some of waste management costs off the tax base have been incorporated into the discussion papers and are featured in this implementation manual.

The project team would like to take the opportunity to thank members of the Steering Committee and staff at the Ontario Ministry of Municipal Affairs and Housing (MMAH) for their contribution of time, expertise and advice to the project.

2. Amendments to the Municipal Act 2001 and Current Powers

Prior to January 2007, municipalities faced a number of regulatory obstacles in moving towards a self-financing entity. The original *Municipal Act, 2001*, lacked critical information and clarification about the roles and responsibilities available to a municipality or group of municipalities wanting to set up as a Municipal Services Board (MSB). This resulted in confusion over the amount of control and self-sufficiency that could be attained. At the same time, under the *Municipal Corporations Act*, municipalities wanting to create a Municipal Business Corporation (MBC) faced significant restrictions on their ability to provide a full complement of waste management services and, in essence, were limited to manage residential sector waste only.

With the passage of Bill 130 in January 2007, the *Municipal Act, 2001* was amended to be less prescriptive and to give municipalities more independence in how they deliver services. The amended *Municipal Act, 2001* increases the powers and controls available to municipalities. It provides municipalities with broad powers to provide services that are considered important to residents. Municipalities now have more control over what they do and how they do it. (e.g. instead of stipulating the requirements of a hiring policy or a policy regarding the sale of land, the new approach simply states that there should be a hiring or land sale policy: municipalities can decide on the details as long as they meet all provincial legislation).

The Municipal Act E-Guide states that “subject to restrictions in the Act, it is up to the municipality to decide which of its services it wants a municipal service board to operate and manage, and under what limits and conditions the service board will deliver the delegated services. The municipality should keep in mind that the services it delegates must fall within one of the five spheres of jurisdiction. In deciding what powers to delegate to a municipal service board, a municipality should recognize that a municipal service board is a corporate body and an agent of the municipality that created it. A municipality can, therefore, delegate the powers necessary to enable the service board to control and manage a municipal service, such as establishing a separate bank account, hiring staff, entering into contracts, purchasing materials and services needed for administrative activities and regular maintenance of facilities and setting rates.”

Source: <http://www.mah.gov.on.ca/Page274.aspx>

The 2007 amendments to the *Municipal Act, 2001* provide new freedom to municipalities to develop solid waste sustainable financing structures. A municipality has one of two options available to them:

- Become a Municipal Service Board (MSB) or Joint Municipal Service Board (JMSB); or
- Become a Municipal Service Corporation (MSC).

These entities are further explored in Discussion Paper #1.

The advantages and disadvantages of both approaches are summarized below.

	Municipal Service Board (MSB)	Municipal Service Corporation (MSC)
Advantages	<ul style="list-style-type: none"> - any municipality or group of municipalities can establish its solid waste management service as a MSB or JMSB - The MSB operates as a management body - a municipality can give the Board of Directors control and management of waste management services through the MSB's by-law - MSB can charge full costs including deferred benefits & administration costs - MSB can charge flat fees or variable fees, separate from property taxes as long as the 	<ul style="list-style-type: none"> - Municipality can attain full legal and financial autonomy by establishing its waste management services as a MSC - The municipality can choose to operate the MSC as a 100% publicly owned or 100% privately owned corporation or somewhere in between. - The MSC can borrow money independent of the municipality - The MSC can own its existing assets

	Municipal Service Board (MSB)	Municipal Service Corporation (MSC)
	<p>“range of fairness” ratio between residential and IC&I taxes is maintained</p> <ul style="list-style-type: none"> - MSB can charge for mandatory services regardless of whether they are used - MSB can charge for a service to be made available in the future to the resident - MSB can retain surplus monies if written into the by-law or placed into the Reserve Fund - There are no restrictions for an MSB to provide waste management services to IC&I customers - A MSB can provide services to other non-member municipalities as long as there is an agreement in place with other municipalities affected 	
Disadvantages	<ul style="list-style-type: none"> - the partner municipality(ies) maintain full legal and financial responsibility for the MSB - A MSB is bound by what a municipality can or cannot do itself - the MSB may not be allowed to borrow money independent of the municipality - the partner municipality(ies) owns the assets related to a municipal service, not the MSB 	<ul style="list-style-type: none"> - the municipality can lose control over the management of a MSC if private ownership permitted - setting up and/or dissolving a MSB can be onerous

2.1 Municipal Service Board

Waste management is one of the services which can be delivered through a Municipal Service Board (MSB). Whereas the previous version of the amended *Municipal Act, 2001* placed a number of qualifications and limitations on the operations of a Municipal Service Board, the 2007 amendments to the *Municipal Act, 2001* remove many of the restrictions stated in the original Act. Instead the Municipal Services Board is restricted through the by-law developed by the member municipalities. In essence, a MSB is bound by what a municipality can and cannot do itself.

Any municipality can set up a Municipal Service Board to run a particular service. They operate as a management body. Furthermore, municipalities have several options in how they set up the MSB including:

- A single municipality can set up a MSB to operate municipal solid waste management services;
- a Joint Municipal Services Board (JMSB) may be established by agreement between two or more municipalities (and essentially operates in the same fashion as a MSB)¹;
- A MSB or JMSB can be set up to operate multiple services (e.g. solid waste, water, street lighting), which covers a geographical area.

When the MSB or JMSB is formed, control and management of the “municipal service” i.e. solid waste management service) is given to the Board by the municipality, and the municipality assumes more limited control over the service. The JMSB may help small municipalities to achieve economies of scale by delivering services in collaboration with other municipalities. However, the municipality still assumes legal and financial responsibility for the MSB (or member municipalities in the case of the JMSB) at the end of the day. While an MSB may assume functional independence, it does not assume legal independence from the municipality.

¹ Section 202 of the Municipal Act allows two or more municipalities to establish a Joint Municipal Service Board (JMSB). Municipalities could consider including provisions in these agreements, for example, to address the initial composition of the board or boards, the services and powers delegated to the board or boards and under what conditions. Actions taken by municipalities to change existing joint municipal boards may require consent of participating municipalities (see subsection 216(6) of the *Municipal Act, 2001* for more information).

Under the amendments to the *Municipal Act, 2001*, a Municipal Services Board (MSB) has the following features:

- It can be established to control and manage a broad range of municipal services and activities, including waste management, by delegating municipal powers and duties to the board;
- Members are appointed by the Municipal Council, but do not have to be members of the Municipal Council;
- The MSB may be given the control and management of services and activities determined appropriate by the municipality (e.g. selecting a landfill site) without requiring Council ratification;
- It is a “local board” of the municipality for all purposes, and therefore its meetings must be open to the public;
- The municipality can establish the name, quorum, composition and financial and reporting relationship of the board, term of office, remuneration, rules of procedure and voting rules.

Key powers available to a MSB, under the amendments to the *Municipal Act, 2001* include:

- **Deferred benefit** - refers to the ability of municipalities to plan for capital expenditures and to charge the capitalization as part of a “fee or charge”, ahead of making the expenditure if necessary. In the past, municipalities thought they could not include amortization of planned capital expenditures and a number of other administration costs in the fees charged for municipal services. The revisions to the Municipal Act more explicitly state that municipalities can charge for capital costs being incurred by the municipality for a service that is not yet available but will be available at some later point.
- **Costs related to administration** - refers to the ability of municipalities to charge for administrative costs and enforcement costs incurred by municipalities as part of the service in the “fees and charges” elements of the legislation. For example, if a municipality has a contract for \$60 per household it can add 10% to 15% (or whatever full costs are) to cover administration and enforcement costs.
- **Fees for mandatory services** – The amended *Municipal Act, 2001* specifically mandates that the MSB may charge for services regardless of whether they are actually used. The MSB can also charge for a service that will be made available to the resident in the future (e.g. capital cost collected for future construction of a sewer line or a composting facility).
- **Ability to charge variable rates using any preferred method of billing** - Variable rates or flat fees can be charged for all or a portion of solid waste management services, separate to the property tax. Municipalities or MSBs can use whatever service or approach they like to bill and collect the fees (banks, electrical utilities, etc) and they can use any corporation or utility to collect fees – they are simply buying the service.
- **Transfer of Surplus** – A MSB can retain surplus funds if specifically addressed in the by-law which establishes the operating rules. The MSB will need to treat unplanned surpluses differently from a planned surplus (reserve fund, contingency funds). The MSB can collect funds for future capital expenditures under the deferred benefits section. These funds must be placed into Reserve Funds. Otherwise, management of

Removing Solid Waste Costs from Property Taxes:

There has been some confusion about removing solid waste management costs from the residential property taxes and the impact this would have on the IC&I property taxes. It may be difficult to separate out the portion of taxes from residential and IC&I because the relative burdens for the different classes cannot exceed the prescribed “range of fairness” (% proportion of tax burden between residential and IC&I) set by the province in 1998.

For instance, if residential solid waste management costs \$20 million and a municipality moved to a residential fee, they could not reduce residential taxes by \$20 million if it resulted in an IC&I tax burden higher than the “range of fairness”. The overall tax burden would need to be reduced by \$20 million to keep ratios within boundaries permitted by the province.

The City of Toronto is overcoming this problem by providing rebates to residents for the amount of solid waste costs on the property tax which will be charged as a fee in the future.

unplanned surpluses must be addressed in the MSB by-law. This can be written to stipulate that annual surpluses be retained in Reserve Funds until needed for waste management system financing uses.

- **Providing waste management services to the Industrial, Commercial and Institutional (IC&I) sector** – Under the amendments to the *Municipal Act 2001*, there are no restrictions against providing service to the IC&I sector (IC&I customers).
- **Providing services outside the boundaries of the MSB** - MSBs can provide service outside of the MSB municipal boundaries, as long as there is an agreement in place with other municipalities affected or involved.

Why Establish a Municipal Service Board?

Municipalities will experience the following benefits by establishing a Municipal Service Board (MSB):

- ability to decentralize decision-making;
- ability to allow, by decentralized decision-making, the tailoring of programs in large geographic areas within a broad policy framework;
- ability to appoint persons to serve who have an expertise in the area of MSB;
- better use of Council time by allowing routine operational decisions to be made by the MSB;
- separate regulatory (Council) from operational functions;
- facilitates greater involvement of the public and
- ability to depoliticize (remove from the political arena) the administration of certain services such as policing, board of health, etc.

2.2 Municipal Services Corporation

Unlike the previous Regulation 168/03 to the *Municipal Act, 2001*, Regulation 599/06 to the Act places no restrictions on municipalities wanting to set up their waste management services as a corporation.² The corporation can compete with the private sector for all waste management services, it may own its existing assets, and although it requires a business case, the regulation does not define how it must be developed or the requirements.

Should the municipality choose to set up a corporation to run waste management services, the municipality can keep the MSC 100% publicly owned or it can choose not to be the owner. Water and wastewater services and corporations offering youth recreation programs are the exception to this rule: they still need to be 100% municipally owned, and cannot provide shares to a private company. There is nothing prohibiting a municipality from partnering with a private waste management company and setting up a new corporation.

The MSC has the freedom to borrow money independently of the municipality. The MSC becomes

Word of Advice:

Municipalities have become gun-shy about forming corporations based on experience with electrical utilities in recent years. Electrical utilities in some cases started off as municipally owned entities and then became corporations with the restructuring of the power and electricity sector in the last 10 years. Electrical utilities were sold off to other corporations in a number of cases. The municipalities lost control over the management of the electrical utilities and over the rates charged to customers. Residents still expected the protections they were used to under municipal control, and complained to municipal politicians about issues that the municipality could no longer control. There were also unforeseen challenges dissolving the corporations.

² Under the previous Municipal Act 2001, Ontario Regulation 168/03 (Municipal Business Corporations) permitted municipalities to establish corporations for certain purposes, including waste management but expressly prohibited these corporations from providing commercial collection service. Their collection service was restricted to residential locations only. Furthermore, the regulation restricted the assets that could be owned by the Corporation and required the municipalities to prepare a business case.

a commercial enterprise which enables it to borrow as any other corporation can. If the MSC is 100% publicly owned (wholly municipal), the banks still may look to the municipality to guarantee the loan.

However, setting up and/or dissolving a Municipal Service Corporation is much more complicated for a municipality than setting up or dissolving a Municipal Service Board. There are often unforeseen challenges when trying to dissolve the corporations, as in the case of electrical utilities (see sidebar). If pursuing this option, clear rules of engagement are needed.

3. Governance Models for Sustainable Waste Management System Financing Approaches

Governance models for entities which provide solid waste management services through sustainably financed approaches vary widely across North America. Until recent revisions to the *Municipal Act, 2001*, many of the governance models outside of Ontario were inaccessible to Ontario municipalities due to regulatory restrictions. This situation has greatly changed with recent revisions to the Act. Now Ontario municipalities have a variety of governance options available to them.

3.1 The Ontario Situation

While a number of Ontario municipalities operate waste management entities jointly with other municipalities, project research to date has not identified any municipalities that operate their waste services as a Municipal Services Board (MSB) or Joint Municipal Services Board (JMSB). Some waste management entities operate as Joint Boards of Management (local board) that were formed under the 1990 version of the Municipal Act (Part VII, R.S.O. 1990, Chapter M. 45) and one operates as a non-profit corporation.

Examples of Joint Boards of Management include:

- Essex-Windsor Solid Waste Authority (EWSWA);
- Quinte Waste Solutions and
- Ottawa Valley Waste Recovery Centre (OVWRC).

Example of a Non-Profit Corporation:

- Bluewater Recycling Association

Information on each of the above entities is summarized below and provided in greater detail in Discussion Paper #2.

3.1.1 Waste Management Entities Operating as Joint Boards of Management

Those municipalities which have formed a “Joint Board of Management” may be considered a subset of a “local board”.³ Ontario municipalities explicitly and implicitly have been able to establish local boards for many years.

Prior to 2001 there was a sub-set of those local boards that could be established with prescribed powers and/or with a distinct relationship to council, for example utility commissions, parking authorities and boards of parks management. With the amended *Municipal Act 2001*, a “municipal service board” general category for some ‘special’ boards was created. This ruling did not apply to Joint Boards of Management, which remained unaltered.

The features common to the three waste management Joint Boards of Management include:

- They all have a Board of Directors, which may or may not operate on a one-vote approach;
- Members of the Board of Directors are appointed by the municipal council(s) and need to be members of the council;
- The term of office is limited to the term of council;
- They all are governed by a by-law (agreement) and each member municipality must adopt the by-law;
- They operate multiple operational and reserve funds, each dedicated to specific activities and purposes;

³ Depends on when the Board of Management was formed and under what circumstances.

- They directly bill each member municipality for services rendered. The municipality in turn bills the resident through property taxes;
- They cannot own land;
- Member municipalities remain liable for any financial losses.

Municipal Service Boards differ from local boards, of which they are a subset, in their structure and authority and relationship to Council. Generally a MSB is more independent in the conduct of its business than a local board. A MSB is an agent of the municipality and therefore stands in the place of the council in respect of the assigned matter. The accountability and transparency framework would be the same for both. Municipal Service Board decisions are normally final whereas many local board decisions are subject to review and confirmation by Council.

Key differences between the MSB and a Joint Board of Management include:

- MSB members are appointed by Council but do not have to be a member of the Council;
- MSB members term of office is determined in the by-law and not necessarily restricted to the term of Council;
- The MSB can purchase and own land;
- The MSB can be given authority to make more decisions and retain surplus funds.

Essex-Windsor Solid Waste Authority (EWSWA)

Governance Structure: The Essex Windsor Solid Waste Authority (EWSWA) was created by the City of Windsor and County of Essex in 1994. The Board consists of nine members, four from Windsor and four from the County of Essex with the ninth member alternating between the City and County every year. The EWSWA was formed based on an agreement between Windsor and Essex that established the powers of the Authority.

The two parent municipalities remain financially responsible for EWSWA and have to consolidate EWSWA's annual financial statements on their own financial statements for reporting to Ministry of Municipal Affairs and Housing (MMAH).

Financial Operations: The Essex Windsor Solid Waste Authority is a self-funding entity. The net cost of the integrated waste management system, after recycling revenue, IC&I tipping fees, compost sales, scrap metal sales, Stewardship Ontario funding, and other revenue sources is charged to the eight local municipalities on each tonne of municipally collected residential waste that must be disposed of within EWSWA's integrated waste management system. In seven of the eight municipalities served by EWSWA the amount invoiced by EWSWA is recovered through the general levy and recovered from all assessed properties. In one of the eight municipalities served by EWSWA the cost of waste management is shown as a separate one-time per household fee on the tax bill, with a higher cost for the urban area of the municipality and a lower cost in the rural municipality as the rural area does not receive weekly yard waste collection.

Just like any municipality the EWSWA is required to approve a net zero budget for each year. The EWSWA has a Rate Stabilization Reserve Fund that can be drawn upon for any budget deficit. Any actual budget surplus at the end of the year is contributed to the Rate Stabilization Reserve. The Authority also maintains a number of other reserves, each with separate bank accounts, for Equipment Replacement, Debenture Payment Stabilization, Working Capital, Future Landfill Capital, and Perpetual Care.

The Authority has established its own line of credit with its bank (CIBC) under an agreement for "Unincorporated Associations".⁴ The General Manager and Manager of Administration & Finance for the Authority are the authorized signatories for all EWSWA financial transactions.

⁴ This financial arrangement is considered highly unusual and would not be permitted under most MBS arrangements.

Quinte Waste Solutions (QWS)

Governance Structure: Quinte Waste Solutions (QWS) provides waste diversion services to municipalities that have joined the Board through a board agreement. The Board consists of one member from the elected council of each member municipality, of which there are nine. Voting, however, is not based on a one-vote approach but rather a weighted vote approach.

In order to become a member of Quinte Waste Solutions each municipality must adopt an Agreement prepared by the Board and pass it into a by-law. Each new member must pay a one time “entrance” fee, which is a variable fee based on HHW services by population and recycling services by households. The entrance fee is placed into the Capital Reserve Fund.

Financial Operations: QWS does not set its budget to be net neutral. It sets its annual budget by establishing expected expenses and subtracting out expected revenues. The remaining costs are charged to member municipalities using a levy based on tonnage of recyclables generated by each member municipality based on the previous year. The levy is divided among the member municipalities based on the proportion of recycling tonnages processed for each member municipality compared to the total processed. This approach produces a win-win situation for municipalities since the more garbage diverted the more they save on their own municipal budget knowing that waste diversion is cheaper than disposal. The levy is sent to the municipality in advance on a semi-annual basis.

When Quinte Waste Solutions experiences a surplus at the end of year, it has at times used the surplus to reduce the next year’s budget levy but often the Board stipulates that the surplus must be put into the Capital Reserve Fund (one of five separate funds).

Quinte Waste Solutions can borrow directly from the bank with board approval and in the past it has financed building constructions through mortgages and a baler through a bank loan. The bank classifies it as “Near Government” (i.e. similar to conservation authority, school boards, hydro boards, and library boards). It has a million dollar line of credit but, ultimately, the member municipalities remain responsible for any outstanding loan. As with Essex-Windsor, this borrowing arrangement is highly unusual and might not be permitted under a MSB arrangement.

Ottawa Valley Waste Recovery Centre (OVWRC)

Governance Structure: The Ottawa Valley Waste Recovery Centre (OVWRC) serves the waste management needs of five municipalities. The Ottawa Valley Waste Management Board (OVWMB) is comprised of a chosen official from each of the member municipalities. Before becoming a member each municipality must adopt the OVWMB’s agreement which is then passed as a by-law. In addition, each new member must pay a front-end fee. Voting is based on a weighted vote approach.

Financial Operations: Currently, OVWRC does not operate as a self-contained cost centre and does not operate a net zero budget, although it is striving towards it. The Board has decided that any revenue shortfall will be paid by member municipalities based on population and property value. All member municipalities then charge waste management costs to residents on their property taxes. Any surplus at the end of the year is given back to the member municipalities rather than being placed in a reserve fund.

OVWRC’s inability to keep surplus funds has resulted in a problematic situation over the years. In 2005, OVWRC experienced a large surplus in revenue at the end of the year. The Board approved the allocation of the surplus to be included in the 2005 Budget. This reduced member municipalities’ contributions to zero that year. However, the Board continues to operate under a projected surplus scenario and consequently has been eating into the reserve fund. Members are now asking for the surplus up front at the beginning of the new budget year.

3.1.2 Waste Management Entities Operating as Non Profit Corporations

Bluewater Recycling Association operates as a non-profit solid waste corporation and is the only one of its kind in Ontario. Prior to the 2007 amendments to the *Municipal Act, 2001*, no other group of municipalities would have been able to establish themselves as a corporation without facing serious restrictions on their operations (they could only provide waste management services to the residential sector). With the elimination of these and other restrictions, municipalities can now explore a corporation governance structure. Bluewater Recycling Association provides a workable example of a corporate sustainable financing structure for provision of municipal solid waste management services.

Bluewater Recycling Association (BRA)

The Bluewater Recycling Association (BRA) is a rural based non-profit organization providing integrated waste reduction and environmental services to 22 municipalities in four Counties. Bluewater Recycling Association (BRA) is the only solid waste entity in Ontario that is incorporated as a non-profit corporation.

Under the non-profit corporation arrangement, BRA has a Board of Directors consisting of eight municipal elected officials. At the end of each municipal election, a Councillor is chosen from each of the 22 member municipalities to become a BRA representative. These 22 representatives meet in January, following the municipal election to elect or appoint eight municipal members to sit on the Board of Directors for a three year period. BRA has established a voluntary requirement that the Board comprises of two seats from each of the four counties it serves. The Chairperson has authority to issue a second vote in a tie breaking situation.

Financial Operations: As a non-profit corporation, BRA has 100% autonomy over finances and decisions. Any surplus at the end of the year is put back into the company. If it were to have any financial difficulty it could claim bankruptcy. The member municipalities would have no financial or legal liability since BRA maintains no legal link with municipalities. To reinforce this, BRA's by-law protects directors, officers and others from liability.

Bluewater charges back for its services to member municipalities who are responsible for collecting fees from their residents. Garbage services are charged separately from recycling and waste diversion programs. All member municipalities charge back waste diversion program charges through the property taxes. Any surplus at the end of the year can be given as rebates on fees to municipalities but it tends to be re-invested in the corporation for future capital expenditures and program improvements. At the end of the year any surplus is reallocated to the capital replacement fund, one of several reserve funds. If the company experiences any financial shortfall at the end of the year, it comes out of capital replacement fund.

BRA borrows money from banks as a corporation. It does not require or involve member municipalities in providing signing authority.

Why a Non Profit Corporation?

Bluewater operates as a non-profit corporation formed under the Business Corporations Act, 1970 and is incorporated by letter patent under the Act.

At the time BRA was created in 1987, a municipality was not allowed to own a corporation; its only option was to establish a Board of Management which left the perception that largest municipality controls the board since the assets were reported under the balance sheet of the largest municipality. Since BRA wanted to ensure a one-vote-one-voice system, it chose to form a non-profit corporation.

3.2 Outside Ontario

Amendments made to the *Municipal Act, 2001* and effective in 2007 provide municipalities with broader powers and greater flexibility in establishing sustainable financing systems for waste management. Ontario municipalities can benefit from the experience of sustainable financing structures operating outside Ontario. Three such sustainable financing entities are described below.

City of Vancouver, British Columbia

Governance Structure: The City of Vancouver established a Solid Waste Utility (SWU) in January 1998 after seven years of effort. Although called a Solid Waste Utility, this entity operates as a utility in function only; it is not a legal utility. Vancouver's Solid Waste Utility is responsible for all solid waste operations and is governed in the same manner as other programs and services provided by the City of Vancouver, with roles and responsibilities defined and allocated as set out under the Vancouver Charter. It does not have a Board of Directors or governance by-laws. The main difference between Vancouver's Solid Waste Utility and most Ontario municipal solid waste departments is that it operates as a separate cost centre but still requires Council approval of budgets and operations.

Financial Operations: Vancouver's Solid Waste Utility is self financing with fees set annually by the City Council based on a revenue neutral, net zero budget. Any surpluses, including surpluses generated from commercial tipping fees are transferred to the Solid Waste Capital Reserve Fund. This fund stabilizes the SWU rates due to annual deficits or surpluses.

All Solid Waste Utility costs have been removed from the property taxes and instead show up as separate line items on the property tax bill. Residents and users pay directly for the service levels to which they subscribe.

City of Airdrie, Alberta

Governance Structure: The City of Airdrie operates its Environmental Services Department as a separate business unit within the City. The department oversees three separate units— water, sewer and waste. Within the waste unit there are three separate functions - residential garbage, recycling, and transfer station. Although the services are called utilities, they operate in function only (as separate cost centres) and not as a legal utility. The City Council remains involved in approving annual budgets or changes in service levels and changes in fee schedules.

Financial Operations - While the Environmental Department operates as a separate cost centre, it is not financially independent of the City. The recycling and transfer business units are combined in the Department's budget and must be cost neutral (net to zero dollars in each fiscal year). The residential garbage unit has a separate budget which must also be cost neutral; however, it is allowed to direct some funds into its reserve fund each year.

All waste management costs are funded through residential user fees. There is no property tax support or IC&I funding support provided. Residents are charged bi-monthly on a separate bill along with sewer and water charges.

City of Seattle, Washington

Governance Structure: Before 1997, the City of Seattle operated a Solid Waste Utility (part of the Seattle Engineering Department) as a separate unit that was responsible for all solid waste planning and management. In January 1997 the solid waste operations were incorporated into the new Seattle Public Utilities (SPU), which brought together under one administrative umbrella the water, solid waste, and drainage and wastewater functions of the City as well as certain engineering functions. The Seattle Public Utilities operates the Solid Waste Fund as a public utility enterprise fund of the City of Seattle. The fund supports all waste management services provided by the City.

Financial Operations: A variable rate system is applied to the collection of single family and multi-family residences and commercial establishments. Fees are set according to the size of the container (and frequency of collection in the case of multi-family dumpsters). Residents are billed directly by the Seattle Public Utility. Service rates are authorized by ordinances (by-laws) passed by the City Council.

The Seattle Public Utility operates the Solid Waste Fund for waste management operations (it does not operate a reserve fund). All waste management related expenditures and revenues (including surpluses) flow through this one fund. The SPU budget does not necessarily zero out every year. The Fund is subject to regulation by the City and the State of Washington.

The largest portion of the Fund's net assets (60%) represents resources that are not subject to external restrictions on how they may be used. These net assets are used to meet the Fund's obligations to creditors. An additional portion of the Fund's net assets (30%) is used for capital investments such as land, buildings, and equipment. The Fund uses a bond anticipation note (line of credit) to finance various capital investments. The cost of current repairs and maintenance is charged to expense, while the cost of improvements is capitalized.

4. Full Cost Accounting – How to Identify Your Full Costs

In the past, solid waste management departments have used rudimentary procedures for estimating annual expenses and revenues. The challenges, associated with trying to fully quantify all waste management expenses and revenues compounded with the funding of budgets through general revenues often hampered efforts to better understand the municipality's true waste management costs.

This situation is rapidly changing. Increasing demands by citizens and politicians for accountable and efficient operating budgets have forced many solid waste departments to undergo comprehensive evaluations of their waste management system finances. Under a sustainable financing scenario, municipalities must become fully acquainted with their true waste management costs. Consequently, solid waste management departments and entities have employed full cost accounting principles to gain greater insight into their financial operations.

Full cost accounting is defined by the Alberta Environmental Protection Department as, "the total of all real, definable and measurable costs, both direct and indirect and from all sources, incurred or attributed to the particular project or system in question, when taken together with all additional considerations that are not measurable in monetary terms but may influence decisions or perceptions relating to the project or system".⁵

The approach to full cost accounting varies in intensity depending on the system used. The US Environmental Protection Agency has tried to simplify the full cost accounting procedure by focusing on three major types of costs that are relatively easy to determine - up-front costs, operating costs, and back-end costs. The EPA recognizes that other less tangible costs require special consideration including remediation costs at inactive sites, contingent costs, environmental costs, and social costs. The three primary costs are defined as:

- **Up-front costs** comprise the initial investments and expenses necessary to implement MSW services. These include public education and outreach, land acquisition, permitting, and building construction or modification.
- **Operating costs** are the expenses of managing MSW on a daily basis, including operations and maintenance, capital costs, debt service, and any unexpected costs.
- **Back-end costs** include expenditures to properly wrap up operations and take proper care of landfills and other MSW facilities at the end of their useful lives. Costs include site closure, building/equipment decommissioning, postclosure care, and retirement/health benefits for current employees.⁶

4.1 Applying Full Cost Accounting to Waste Management Services

Communities have taken a wide range of approaches to full cost accounting from a simplified approach to a sophisticated approach. Two examples are provided.

Regional District of Nanaimo:

The full cost accounting method used by the Regional District of Nanaimo (RDN) is very simple, not sophisticated. Staff look at what it costs to manage the material from the curbside program and compare the costs to the revenues received. The Region collects very accurate data in terms of revenue from materials. Since it must abide by a net zero budget policy, City staff set user fees to recover the cost and make sure each program pays for itself.

⁵ Albert Environmental Protection. September 1995. **Action on Waste: A full Cost Analysis Guide for Municipal Waste Managers.**

⁶ US EPA website <http://www.epa.gov/epaoswer/non-hw/muncpl/fullcost/whatis.htm>

The costs and revenues associated with setting the residential flat fee are strictly associated with providing that service only as well as the administrative functions associated with managing the residential program. Costs associated with landfill remediation and closure, operation of transfer stations, capital and infrastructure costs are paid through the tipping fee and are kept separate from the residential program costs and fees.

The Region sets some monies aside for contingency measures but has no rule of thumb for determining the amount set aside. In the past, the Region has used its contingency funds during the first year of a new contract to “soften the blow” of the price changes of the first year.

The RDN will be looking at changing its full cost accounting system as part of its continuous improvement program. In the future, staff plan to investigate more sophisticated full cost accounting methods and assess the cost/benefits associated with implementing the system.

City of Seattle:

The City first introduced the principles of full cost accounting in 1987 to analyze the costs and benefits of its waste management system and to evaluate different recycling scenarios. The City has used full cost accounting since this time to decide whether to expand existing programs or to add new programs to its waste management system.

Full cost accounting has played a major role in the design and use of the City’s Recycling Potential Assessment Model (RPA) which enabled it to forecast future waste generation, assess the potential for recycling the waste, identify options for managing the recycled waste and develop cost estimates for various recycling and disposal options.

Lessons Learned in the City of Victoria

Until last year, the City of Victoria had never applied the principles of full cost accounting to its solid waste management operations. In 2006, city staff implemented a full cost accounting strategy by trying to cost out all services separately in order to better understand the true cost of providing residential services. After the first attempt at applying full cost accounting principles, staff determined that the City was experiencing a \$96,000 revenue shortfall (out of a \$2 million budget). A subsequent review of the process has revealed that the shortfall is much lower than originally thought and, in fact, is only \$14,000. This full cost accounting exercise has been very beneficial and will be adopted as part of the waste management departments accounting system.

5. Fee Options and Structures for Full Cost Recovery

Billing approaches used by municipalities vary according to which funding system best suits the municipality's needs. The following list provides the most common funding approaches:

1. All waste management costs are charged through a separate flat fee i.e. City of Vancouver; British Columbia (pre 2006); and the City of Airdrie, Alberta
2. Some waste management costs are paid by a separate flat fee and some waste management costs are paid by property taxes or other means i.e. City of Ottawa, Ontario; City of Pembroke, Ontario; and the City of Edmonton, Alberta (until 2009)
3. Charging all waste management costs through a variable fee based on volume of garbage disposed i.e. City of St. Albert, Alberta; Seattle, Washington; and City of Vancouver (post 2006).

These approaches are summarized below and provided in greater detail in Discussion Papers #3 and #4.

5.1 Full Flat Fee Recovery

As the term full fee recovery implies, all waste management costs are paid through a fee. None of the costs are financed through the property tax base. Often the flat fees will be billed as a separate line item(s) on the property tax bill or will be added to another bill used in conjunction with water and sewer service charges.

Typically, a municipality will take all waste management costs and divide it among the number of households (e.g. single family households) in the municipality. Each household will be charged the same flat fee for waste management services regardless of the amount of waste generated.

To date there are no Ontario based communities that finance the full costs of waste management services off the property tax base using a single flat fee. This situation is expected to change with the recent amendments to the *Municipal Act, 2001* which explicitly permits a municipality to charge variable or flat fees separate from the property taxes.

City of Vancouver, British Columbia (Pre – 2006)

The City of Vancouver removed all waste management costs from the general property taxes and included them as separate line items on the property tax bill.⁷

Prior to 2006, Vancouver set a flat fee for each municipal waste management and diversion service provided to its residents. The MSW services appeared as separate line items on the property tax bill, and households were charged for the following services:

- Garbage – stop fee (\$28/yr), per can fee (\$32/yr) x 2 cans= \$92/yr
- Recycling – stop fee (\$10/yr), service fee (\$9/yr) = \$19/yr
- Yard waste - \$38/yr flat fee

A typical household was charged \$149/yr, which permitted them to place 2 cans of garbage for collection each week. The combined garbage and leaf and yard waste fee was displayed as a separate line item from the recycling fee on the bill. Home owners had an option of requesting additional cans and were charged an additional fee of \$32/year on the bill or they could purchase tags from participating outlets at \$1.50/tag for occasional excess garbage.

⁷ Under Metro Vancouver's (formally Greater Vancouver Regional District) Solid Waste Management Plan, all municipalities were required to reach a zero tax-based system by the year 2000

City of Airdrie, Alberta

Households that receive curbside garbage collection services are billed a waste management levy of \$8.23 bimonthly and all households including single family, multi-family and condo units are billed an Environmental Services Fee of \$6.99 bi-monthly which covers the costs for recycling, composting, HHW and spring clean up.

5.2 Partial Fee Recovery

With a partial fee recovery system, a designated portion of the waste management costs are financed through a separate flat fee or Pay-as-you-Throw (PAYT) system with a remaining portion being financed through the property tax base. Often the costs associated with garbage collection and disposal will be removed from the property tax base and paid through a separate flat fee, with all waste diversion costs continuing to be financed through property taxes. The argument is that recycling is considered a public good, and should be financed through public funds.

While an estimated 47% of Ontario municipalities have PAYT programs in place⁸, the vast majority of municipalities recoup only a fraction of the waste management costs through the price of the tag; for example, the majority of PAYT program in Ontario use the cost of the tag/bag to finance the cost to collect and/or dispose of the individually tagged bag of garbage. Most programs do not use the PAYT system to finance residential waste diversion programs. The majority of Ontario municipalities with PAYT programs still fund most of waste management costs through property taxes.

Using a flat fee to fund some waste management program costs in Ontario remains an anomaly; however, the City of Ottawa's introduction of a flat fee to cover garbage collection and disposal costs in 2006 establishes a new trend in sustainable financing in Ontario.

Quinte West, Ontario

The community of Quinte West charges \$2.50/tag for every bag of garbage set out for collection, which offsets all garbage collection and landfill costs. However, Quinte West's PAYT program does not finance waste diversion which continues to be financed through the property tax base.

Northumberland County, Ontario

In November 1998, Northumberland County implemented a PAYT system charging \$1.50 for each bag of wet waste and permitting a maximum of 3 bags to be set out for collection at any one time. In 2005, the PAYT charge was increased to \$2.00/bag, which covered the cost of garbage and recycling collection.

Prior to the County assuming responsibility for waste management services, lower tier municipalities were responsible for collection services and charged the costs back to households. One municipality, Hamilton Township, charged back an annual flat fee of \$30 per household as a separate line item on the property tax bill. The Township no longer charges the fee since the County assumed responsibility for collection services.

City of Kingston, Ontario

In 2006, the City of Kingston removed all waste disposal related costs from the general tax levy and began charging households a flat fee for waste disposal services. All residential properties pay a special levy for disposal – shown as “fees and charges” on the property tax bill. Households are charged a separate \$50 fee for garbage disposal. The City removed waste disposal costs from the general tax levy so that the commercial sector was not paying for waste management services through the property tax base when it did not receive any service.

⁸ The Association of Municipal Recycling Coordinators (AMRC) estimated that in 2005, 123 communities in Ontario had implemented user pay programs of which 65 (61%) were partial user pay programs and 58 (39%) were full user pay programs (AMRC User Pay Guide, November 2005).

City of Ottawa, Ontario

In July 2005, City Council approved the implementation of an alternative method to fund solid waste services and to increase the incentive to divert materials from landfill. The new funding approach continues to fund waste diversion and recycling costs for single family and multi-family residential properties through the property tax bill but the costs for garbage collection and landfill disposal are removed from the property tax and funded using a uniform flat fee. The new funding system includes:

1. A differential flat fee for residential curbside garbage collection and multi-residential bin tipping garbage collection. The 2008 fees for residual garbage collection and landfill disposal are:
 - a. \$82 per household receiving residential curbside garbage collection; and
 - b. \$33 per household receiving multi-residential bin tipping garbage collection.

The flat fee is shown on residential property tax bills, but as a separate fee. The flat fee is collected in the same manner as property taxes and is subject to the same penalties and interest rates for non-payment. Problems encountered made it temporarily impossible to entertain another billing arrangement (see Discussion Paper #6 for further explanation).

The new funding model shifts the costs of residential garbage collection and disposal from the commercial and industrial tax bill to full cost recovery from the residential properties obtaining services. Businesses will no longer help to pay for residential garbage collection services that they do not receive. The change in billing method was included in the overall 3.9% tax increase to residents and businesses for 2006.

The City of Edmonton, Alberta

The City of Edmonton does not operate as a separate solid waste entity; rather, it operates as a Waste Management Department within the City. In 1995, the City became the first large Canadian community to finance part of the waste management services using a flat fee for both single-family and multi-family waste management services. The various programs operated by the Waste Management Department are funded through a variety of different sources – the monthly utility bill, property taxes and revenues from tip fees and the sale of recyclables.

In 1995, the City of Edmonton introduced a monthly flat fee to cover processing and disposal activities. The monthly utility fee is used to fund all disposal related activities (i.e. transfer stations, municipal recycling facility, Edmonton Composting facility, landfill disposal and Eco stations). Property taxes are used to fund collection related activities (i.e., garbage and recyclables collection, litter collection and community recycling depots) and public education programs. In 2000, 57% of waste management expenditures were covered by the utility fee, 36% by the tax base and 7% by tipping fees and revenues from the sale of recyclables. Over the years, the City has used the flat fee approach to cover an increasing portion of waste management costs needed to cover new processing and disposal programs.

Bluewater Recycling Association's Next Move

Bluewater Recycling Association (BRA) is considering adopting a single stream recyclables collection system which will result in the introduction of an automated variable container subscription program. Under this program, BRA would assume responsibility for billing all residents directly. If the plan proceeds, BRA will begin implementing the variable container subscription program using a phased in approach over a five year period.

In 2007, the average cost per single family household for waste management services was approximately \$247 per year, of which an average \$65/hhld or 26% (based on assessment value of \$243,500) was collected through property taxes and \$182/hhld/yr or 74% was collected through flat fees. In addition, the residential waste management system continues to be partially financed from taxes collected from businesses and revenues generated from tipping fees at the City's Clover Bar Landfill as well as revenues from the sale of recyclables.

In March 2008, City Council voted to create a waste management utility, a city agency that will run the garbage collection and handling system and charge fees to cover the cost. All waste management costs will be charged as a flat fee starting in January 2009 and will be removed from the property taxes entirely.

5.3 Variable Rate Fee Recovery

Variable rate fee recovery programs employ a full fee recovery approach that permits the resident to choose from a range of different fee options that correspond to different sizes of garbage containers. This is a sophisticated PAYT approach which uses an increasing variable fee structure to encourage waste diversion.

North American communities use a variety of techniques to charge for waste management services. Some Canadian jurisdictions with variable rate fee recovery programs use the variable fees to cover the cost of garbage collection and disposal and charge a separate flat fee to cover the cost of waste diversion. This is the case in the Cities of Vancouver and St. Albert (see below). In the United States, however, most communities include recycling program costs in the variable fee along with garbage collection and disposal costs, and charge yard waste collection costs as a separate line item (e.g. Cities of Seattle and San Jose).

City of Toronto, Ontario

The City of Toronto's Sustainable Financing Plan (*Proposed Initiatives and Financing Model to Get To 70% Solid Waste Diversion By 2010*) was approved by Council on 20th June, 2007 by a vote of 28 to 18 in favour.⁹ Toronto's program is essentially a full cost recovery program with a twist.

Because the current costs for solid waste services are collected as part of property taxes and cannot be easily removed from the property tax bill, every household will receive a rebate equal to the average amount collected through the tax bill which used to finance household waste management in the first year of the program. This amount has been calculated at \$209 per household and is equivalent, according to the City's calculations, to the current cost of providing solid waste management services to the average residential house.

Residents order one of four sizes of garbage collection carts ranging from 75 litres to 360 litres. Residents ordering the smallest cart (75 litres) will receive an additional \$10 rebate (in addition to the \$209 rebate) and residents opting for one of three larger container sizes will pay the difference between the cost of their container and the \$209 rebate.

Toronto 70% By 2010 Needs Support

The City is asking for additional support by

- Developing 3 Working Groups to support future City programs: In Store Packaging Waste Diversion Working Group, Multi-Family Waste Diversion Working Group and 3Rs Working Group; with the mandate to investigate taxes, bans and other legislation on in-store and food service packaging.
- Requesting that the provincial government adopt financial mechanisms to promote, encourage and achieve source reduction or reuse of packaging and products which currently become municipal waste;
- Requesting that the Province of Ontario take immediate steps to extend the stewardship programs of Waste Diversion Ontario to include within 24 months: green bin organics, electronics, mattresses, furniture, carpets and sporting goods;

⁹ The link to the report to Executive Committee outlining the plan is:
<http://www.toronto.ca/legdocs/mmis/2007/ex/bgrd/backgroundfile-3799.pdf>

Fees are:¹⁰

- 75-litre (one bag) - \$199
(no charge on bill)
- 120-litre (1.5 bags) - \$248
(\$248 - \$209 = \$39 on bill)
- 240-litre (3 bags) - \$342
(\$342 - \$209 = \$133 on bill)
- 360-litre (4.5 bags) - \$399
(\$399 - \$209 = \$190 on bill)

The key highlights of the plan are:

- The cost of residential waste management service, plus new programs required to reach 70% be funded through variable rate pricing system applied to waste only (diversion at no cost);
- The City's residential waste management system currently costs \$183.5 million (consisting of \$101 million from the single family class (approx \$209/hh) and \$82.5 million from multi-residential class (about \$157/hh);
- Future annual cost of the waste management system (\$183.5 plus \$54 million = \$237.5 million) works out to a single family system cost of \$271/hh;
- The start date requires the Province to enact a regulation to allow solid waste management service fees to have priority lien status;
- The City will purchase 500,000 "residual containers" for garbage for single family homes and move to an automated collection system;
- Single family homes can subscribe to 4 different garbage container sizes: 75L, 120L, 240L or 360L;
- 5 free tags will be issued to resident per year for special occasions.

One of the biggest challenges facing Toronto's new system is the need to overcome the barriers imposed by provincial legislation that impact the way in which the City governs its property taxes. In essence, Toronto is unable to remove the entire solid waste management program cost from the residential/multi-residential property classes and any property tax reduction on the residential class must be given in proportion to assessed value, resulting in some properties receiving tax reductions that are much greater than the \$209 average and some properties receiving tax reductions that are much smaller than the \$209 average fee for base solid waste services.

The City has temporarily resolved this problem by providing a flat rate rebate to every residential property. Since this approach does not require any major legislative or regulatory change (with the exception of allowing the City to add outstanding solid waste fees to the property tax bill and collect them as a priority lien) it can be enacted immediately. However, the City views this as a short term solution and acknowledges the need to change applicable provincial legislation in order to have the flexibility to adjust property taxes outside of the assessment based property tax system. The City also has additional powers under the recently promulgated City of Toronto Act.

¹⁰ Because the current costs for solid waste services are collected as part of property taxes and cannot easily be removed from the property tax bill, every household/multi-unit building will receive an annual rebate equal to the average amount collected through the tax bill. Home owners will put the \$209 yearly rebate towards paying for their individual household's solid waste service charges.

City of Vancouver, British Columbia (Post 2006)

In 2006, the City of Vancouver launched a new billing approach reflecting its new automated variable containerized waste management system. This new system offers residents a range of variable can sizes for garbage and leaf and yard waste. The fee is based on a two tier system, as follows:

- Garbage
 - 5 cart sizes to choose from (75 litre to 360 litre);
 - annual fee ranges from \$70 to \$147 per household based on cart size;
 - the fee includes the cost of the container and
 - the fee is based on a \$50 flat service fee + \$27/ 100 litre collection fee.
- Recycling
 - stop fee (\$10/yr) + service fee (\$10/yr) = \$20/yr.
- Yard Waste
 - 4 cart sizes to choose from (120 litre to 360 litre);
 - annual fee ranges \$43 to \$62 based on cart size;
 - the fee is based on a \$33 flat service fee + \$4 per 100 litre collection fee.

The container fees increase with the size of the container as shown in Table 5.1.

Table 5.1: City of Vancouver's Variable Rate Subscription Fees

Garbage Container (2007 fees)		Yard Trimmings (2007 fees)		Recycling (2007 fee)
Container Size (litres)	Collection Fee (50 flat fee service + \$27/100 litre collection fee)	Container Size (litres)	Container Size (litres)	
75	\$70	Not available		\$20
120	\$82	120	\$43	\$20
180	\$99	180	\$47	\$20
240	\$115	240	\$52	\$20
360	\$147	360	\$62	\$20

The average household has experienced a slight increase in waste management service costs (garbage, yard trimmings & recycling) from 2005 to 2007, with the average household paying \$149/yr in 2005, \$161/yr in 2006 and \$172/yr in 2007.

Residents have the option of purchasing tags for additional garbage set outs. The cost for each tag was increased from \$1.50 to \$2.00. At the time, the City recognized that the financial impact of raising the price of garbage stickers was unknown because it was unclear how much demand for stickers there would be with the impact of automation plus the sticker price change. However, the City wanted to send a pricing signal to residents to discourage the use of tags since manual collection of garbage bags with tags results in extra collection costs and increase the risk of injury to workers. In 2006, the City sold 18,019 tags, compared with 96,693 tags in 2005, an 81% reduction in tag sales.

City of St. Albert, Alberta

In January 1994, St Albert established a Solid Waste Utility in which the waste disposal expenditures (private landfill tipping and recycling depot) were transferred from the tax base to the utility bill as a flat fee of \$3.00 per month. In 1996 the collection costs were transferred from the tax base to the utility bill as an additional flat fee per month. The total flat fee rate of \$6.00 per month included costs for recycling, waste collection and transportation, and landfill tipping fees.

Today, St Albert uses a variable rate container system (the first in Canada) in which residents are charged variable rates depending on the size of the container they place at the curb for weekly waste collection (see

Table 5.2). The larger the container (or number of bags), the higher the monthly fee (see below for 2006 fees). The cost of recycling and composting are added as a separate line item in the monthly rates.

Table 5.2: City of Alberta's 2007 Variable Container Rates

Bag/Tag program	Variable Container System	Monthly Rate
1 bag set out every two weeks	Not applicable	\$1.75
1 bag set out per week	Not applicable	\$3.50
2 bag set out per week	1 can or 121 litre toter set out per week	\$7.00
3 bag set out per week	Not applicable	\$10.50
4 bag set out per week	2 cans or 242 litre toter set out per week	\$14.00
6 bag set out per week	3 cans or 363 litre toter set out per week	\$21.00
A recycling and composting management fee		\$3.65

The City of St. Albert carried out a PAYT system review in 2008 to look at opportunities to simplify its PAYT program.

City of Seattle, Washington

Under the Seattle Municipal Code, all residents within the City of Seattle are required to have garbage containers and to pay for garbage service. All residential operations are supported by monies accrued through variable rate fees charged to residents and through the collection of tipping fees.

Solid waste collection and disposal services are billed at rates prescribed by City ordinances (by-law) passed by the City Council. Variable rates are applied to services for collection from single family residences, multi-family residences and commercial establishments. Every property must have some type of garbage service (or vacancy rate). Residents can subscribe to a backyard service, in which the collection crew will collect and return the garbage cans from the resident's back yard (households are charged an additional fee for this extra service). The cost of the service depends on the number and size of garbage containers as detailed in the Table 5.3.

The City provides a waste services subsidy for lower income, seniors and disabled residents, whereby customers can save up to 50% of their Seattle Public Utilities water, sewer, garbage and drainage bill. The City also allows customers to apply for reduction in garbage fees if a property will not be occupied or used as a residence for a minimum of 60 consecutive days. Garbage and recycling must not be set out for collection during this time. If approved, the garbage bill is reduced to US \$6.85 per month (US \$13.70 bi-monthly).

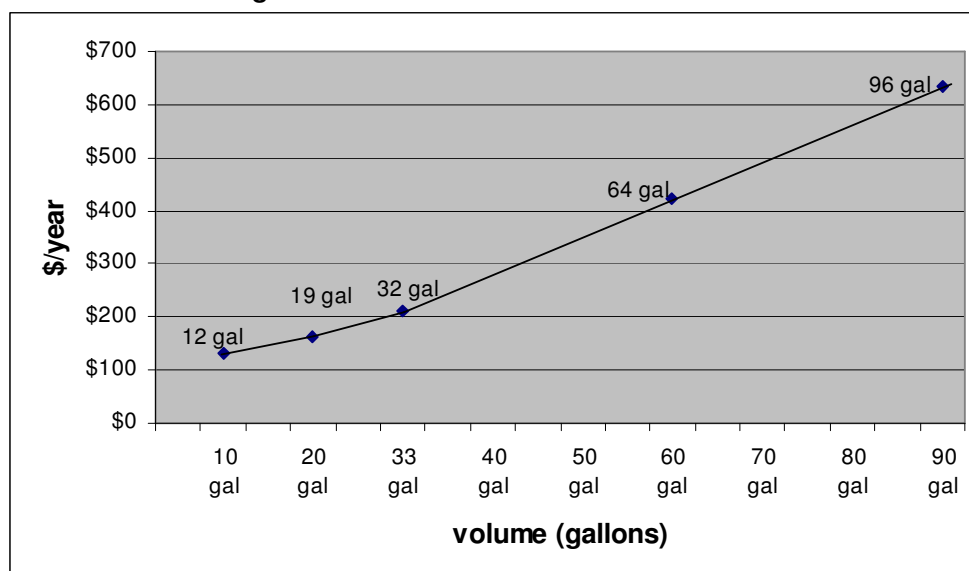
Table 5.3: City of Seattle Monthly Residential Variable Subscription Rates (2008)

Service Level	Curb or Alley (US \$ per month)	Backyard (US \$ per month)
micro-can (12 gallon)	\$11.05	not available
mini-can (20 gallon)	\$13.55	not available
one can (32 gallon)	\$17.65	\$24.70
two 32 gallon cans or one 64-gallon cart	\$35.30	\$49.40
three 32-gallon cans or one 96-gallon cart	\$52.95	\$74.15
additional (per can)	\$17.65	\$24.70
Yard Waste	\$5.35	not available

Seattle has adopted a linear variable rate structure for garbage. The rate for a second (or third) can is twice (three times) that of a single can, although the cost of picking up that second (third) can is less than this amount. This policy has been in place since the 1989 and has never been changed. Figure 5.1 shows the linear rate for 2007. Although the rates for the micro and mini cans are not linear, it is speculated by staff that they are subsidized to some extent.

These rates provide important price signals to customers to recycle, reduce waste and minimize their can size (or level of service) in order to reduce their subscription cost. This also sends the message that garbage disposal has a high monetary and social cost. Prior to the change in policy, the City priced its garbage cans at the “cost of service”, which resulted in about 38% of residents selecting 2 cans or greater garbage service and 62% selecting one can garbage service. With the introduction of the linear rate setting approach, residential customers quickly switched to smaller can service with 93% subscribing to a one can, mini-can or micro-can level of service by early 1992 and only 7% subscribing to the two can or greater level of service.

Figure 5.1: Seattle's Linear Rate Structure



6. Billing Options and Non-Payment Issues

The method used to collect waste management fees varies from community to community throughout North America. Some communities in Canada have chosen to use the existing property tax billing structure as the method for billing and collecting solid waste fees, while others use a separate billing system already in place and piggy-back the waste management charges with other services (e.g. sewer and water utility bills). These methods are summarized below and discussed in detail in Discussion Paper #3.

6.1 Using the Property Tax Bill

A number of communities in Canada use the existing property tax bill to charge separate flat fees to waste management services. The reason for this approach is best described by City of Vancouver staff, because it was “easier and cheaper to piggyback” on the existing property tax collection system than trying to set up their own payment system.

The amended Ontario *Municipal Act, 2001* permits waste related fees to be shown on the property tax bill as a separate line item under “fees and charges”. This means they are separate from the property tax.

City of Ottawa, Ontario

The City of Ottawa is using the property tax bill as the best vehicle for timely and accurate billing for solid waste management services in the short term. The City removed waste collection and disposal costs from the overall assessment and tax rates and placed them as a separate line item on the property tax bill, as shown in Figure 6.1. Single family residents were charged \$78.90 as a separate fee for curbside garbage services on the 2006 bill.

Figure 6.1: City of Ottawa's Property Tax Bill

AUG-02-2006 15:29 TRAIL ROAD WASTE FACILITY 613 838 4388 P.03/0

Ottawa
SUPPLEMENTARY TAX BILL /
RELEVÉ D'IMPOSITION SUPPLÉMENTAIRES

City of Ottawa Revenue Division / Division des Recettes Ville d'Ottawa
Tel/Tél: 613-580-2444 Fax/Télécopieur: 613-580-2457

BILLING DATE / DATE DE FACTURAT
JUL/JUL 21, 2006

PROPERTY INFORMATION / INFORMATIONS FONCIÈRES
457-0000-18
521
43.54AC 349.57FR 860.49D

EFFECTIVE PERIOD / PÉRIODE EN VIGUEUR
JAN/JANV 01 2006 TO / AU DEC/DÉC 31 2006


REASON FOR SUPP. / RAISON DU SUPPL.
Omit Assmt/Eval Omis

ASSESSMENT / ÉVALUATION		MUNICIPAL / MUNICIPAL		EDUCATION / ÉDUCATION	
Tax Class / Catégorie d'impôt	Value / Valeur	Rate / Taux	Amount / Montant	Tax Class / Catégorie d'impôt	Amount / Montant
RT-TRB	189,000	.005054	10.23		
RT-POL	189,000	.146374	247.37		
RT-FSR	189,000	.021888	36.99		
RT-CAL	189,000	.005831	9.85		
RTEP	189,000	.540367	913.22		
				264000	446.
SUB TOTALS / TOTAUX PARTIELS		Municipal Levy / Impôt municipal		Education Levy / Impôt scolaire	
		\$1,217.40		\$446.	
SWW-SOLID WASTE/DECHETS@578.90		78.90			
		Tax Levy Sub-total (Municipal + Education)		\$1,563	
		Total partiel des impôts (municipaux + scolaires)			
		Special Charges / Revenus		578	

City of Pembroke, Ontario

The City of Pembroke, Ontario itemizes the garbage/recycling flat fee and the waste recovery fee as two separate line items under the special charges section of the property tax bill as shown in Figure 6.2. The garbage/recycling flat fee is a fixed fee which applies to all single family households, multi-family units and IC&I businesses receiving municipal waste management services. The waste recovery fee is a variable fee based on property assessment and authorized under By-law Number 2006-40. The fees range from \$85 to \$425 depending on the range of property assessments.

Figure 6.2: City of Pembroke Property Tax Bill

 CITY OF PEMBROKE / LA VILLE DE PEMBROKE 1 PEMBROKE STREET EAST, P.O. BOX 277 PEMBROKE, ONTARIO K8A 6X3 TEL.: (613) 735-6621 FAX: (613) 735-3660		TAX BILL RELEVÉ D'IMPOSITION SEE INFORMATION ON REVERSE VOIR INFORMATION AU VERSO		SAMPLE BILL	
RYSGAGE NO. / NO D'HYPOTHÈQUE		CODE XXXXXX		ROLL NO. / NO DE CADASTRE 4764 000 XXX XXX00 0000	
BILLING DATE / DATE DE FACTURATION 2006 JULY 24					
ASSESSED OWNER(S) AND MAILING ADDRESS : PROPRIÉTAIRE(S) FONCIER(S) ET ADRESSE POSTALE DOE JOHN DOE JANE XXX STREET PEMBROKE ON K8A XXX			ASSESSED PROPERTY DESCRIPTION / DESCRIPTION DE LA PROPRIÉTÉ ÉVALUÉE XXX STREET LEGAL DESCRIPTION 66.00FR 128.70D		
ASSESSMENT / ÉVALUATION		MUNICIPAL / MUNICIPALE		EDUCATION / SCOLAIRE	
TAX / TAUX	VALUE / VALEUR	RATE / TAUX	AMOUNT / MONTANT	RATE / TAUX	AMOUNT / MONTANT
EP	100,000	.01639266	1639.26	.00264000	264.00
LEVY / IMPOSITION		MUNICIPAL / MUNICIPALE		EDUCATION / SCOLAIRE	
SPECIAL CHARGES / REDEVANCES SPÉCIALES			SUMMARY / SOMMAIRE		
GARBAGE/ RECYCLING 155.00 WASTE RECOVERY 85.00			MUNICIPAL + EDUCATION LEVIES / IMPÔTS MUNICIPAUX + SCOLAIRES 1903.26 SPECIAL CHARGES / REDEVANCES SPÉCIALES 240.00 PHASE-IN ADJUSTMENT / REDRESSEMENT PROGRESSIF TAX CAP ADJUSTMENT / REDRESSEMENT DES IMPÔTS SELON LE PLAFONNEMENT CURRENT YEAR FINAL TAXES / IMPÔTS DE L'ANNÉE COURANTE LESS INTERIM BILLING / MOINS FACTURATION INTERIMAIRES PAST DUE - CREDIT / ARRÉRAGES - CRÉDITS (Y-A / M / D-J)		
			TOTAL TAXES DUE / TOTAL DES IMPÔTS EXIGIBLES 2143.26		
TOTAL 240.00			1ST INSTALMENT / 1ER VERSEMENT Y-A / M / D-J 2ND INSTALMENT / 2IEME VERSEMENT Y-A / M		

City of Vancouver, British Columbia

The City of Vancouver has removed all waste management costs from the property taxes. They now show up as a separate line item on the property tax bill.


In 2006, the City of Vancouver launched a new billing approach reflecting its new automated variable containerized waste management system. This new system offers residents a range of variable can sizes for garbage and leaf and yard waste. The related fee increases with the size of the container. All related waste management fees are presented as separate line items on the new property tax bill as shown on a bill presented in Figure 6.3.

Figure 6.3: City of Vancouver Variable Containerized Billing System


Figure 617: City of Vancouver, Vancouver Commercialized Billing System


2005 PROPERTY TAX NOTICE
























DUE DATE: Tuesday, July 5, 2005



1



FOLIO NUMBER	758-170-81-0000	ACCESS	328544
LEGAL DESCRIPTION			
			

Property Value		Assessed			Averaged	Taxable		
CLASS		2005	2004	2003	2005 Land	GENERAL	SCHOOL	GVTA
Residential	Land							
	Buildings							
	Total							
PROPERTY ADDRESS					COLUMN A	COLUMN B	COLUMN C	
PID					NO GRANT	BASIC GRANT	ADDITIONAL GRANT	

School - Residential	2.75856	1,458.63	1,458.63	1,458.63
Less: Home Owner Grant			-470.00	-745.00
NET SCHOOL TAXES		1,458.63	988.63	713.63
B.C. Assessment	0.11242	59.44	59.44	59.44
Municipal Finance Authority	0.00032	0.17	0.17	0.17
Regional District	0.10988	58.10	58.10	58.10
Transportation Authority	0.29269	154.76	154.76	154.76
NET OTHER TAXING AUTHORITIES		272.47	272.47	272.47
City of Vancouver General Levy	3.06186	1,619.01	1,619.01	1,619.01
Garbage	110.00000	110.00	110.00	110.00
Recycling	19.00000	19.00	19.00	19.00
Sewer	158.00000	158.00	158.00	158.00
Water	306.00000	306.00	306.00	306.00
Yard Waste	38.00000	38.00	38.00	38.00
NET CITY TAXES		2,250.01	2,250.01	2,250.01
TOTAL 2005 TAXES		3,981.11	3,511.11	3,236.11
TAX PREPAYMENTS (TIPP)		-2,530.00	-2,530.00	-2,530.00
Payments/Adjustments		-380.66	-380.66	-380.66
TOTAL OUTSTANDING TAXES		1,070.45	600.45	325.45

6.2 Using Other Billing Systems



Many communities throughout Canada and the United States have made arrangements with an existing bill service to administer a number of service fees including electricity, water, sewer, and waste on a single bill.

Amendments to the Ontario *Municipal Act, 2001* permit any billing approach to be used. Municipalities or MSBs can use whatever service or approach they like to bill and collect the fees (banks, electrical utilities, etc) and they can use any corporation or utility to collect fees – they are simply buying the service.

City of Edmonton, Alberta

EPCOR Utilities, which provides power and water services to Edmonton, administers electricity, water, sewer, and waste utility bills. Water, sewer and waste disposal charges are put on one bill. All utility bill fees are collected by EPCOR which bills on a monthly basis. A typical waste disposal fee line item is presented in Figure 6.4.

Figure 6.4: City of Edmonton Waste Disposal Bill

	WASTE DISPOSAL Provided by Waste Management Services	
1.	Monthly waste disposal fee	\$13.25
Your total waste disposal charges		\$13.25


The City has considered financing waste management services solely through the utility bill; however, the proposal was rejected.

City of Airdrie, Alberta

The City of Airdrie issues one bi-monthly utility bill for water, sewer, waste management and environmental services (see Figure 6.5). The waste management levy is based on the number of water meters (if the unit has a water meter then it is billed for garbage services). The levies are published in the Waste by-law. The billing services are administered by two full time staff working within the finance department but their salaries are apportioned back to the water, sewer and solid waste departments.

As soon as the levies are posted, the accounting system posts revenues to the general ledger account. Upon mailing of the utility bill, the revenue shows up in the general ledger and is automatically transferred to the solid waste general ledger. Even if the utility bills are not paid, the solid waste utility counts the fee as revenue. The Finance department will transfer any unpaid utility bill to water and then to the property tax bill (the Alberta Provincial Government approves of this approach).

Figure 6.5: City of Airdrie Solid Waste Utility Bill



UTILITIES (403) 948-8859
202, 400 Main ST SE
Airdrie, AB T4B 3G8

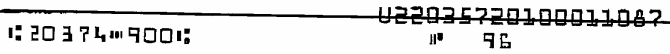
MURRAY, PATRICIA
MURRAY, WAYNE
375 WOODSIDE CIR NW
AIRDRIE AB T4B 2J8

PLEASE RETURN THIS PORTION WITH YOUR PAYMENT.
If payment is made after Due Date, a Penalty of 6%, will be applied to your account.

Account Number: 203572.01

9

Balance Forward 0/0/0000	\$0.00
Current Charges - DUE BY 9/30/2005	\$110.87
TOTAL DUE:	\$110.87
AMOUNT PAID:	



Billing Period		No. of Days	Meter Reading		Consumption
From	To		Previous	Current	
6/21/2005	8/20/2005	60	1636	1671	35

Trans Date	Item	Document Reference	Amount
8/20/2005	Previous Bill Amount		\$123.88
7/31/2005	Payment - Thank You	1028411	(\$123.88)
8/20/2005	WATER LEVY - FLAT		\$33.80
8/20/2005	WATER LEVY - VARIABLE		\$12.65
8/20/2005	SEWER LEVY - FLAT		\$29.34
8/20/2005	SEWER LEVY - VARIABLE		\$19.86
8/20/2005	WASTE MANAGEMENT		\$8.23
8/20/2005	ENVIRONMENTAL SERVICES FEE		\$6.99

NOTE: This account is on a Pre-Authorized Payment Plan.

Account Number	Service Address	Billing Date
203572.01	375 WOODSIDE CIR NW	8/20/2005

Balance Forward - Due Date As Above	Current Charges	Total Amount Owning
\$0.00	\$110.87 Due 9/30/2005	\$110.87

City of Seattle, Washington

The utility billing function in City of Seattle, Washington is co-managed by both the Seattle Public Utility (SPU) and Seattle City Light (SCL). The SPU provides customer service through the call center and walk-in center. The SCL operates and manages the billing system, Combined Customer Services System ("CCSS") for residential and small accounts. Each Service (SPU and SCL) bills and reimburses each other for the services provided. Within SPU, the cost and reimbursements are shared among the three utility funds (Water, Drainage and Wastewater, and Solid Waste).

The City of Seattle combines the water, sewer and waste services on one utility bill, the Seattle Public Utility Bill, which is distributed on a bi-monthly basis. Residential waste services are charged up to two months in advance (advanced billing), which is not the same approach taken for the water and sewer charges (see Figure 6.6).

Figure 6.6: City of Seattle Solid Waste Bill

<p style="text-align: center;">CITY OF SEATTLE</p> <p>Account number: 2-33333-222222</p> <p>TOM JONES SEATTLE, WA 98106</p> <p>Property owner: TOM JONES</p> <p>Service address:</p>	<div style="text-align: right; font-size: small;">103984 27B CD-8</div> <h2 style="text-align: center; margin: 0;">Seattle Public Utilities Bill</h2> <p style="text-align: center;">Statement date: December 09, 2005 Page 2</p> <hr/> <h3>DETAILED BILLING INFORMATION</h3> <hr/> <h4>Water Service</h4> <table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th style="width: 20%;">Service From</th> <th style="width: 20%;">Service Through</th> <th style="width: 15%;">CCF Usage</th> <th style="width: 20%;">Previous Reading</th> <th style="width: 25%;">Current Reading</th> </tr> </thead> <tbody> <tr> <td>Oct 07, 2005</td> <td>Dec 06, 2005</td> <td>6.00</td> <td>2872.00</td> <td>2878.00</td> </tr> </tbody> </table> <p>Meter Number: PRE-J0099367-1 Service Category: WTR1</p> <p>Winter Residential 6.00 CCF @ \$2.530 per CCF 15.18</p> <p>Base service charge 17.50</p> <p><i>Water revenue pays the following costs:</i> <i>38% for water quality and supply</i> <i>28% for infrastructure and maintenance</i> <i>12% for services, billing and emergency response</i> <i>11% for taxes</i> <i>5% for administration</i> <i>4% for environmental investments</i> <i>2% for revenue stabilization fund</i></p> <p style="text-align: right;">Current Water Service: 32.68</p> <h4>Sewer Service</h4> <table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th style="width: 20%;">Service From</th> <th style="width: 20%;">Service Through</th> <th style="width: 15%;">CCF Usage</th> <th style="width: 20%;">Previous Reading</th> <th style="width: 25%;">Current Reading</th> </tr> </thead> <tbody> <tr> <td>Oct 07, 2005</td> <td>Dec 06, 2005</td> <td>6.00</td> <td></td> <td></td> </tr> </tbody> </table> <p>Residential Inside City 6.00 CCF @ \$6.580 per CCF 39.48</p> <p><i>63% of sewer revenue is paid to King County Metro for sewage treatment.</i></p> <p style="text-align: right;">Current Sewer Service: 39.48</p> <h4>Solid Waste Service</h4> <table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th style="width: 20%;">Service From</th> <th style="width: 20%;">Service To</th> <th style="width: 40%;"></th> <th style="width: 20%;">Current Reading</th> </tr> </thead> <tbody> <tr> <td>Dec 01, 2005</td> <td>Feb 01, 2006</td> <td></td> <td></td> </tr> <tr> <td>Can curb/alley</td> <td></td> <td>1.00 Unit(s)</td> <td>32.70</td> </tr> <tr> <td>Dec 01, 2005</td> <td>Feb 01, 2006</td> <td></td> <td></td> </tr> <tr> <td>Yardwaste</td> <td></td> <td>1.00 Unit(s)</td> <td>8.60</td> </tr> <tr> <td>Dec 01, 2005</td> <td>Feb 01, 2006</td> <td></td> <td></td> </tr> <tr> <td>Recycling</td> <td></td> <td></td> <td>0.00</td> </tr> </tbody> </table> <p style="text-align: right;">Current Solid Waste Service: 41.30</p> <p style="text-align: right; font-weight: bold; font-size: large;">CURRENT BILLING: 113.46</p>	Service From	Service Through	CCF Usage	Previous Reading	Current Reading	Oct 07, 2005	Dec 06, 2005	6.00	2872.00	2878.00	Service From	Service Through	CCF Usage	Previous Reading	Current Reading	Oct 07, 2005	Dec 06, 2005	6.00			Service From	Service To		Current Reading	Dec 01, 2005	Feb 01, 2006			Can curb/alley		1.00 Unit(s)	32.70	Dec 01, 2005	Feb 01, 2006			Yardwaste		1.00 Unit(s)	8.60	Dec 01, 2005	Feb 01, 2006			Recycling			0.00
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6.3 Challenges for Ontario Communities

6.3.1 Non-Payment Issues

Cities across North America address the non payment issue using different strategies. Table 6.1 summarizes the various strategies used by North American communities.

Table 6.1: Strategies Used to Address Non-Payment of Waste Management Bills

City	Non Payment Strategy
City of Airdrie, Alberta	<ul style="list-style-type: none"> - as soon as bill is sent, accounting system posts revenues to general ledger and waste management department is automatically paid - any unpaid utility bill is transferred to water and then to property taxes - city is authorized in By-law to shut off water for unpaid bills
City of St. Albert, Alberta	<ul style="list-style-type: none"> - any bill not paid within 21 days is charged a penalty of 2.5% of the unpaid charge - the by-law authorizes the city to refuse collection services for unpaid bills - since the water charge is on the same utility bill as the waste services charge, the city will cut off water services for any unpaid fees - the city also has the option of transferring the unpaid fee to the property tax bill
City of Vancouver, British Columbia	<ul style="list-style-type: none"> - waste management fees appear on the property tax bill and are handled as property taxes - in its by-law, any unpaid waste management fees can be registered as a charge against the land
City of Seattle, Washington	<ul style="list-style-type: none"> - The City has a policy of paying garbage services first since it is easier to turn off water services than decline garbage services - The city will turn off water services for unpaid garbage bills and will refuse to provide collection services for extended periods of non-payment - The city has the authority of issuing a lien against the property for non payment of garbage bill beyond 90 days.

Ontario's Situation

In Ontario, the amended *Municipal Act, 2001* restricts a municipality's ability to recoup unpaid waste management fees. Under the Act, a municipality has the right to apply unpaid fees onto the tax bill as a separate charge. This is a "fee and charge" levy and adding it to the tax bill does not turn it into property taxes; therefore, non-payment does not trigger a tax sale. Any outstanding "fees and charges" are typically cleared as part of a property sale. Furthermore, the municipality cannot use other services to collect payment e.g. by threatening to turn off water when a garbage bill is not paid.

City of Toronto Recognizes the Problem

With the launch of its full recovery fee program, the City of Toronto has requested the Province to enact a regulation to allow solid waste management service fees to have priority lien status. This would require a minor regulatory change to allow the City to add outstanding solid waste fees to the property tax bill and to collect them as a priority lien. The rebates would be included on a proposed utility style bill which would include both a water billing and a solid waste billing.¹¹

¹¹ Source: Proposed Initiatives and Financing Model to Get to 70% Solid Waste Diversion by 2010

6.3.2 Moving Off the Tax Base

Ontario municipalities face two potential challenges when attempting to remove waste management costs off the tax base.

Eliminating the IC&I Subsidy

Under current conditions it is difficult to remove waste management costs from the residential property taxes due to the resulting impact on the ratio of residential taxes to IC&I taxes. It may be difficult to separate out the portion of taxes from residential and IC&I because the relative burdens for the different classes cannot exceed the “range of fairness” (% tax burden between residential and IC&I) set by the province in 1998.

For instance, if residential waste management cost \$20 million and a municipality moved to a residential fee, they could not reduce residential taxes by \$20 million if it resulted in an IC&I tax burden being higher than the “range of fairness”. The overall tax burden would need to be reduced by \$20 million to keep ratios within boundaries permitted by the Province.

City of Ottawa Resolves the Problem - Ottawa’s new funding model shifts the costs of residential garbage collection and disposal from the commercial and industrial tax bill to full cost recovery from the residential properties obtaining services. Businesses will no longer subsidize residential garbage collection services that they do not receive themselves. The change in billing method was included in the overall 3.9% tax increase to residents and businesses for 2006.

Providing Property Tax Reductions

Ontario municipalities have very little flexibility in dealing with the property tax system where they want to remove waste management costs from residential property taxes. Under the *Municipal Act, 2001* the current regulations require that any tax shifts or reductions be given in proportion to the current tax ratios and in proportion to assessed property values.

Toronto’s Experience- In its document, *Proposed Initiatives and Financing Model to Get to 70% Solid Waste Diversion by 2010*, the City of Toronto addresses some of the problems encountered in trying to implement a volume-based rate structure for residential solid waste services and removing the costs from the residential property taxes. The challenge is articulated as follows:

Despite the new broad permissive powers contained in the *City of Toronto Act, 2006* (the “Act”), the City has very little flexibility over the governance of its property tax system. The Act, and its associated regulations, continues the same property tax and assessment system previously governing Toronto under the *Municipal Act, 2001*. For example, the current regulations require that any tax shifts or reductions be given in proportion to the current tax ratios and in proportion to assessed property values.

These constraints give rise to two difficulties in implementing a volume-based rate structure for residential solid waste services where the residential/multi-residential property classes are given a property tax credit for the current total costs of solid waste management services: (i) the City is precluded from removing the entire \$183.5 million SWM program cost from the residential/multi-residential property classes; and (ii) any property tax reduction on the residential class must be given in proportion to assessed value, meaning that some properties would receive tax reductions that are much greater and some properties will receive tax reductions that are much smaller than the average fee for base solid waste services.

The City is lobbying the provincial government to allow property tax reductions or credits as deemed appropriate by City Council, despite the existence of any legislation or regulation, where the City is providing a service that is currently funded through taxes and subsequently passes a by-law establishing a user fee system to fund that service. The City is claiming that it needs the flexibility to remove the solid

waste management costs from the property tax base outside of the assessment-based property tax system and replace it with user fees, while at the same time providing broad authority to allow for such property tax credits or adjustments that the City believes to be appropriate. This could take the form of an adjustment to the tax calculation which would reduce the tax bill on a consistent basis for similar types of residential and multi-residential units.

6.3.3 Other Billing Challenges

Charging on Other Billing Systems

City of Ottawa - For the time being, the City of Ottawa considers the tax bill as the best vehicle for timely and accurate billing, but staff are working towards the transfer of this fee to the utility bill in future years. Staff have reviewed the possibility of placing the garbage collection and disposal fee on the City's existing water bill. However, logistical and legal concerns prohibited the City from pursuing this option in 2006.

In Ottawa, there are currently over 40,000 residential and multi-residential properties that receive garbage collection services from the City, but are not currently billed on the water billing system. These properties are primarily in the rural areas, where no City water service is provided. In time these properties could be added to the water billing system, but this will necessitate an increase in data manipulation and mailing costs. In addition, some rural properties receive only one water bill per year compared with urban residents that receive six water bills per year. Legal services felt that establishing an inconsistent billing practice could be construed as unfair for those rural residents who are billed only once per year compared with those urban customers who are billed multiple pro-rated bills over the course of the year. To minimize administrative and potential legal burdens it was decided to place the flat fee on the final 2006 tax bill until further analysis and planning could be done.

The use of the water billing system was further seen to add potential complexities to landlord-tenant relationships. According to city staff, a townhouse or condominium complex with multiple units may receive either curbside garbage collection or bin tipping collection. That same group of units may currently receive individual water bills at the tenant level, or a single water bill payable by the landlord. Applying the fee to the tax bill simplifies the billing process and enables the landlord to easily pass on the flat fee to the tenant through their leases. The use of a flat fee on the final tax bill eliminates a level of potential confusion for landlords and tenants who have differing accountabilities for payment of water bills.¹²

¹² City of Ottawa. April 26, 2006. Solid Waste Flat Fee Funding Implementation Report. Report to City Council

7. Communicating a Sustainable Financing Structure to Council and Public

The reasons for implementing sustainable financing systems for solid waste management vary from community to community. In some cases, a lower tier area municipality has been forced to adopt a flat fee and PAYT system to accommodate waste management system changes imposed by the upper tier Regional government, as in the case of Victoria, B.C (see sidebar) or to promote waste diversion (in the case of Seattle, WA). In other cases, the reasons had little to do with promoting waste diversion but were related to other concerns such as reducing worker injury and benefit claims (e.g. City of Vancouver's new variable container program).

More often, a community's decision to implement a sustainable financing system involves a need to become more financially self sufficient and protect revenues from other municipal budget demands. This situation is driving the interest in sustainable financing of solid waste management systems among many Ontario municipalities.

Creating the right message that resonates with Councillors and the public is essential to build support for a proposed sustainable financing structure. Knowing your audience and their key concerns and triggers is essential to winning their approval and buy-in for the system change. Taking the time to gauge public and Council acceptance for a new idea and fine tuning the message may make the difference between a winning or losing proposal. Often the message delivered to Council will differ from the message communicated to the public.

In addition to the key messages of fairness and waste reduction, some of the benefits associated with a sustainable financing system for solid waste management, based on the principles of a separate cost centre and full cost accounting, are identified by the US EPA¹³: Communities have often relied on these arguments to highlight the advantages of a sustainable financing system for solid waste management:

- **Identify MSW management costs** – When municipalities handle solid waste services through general tax funds, the cost of MSW management can get lost among other expenditures. A sustainable financing structure ensures that all expenditures and revenues are captured and identified.
- **See through the peaks and valleys in MSW cash expenditures** – Using techniques such as depreciation and amortization, a sustainable financing structure featuring full cost accounting produces a more accurate picture of the costs of MSW programs, without the distortions that can result from focusing solely on a given year's cash expenditure.
- **Explain MSW costs to citizens more clearly** – A sustainable financing structure helps local governments to collect and compile information needed to explain to citizens what solid waste management actually costs.
- **Adopt a businesslike approach to MSW management** – A sustainable financing structure encourages a more businesslike approach to MSW management by focusing attention of costs. Applying the principles of full cost accounting can help identify opportunities for streamlining services, eliminating inefficiencies and facilitating cost-saving efforts through informed planning and decision-making.

Victoria adopts flat fees

Prior to the introduction of flat fees and PAYT, waste management costs in the City of Victoria were covered through property taxes. This situation changed in 1990 when the Capital Regional District (CRD) realized that it had very little landfill capacity remaining at its Hartland landfill. In order to obtain public approval for a landfill expansion proposal, the CRD committed to an extensive program to divert waste. The CRD started funding its waste diversion program through its landfill tipping fees resulting in significant tipping fees increases from \$10.50/tonne in 1988 to \$75/tonne in 1993. In response, the City of Victoria and member municipalities introduced a flat fee and partial user pay system in 1992 in order to reduce the amount of waste requiring disposal and its waste disposal costs.

¹³ US EPA, September 1997. **Full Cost Accounting for Municipal Solid Waste Management: A Handbook**, EPA530-R-95-041,

- **Evaluate the appropriate mix of MSW service** – A sustainable financing structure featuring full cost accounting gives authorities the ability to evaluate the net cost of each element of their solid waste system including recycling, composting and landfilling.

Research identified a variety of approaches taken by municipalities to communicate the need for a new sustainable financing structure. Some of the approaches have resulted in successful efforts to achieve Council and public support for the sustainable financing structure while other approaches have resulted in failed attempts at achieving buy-in. The key messages continue to be fairness and waste reduction.

City of Toronto Case Study

The City of Toronto launched its variable rate program by focusing on its goal of 70% diversion by 2010 and has branded its campaign as “Target 70”. City staff ensured that all press releases featured information on its goal to reach 70 per cent solid waste diversion of which its PAYT program plays one part. The City has tried to showcase a number of different activities to help it achieve 70% diversion, over and above the existing comprehensive program including variable rate pricing, switch to a recycling cart program, green bin organics collection in multi-family buildings, in-store packaging reduction initiatives, an enhanced recycling program and curbside collection of durable goods.



The City has described the five benefits of its variable rate system:

- Fair and Equitable;
- Provide Diversion Incentive (Immediate feedback);
- Provide Rate Stability and Predictability;
- Simplicity and Ease of Use;
- Require Minimal Enforcement.

Toronto staff have communicated to the media and residents that other communities such as the City of Vancouver, the City of Seattle and the City of San Jose have similar programs. At the same time, the City has tried to be transparent about the program costs and impacts by communicating the actual costs of the variable rate program and identifying how the rebate and garbage pricing system will impact residents.

As the program unfolded, the City needed to revisit some of its policies and build in greater flexibility into the distribution and use of the garbage carts. For example, City staff visited hundreds of single family residential properties to determine if a modified cart system needs to be employed on downtown core residential properties that are too small to accommodate the recycling and garbage carts or with residents experiencing mobility issues. It was important to register to residents that City staff were listening and trying to accommodate their needs and concerns.

City staff have tried to respond to unforeseen challenges. Residents living in single family residences were required to complete a form sent to them in the mail to order the size of recycling cart and garbage cart they wanted. If the form was not completed and sent back in a timely manner, city staff followed up with four phone calls and a second notice. Despite these attempts, the City did not hear from some residents and issued them the default size of cart. In addition, the City has experienced challenges in providing the right sized carts to residents and at the time of the official program launch 75,000 of 500,000 single family residents had still not received their carts. To accommodate this situation, the City distributed specially coloured tags that were used by residents until their carts arrived.

City Councillors, for the most part, have strongly supported the new waste management system and have expressed their support to the media and their constituents. This has played an important role in Toronto's successful transition to its new variable rate program.

Communication Successes

City of Vancouver

The City introduced a flat fee and PAYT system in 1998. Staff presented the benefits of the flat fee approach to the public as having the ability to relieve the burden on property taxes and increase waste management departments' control over budget. Furthermore, it is considered more equitable (higher valued properties no longer pay more for waste management services despite possibly generating less waste) and removes the bias against commercial properties. The flat fee approach coupled with full cost accounting provides budget stability and an opportunity to capture lifecycle costs of landfilling operations.

In 2005, the City switched to a variable rate system coupled with an automated collection system. One of the primary reasons for introducing the new system was to reduce worker injury resulting from lifting of garbage cans and improve worker safety. The City anticipated that the system change would result in significant system cost savings (although this was directly related to the new automated collection system and to not the method of financing). The message delivered to the public; however, did not reflect the primary reason for switching to a variable rate program. The reasons presented to the public for the variable subscription system were three fold:

- provides an economic incentive for residents to reduce, reuse, and recycle;
- eliminates subsidization from the general revenue; and
- provides greater equity by making residents pay directly for what they generate (residents are in control).

The key to the gaining public buy-in for the variable rate and automated collection system lay in the up front planning approach adopted by City staff, who took the necessary time up front to properly test and gain feedback on the concept of an automated variable rate container program. Staff conducted pilot programs, surveys and focus groups to gain information and approval for the system. City staff used the focus group findings to design the program and communication campaign to address the concerns identified. The program was advertised well in advance (one year) prior to implementation to ensure that all residents were aware of the program and supported it.

City of Seattle

The City provides the following advice to developing a communication strategy for residents. Keep the promotion message clear and simple, and tailor the message/communications to the audience. The six key elements to a successful promotional campaign include: market research, public involvement and outreach, promotion campaigns, involve collection crew and other staff, and address customer diversity.

City of Ottawa

Much of the impetus for the City's flat fee implementation plan came from a series of recommendations in the Waste Management Master Plans and approved by City Council, including:

- The Solid Waste – Integrated Waste Management Master Strategic Directions and Phase 2 Next Steps, April 2003 in which City Council recommended: *“That the City endorse, as a minimum, full cost accounting principles for solid waste services to identify the total costs of the residential waste management system”*.
- The Integrated Waste Management Master Plan – Strategic Service Delivery Update, July 2005 in which City Council Recommended: *“That staff develop a comprehensive utility funding concept based on the recommended hybrid model contained in this report providing the service to urban, suburban, rural residential and rural villages for implementation in January 2006”*.

These recommendations provided a mandate by which City staff could develop and promote its sustainable financing plan. Using this approach helped secure Council approval for the plan.

At the same time, staff conducted a series of public consultations in 2005 and 2006 enabling the public to review and comment on the flat fee billing process. The consultation process included a question and answer document available on the city website. On the website, the City presented the flat fee plan to the public in the following context:

- With the approval of the previous Integrated Waste Management Master Plan, City Council "endorsed, as a minimum, full cost accounting principles for solid waste services to identify the total cost of the residential waste management system."
- Timing is right. With increased waste diversion targets approved, a Solid Waste program financial funding review may offer options to achieve fairness in who pays for and/or benefits from waste collection, disposal and diversion services. It is important that cost and service transparency is evident.¹⁴

The website also pointed out that Ottawa is not alone in adopting a flat fee funding approach "In Ontario, the Regional Municipality of Niagara has recommended a flat fee approach for all Solid Waste services to be implemented in 2007. The Cities of Edmonton and Vancouver also invoke a flat fee charge for all or components of their Solid Waste Programs". Furthermore, the City was upfront about the fact that the funding model would result in increased costs to the homeowner.

Communicating To Your Council

With assistance from Stewardship Ontario's E&E fund, AMRC has developed a Promotion and Education Workbook to assist municipal staff to develop and sell P&E programs to Council and the public. While the work focuses on how municipal staff can prepare and deliver a P&E strategic communication plan, it provides advice for obtaining approval for the strategic plan and budget from Council. Many of the recommendations presented in the workbook can apply to any proposed waste management or sustainable financing strategy being delivered to Council. The term "P&E" can be replaced with "Sustainable Financing" in most instances. The excerpt from the workbook is presented below:

¹⁴ Source: http://www.ottawa.ca/city_services/recycling_garbage/plans/iwmmmp/funding_en.html

**AMRC's RECYCLING PROGRAM
PROMOTION AND EDUCATION WORKBOOK
APPENDIX A
SELLING BUDGETS TO COUNCILS**

Often we know what is needed, and what we have to do. The difficulty is convincing senior staff and council to allocate sufficient budget to accomplish that. Too often, things like promotion and education are considered "soft" items, and therefore expendable when the inevitable final round of budget cuts come in the spring.

The solution? You need to make the strongest possible BUSINESS CASE for your P&E program. Here are some tips on making your case.

- Make sure your presentation is clear and succinct
- State what you intend to accomplish with your P&E program (with specific measurables)
- State what the specific components will be, with a detailed a timeline and budget as you can manage
- Identify the financial implications of achieving your stated goals, including:
 - P&E program costs
 - Associated waste management savings (garbage collection, garbage tipping, revenues, WDO funding, etc)
 - Associated waste management costs (increased recycling collection and processing costs)
- Compare net program costs with and without a P&E program. Factor in possible declines in capture rates to the "without" option.
- Substantiate your assumptions with data from your strategic communication planning research, monitoring and evaluation – you DID do all that, didn't you?
- Include any other indirect benefits (opening door to bi-weekly garbage, user pay, increased employment, greenhouse gas emissions, leadership, meeting WDO best practices, community pride, etc)

You might want to do some "lobbying" with a friendly face on council to make sure they champion your case. Make your case early and often, without becoming a nuisance. And use some of the behavioural change tips in the module to motivate your council to support your program.

Source: AMRC, 2007. Recycling Program Promotion and Education Workbook, available through Stewardship Ontario's Knowledge Network which can be accessed through www.stewardshipontario.ca

8. Expected Impacts

Research conducted as part of the study, investigated the following impacts of sustainable financing structures on:

- the costs of municipal waste management systems, with a particular focus on recycling systems, and whether there were sustainable financing models which lowered the costs of recycling, and
- municipal solid waste diversion, with a particular focus in their impacts on tonnes of material recovered through the recycling system, and more specifically whether there were sustainable financing models which increased the tonnage of materials recycled.

Much of the reported impacts relied on anecdotal information and reports prepared in the mid to late 1990's, detailing program implementation and some impacts on waste diversion. Any reference to system cost impacts (positive or negative) is based on report findings and insights provided during staff interviews. Impacts reported by various communities are summarized in Table 9.1. It is too soon to determine any impacts associated with flat fee financing systems recently implemented by Ontario communities, i.e. City of Ottawa and City of Kingston. It is unlikely that these flat fees will increase diversion as they do not provide an economic incentive like variable rates.

Table 9.1: Selected Sustainable Financing Programs Evaluated for Cost and Diversion Impacts

Community	System Highlights	Year of Program Launch and Description	System Impacts
British Columbia			
Regional District of Nanaimo (population 127,000)	<ul style="list-style-type: none"> - separate cost centre - all costs covered by flat household fee on utility bill with sewer and water charges - Partial PAYT program 	<ul style="list-style-type: none"> - 1991 - partial PAYT - 1 can weekly garbage collection (urban households) – additional garbage requires sticker - weekly garbage and recycling collection 	<ul style="list-style-type: none"> - most customers who had private collection previously saw their costs decrease by 30% - Region planned for 3 garbage truck and 2 recycling trucks to service region but with program the region required 2 garbage trucks and 3 recycling trucks
City of Victoria (population 74,000)	<ul style="list-style-type: none"> - separate cost centre - all costs covered by flat household fee on utility bill with sewer and water - Partial PAYT program 	<ul style="list-style-type: none"> - 1992 - partial PAYT – 2 cans weekly garbage collection– additional garbage requires sticker - weekly garbage, bi-weekly recycling 	<ul style="list-style-type: none"> - Experienced an immediate 18% decrease in the volume of waste sent to landfill (from 1991 to 1992)
City of Vancouver (population 1,990,000)	<ul style="list-style-type: none"> - separate cost centre - all costs covered by flat household fee until 2006 then moved to variable rate subscription - full PAYT program 	<ul style="list-style-type: none"> - in 1998 implemented partial PAYT - 2 cans weekly garbage collection – additional garbage requires sticker - in 2006 moved to automated variable rate subscription program for garbage and yard waste - Weekly garbage and recycling services 	<ul style="list-style-type: none"> - Recycling costs have declined steadily since 1998 due to several factors, increased tonnages of recyclables, increased revenues per tonne and collection costs have decreased. - The automated container, variable rate program has reduced worker injury resulting in \$220,000 savings in worker injury claims in 2006 and has reduced the number of collection crew (11 fewer workers required) - garbage requiring disposal has decreased 25% by weight since 1998
Alberta			
City of Edmonton (population 666,000)	<ul style="list-style-type: none"> - Waste management department within the City 	<ul style="list-style-type: none"> - 1995 - weekly garbage and recycling services 	<ul style="list-style-type: none"> - experienced a slight (2%) decrease in garbage disposed which is attributed to a number of

Community	System Highlights	Year of Program Launch and Description	System Impacts
	<ul style="list-style-type: none"> - costs paid by flat household fee combined with property taxes - flat fee charged on utility bill with electricity and water - NO PAYT program - 4 bags/wk by-law but not enforced 	<ul style="list-style-type: none"> - annual flat fee covers disposal activities and property taxes cover collection activities - blue bag recycling program introduced in 1999 	<p>factors:</p> <ul style="list-style-type: none"> - introduction of the flat fee - decline in population - National Packaging Protocol - Increase in blue box usage - High price of newsprint in 1995 - The flat fee alone did not provide a strong direct incentive to reduce waste
City of St. Albert (population 53,100)	<ul style="list-style-type: none"> - separate cost centre - all costs covered through variable rate subscription - full PAYT program 	<ul style="list-style-type: none"> - 1994 flat fee introduced with all costs removed from property tax - 1996 variable rate subscriptions system introduced for garbage and yard waste - residents can choose to subscribe to can or sticker system 	<ul style="list-style-type: none"> - experienced a significant increase in diversion (51% increase between 1995 and 1998) - gained \$77,000 increase in recycling revenues which helped to offset implementation costs of \$95,000 (i.e. P&E and start up consulting costs)
Ontario			
City of Stratford (population 30,100)	<ul style="list-style-type: none"> - waste management department - all costs paid through property taxes - full PAYT 	<ul style="list-style-type: none"> - 1997 full PAYT implemented with program costs paid through property taxes - residents required to purchase a sticker for each bag of garbage placed at the curb 	<ul style="list-style-type: none"> - full PAYT program resulted in an immediate 43% increase in recycling which has steadily climbed to over 100% increase in recycling in 2006 compared with the base year 1996 - the garbage disposal rate decreased by 26% in the first year of the full PAYT program - AMRC reports a 37% reduction in total net system costs over the launch and post launch period.¹⁵
USA			
City of Seattle (population 30,100)	<ul style="list-style-type: none"> - Separate utility (Seattle Public Utility) in which waste management is one entity - separate cost centre - all costs covered by variable rate subscription - full PAYT program 	<ul style="list-style-type: none"> - 1981 full PAYT implemented with residents choosing between two subscription options - in 1992 the subscription system expanded to allow residents five subscription can sizes - additional garbage requires a sticker 	<ul style="list-style-type: none"> - The PAYT program did not increase collection operations; in fact, as can sizes decreased, route productivity increased (stop times were reduced) - the recycling rate has been steadily increasing over time and the waste disposal rate has declined about 22%.

The research has led to the conclusion that sustainable financing structures can be designed to increase recycling by building in incentives that encourage diversion, as well as providing financial and other disincentives to dispose of waste, such as PAYT or variable fee programs. A sustainable financing system based on flat fees alone will not produce significant waste reduction and recycling impacts. The flat fee system needs to be coupled with a PAYT program to produce significant impacts.

Variable rate pricing systems which are fully self-financing can be designed to significantly increase the recovery of Blue Box materials. The types of approaches which are most effective are those which

¹⁵ Source: AMRC. September 2006. Analysis of User Pay System Costs in Ontario (E&E project 191)

charge householders by the size of garbage container, limit the number of bags which can be set out, or charge for each bag, so that there is an economic incentive to reduce garbage set-outs.

The impacts of sustainable financing systems on overall waste management system costs, and on recycling costs in particular are less clear. The significant advantage of sustainable financing systems is that they force a full cost accounting discipline on the solid waste management group. All costs need to be fully allocated and identified, so that they can be recovered through the fees charged. No evidence was identified during the research that this necessarily leads to lower costs. Rather, it leads to a fully transparent costing approach.

9. Lessons Learned and Advice from Other Communities

While the design and implementation of a sustainable financing system for municipal solid waste management will vary from community to community, there are some valuable lessons learned and advice that can be gleaned from those communities that have implemented or explored their own sustainable financing approaches. The lessons learned and advice are summarized below and provided in more detail in Discussion Paper #6.

9.1 Pricing and Revenue Challenges

City of Victoria - When the City first implemented a one can PAYT program, it expected to partially fund its solid waste program through the sale of stickers. In the first year of the one can system, the City of Victoria charged a flat fee of \$90, expecting to sell 150,000 stickers at \$2.50 each and thereby generating \$375,000 to cover additional costs. It soon discovered that most residents needed only one can per week for their waste and did not need to purchase additional stickers. The City sold less than 15,000 stickers resulting in a revenue shortfall of over \$300,000. This resulted in a loss of revenue to the City which then needed to use general revenues to cover the loss. Since 1992, the city has incrementally increased the flat fee (from \$90 to \$132) in order to match revenues and expenditures.

City of Vancouver- City staff have determined that the cost of manually collecting additional bags of garbage rises significantly with an automated system as it requires the driver to get out of the truck. Staff expect that manual collection will more than triple the time taken to service a property. Therefore, for the sake of program efficiency, staff priced the stickers required for extra bags of garbage to reflect the higher costs of manual servicing and the true cost of collection. The new price of \$2.00 per sticker has resulted in fewer purchases compared with previous years.

City of Seattle- The City considered pricing all cans to reflect the true cost of service but this would have required the first can to cost more than each additional can. Instead, the City chose to adopt a linear variable rate structure whereby rates increased above the cost of service as the size of container (or level of service) increased. This approach encouraged customers to reduce their can size (or level of service) in order to reduce their subscription cost, which could be accomplished by diverting their waste through the City's recycling and composting programs. This also sent the message that garbage disposal has a high monetary and social cost.

City of St. Albert- The City experienced a revenue shortfall the first year of the program due to the overwhelming number of residents that subscribed to the lowest level of subscription of 1 can/week at \$3.00/month. The fees were not adequate at this subscription level to support the City's waste management operating costs therefore St. Albert had to adjust subscription levels to ensure revenue was adequate to offset all operating costs.

9.2 Service Requirements

Regional District of Nanaimo- Over time, residents have requested smaller containers at reduced rates; however, the difference in cost has turned out to be nominal for the Region to provide alternative service.

City of St. Albert- Over time, with all the different variable subscriptions options available to residents, the City's program has become very cumbersome from an administration perspective. With all the different options available to customers, staff have complained that half of the time spent signing up a customer to the service involves describing the different options. Furthermore, the variety of options has meant that the City has needed to revise its once simple administrative and tracking system to a much more complicated system which requires hand delivery of individual stickers to customers twice a year, in order to accommodate new accounts and prevent illegal use of unused tags (customers moving and passing along unused tags to their neighbours). Furthermore, the new system has resulted in nominal behaviour change. Over time the demand for a smaller subscription services has shifted only slightly

away from a larger subscription services.¹⁶ The city carried out a program review in 2008 in an attempt to simplify its garbage subscription system.

9.3 Summary of Lessons Learned that are Applicable to Ontario Municipalities

A number of lessons can be gleaned from communities studied in this project:

- Many of the communities studied have experienced major waste management system changes that required or instigated the redesign of their waste management financing structure resulting in adoption of flat fees and PAYT programs.
- Often the flat fees were introduced at the same time as a PAYT program with the intention to reduce the amount of waste going to landfill and increase diversion rates.
- Most of the communities are required to achieve net zero waste management budgets which requires the application of full cost accounting methods in order to better understand true operational costs and revenues associated with providing waste management services.
- Most communities operate their waste management departments or entities as separate cost centres from other city departments or programs.
- Most communities have implemented uncomplicated PAYT programs and have made nominal changes to these programs over time.
- Most communities studied have removed all waste management costs from property taxes or are in the process of doing so.
- As the full PAYT programs mature, there is pressure to offer smaller containers or reduced service at reduced rates.
- Most communities studied have had problems estimating the sales of tags in the first year of a PAYT program, often resulting in revenue shortfalls.
- Multi-use buildings tend to be considered commercial properties and are required to seek garbage collection services from private service providers.

¹⁶ One of the reasons is that, unlike the City of Seattle, the City of St. Albert has not adopted an inverted subscription rate approach. The fees cover all costs associated with providing waste management services. This fee setting approach means that fee increases have generally been higher for the lower service levels than the higher subscription services.