

# WASTE MANAGEMENT BRANCH

## AMPW - Waste Management Branch 2010 Operating Budget

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# BRANCH OVERVIEW

## 1. OUR ROAD MAP

### 1.1 Overview

Edmonton's waste management system has evolved from a single focus on burying waste in landfill just 20 years ago, to today's integrated, sustainable system that diverts up to 60% of residential waste from landfill.

Edmonton is positioned as an international leader in urban waste solutions guided by:

- (1) City Council and Council Committees,
- (2) ongoing input from residents,
- (3) the Waste Management Policy,
- (4) the Waste Management Strategic Plan, and
- (5) the Waste Management Bylaw 13777.

Our long term leadership position will not be maintained by what we have achieved to date. To do so to the benefit of our residents and businesses requires a commitment to future developmental research in areas such as the economical production of higher value alcohols from waste, (not just methanol or ethanol). Such solutions will further Council's commitment to environmental sustainability as demonstrated today with closed loop-recycling initiatives.

Through this commitment to excellence and in meeting the service needs of residents, the Waste Management Branch directly contributes to City Council's strategic goal, Preserve and **Sustain Edmonton's Environment**. With a focus on innovation, the Branch also contributes to City Council's strategic goal, **Diversify Edmonton's Economy**. The Branch has achieved significant success in attracting new green businesses to the city such as Global Electric and Electronic Processors (GEEP). Businesses bring new technology, create jobs and contribute to the City's financial sustainability.

The Waste Management Branch has consistently placed a high priority on environmental protection in delivering services. In 2006, the Branch received ISO 14001:2004 Certification for its Environmental Management System and was recently recertified.

Notwithstanding this success, the main focus of the Branch is the consistent delivery of responsive, cost-effective services for Edmonton. These include collection services, processing and disposal services, and supporting education and engagement programs. Through a judicious blend of private and public sector provided services, the **Branch garners some of the City's highest satisfaction ratings for less than \$1 per day per household.**

### 1.2 Relationship with Residents

Residents play a critical role in the success of our integrated waste management system.

- Unlike hundreds of municipalities in North America, they have gone beyond saying green, they do green.
- The waste reduction they achieve through backyard composting,

## Mission

“To provide waste management services for the City of Edmonton with due regard to the needs of residents, the preservation of natural resources, the protection of the environment and the financial capabilities of the City.”

Residents “do” green ►



# BRANCH OVERVIEW

- grasscycling and reuse is approximately 25,000 tonnes per year.
- Their participation rates in voluntary programs such as recycling are among the highest in North America.
- They volunteer over 5000 hours each year and serve as ambassadors for the Branch.

By facilitating their engagement, the Branch has built a collaborative relationship with residents and a strong sense of community pride in Edmonton's waste management achievements. In keeping with this close connection to community and our corporate commitment to diversity and inclusion, the Branch is engaged in establishing a long term relationship with a not-for-profit organization to provide specific services at the Edmonton Waste Management Centre employing residents in need.



Composting

## 1.3 Major Service Programs

The Waste Management Branch develops and delivers waste management services with due regard to the needs of residents and businesses and in close alignment with Council's 30-Year Vision. Services are provided under two programs, **Collection** and **Processing and Disposal**. Details of these two major service programs are provided in subsequent sections of this budget document.

### Major Service Programs

#### Collection

Provision of waste and recyclable collection service for the residential and business sectors of Edmonton.

Management of conveniently located drop off facilities for waste, recyclables and household hazardous wastes.

#### Processing and Disposal

Provision of processing and disposal services for waste and recyclables through highly integrated facilities and programs at the Edmonton Waste Management Centre.

The major services are delivered as a fully integrated waste management system. 2010 is a milestone year reflecting required system and demographic related changes. Edmonton will be well positioned towards its goal of 90% diversion of residential waste from landfill and provide further reason for pride in our City as an international waste management leader.

### 2010 System Milestones

1. The first two phases of the new Integrated Processing and Transfer Facility will be fully operational including the hauling of waste to landfill in Ryley necessitated by the closure of the Clover Bar Landfill. This closure is further discussed in Section 1.5
2. Assisted Collection service will be fully implemented.
3. The Biofuels (Gasification) Facility will be under construction.
4. The Advanced Energy Research Centre will open.
5. The new Southwest Eco Station will be fully operational with a reuse service for residents.
6. The Greys Recycling Facility will be built.



#### 1.4 Service Objectives for 2010

Milestones #1 and #2 are the specific new service objectives for 2010.

**Objective** - *To maintain service levels while adapting to the closure of the Clover Bar Landfill.*

The availability of an on-site landfill has historically provided a flexible and low cost way to adapt to our customers' varying quantities and types of waste. This option must now be replaced by other operations to receive and process material, either diverting it from landfill or transferring it to a distant landfill.

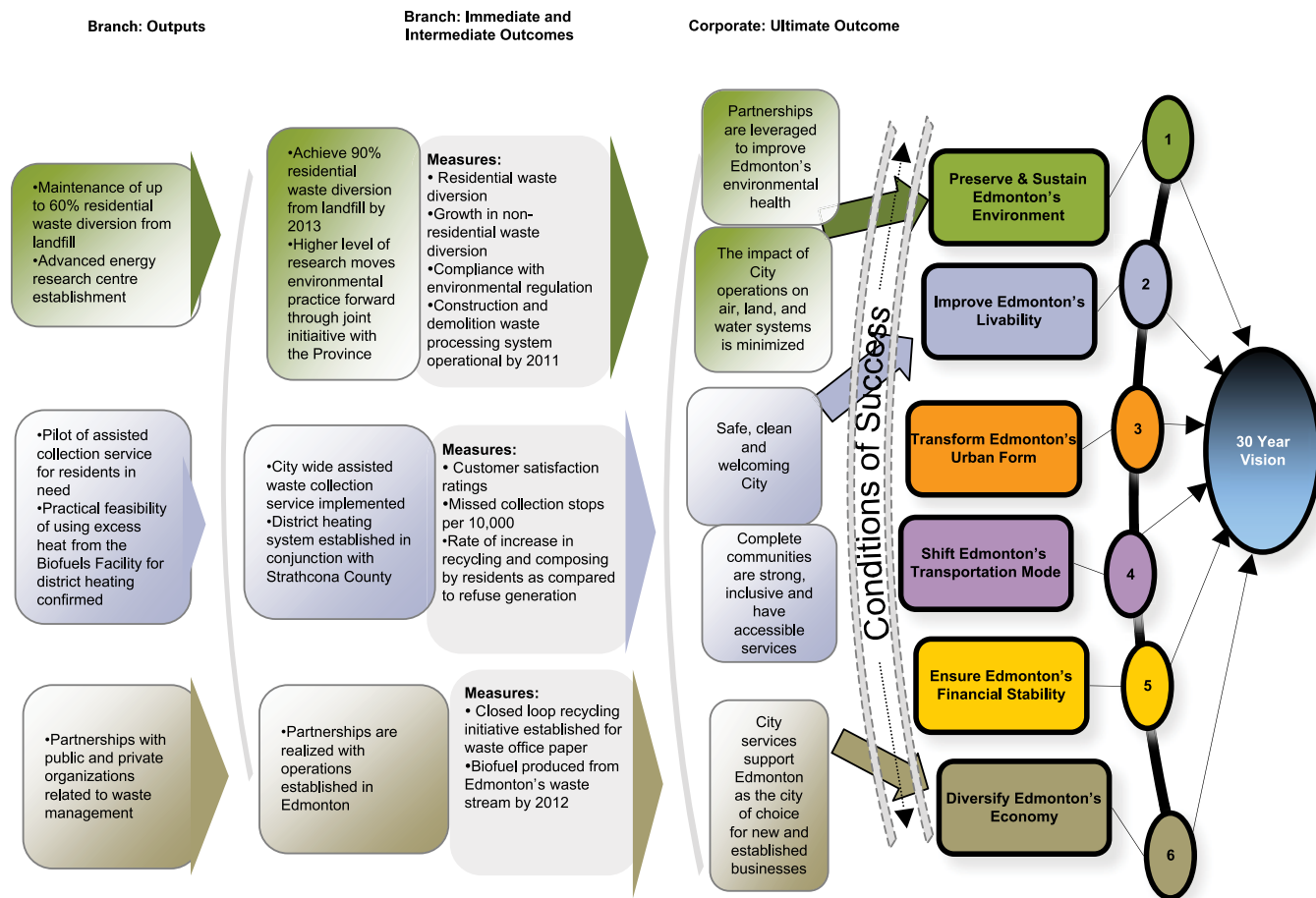
An important initiative to maintain service levels is the development and operation of the Integrated Processing and Transfer Facility (IPTF). This operation provides the ability to receive and handle most materials formerly delivered to the Clover Bar Landfill and at anticipated higher traffic volumes. The IPTF is further explained in Section 3 of this budget document.

**Objective** - *To fully establish the Assisted Collection service.*

City-wide provision of the Assisted Collection Service in accordance with the Waste Management Policy will follow from the pilot implemented in 2009. This door-side collection service will be provided to residents with demonstrated need living along curbside collection routes. It will meet a need to assist an identifiable sector of our residential community, a large portion of which are senior citizens. Alberta Health Services will assist in targeted dissemination of information.

# BRANCH OVERVIEW

## 1.5 Expected Outcomes from Services



The delivery of the major service programs enables the commitment to excellence (through initiatives such as the Edmonton Waste Management Centre of Excellence) and outcomes that are environmental,

social or economic in nature. The outcomes emerge from the foundation of the range of services provided for residents and businesses under each program.

Immediate Outcome	Intermediate Outcomes	Ultimate Outcomes
<ul style="list-style-type: none"> <li>Maintain up to 60% residential waste diversion from landfill.</li> <li>Establish advanced energy research centre.</li> </ul>	<ul style="list-style-type: none"> <li>Achieve 90% residential waste diversion from landfill by 2013.</li> <li>Higher level of research moves environmental practice forward through joint initiative with the Province.</li> </ul>	<ul style="list-style-type: none"> <li>Edmonton continues to be a national leader in environmental protection as it relates to waste management practices.</li> </ul>
<ul style="list-style-type: none"> <li>Assisted Collection Service for residents in need piloted.</li> <li>Confirmation of the practical feasibility of using excess heat from the Biofuels Facility for district heating.</li> </ul>	<ul style="list-style-type: none"> <li>City-wide assisted waste collection service implemented.</li> <li>District heating system established in conjunction with Strathcona County.</li> </ul>	<ul style="list-style-type: none"> <li>The quality of life for Edmonton and region is enhanced by waste management programs.</li> </ul>
<ul style="list-style-type: none"> <li>Establish partnerships with public and private organizations.</li> </ul>	<ul style="list-style-type: none"> <li>Partnerships are realized with operations established in Edmonton.</li> </ul>	<ul style="list-style-type: none"> <li>Environmentally responsible businesses are attracted to invest in Edmonton.</li> </ul>



## 1.6 Most Significant Driver for Change

The task of achieving these outcomes should be viewed against the challenges of the significant change in the waste management system over the period 2008 to 2013. The City is transitioning to increased waste processing to reduce the amount of waste requiring haul and disposal at a distant landfill. The change is required because of the closure of the Clover Bar Landfill and the pending closure of the West Edmonton Landfill. After an additional 10 years of use made possible by a commitment to waste reduction and diversion from landfill through recycling and composting, the Clover Bar Landfill finally reached capacity after serving Edmonton and region for 35 years.

The cost of using the long-ago developed capacity of the Clover Bar Landfill has been very low, with

costs of less than \$25 per tonne. This has provided Edmonton with a very low-cost way to manage its waste stream. That era is over. Landfill disposal of waste will now cost between \$60 to \$70 a tonne, via a transfer haul system, to a landfill an hour's drive from Edmonton.

The change is a significant driver of the increase in user fees to 2013 but it will also establish the platform for controlling the increases in user fees post 2013. This change also provides the opportunity to examine and participate in modest business opportunities that could realize net revenue to be applied to reducing operating costs and by extension, reducing residential monthly utility user fees in future years.

## 1.7 Revenues/Cost Reduction/Efficiency Initiatives

The 2010 Budget reflects new revenue sources from business opportunities, and efforts to reduce the cost of transition and other aspects of the waste management system. It also reflects ongoing initiatives to deliver an efficient waste management system.

	\$(000)
<b>Revenue Initiatives</b>	
Composting Facility carbon offset credits _____	\$ 1,500
Enhanced non-residential waste collection _____	450
Net construction and demolition waste recycling (based on 2010 Provincial Program start) _____	1,200
<b>Operating Cost Savings Initiatives</b>	
Replacement of over-aged collection vehicles to provide collection efficiencies _____	860
Delay by one year the expansion of the litter-free alley pilot into additional alleys in Downtown and Old Strathcona _____	393
Delay by one year expansion of litter collection service to assess the effect of operational changes introduced in 2009 _____	240
Revised project scheduling _____	(350)
<b>Efficiency Initiatives</b>	
Using modern GPS technology and optimizing collection zones and routes to improve collection efficiency _____	300
Establishing in-house operations to replace ongoing wood grinding contracts _____	250
Using in-house resources for white goods Freon removal _____	170
Optimizing compost windrow turning _____	600
<b>Total Revenues/Cost Reduction/Efficiency Initiatives _____</b>	<b>\$ 5,613</b>

Additionally, the replacement of revenue with self-liquidating debt financing for capital projects results in an expenditure saving of \$2.8 million in 2010.

**The result of these efforts is a 15% reduction in the user fees required in 2010 from \$34.50 per month (contemplated when Council approved the 2009 Budget) to \$29.85.**



# BRANCH OVERVIEW

## 1.8 Recommended 2010 Operating Budget

Overall, the multi-year financial outlook for the Waste Management Utility is sound for a very new utility. Three factors lead to this conclusion:

1. All closure and maintenance obligations related to the closed Clover Bar landfill are funded.
2. The Waste Management Reserve will permit a staged implementation of fee increases.
3. Grant funding to support processing initiatives is in hand and will continue to be sought.

With completion of the transition to a full utility in 2009, a fiscal policy now needs to be formalized. A Waste Management Fiscal Policy will be developed for Council's approval in 2010. Any financial impacts resulting from the policy review will be phased in and will not impact the Utility's 2010 Budget.

### Waste Management - Program Summary

	2008 Actual	2009 Budget	Revenue & Cost Impacts	Service & Delivery Changes	Growth	2010 Budget	% Change '09-'10	2011 Forecast
<b>Revenues</b>								
<sup>1</sup> User Fee Revenue	48,102	86,858	3,220	8,179	499	98,756	13.7	108,081
<sup>2</sup> Operations Revenue	20,907	20,942	(2,386)	5,785	-	24,341	16.2	31,837
Tax Levy (2008)	29,412	-	-	-	-	-	-	-
Grants	205	-	-	-	-	-	-	-
<sup>3</sup> Transfers from Reserves	-	10,520	-	(4,027)	-	6,493	(38.3)	606
<b>Total Revenues &amp; Transfers</b>	<u>98,626</u>	<u>118,320</u>	<u>834</u>	<u>9,937</u>	<u>499</u>	<u>129,590</u>	<u>9.5</u>	<u>140,524</u>
<b>Expenditures</b>								
Collection Services	39,682	49,804	923	1,817	499	53,043	6.5	58,193
Processing & Disposal Services	<u>58,944</u>	<u>68,516</u>	<u>(89)</u>	<u>8,120</u>	<u>-</u>	<u>76,547</u>	<u>11.7</u>	<u>82,331</u>
<b>Total Expenditures &amp; Transfers</b>	<u>98,626</u>	<u>118,320</u>	<u>834</u>	<u>9,937</u>	<u>499</u>	<u>129,590</u>	<u>9.5</u>	<u>140,524</u>
<b>Full-time Equivalents</b>		<b>365.5</b>	<b>1.0</b>	<b>46.2</b>	<b>1.0</b>	<b>413.7</b>		



**Explanatory Notes**

**1 User Fee Revenue**

User fee revenue will remain the major funding source for the Branch. A single family monthly user fee of approximately \$36 is projected to be required by 2013 to fully fund the impact on operations from the depletion of landfill capacity in Edmonton. This increase is being phased-in over a 3-year period by drawing against the Waste Management Reserve. Capital development costs of \$120 million (Approved 2009 -11 Capital Budget) and \$19 million (projected 2012 to 2013) at the Edmonton Waste Management Centre are required primarily to develop the replacement operations for the Clover Bar Landfill that reached operational capacity in August, 2009. Beyond this transition period of 2009 to 2013, increases in fees will be comparable to inflation.

Currently, the monthly waste service fees are \$26.59 per single family residence and \$17.29 per multi-family residence. This budget reflects an increase to \$29.85 per single family residence and to \$19.40 per multi-family unit effective January 1, 2010.

**2 Operations Revenue**

Operations Revenue includes facility user fees, revenues from sale of recyclables, greenhouse gas credits, and other revenues. User fees for drop-off services at the Edmonton Waste Management Centre (EWMC) will increase incrementally over the next three years in keeping with market forces and revenue needs. The increase at the EWMC will not apply to homeowners. User fees for Eco Stations will increase at rates comparable to inflation. These increases along with revision of fees for collection services provided primarily to small businesses and unchanged in six years, will be recommended in a subsequent Rates Bylaw to be prepared for Council's consideration once this Operating Budget is approved by Council.

Revenue from recyclables is expected to decline by \$2.39 million based on current market conditions. This reflects a 45% reduction from previous years. A return to 2007 levels of revenue from recyclables is not projected in the short term.

All revenue sources and projections are presented in Section 5, Revenue.

**3 Transfer from Reserve**

As indicated under User Fee Revenue, in order to phase-in the impact of the closure of landfills in Edmonton, a draw from the Waste Management Reserve is required. The amount of the draw will be reduced significantly in 2011, after which it will no longer be required.

**4 Expenditures**

The major service programs, Collection and Processing and Disposal, are described in subsequent sections in this budget to provide greater understanding of revenues, costs, and recoveries associated with the services provided.

**Supplementary Notes**

**1. Branch Operations Support**

A total of \$7.5 million is needed for the support services provided to the Collection Services and Processing & Disposal Operations. Further discussion of support costs is provided in Section 4.



Litter Collection

**2. Branch Contributions**

The recommended budget also includes a continued commitment by the Utility of approximately \$2.0 million to fund existing litter management including litter collection in business districts, Big Bin Events, neighbourhood clean-up and other initiatives in support of Capital City Clean Up. Litter management is a service that benefits the whole community and cannot be charged specifically to the people who "use" (or create the need for) the service. In that sense, it is a service provided to benefit the broader community and historically paid for by property taxes. Since it is now funded through user fees, it is essentially a contribution made by the Waste Management Utility to the City.

Also, the recommended budget includes a continued commitment to funding a recycling service for the City's operations and offices by the Waste Management Utility. The annual cost of \$300,000 is rationalized as a component of the Utility's budget as a contribution to the Corporation.

**Key Consideration**

Council could consider adding back \$393,000 to the recommended 2010 Operating Budget to continue expansion of the litter-free alley pilot into additional alleys in Downtown and Old Strathcona.

This would add approximately a 0.5% rate requirement to the Proposed 2010 Budget. The add back is not recommended by Administration.

(Reference Section 1.7)



# BRANCH OVERVIEW

## 1.9 Service Comparisons

The proposed budget reflects a range of services provided to our residents that are not directly comparable to regional municipalities or jurisdictions in other parts of North America. For example, some regional municipalities rely partially on services

provided in Edmonton such as Eco Stations and most still have access to low cost landfill disposal.

The following chart provides information on four other municipalities and attempts to convey the differences in the level of service provided

City	Population	2009 Monthly Utility fee	Waste Services
Seattle	<b>602,000</b> (2009 estimate)	<b>\$66.90</b> (CDN) three 120 litre cans \$8.24 for each extra garbage bag, bundle or can	Recycling collection Organics collection Hazardous Waste - 3 drop off sites
Toronto	<b>2,503,281</b> (2006 census)	<b>\$28.50</b> 1 bin is equivalent to three large bags (plus \$209 in taxes)	Recycling collection Organics collection Hazardous Waste - 6 drop off sites
Edmonton	<b>782,439</b> (2009 neighbourhood census)	<b>\$26.59</b> single family, average annual set-out of 4 bags waste per collection	Recycling collection Organics collection Hazardous Waste - 3 Eco Stations and EWMC
Spruce Grove	<b>23,326</b> (2009 census)	<b>\$52.00</b> /bi-monthly limit of one 240 litre black bin	Recycling collection Organics collection Hazardous Waste - 1 collection centre Edmonton Eco Stations
Strathcona County	<b>87,998</b> (2009 census)	<b>\$18.00</b>	Recycling collection Organics collection Hazardous Waste – summer collection events Edmonton Eco Stations

A direct comparison of services cannot be made between jurisdictions since type and frequency of service and commitment to sustainable landfill diversion systems vary considerably. Landfill diversion initiatives such as recycling are more expensive than landfilling. Additionally, cost accounting varies

between municipalities. Edmonton is one of the few municipalities in Canada whose reported waste management fees reflect the true full cost accounting by including allocations for shared services, property management, and central management charges.



## 1.10 Accountability to City Council and Residents

The Branch's performance measures are consistent with overall outcomes and Council's 30-year Strategic Goals.

Measures	Targets
Service is responsive, dependable and equitable	<ul style="list-style-type: none"> <li>• Customer satisfaction ratings greater than 85%.</li> <li>• Missed collections 4 or less per 10,000 stops.</li> <li>• Grow diversion of non-residential waste by 5 to 10% per year over the previous year.</li> </ul>
Edmonton demonstrates leadership in environmental protection	<ul style="list-style-type: none"> <li>• Diversion of residential waste 90% by 2013.</li> <li>• 100% compliance with environmental permits and regulation.</li> <li>• Biofuel produced from Edmonton's waste stream by 2012.</li> <li>• Construction and Demolition waste processing system operational by 2011.</li> </ul>
The Waste Management system is affordable to residents	<ul style="list-style-type: none"> <li>• Cost per single family household per day less than \$1.</li> </ul>
The Waste Management System exemplifies beneficial synergistic programs, technologies, and partnerships	<ul style="list-style-type: none"> <li>• Rate of increase in recycling and composting by residents no less than the rate of increase in refuse generation.</li> <li>• Closed-loop recycling initiative established for waste office paper.</li> </ul>

# MAJOR SERVICES - COLLECTION SERVICES

## 2. MAJOR SERVICE - COLLECTION SERVICES



# MAJOR SERVICES - COLLECTION SERVICES

Provide waste and recyclable collection service for the residential and non-residential sectors, and to manage conveniently located drop off facilities for waste, recyclables and household hazardous wastes.

## 2.1 Responsibility

In Edmonton, waste and recyclable collection services for residential and non-residential customers are currently provided in three ways:

- by City staff of the Waste Management Branch serving the residential sector and incidental businesses;
- by staff of private companies contracted by the City to help serve the residential sector and incidental businesses; and
- by staff of private companies independently serving the non-residential sector.

While current service provided directly by the Waste Management Branch is focused on the residential sector, a more defined presence in the non-residential sector will commence in 2010. This will influence collection services that include convenient recycling opportunities. Services to be delivered in 2010 include:

- Refuse collection for all single family homes, and multi-family apartments and condominiums.
- Recyclables collection for all single family homes and multi-family apartments and condominiums.
- Refuse and recyclables collection for incidental small business customers who can use bags or cans.
- Eco Stations.
- Community Recycling Depots.
- Litter Basket Collection for Business Revitalization Zones and other commercial areas.
- Big Bin Events for large items.
- Assisted Collection
- Management of assets including 9,750 containers and 120 vehicles.
- Collection services for institutions and City facilities.
- Targeted collection services for non-residential sector.

An integral component of Collection Services is the support provided by the Branch's centralized Community Relations Section to educate residents on the Waste Management Bylaw, on how to properly prepare refuse and recyclables for collection, on Eco Stations use for household hazardous waste and on Big Bin Events for large items. Education is critical to operational efficiency of the overall integrated waste management system and the safety of collectors. Support is also provided to customers to establish new collection services and customer accounts and to arrange for multi-family refuse or recycling bins.





## 2.2 Issues and Challenges

### Personnel Management

Though there has been some recent relief, the ongoing challenges in attracting and retaining skilled staff in Alberta to do a physically demanding occupation (collecting waste).

### Contract Management

The need to manage the uncontrollable variables of growth and changes in the waste management industry in Alberta.

### System Management

Variables influencing resource requirement and deployment include population growth and geographic expansion of service areas, customer needs and site logistics, traffic congestion, technological advancement, legislative requirements including environmental operating permits and Eco Station capacity.

### Asset Management

The operational and financial challenges of managing an inventory of thousands of containers located throughout the City and the increase in pieces of equipment needed to service a growing City; managing the financial impact of fuel prices in operating a large fleet of vehicles that is always on the move; and managing the need for operator training while maintaining essential collection services.

### Customer Service Expectation

Managing the expectations of residents within the context of maintaining an equitable City-wide service regardless of growth patterns.

Overall, operation of this major service requires judicious use of available capacity to balance growth in demand for current services with customer interest in enhanced services.

## 2.3 Opportunity to Excel

In conformance to the Waste Management Policy and in consideration of the needs of residents who want to participate in waste management initiatives in Edmonton but are physically unable to do so, a service to provide assisted collection to this demographic was introduced in 2009. The service consists of the collection of waste and recyclables from the door of these residents and current plans are to offer this service to all areas of our City by the end of 2010. Recipients of the new assisted collection service are expected to be predominantly senior citizens.

The service delivery model also provides a potential opportunity to efficiently collect household hazardous waste for proper disposal and further advance efforts in protecting our environment.

The anticipated cost for a City-wide service of \$650K annually represents 1.2% of the annual collection budget for Collection Services. The incremental increase required in 2010 is \$308K.

### Key Consideration

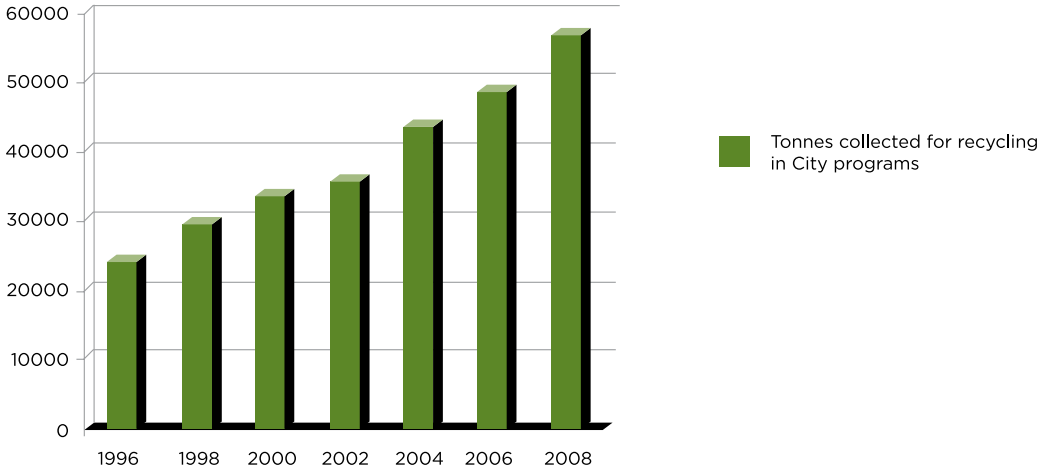
Complete the roll out of City-wide Assisted Collection as included in the 2010 Operating Budget with a total annual cost of \$650K (incremental cost of \$308K over 2009).

The cost of the 2010 expansion of the program increases the rate requirement by 0.3%, which has been included in the Proposed 2010 Budget. Continuation and expansion of the program is recommended.

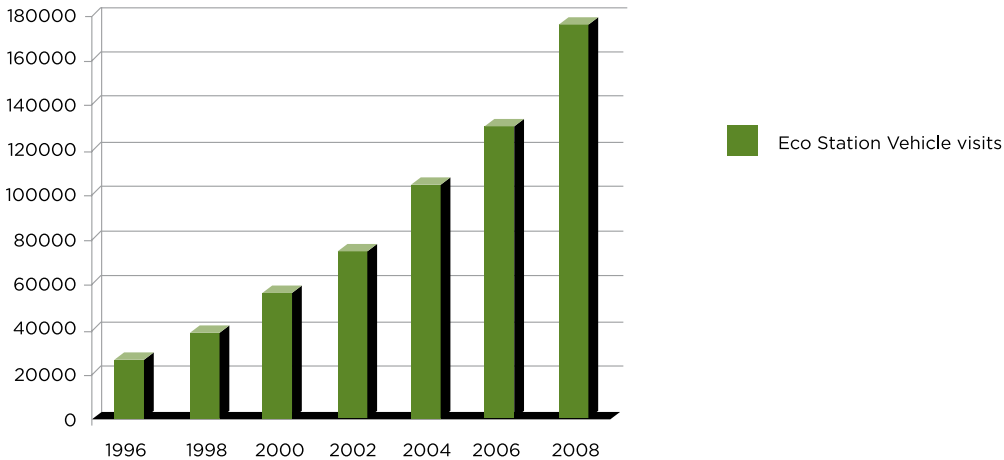
# MAJOR SERVICES - COLLECTION SERVICES

## 2.4 Current Services

### Recycling Collected



The need for collection services continues to grow. Edmonton's per capita residential waste production (including recyclables) grew slightly, from 0.363 tonnes per person per year in 1997 to 0.379 tonnes per person per year in 2008. However, the proportion of recyclables in the residential waste stream has increased from 11.9% in 1990 to 20% in 2008. The growth in customers at Eco Stations continues to exceed growth in population. Use of Eco Stations grew from 30,000 customers in 1996 to 175,000 in 2008.







Main Services	Performance/Outputs
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**Collection Programs**

Collection of waste and recyclables from single family homes and incidental small businesses using garbage cans, garbage bags and blue bags.

Collection of multi-family waste and recyclables using bins, brown for garbage and blue for recyclables.

- 18,000,000 single family collections annually throughout the City.
- 220,000 tonnes of residential solid waste collected.
- 47,000 tonnes of recyclables collected.
- 324,000 single and multi family households served.

**Drop-Off Programs**

Eco Stations operating under environmental permits where residents can dispose of waste including large items, recyclables, electronic and electrical items, paint and household hazardous waste. A paint exchange is operated at all stations and in 2010 a large item reuse operation will be started. Big Bin Events strategically located on week-ends throughout the City from spring to fall.

Neighbourhood Recycling Depots strategically located throughout the City made available for all residents and small businesses.

Reuse Centre located centrally to provide opportunity to reuse small items not acceptable in regular recycling programs.

- 3 Eco Stations operated year-round with excellent customer satisfaction rating of 95%
  - 12 Big Bin Events annually on week-ends with 2,000 tonnes collected.
  - 22 Community Recycling Depots City-wide available 24/7.
  - 8,900 tonnes recyclables collected from depots.
  - 1 Reuse Centre available year-round. 90% of material reused or recycled.
- 350 volunteers provided more than 5,000 hours through the Master Composter/Recycler Program and the Reuse Centre to support Branch needs.

**Litter Management Programs**

Litter collection from containers located along main thoroughfares in commercial areas, primarily business revitalization zones, and adjacent neighbourhoods where warranted, e.g., Oliver.

Litter collection from containers located around businesses participating in the Capital City Clean Up Business Supporting Community program.

- 1,450 litter containers serviced year-round.
- 70 business locations serviced in Business Supporting Community program.

# MAJOR SERVICES - COLLECTION SERVICES

## 2.5 Service Levels

Current (2009) Service Level	Key Resource Requirements 2010 budget	Capacity of Service	Benefits of Service
<b>1. COLLECTION PROGRAMS</b>			
<p>For <b>single family collection</b> frequency is every 8 working days in the non-peak (winter) months, and every 5 working days in peak (summer) months.</p> <p>For <b>multi-family collection</b>, frequency is based on site requirements</p>	<p><b>Personnel:</b> 143 FTEs including front-line labour, inspectors, engineers, administration and management.</p> <p><b>Mobile Equipment:</b> 100 vehicles including waste collection vehicles, bin collection vehicles, and light duty vehicles.</p> <p><b>Contracted Services:</b> \$11.6 million annual curbside waste collection contract for servicing half of the City of Edmonton, \$5.3 million annual for multi-family waste collection contract.</p> <p><b>Assets</b> 7,200 waste bins owned and maintained by the City of Edmonton.</p>	<p>For single family service delivery, each crew collects up to 600 households per shift. Service is split equally with contractors</p> <p>For multi-family service delivery, contracted crews provide the majority of the service.</p>	<p>Continue to meet expectations for excellent customer service and for efficient and effective services that help to maintain a healthy community.</p>
<b>2. DROP-OFF PROGRAMS</b>			
<p>Operating hours for <b>Eco-Stations</b> are:</p> <p><b>Summer</b> April to October, 9am to 6:30pm, Monday to Saturday.</p> <p><b>Winter</b> November to March 9am to 4:30pm, Tuesday to Saturday.</p> <p><b>12 Big Bin Events</b> strategically located throughout the City from spring to fall.</p> <p><b>22 Neighbourhood Recycling Depots</b> strategically located throughout the City.</p>	<p><b>Personnel:</b> 69 FTEs including front-line labour, engineers, administration and management.</p> <p><b>Mobile Equipment:</b> 15 pieces of equipment including collection vehicles, transport van, skid steer equipment and light duty vehicles.</p> <p><b>Contracted Services:</b> \$1.7 million annual off-site processing contracts of material received through Eco Station Program.</p> <p><b>Assets:</b> 850 waste bins and containers for Eco Stations, Depots and Big Bin events owned and maintained by the City of Edmonton.</p>	<p>187,000 customer visits per year to Eco Stations and Big Bin Events.</p> <p>All services with exception of processing of special wastes from Eco Stations are performed by City crews.</p>	<p>Handle recyclables, refuse, and Household Hazardous Waste (HHW) in an environmentally responsible manner.</p>
<b>3. LITTER MANAGEMENT PROGRAMS</b>			
<p>Service provided at a frequency of 2 to 7 days per week depending on location in the City.</p>	<p><b>Personnel:</b> 20 FTEs including front-line labour, administration and management.</p> <p><b>Mobile Equipment:</b> 11 vehicles including litter collection vehicles.</p> <p><b>Contracted Services:</b> \$110,000 annual litter basket maintenance and other service related.</p> <p><b>Assets</b> 1,750 litter containers owned and maintained by the City of Edmonton.</p>	<p>Each crew services a minimum of 300 litter baskets in one shift</p>	<p>Contribute to a clean and healthy City by maintaining litter service in high pedestrian areas.</p>



## 2.6 Strategic Initiatives

### Strategic Initiative #1 – Alternate Fuel Sources

10 Year Strategic Goal/ 3 Year Priority Goal	Initiative	Outcomes	
		Immediate & Intermediate	Ultimate
Preserve and sustain Edmonton's environment by decreasing the consumption of non-renewable resources in city operations.	<b>Alternate Fuel Sources</b> Demonstrate (pilot) effective use of landfill gas currently extracted from Clover Bar Landfill and ethanol produced from solid waste at the planned Biofuels Facility to fuel waste collection vehicles.	Partnership funding secured and pilot demonstrates feasibility of using biofuels in civic equipment.	Edmonton continues to be a national leader in environmental protection as it relates to waste management practices.

#### 2010 BUDGET IMPACT

<b>Base</b>	Capital budget of \$500K (\$250K City and \$250K potential partner) for vehicles and fueling system and \$1.5 million (potential grant) for processing system. These are capital costs and as such not added to the base operating budget.
<b>Incremental</b>	Actual impact on the base operating budget is expected to be an incremental amount of less than \$100,000 for equipment and labour costs.

**Key Consideration** Continue the Alternate Fuel Sources Strategic Initiative as planned for 2010 with \$250,000 in capital expenditures and \$100,000 in operating expenses. The operating impact of 0.1% increase in rate requirement is included in the Proposed 2010 Budget. Continuation of the Strategic Initiative is recommended by Administration.

### Strategic Initiative #2 – Commercial Waste Diversion from Landfill

10 Year Strategic Goal/ 3 Year Priority Goal	Initiative	Outcomes	
		Immediate & Intermediate	Ultimate
Preserve and sustain Edmonton's environment by increasing and broadening advancement towards zero waste.	<b>Establish Demonstration Commercial Collection Service</b> Establish strategic presence in commercial collection with service for full collection and handling of refuse and recyclables.	Resources are established and maintained to demonstrate financial feasibility of commercial waste diversion.  Pending market forces, up to 70 % diversion of waste collected.	Edmonton continues to be a national leader in environmental protection as it relates to waste management practices.

#### 2010 BUDGET IMPACT

<b>Base</b>	Projected expenditure is estimated at \$216,000 and is included in the 2010 budget.
<b>Incremental</b>	In 2010, a development year, revenue is expected to cover 43% of operating expenditures. Any incremental increase above planned expenditure will occur only if covered by offsetting revenue.

**Key Consideration** Initiate a commercial collection service as outlined in the Commercial Waste Diversion from Landfill Strategic Initiative with a planned expenditure of \$216,000 (offset by \$93,000 in revenue) in 2010. This slightly greater than .190% rate impact is included in the Proposed 2010 Budget. Initiation of the service is recommended.

# MAJOR SERVICES - COLLECTION SERVICES

## 2.7 Recommended 2010 Operating Budget

### Waste Management - Collection Services

	2008 Actual	2009 Budget	Revenue & Cost Impacts	<sup>1</sup> Service & Delivery Changes	<sup>2</sup> Growth	2010 Budget	% Change '09-'10	2011 Forecast
<b>Revenues &amp; Transfers</b>								
User Fee Revenue	7,186	46,588	1,163	1,539	499	49,789	6.9	54,606
Operations Revenue	3,084	3,216	(240)	278	-	3,254	1.2	3,587
Tax Levy (2008)	29,412	-	-	-	-	-	-	-
Grants	-	-	-	-	-	-	-	-
Transfers from Reserves	-	-	-	-	-	-	-	-
<b>Total Revenues &amp; Transfers</b>	<b>39,682</b>	<b>49,804</b>	<b>923</b>	<b>1,817</b>	<b>499</b>	<b>53,043</b>	<b>6.5</b>	<b>58,193</b>
<b>Expenditures &amp; Transfers</b>								
Personnel	13,030	16,240	427	1,029	94	17,790	9.5	19,517
Material & Equipment	1,201	919	(57)	94	-	956	3.9	1,048
Contracts	14,370	17,375	111	512	377	18,375	5.8	20,160
Fleet Services	7,885	9,074	224	(790)	28	8,536	(5.9)	9,364
UIS Charges	1,553	1,644	16	-	-	1,660	1.0	1,822
General Services	260	403	-	-	-	403	-	442
Intra-municipal Services	193	1,657	124	179	-	1,960	18.3	2,150
Utilities	319	459	62	(65)	-	456	(0.6)	500
Financial	552	1,847	-	860	-	2,707	46.6	2,971
Other	145	195	7	(2)	-	200	2.2	219
Transfer to Reserves	-	-	-	-	-	-	-	-
<b>Subtotal</b>	<b>39,508</b>	<b>49,813</b>	<b>914</b>	<b>1,817</b>	<b>499</b>	<b>53,043</b>	<b>80.8</b>	<b>58,193</b>
Intra-municipal Recoveries	174	(9)	9	-	-	-	-	-
<b>Total Expenditures &amp; Transfers</b>	<b>39,682</b>	<b>49,804</b>	<b>923</b>	<b>1,817</b>	<b>499</b>	<b>53,043</b>	<b>6.5</b>	<b>58,193</b>
<b>Full-time Equivalents</b>		<b>237.9</b>	<b>0.5</b>	<b>10.5</b>	<b>1.0</b>	<b>249.9</b>		



## Budget Changes for 2010 (\$000)

### Revenue Changes

\$ 2,701	Rate increase required to fund increased costs of Collection Services (\$1,163 relates to inflationary needs while \$1,539 is required for change in service delivery)
499	Growth in customer base
38	Other revenue changes
<u>\$ 3,238</u>	Total Revenue Changes

### Cost Changes

\$ 427	Inflationary - personnel
496	Inflationary - non-personnel
<u>\$ 923</u>	Total Cost Changes

### Service & Budget Review and Growth

\$ 1,817	Operational changes from centralizing transfer operations at the Edmonton Waste Management Centre, annualization of Ambleside Eco Station and Assisted Collection Services to full year operation, and impact of debt financing of capital projects.
499	Customer growth and servicing of additional litter containers in existing service areas.
<u>\$ 2,316</u>	Total Service & Budget Review and Growth

## Explanatory Notes

<sup>1</sup> Collection Services are impacted by a number of factors in 2010, including annualization of operations to full year, centralizing all transfer operations, and moving towards a 50% distribution of multi-family collection between in-house staff and external contracts.

The Ambleside Eco Station is expected to open in fall 2009, and the full year operational costs have been reflected in the Proposed 2010 Budget. Also included in full year costs is delivery of Assisted Collection to residents with demonstrated need.

With the closure of the Clover Bar Landfill, Processing and Disposal Services takes on full responsibility for transfer and hauling of materials to landfill. This function is now centralized at the Edmonton Waste Management Centre.

Also affecting the Proposed 2010 Budget is the increase in debt financing (principal and interest) of capital projects.

These increased expenditures are funded through increased rates.

<sup>2</sup> Growth relates to projected increase in collection services for single and multi-family residential customers and servicing of additional litter containers in existing service areas. The projection has been based upon the current economic outlook.

# MAJOR SERVICES - PROCESSING AND DISPOSAL

Provision of processing and disposal services for waste and recyclables through highly integrated facilities and programs at the Edmonton Waste Management Centre.

Edmonton Waste Management Centre



## 3. MAJOR SERVICES - PROCESSING AND DISPOSAL

### 3.1 Responsibility

These operations are key to the City's success in diverting waste from landfill, up to 60% of the residential stream in the short term and up to 90% by 2013.

The EWMC is a fully integrated waste management site where the focus is to process waste streams into reusable and marketable products. Waste that cannot be recovered is disposed at landfills where service is contracted. The City has a long term contract with the Beaver Regional Waste Management Services Commission for use of its landfill at Ryley and an agreement to access capacity at the private West Edmonton Landfill until its projected closure in 2012.

Facilities and operations at the EWMC are either owned by the City and operated by Branch and/or contracted staff or owned and operated by third-parties.

### Branch Operations

The Waste Management Branch is directly responsible for operation of the following programs and facilities.

- The EWMC site, including the truck scale/records/billing system, upkeep of roads and other infrastructure.
- The Homeowner Drop Off Facility - a convenient facility for citizens to dispose of or recycle various materials without going to the busy transfer station.
- The construction and demolition (C&D) waste recycling operation.
- The open-air component of the organics management program, including finishing of compost produced by the Edmonton Composting Facility (ECF), year-round composting of biosolids for the Drainage Services Branch and grinding of wood waste for use in the composting processes.
- The Integrated Processing and Transfer Facility - a major new operation providing the capacity to transfer waste to landfill, and to process waste for the Edmonton Composting Facility and the future Biofuels Facility.
- The haul of approximately 75% of the total materials destined for landfill with a fleet of highway trucks and trailers.

### Contracted Operations

The Waste Management Branch manages the following programs and facilities which are operated by contracted service providers.

- The Edmonton Composting Facility - processing residential waste to produce compost for agricultural and other uses.
- The Materials Recovery Facility (MRF) - sorting collected recyclable materials and marketing them.
- The compost marketing program - sales and services to sell, deliver and apply compost to various market sectors.
- The NutriGold biosolids-to-farmland program.
- The contracted hauling of approximately 25% of the total materials destined for landfill.





- Two landfill services contracts – an existing one for use of the West Edmonton Landfill and the relatively new long-term one for use of the Ryley Landfill.

### Private Operations

The following third-party owned facilities operate on the EWMC site:

- Electronic and Electrical Waste Recycling – operated by GEEP.
- Landfill Gas Recovery Facility – operated by EPCOR, producing 4.8MW of power from landfill gas.
- The University of Alberta Special Lab Waste Transfer Station – processing lab chemicals from various campuses/facilities to prepare for recycling or destruction at other locations.

The EWMC is also the base of operations for the Edmonton Waste Management Centre of Excellence, where much of the Branch's development work on improved processes and applications is conducted.

The Branch's centralized Community Relations Section delivers programs at the EWMC to support public participation and education initiatives. Key among them are the tours and education programs jointly funded with the Edmonton Public School Board, that provide 12,000 students and parents annually with instruction and first hand viewing of processing operations. Tours are also delivered to seniors groups and others interested in Edmonton's waste management processes. Through community relations efforts ongoing community input is garnered for planning and operation of the EWMC.

### 3.2 Issues and Challenges

**Landfill Closure** - The recent start-up of the transfer component of the Integrated Processing and Transfer Facility and establishment of a fleet of trucks and trailers to haul waste to distant landfill necessitates optimization efforts being carried out while delivering service seven day a week.

**Markets** - In 2008 global markets for recyclables collapsed, significantly reducing revenue from sale of recyclables in 2009. This impact is not expected to be alleviated in 2010.

**Waste Volume Variability** - The Edmonton Waste Management Centre (EWMC) is the main destination

for all municipally managed and some commercially managed waste materials in Edmonton and area. The City does not control private sector haulers of waste; therefore, the volumes delivered to EWMC annually are estimated. This makes it challenging to plan the optimum resourcing levels required to provide a responsive service.

**Partners** - The GEEP Facility, Landfill Gas Facility, and future Greys Paper and Biofuels Facilities are/will be owned/operated by others, some of whom are involved in contractual relationships with the Branch. The synergistic operational interfaces require varying degrees of management and support.

**Limited Land Availability** - The Edmonton Waste Management Centre is almost completely assigned with a variety of facilities and operations. While opportunities for future growth, including new partnerships, are expected, there is very little developable space remaining at the EWMC. A multi-year effort to obtain affordable land for expansion of the EWMC continues.

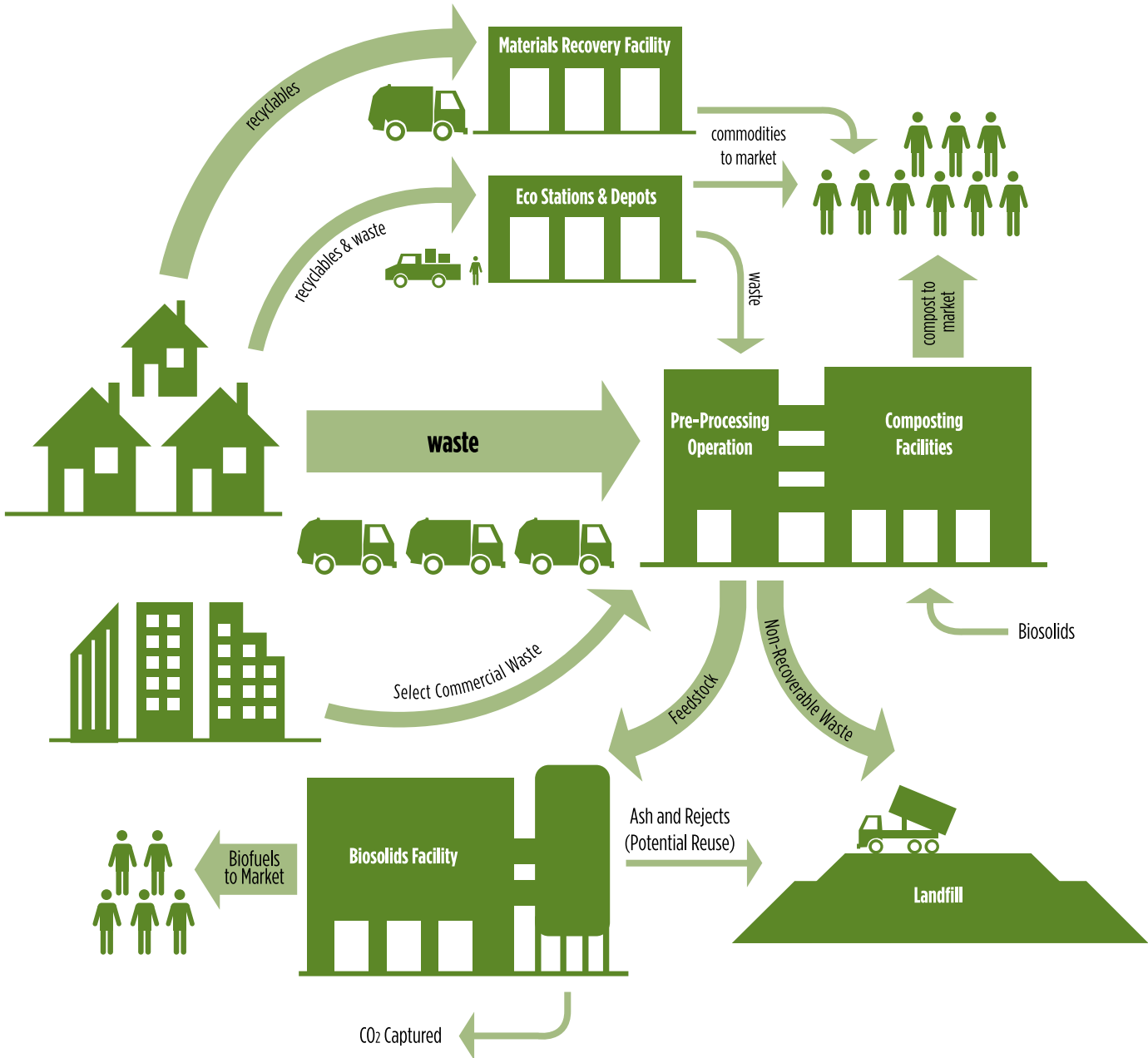
### 3.3 Opportunity to Excel

With landfill costs rising, the opportunity exists to invest in the capability to recycle and recover more from our waste at costs that will be offset by the larger savings of avoiding the landfill expense. Additionally, with cheap landfill no longer available, generators of waste, including the residents of Edmonton, will necessarily have to pay more to have their materials handled. At the higher costs, there are options other than landfill that can, for often small incremental costs, recover value from previously landfilled material.

The Branch has positioned itself to take advantage of these opportunities. Once fully implemented, these new capabilities will enable Edmonton to divert up to 90% of the residential waste stream from landfill by 2013. At the same time, the Branch will have the capacity to recover a growing stream of usable material from the commercial and construction and demolition waste streams. The following illustration shows how some of the components of the new system contribute to achieving these goals.

# MAJOR SERVICES - PROCESSING AND DISPOSAL

## 90% Diversion of Residential Solid Waste





Beyond the integrated components illustrated above, further opportunities for resource recovery at the EWMC include:

- The homeowner drop-off facility - where experience has shown that Edmontonians are happy to take advantage of multiple recycling opportunities offered, separating metals, organics, electronics and other materials from their waste so that the Branch can recycle them.
- The privately operated GEEP electronics recycling facility, where most of Edmonton's e-waste is processed with a material recovery rate of almost 100%.
- The construction and demolition (C&D) waste recycling area, where separated materials such as metals, wood, concrete, asphalt, brush, shingles and drywall can be delivered at a reduced fee, so that the Branch can easily process it for re-use - much of it within our own operations.
- On the horizon, the Greys paper and glass recycling plants, where a unique "closed-loop" opportunity will provide the City of Edmonton and Edmonton region businesses the opportunity to have their office paper re-processed into new paper products that they can then buy back to use in their operations. The glass process will provide a higher value option for the re-use of the glass Edmontonians already recycle, by having it incorporated into landscaping bricks which can then be bought and used in the community.

The EWMC is also the base of operations for the Edmonton Waste Management Centre of Excellence, through which much of the Branch's development work on improved processes and applications is conducted. Among the successes achieved at the Centre was the development of the street sand recycling technology which now enables the Transportation and Streets Department to divert thousands of tonnes of sand from landfill and save over \$6 million per year in the process.

### 3.4 Current Services

Main Services	Performance/Outputs
<p><b>Centralized Customer Service</b></p> <p>Processing delivery of loads of materials from City operations, City-contracted operations, commercial haulers, businesses and homeowners.</p>	<ul style="list-style-type: none"> <li>- In 2008, 180,000 loads were processed. Of those, an estimated 73,000 were citizens delivering debris generated from homes.</li> <li>- The Branch collected over \$12.5 million in revenues in 2008 from fees at the EWMC.</li> <li>- Only 2 service complaints relating to the EWMC were received in 2008.</li> </ul>

# MAJOR SERVICES - PROCESSING AND DISPOSAL

Main Services (con't)	Performance/Outputs (con't)
<p><b>Organics Processing</b></p> <p>Open-air component of the organics management program, including finishing of compost produced by the Edmonton Composting Facility (ECF), year-round composting of biosolids for the Drainage Services Branch and grinding of wood waste for use in the composting processes.</p> <p>Edmonton Composting Facility - processing residential waste to produce compost for agricultural and other uses - operated by contracted service provider.</p> <p>The compost marketing program - sales and services to sell, deliver and apply compost to various market sectors. Contracted service.</p> <p>The NutriGold biosolids-to-farmland program - operated for Drainage Services and coordinated with compost marketing efforts.</p>	<ul style="list-style-type: none"><li>- Since 2000, the organics program has processed over 1,258,000 tonnes of residential solid waste and 90,700 tonnes of biosolids. Approximately 0.4 tonnes of compost can be produced from 1.0 tonne of residential solid waste.</li><li>- Over 205,000 tonnes of compost have been used in civic operations or marketed.</li><li>- The organics program has reduced GHG emissions from landfill by over 700,000 tonnes since inception.</li></ul>
<p><b>Transfer Operations</b></p> <p>The first stage of the Integrated Processing and Transfer Facility providing the capacity to transfer waste to landfill.</p> <p>The haul of about 75% of the total materials destined for landfill with a fleet of highway trucks and trailers.</p> <p>The contracted hauling of the 25% balance of landfilled waste to destination landfills.</p>	<ul style="list-style-type: none"><li>- The new transfer operation is expected to handle about 200,000 tonnes in 2010, involving over 8,300 truckloads of material.</li></ul>
<p><b>Pre-Processing Operations</b> (Start early 2010)</p> <p>The second stage of the Integrated Processing and Transfer Facility, utilizing manual and mechanical means to process raw incoming waste to recover recyclables and prepare feedstock for the Compost Facility and for the Refuse Derived Fuel (RDF) operation.</p>	<ul style="list-style-type: none"><li>- Designed to process 100 tonnes per hour of mixed solid waste and recover an additional 20,000 tonnes of recyclable material. Once all facilities are operational, it will process about 250,000 tonnes of material per year.</li></ul>



Main Services (con't)	Performance/Outputs (con't)
<p><b>Refuse Derived Fuel (RDF) Operations</b> (Start 2011)</p> <p>The third stage of the Integrated Processing and Transfer Facility that produces the feedstock for the Biofuels Facility</p>	<ul style="list-style-type: none"> <li>- The operation will use mechanical processes to produce 100,000 tonnes per year of uniform feedstock that will ultimately be transformed to methanol then ethanol in the Biofuels Facility.</li> </ul>
<p><b>Materials Recovery Facility (MRF) Operations</b></p> <p>Processing of Blue Bag and Blue Bin recyclables.</p>	<ul style="list-style-type: none"> <li>- Since start up in 1999, the MRF has produced 310,000 tonnes of recycled commodities.</li> <li>- In 2010, it is projected to process 55,000 tonnes of material.</li> </ul>
<p><b>Homeowner Drop Off Operations</b></p>	<ul style="list-style-type: none"> <li>- A convenient opportunity for citizens to not only drop off trash, but to take advantage of opportunities to recycle metals, organics, tires, batteries, electronics and other materials and to drop off Household Hazardous Waste for safe disposal.</li> </ul>
<p><b>Environmental Operations</b></p>	<ul style="list-style-type: none"> <li>- The Branch is ISO 14001: 2004 certified. The EWMC operates under two approvals from Alberta Environment and one from the Canadian Food Inspection Agency which require diligent effort in environmental monitoring.</li> </ul>
<p><b>Research and Development</b></p> <p>The Branch works through the Edmonton Waste Management Centre of Excellence to conduct its research with the goal of improving the efficiency and performance of operations and to meet regulatory requirements.</p>	<ul style="list-style-type: none"> <li>- Among the successes of the research and development program is the development of the City's award-winning street sand recycling program, which is estimated to save the City over \$6M per year for the street abrasives program.</li> </ul>

# MAJOR SERVICES - PROCESSING AND DISPOSAL

## Main Services (con't)

### Management of other Private Operators

- Two landfill services contracts
  - an existing one for use of the West Edmonton Landfill and a relatively new long-term one for use of the Ryley Landfill.
- Electronic and Electrical Waste Recycling - operated by GEEP
- Landfill Gas Recovery Facility - operated by EPCOR, producing 4.8MW of power from produced landfill gas.
- The University of Alberta Special Lab Waste Transfer Station - processing lab chemicals from various campuses/facilities to prepare for recycling or destruction at other locations.

## Performance/Outputs (con't)

- Private operations at the Edmonton Waste Management Centre employ approximately 160 staff.
- In partnership with EPCOR, the landfill gas recovery system produces 4.8MW of electricity and has eliminated 150,000 tonnes of GHG emissions annually.

### General Site Operations

- Roadway upkeep
- Sweeping and snow clearing of the network of roadways, aprons and working areas
- Upkeep of the planting beds and landscaping on the site, including landfill revegetation that is a requirement of the operating approval.
- Litter clean-up
- Maintenance of equipment and infrastructure.

- The site covers over 200 hectares (500 acres);
- There are over 19km of roadway.
- The investment to date in capping and revegetating the landfill is over \$5 million.
- Over 100 pieces of mobile equipment are in use at the EWMC, with another 40 involved in the hauling operation.



Materials Recovery Facility





### 3.5 Service Levels

Current (2009) Service Level	Key Resource Requirements 2010 Budget	Capacity of Service	Benefits of Service
<b>EDMONTON WASTE MANAGEMENT CENTRE</b>			
<p><b>Gates are open</b> 7:30am to 7:00pm weekdays and 8am to 5pm weekends. During peak periods, operations continue on as-needed basis to receive materials coming in from late collection shifts – sometimes as late as 11pm. Site is only closed three days a year – Christmas, Boxing Day, and New Year’s Day.</p> <p><b>Organics processing system</b>, in particular the Composting Facility, operates 24/7 to keep up with volume.</p> <p><b>Recycling processing</b> at the Materials Recovery Facility continues 20 hours/day five days a week with weekend shifts as required.</p> <p><b>Landfill</b> operated from 12 to 20 hours a day, 7 days a week, depending on volumes.</p> <p><b>Homeowner Drop-off and other site operations</b> extend the same as gate hours, with staff spending an additional hour per day in pre- and post- receiving duties.</p> <p>Over 515,000 tonnes of materials were received and processed at the Edmonton Waste Management Centre in 2008, delivered by 225,000 vehicles which had to be duly weighed with fees collected.</p>	<p><b>Personnel:</b> Labour, customer attendants, equipment operators, engineers, technologists, administrative and management - 145 FTEs.</p> <p><b>Mobile Equipment:</b> Over 100 pieces of equipment including wheel loaders, grinders, trommels and long haul tractors and trailers.</p> <p><b>Contracted Services:</b> Materials Recovery Facility Operation \$5.8 million/yr Organics Operation \$9.6 million/yr Landfill disposal \$7.6 million/yr Long distance hauling \$4.5 million/yr.</p>	<p>The Edmonton Waste Management Centre is open to customers 4,000 hours per year while actual operations are carried out for 4,800 hours per year.</p> <p>In 2010, on average 60 Branch staff are needed per operating hours for duties at the Edmonton Waste Management Centre.</p> <p>In 2010 the Edmonton Waste Management Centre is projected to receive approximately 450,000 tonnes of material for processing and/or disposal.</p> <p>The Edmonton Waste Management Centre is an industrial subdivision with most of its 19 km of roadway unpaved. This site is heavily-used and maintenance activities are ongoing.</p> <p>Effective maintenance services from Fleet Services is key to keeping critical equipment in service to meet the Branch’s service objectives.</p> <p>Contracted services are established to enable effective service delivery while maintaining a stable core of city personnel and equipment to effectively control operations and provide in-house capacity in event of contractor default or strike.</p>	<p>Divert 90% of the residential waste stream from landfill by 2013.</p>

# MAJOR SERVICES - PROCESSING AND DISPOSAL

## 3.6 Strategic Initiatives

### Strategic Initiative # 1- Closed Loop Recycling

10 Year Strategic Goal/ 3 Year Priority Goal	Initiative	Outcomes	
<p>Diversify Edmonton's Economy by working with both public and private sector partners to develop eco-industrial development complimentary to operations at the EWMC and to further advance Edmonton's reputation as a world leader in environmental initiatives.</p> <p>Preserve and sustain Edmonton's environment by increasing and broadening advancement towards zero waste.</p>	<p><b>Closed Loop Recycling</b> Partner with Greys Paper Recycling Inc. in developing a closed loop paper manufacturing facility at the Edmonton Waste Management Centre.</p>	Immediate & Intermediate	Ultimate
		<p>Project proceeds as planned and resource conservation achieved through partnership with eco-industrial business.</p> <p>Closed-loop recycling established in Edmonton.</p> <p>The Waste Management System exemplifies synergistic programs, technologies, and partnerships.</p> <p>Increased progress towards zero waste</p>	<p>Edmonton continues to be a national leader in environmental protection as it relates to waste management practices.</p> <p>Environmentally responsible businesses are attracted to invest in Edmonton.</p>

#### 2010 BUDGET IMPACT

<b>Base</b>	Business case analysis determined benefit of partnership. There will be no impact on monthly user fees and no permanent addition to the base budget.
<b>Incremental</b>	Actual impact on operating budget is expected to be positive on full commissioning of the facility in 2011.

### Strategic Initiative #2 – Processing of Commingled Construction and Demolition Waste

10 Year Strategic Goal/ 3 Year Priority Goal	Initiative	Outcomes	
<p>Preserve and sustain Edmonton's environment by increasing and broadening advancement towards zero waste.</p>	<p><b>Processing of Commingled Construction and Demolition Waste (at the Edmonton Waste Management Centre)</b> Develop and implement an expanded Construction and Demolition waste program with adequate capacity to process and recycle up to 50% or approximately 150,000 tonnes of the estimated 300,000 tonnes of material generated in the Capital Region.</p>	Immediate & Intermediate	Benefits of Service
		<p>Required infrastructure is phased in by 2011.</p> <p>Facility performs as planned and expected volumes and revenues are realized.</p>	<p>Edmonton continues to be a national leader in environmental protection as it relates to waste management practices.</p>

#### 2010 BUDGET IMPACT

<b>Base</b>	Capital expenditure of \$0.5 million in 2009, \$1.3 million in 2010 and \$2.5 million in 2011 included in base budget with revenue exceeding expenditures starting in 2010.
<b>Incremental</b>	\$1.9 million in operating expenditure offset by \$3.1 million in revenue in 2010. Rate of receipt of material will dictate expenditure.

**Key Consideration** Expand the existing construction and demolition program at the Edmonton Waste Management Centre at an operating expenditure of \$1.9 million offset by \$3.1 million in revenue. This initiative will result in projected net revenue of \$1.2 million (Revenue projection of \$3.1 million less \$1.9 million in expenditure). This initiative enables a reduction of 1.4% in rate requirement in the Proposed 2010 Budget. This initiative is recommended by Administration.



### 3.7 Recommended 2010 Operating Budget

#### Waste Management - Processing and Disposal Services

	2008 Actual	2009 Budget	Revenue & Cost Impacts	Service & Delivery Changes	Growth	2010 Budget	% Change '09-'10	2011 Forecast
<b>Revenues &amp; Transfers</b>								
User Fee Revenue	40,916	40,270	2,057	6,640	-	48,967	21.6	53,476
Operations Revenue	17,823	17,726	(2,146)	5,507	-	21,087	19.0	28,250
Tax Levy (2008)	-	-	-	-	-	-	-	-
Grants	205	-	-	-	-	-	-	-
Transfers	-	10,520	-	(4,027)	-	6,493	(38.3)	606
<b>Total Revenues &amp; Transfers</b>	<b>58,944</b>	<b>68,516</b>	<b>(89)</b>	<b>8,120</b>	<b>-</b>	<b>76,547</b>	<b>11.7</b>	<b>82,331</b>
<b>Expenditures &amp; Transfers</b>								
Personnel	5,657	9,178	424	2,464	94	12,066	31.5	12,979
Material & Equipment	3,397	4,171	(1,692)	906	-	3,385	(18.8)	3,641
Contracts	23,638	29,534	1,063	4,580	377	35,177	19.1	37,836
Fleet Services	757	2,036	41	2,988	28	5,065	148.8	5,447
UIS Charges	1,553	1,644	16	-	-	1,660	1.0	1,786
General Services	284	398	(209)	-	-	189	(52.6)	203
Intra-municipal Services	218	1,769	593	-	-	2,362	33.5	2,540
Utilities	2,195	3,745	(327)	147	-	3,565	(4.8)	3,835
Financial	21,611	21,980	-	(2,787)	-	19,193	(12.7)	20,644
Other	367	374	2	-	-	376	0.6	404
Transfer to Reserves	3,689	-	-	-	-	-	-	-
<b>Subtotal</b>	<b>63,366</b>	<b>74,829</b>	<b>(89)</b>	<b>8,299</b>	<b>499</b>	<b>83,038</b>	<b>146</b>	<b>89,314</b>
Intra-municipal Recoveries	(4,422)	(6,313)	-	(178)	-	(6,491)	2.8	(6,983)
<b>Total Expenditures &amp; Transfers</b>	<b>58,944</b>	<b>68,516</b>	<b>(89)</b>	<b>8,120</b>	<b>499</b>	<b>76,547</b>	<b>11.7</b>	<b>82,331</b>
<b>Full-time Equivalent</b>		<b>127.6</b>	<b>0.5</b>	<b>35.7</b>	<b>1.0</b>	<b>163.8</b>		

# MAJOR SERVICES - PROCESSING AND DISPOSAL

## Budget Changes for 2010 (\$000)

### Revenue Changes

\$ 8,697	Rate increase required to manage hauling to Ryley and West Edmonton Landfills and planned phase-out of reserve transfer for operational needs.
5,507	Pre-processing activities, construction & demolition recycling, GHG credit, etc.
(2,146)	Decline in market rate for recyclable materials
(4,027)	Draw from Waste Management Reserve, at a reduced amount from 2009, as part of the transition to fully fund the Branch from revenues
<u>\$ 8,031</u>	Total Revenue Changes

### Cost Changes

\$ 424	Inflationary - personnel
1,179	Inflationary - non-personnel
(1,692)	Reduced equipment needs with closure of landfill
<u>\$(89)</u>	Total Cost Changes

### Service & Budget Review

\$ 4,458	Long haul costs to Ryley and West Edmonton Landfills (includes in-house and contract costs)
3,034	Annualization of Integrated Processing & Transfer Facility to full year operation
1,900	Expansion of construction and demolition recycling operation
1,183	Increased landfill disposal costs at Ryley and West Edmonton Landfills
1,000	Pursue business development opportunities
(68)	Other costs adjustments
(600)	Optimizing compost windrow turning
(2,787)	Reduced capital project financing costs by restructuring of financing terms and mix
<u>\$ 8,120</u>	Total Service Needs

## Explanatory Notes

<sup>1</sup>The most significant impact to the operations of the Waste Management Branch is the closure of the Clover Bar landfill and the pending closure of the West Edmonton Landfill in 2012. While the City of Edmonton has secured an alternate disposal site at Ryley, there are increased costs associated with additional processing, separation, and long distance hauling and disposal.

The additional transportation cost to haul refuse to Ryley and West Edmonton Landfills is estimated at \$4.5 million. This includes the consolidation of transfer operations referenced under the Collection Services section. In July 2009, Council approved an agreement with the Beaver Regional Waste Management Services Commission to provide roughly 25% of the hauling requirement to the Commission's Ryley Landfill. The balance is being provided by adding in-house staff and equipment. In addition, the cost of disposal at Ryley and West Edmonton Landfills is higher than the cost incurred at the Clover Bar Landfill by approximately \$1.2 million.

The transfer component of the Integrated Processing and Transfer Facility started on September 9, 2009 and the pre-processing component is expected to be commissioned by the end of 2009. The pre-

processing will reduce the amount of waste that would ultimately have to be hauled to landfill for disposal. The annualized cost of the Facility to full-year operation is \$3.0 million.

As discussed in Section 3.6, the Branch is developing a commingled construction and demolition recycling operation in anticipation of new legislation coming into effect in 2010. This has been reflected in the proposed budget.

Consistent with Council's vision, the Branch will continue to pursue complementary activities that would Preserve and Sustain Edmonton's Environment while Diversifying Edmonton's Economy. \$1.0 million has been allocated to pursue these opportunities. Recent success from such efforts includes the Global Electric and Electronic Processing, Bio-fuels Facility, and Greys Paper Closed-Loop Recycling.

As part of the strategy to moderate rate increases, \$4 million in planned revenue financing of capital projects has been replaced by self-liquidating debt financing (net expenditure saving of \$2.8 million in 2010). This provides further opportunity to phase-in the required rate increases over the next three years.



## 4. SUPPORT TO MAJOR SERVICE PROGRAMS

### 4.1 Direct Support to Residents and Customers

Three services provide support to the public operations of the Branch that are delivered directly to residents and customers:

**The Community Relations** functions within the Waste Management Branch encompasses public education, social marketing, volunteer management and customer support services to build awareness of and participation in Edmonton's waste management system. The overall outcomes of these functions include waste reduction of approximately 25,000 tonnes per year (which does not need to be processed), 89% participation in blue bag recycling, proper materials being set out for recycling, and low amounts of household hazardous waste in the garbage stream. Residents' active participation in Edmonton's waste management system is essential to its proper functioning. The services provide a direct link to the community through volunteer and outreach programs, provide ongoing community feedback on operations, and provide community input into planning and system development. Volunteers consistently provide at least 5,000 hours in support of Branch activities annually.

**Central Branch Management** includes the functions of Customer Operations and Liaison (provides customer specific resolution directly or in conjunction with EPCOR on customer service and billing issues, and overall information technology planning) and the Manager's Office (provides overall branch business planning and operational support, corporate planning support and strategic direction).

**Utility Billing Services** are provided through EPCOR, based on a negotiated cost per billing unit and administered through a service level agreement. Services provided include customer account management, revenue management, bill production and receivables management.

Service	2009 Budget (\$000's)	2010 Budget (\$000's)
Community Relations	1,828	2,268
Central Branch Management	1,786	1,938
Utility Billing (EPCOR)	3,288	3,320
<b>Total</b>	<b>6,902</b>	<b>7,526</b>

These costs are allocated equally to the two major service programs.

The change in expenditure is required for inflationary increases, support for new needs in Collection Services e.g. Assisted Collection, Reuse Centre customer growth and planned customer billing support.

### 4.2 Internal Support to the Branch

Support services provided by other Departments/Branches are delivered internally to the Branch in support of its ongoing operations.

As a utility operation, the Waste Management Branch is responsible for paying a fair share of support received from corporate departments. Human Resources, Information Technology, Finance & Treasury and Corporate Services are provided through a **Shared Services** model, which provides dedicated and shared support to the Branch. Costs are recovered from the Waste Management Utility based on either direct benefit of individuals working with the Branch, or an estimate of the portion of the total time or volume the service is provided.

Other support costs cannot be assigned using time and volume measures, and are therefore assigned on broader measures such as the magnitude of budget dollars. Included in these **Central Management Charges** would be corporate-wide offices.

The Waste Management Utility is also responsible for all costs associated with the space and facilities it occupies in corporately funded buildings, including rent, maintenance and operating costs (utilities, custodial etc.). These costs are paid to the **Corporate Properties Branch**.

Service	2009 Budget (\$000's)	2010 Budget (\$000's)
Shared services / Central management charges	2,380	2,500
Corporate Services space and facility charges	800	840
<b>Total</b>	<b>3,180</b>	<b>3,340</b>

These costs are allocated equally to the two major service programs.

## 5. REVENUE

The conversion of Waste Management to a full utility effective January 1, 2009 results in all costs being funded first by operational revenues, then by monthly user fees and as required a draw from the rate stabilization reserve.

The **monthly fees** are paid by the total residential sector, single family and multi-family. The monthly fee paid by multi-family is 65% of the monthly fee paid by single family, based on comparative volumes of waste produced.

The Branch's operations revenue is derived from fees charged for use of collection services or processing or disposal facilities, the sale of the end-products of the processing activities, and contractual arrangements with third parties located at the Waste Management Centre. The following table provides a summary of the revenue sources. A brief description of the major operations revenues follows:

### **Facility usage fees approved through bylaw**

- EWMC: Fees are charged on a tonnage basis. Fees vary based on the type of material and customer type (commercial vs. residential).
- Eco Stations: Fees are charged based on the type and volume of the material. An underlying goal of removing these items from the normal waste disposal stream keeps the rates at a level to discourage indiscriminate dumping/littering.

### **Services provided for in the Waste Management Bylaw, at fees based on market and operations considerations**

- Trade-waste Collection: Fees for collection services provided to small businesses and for extra collection services for multi-family sites are based on volume and frequency.
- Construction Demolition: Over one-half of the regional waste stream is construction and demolition waste. Fees are set to encourage delivery of easily segregated and processible loads. The planned development of a service to recycle construction and demolition waste received in a commingled manner provides good revenue potential.

### **Sale of processing end products through third parties**

- Recyclable material. Sale of recyclable material recovered from the Materials Recovery Facility, Recycling Depots, Eco Stations, Integrated Processing and Transfer Facility and composting operations. Revenues are highly influenced by commodity markets.

### **Revenue through contractual arrangements**

- Land lease and business related revenue sharing with GEEP and Greys Paper Recycling, private companies located at the Edmonton Waste Management Centre.

### **Environmental Offsets**

- Carbon offset credits generated from the reduction of greenhouse gases by composting operations (125,000 tonnes of CO<sub>2</sub>) and recovery of landfill gas for power production by EPCOR (145,297 tonnes of CO<sub>2</sub>).

The estimated Waste Management Branch revenue for 2010 and projections to 2014 is provided.





2009-2014 Revenue Summary	2009	2010	2011	2012	2013	2014
<b>User fees charged on monthly utility bill</b>						
Single-family residential	57,575	65,280	71,208	76,876	82,826	87,409
Multi-family residential	29,119	33,345	36,738	39,662	42,732	45,096
<b>Sub-total</b>	<b>86,694</b>	<b>98,625</b>	<b>107,945</b>	<b>116,537</b>	<b>125,558</b>	<b>132,505</b>
Late payment penalty	128	133	136	140	144	148
<b>Total user fee revenue</b>	<b>86,822</b>	<b>98,758</b>	<b>108,081</b>	<b>116,677</b>	<b>125,702</b>	<b>132,653</b>
<b>Facility usage fees approved through Bylaw</b>						
Disposal at EWMC	10,370	10,609	11,319	12,045	12,533	13,040
Eco station drop-off	1,340	1,339	1,454	1,483	1,513	1,817
Compost tip fees	300	306	312	318	325	331
<b>Total</b>	<b>12,010</b>	<b>12,254</b>	<b>13,085</b>	<b>13,846</b>	<b>14,370</b>	<b>15,188</b>
<b>Services provided for in the Waste Management Bylaw</b>						
Trade waste collection	1,056	850	875	900	927	955
Construction demolition	420	3,100	7,200	8,000	8,000	8,000
Non-residential collection	384	567	750	1,063	1,087	1,112
Commercial electronics collection				81	83	84
<b>Total</b>	<b>1,860</b>	<b>4,517</b>	<b>8,825</b>	<b>10,044</b>	<b>10,097</b>	<b>10,151</b>
<b>Sale of processing end products through third parties</b>						
Recyclable material	5,670	3,395	4,915	6,591	6,924	7,275
Compost	122	1,350	1,377	1,405	1,433	1,461
Pre-processing of ICI recyclables		397	842	978	982	987
<b>Total</b>	<b>5,792</b>	<b>5,142</b>	<b>7,134</b>	<b>8,974</b>	<b>9,339</b>	<b>9,723</b>
<b>Revenue through contractual arrangements with EWMC partners</b>						
GEEP (electronics)		46	48	50	51	53
Greys Paper Recycling			277	613	807	811
<b>Total</b>	<b>0</b>	<b>46</b>	<b>324</b>	<b>662</b>	<b>858</b>	<b>864</b>
<b>Environmental offsets</b>						
Landfill gas	800	880	968	968	968	968
Composting	515	1,500	1,500	1,500	1,800	2,000
<b>Total</b>	<b>1,315</b>	<b>2,380</b>	<b>2,468</b>	<b>2,468</b>	<b>2,768</b>	<b>2,968</b>
<b>Total Revenue</b>	<b>107,800</b>	<b>123,097</b>	<b>139,918</b>	<b>152,672</b>	<b>163,135</b>	<b>171,548</b>
Transfer from reserve	10,520	6,493	606	0	0	0
<b>Total Revenue + Reserve</b>	<b>118,320</b>	<b>129,590</b>	<b>140,524</b>	<b>152,672</b>	<b>163,135</b>	<b>171,548</b>

# CAPITAL BUDGET UPDATE

## 6. CAPITAL BUDGET UPDATE

### 6.1 Capital Projects Update

The capital plan for the short term is focused on the development of facilities and supporting infrastructure to address the depletion of in-City waste disposal capacity. The major project financed by the Waste Management Utility, the Integrated Processing and Transfer Facility, is a key component of the plan.

Work is proceeding on schedule with commissioning of the last phase planned for 2011. Other capital work includes expansion of collection facilities, rehabilitation of the existing facilities at the EWMC to extend their service lives, upgrades to the EWMC site infrastructure, and the acquisition of equipment and vehicles.

### 6.2 Capital Expenditures and Financing

A summary of the capital project plan and the associated financing plan follows:

Capital Expenditures	2009	2010-2011	2012-2018	2009-2018
EWMC Infrastructure	8,830	18,022	77,068	103,920
Processing and Transfer Facility	42,429	20,000		62,429
MRF Renewal	566		6,180	6,746
Bio-fuels Research Facility	8,990			8,990
Eco Stations	4,612	6,100	24,900	35,612
Buildings and Land	8,900	15,800		24,700
Containers, Equipment and Vehicles	14,210	18,231	35,624	68,065
<b>Total</b>	<b>88,537</b>	<b>78,153</b>	<b>143,772</b>	<b>310,462</b>
<b>Financing (\$000)</b>				
Revenues	1,874		6,180	8,054
Post Closure Funds	700	1,050	2,300	4,050
Grants	8,989	-	0	8,989
Debentures				
10 year term	26,674	38,103	110,392	175,169
25 year term	50,300	39,000	24,900	114,200
<b>Total Debt</b>	<b>76,974</b>	<b>77,103</b>	<b>135,292</b>	<b>289,369</b>
<b>Total Financing</b>	<b>88,537</b>	<b>78,153</b>	<b>143,772</b>	<b>310,462</b>

# CAPITAL BUDGET UPDATE AND PRO-FORMA STATEMENTS

## 6.3 Required Changes to Approved Capital Budget

The 2010 budget preparation identified the need to adjust the budget of an existing project and include another project to realize a business opportunity.

### Biofuels Research Facility

Project Adjustment - 08-33-1946				
Bio-fuels Research Facility	2009	2010	2011	Total
Existing Budget	8,990	-	-	8,990
Change	(1,990)	3,290	-	1,300
<b>Total</b>	<b>7,000</b>	<b>3,290</b>	<b>-</b>	<b>10,290</b>
Financing				
Grants	7,000	3,290	-	10,290
<b>Total Financing</b>	<b>7,000</b>	<b>3,290</b>	<b>-</b>	<b>10,290</b>

### Explanation of Change

The increase of \$1.3 million for this project reflects a size modification of key mechanical components to accommodate future expansion and higher fire protection and air handling capabilities to deal with

the resulting high pressures. Funding for this project, including the requested adjustment, is covered by a grant already received from the province of Alberta through the Alberta Energy Research Institute.

### Construction/Demolition Facility

New Project - Construction / Demolition Material Recycling Facility				
	2009	2010	2011	Total
Existing Budget	-	-	-	-
Change	500	1,300	2,500	4,300
<b>Total</b>	<b>500</b>	<b>1,300</b>	<b>2,500</b>	<b>4,300</b>
Financing				
Revenue	500	(500)	-	-
Self Liquidating Debentures	-	1,800	2,500	4,300
<b>Total Financing</b>	<b>500</b>	<b>1,300</b>	<b>2,500</b>	<b>4,300</b>

### Explanation of Change

The processing of commingled construction and demolition waste presents a business opportunity that necessitates expansion of the existing construction and demolition waste program. This program is an integral part of site operations at the

Edmonton Waste Management Centre. The capital expenditures as outlined will provide the capacity to process and recycle up to 50% or approximately 150,000 tonnes of the estimated 300,000 tonnes of material generated in the Capital Region.



#### 6.4 Capital Financing Considerations

The financing plan makes judicious use of long-term debt financing when it appears that a capital project is of such a magnitude that it will negatively impact the utility's rates in the short-term. The use of long-term debt financing allocates the costs of the asset over its useful life.

Capital project financing of the 10-year capital plan for the Waste Management Branch is reviewed and updated annually. Project financing is provided largely through debenture borrowings, with debt terms of 10 and 25 years dependent on the expected asset life. Facilities, buildings and land are financed over 25 years. Containers, equipment and vehicles are financed over a 10 year term, as are the remainder of existing borrowing bylaws where the project is almost complete.

The financing plan is in accordance with the Debt Management Fiscal Policy adopted by the City Council on July 23, 2008. As a utility, in keeping with current City guidelines, the Waste Management Branch is not eligible for allocation of any non-specific Provincial grant funding (population-based grant) that may become available. Unlike Drainage Services, there are no contributed assets provided by other parties except where project-based grants are involved. Accordingly, Waste capital infrastructure is virtually financed entirely through self liquidating debentures.

External funding provided to a project involves direct agreement with the fund provider. A recent example of this is the grant from the Province of Alberta (Alberta Energy Research Institute) for the Bio-fuels Facility, another key component of the transition related to closure of Edmonton landfills. The remainder of capital funding for this facility is the responsibility of a private sector partner. Grant funding from the Province of Alberta has also been received for construction of the Advanced Energy Research Facility. As a utility, in keeping with current City guidelines, the Waste Management Branch is not eligible for an allocation of any non-specific Provincial grant funding that may become available. Grant funding for Waste Management projects will be specific to a project and provided through direct agreement with the fund provider.

#### 6.5 Tangible Capital Assets - Impact on the Waste Utility

The Public Sector Accounting Board (PSAB) of the Canadian Institute of Chartered Accountants (CICA) has approved changes to section PS 3150 Tangible Capital Assets (TCA) which require local governments to keep ongoing records to account for all assets managed and controlled by the municipality. Financial information of the City's capital assets is a major factor in determining replacement and maintenance requirements to ensure continued service delivery to the public.

Compliance with the new accounting guidelines requires the City to depreciate the asset over its useful life in a manner in line with its nature and use. This requires identification of the different components of a facility, which may have different estimated lives before major refurbishment or replacement is required. The depreciation expense would be funded through user fee revenue as part of the utility's budget.

The Proposed 2010 Waste Management Budget does not include an amount for depreciation. However, it currently includes the debenture principal payments as an expense against revenues. These treatments will need to be reviewed given that Waste Management is now operating as a utility. These, along with other financial considerations, will be reviewed in developing the Waste Management Utility Fiscal Policy in 2010.

# CAPITAL BUDGET UPDATE AND PRO-FORMA STATEMENTS

## 7. PRO-FORMA INCOME STATEMENT AND BALANCE SHEET

The following Pro-Forma Statements outline the impact of the branch's operating and capital plans on its annual funding and rate requirements, as well as its overall financial position.

### Waste Management Pro Forma Income Statement For Years 2010-2014 (\$000)

	2010	2011	2012	2013	2014
User Fee Revenue	98,625	107,945	116,537	125,558	132,505
Operations Revenue	24,471	31,973	36,135	37,577	39,043
Transfer From Revenue	6,493	606	-	-	-
<b>Total Revenues</b>	<b>129,590</b>	<b>140,524</b>	<b>152,672</b>	<b>163,135</b>	<b>171,548</b>
Collection Services	50,156	53,797	57,160	59,604	64,461
Processing and Disposal	57,354	61,105	67,662	71,222	75,990
Financial	22,080	25,622	27,850	32,309	31,097
<b>Total Expenses</b>	<b>129,590</b>	<b>140,524</b>	<b>152,672</b>	<b>163,135</b>	<b>171,548</b>
<b>Net Income</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Monthly User Fees</b>					
Single family	\$29.85	\$32.24	\$34.12	\$36.04	\$37.29
Multi-family	\$19.40	\$20.95	\$22.18	\$23.43	\$24.24
Percentage Change	12%	8%	6%	6%	3%
<b>Waste Management Reserve</b>	<b>4,436</b>	<b>3,830</b>	<b>3,830</b>	<b>3,830</b>	<b>3,830</b>

### Explanation of Change

User Fee Revenue and Operations Revenue are the funding sources for the operations of the Waste Management Utility. The anticipated Waste Management fees required over the 2010-2014 are shown at the bottom of the table. It is expected that a monthly fee in the range of \$36 to \$38 will be needed to fund the impact on operations from the depletion of landfill capacity in Edmonton. For 2010 and 2011, Transfer from Reserve will be relied upon to temper the monthly user fee increases. This strategy will allow the projected 2012 and 2013 fee increases to be kept around 6%. By 2014, the monthly fee increase is expected to approximate inflationary impacts.

The planned withdrawal from the reserve in 2010 and 2011 will reduce the balance from \$11 million to \$4 million. This level is likely required to provide funding support for operational contingencies. The development of a formal fiscal policy for the Waste Management Utility will address/confirm the

appropriate level of the reserve fund. Net income generated from operations would either be required to meet the utility system needs or become available for distribution. Administration recommends that should any net income be generated in 2010, that it be retained within the utility until the review and development of a formal Utility Fiscal Policy for Waste Management is completed.

It is important to note that the pro-forma information does not provide for the generation of Net Income in 2012-2014. All of the anticipated User Fees and Operations Revenue are needed to fund ongoing operations. Inherent in this forecast is also increased risk of unexpected circumstances which would require further draw from the reserve.



## Waste Management Utility Pro-Forma Balance Sheet For Years 2010-2014 (\$000)

	2010	2011	2012	2013	2014
<b>Assets</b>					
Cash and Deposits	45,182	37,459	36,124	35,568	34,879
Other Current Assets	7,022	7,022	7,022	7,022	7,022
Investment in Capital Assets					
Engineering Structures - net	280,008	292,732	294,874	298,200	292,520
Other Buildings - net	31,056	32,467	32,704	33,073	32,443
	311,064	325,198	327,579	331,274	324,964
<b>Total Assets</b>	<b>363,268</b>	<b>369,679</b>	<b>370,725</b>	<b>373,864</b>	<b>366,865</b>
<b>Liabilities</b>					
Current Liabilities	21,164	21,447	21,512	21,557	21,467
Current Portion of Long-term Debt	13,611	15,547	17,350	18,942	20,442
Long-term Debt	218,340	229,838	229,715	228,839	220,729
<b>Total Liabilities</b>	<b>253,115</b>	<b>266,832</b>	<b>268,577</b>	<b>269,338</b>	<b>262,638</b>
<b>Innovation and Science Grant</b>	10,996	4,996	4,996	4,996	4,996
<b>Landfill Closure and Post Closure Care</b>	18,676	17,976	17,276	16,976	16,676
<b>Equity</b>					
Equity in Capital Assets	76,045	76,045	76,045	78,725	78,725
Waste Management Reserve	4,436	3,830	3,830	3,830	3,830
<b>Total Equity</b>	<b>80,481</b>	<b>79,875</b>	<b>79,875</b>	<b>82,554</b>	<b>82,554</b>
<b>Total Liabilities &amp; Equity</b>	<b>363,268</b>	<b>369,679</b>	<b>370,724</b>	<b>373,864</b>	<b>366,865</b>

### Explanation of Change

Cash and Deposits generally reflect the Innovation and Science Grant held in trust by the City for the construction of the Bio-Fuels Facility, the Landfill Closure and Post Closure Care, and the Waste Management Reserve balance.

The Long Term Debt balance for the Utility is projected to increase by roughly \$9 million over the next five years. All capital investment in infrastructure is essentially financed by debt. This will need to be monitored and reviewed in conjunction with the development of a Utility Fiscal Policy for Waste Management.

Grant funding to support Bio-Fuels Facility is secured and has been received.

A major financial risk factor associated with the operations of a landfill is the Post Closure Liability. With the Clover Bar landfill reaching its capacity and

closed in August 2009, all closure and maintenance obligations related to the landfill are funded and will be accessed over the next 25 years as the need arises.

The Waste Management Reserve is expected to maintain a balance of roughly \$4 million over the next five years, despite the planned withdrawal of roughly \$15 million over 2009-2011 to stabilize the transitional impact of hauling refuse to a distant landfill. While the reserve balance represents less than 3% of the average annual operating revenue, it does provide some cushion against unexpected events. The review and development of a Utility Fiscal Policy for Waste Management during 2010 will formalize the reserve requirement for a sustainable utility.