

**COMMITTEE REPORT TO COUNCIL: INFRASTRUCTURE & RECREATION COMMITTEE**

**MEETING DATE:** July 26<sup>th</sup> 2011  
**LOCATION:** Ravenna Hall  
**PREPARED BY:** Jenny Ferraro  
Administrative Assistant

**A. Recommendations**

THAT Staff to present committee with a Report regarding the matter of changing receiving days at the landfill site and budget implications, **unanimously CARRIED**

THAT paving of the receiving area be deferred indefinitely and that the reallocation of funds be dealt with in a future report, **unanimously CARRIED**

**B. Attachments**

**B.1 Service Review – Landfill**

**B.2 Service Review – Environmental Initiatives**

**B.3 Service Review – Wastewater**

**C. Public Meetings / Deputations**

None.

**D. New and Unfinished Business**

None.

**F. Future Meeting Dates**

Tuesday, August 9th 2011 – 7:00pm Ravenna Hall

# The Blue Mountains - Solid Waste Division

## Service Review 2011

### Garbage Collection and Waste Diversion

Prepared for: Infrastructure and Recreation Committee

June 28, 2011

#### Garbage Collection

##### **Collection**

**Curbside** (residential and small IC&I) - approximately 4543 units at \$46.16 per unit

Tonnage: 1,225.49

Contract cost: \$209,709.37

**Multi-residential Units** (Front End Loading Bins) – 1388 units at \$27.06 per unit

Including Depot Based Front End Loading Bins at Osler and Castle Glen

Tonnage: 581.16

Contract cost: \$37,555.62

##### **Town Facilities**

Town Hall, Harbour, Community Centre, Water Services Warehouse, Sewage Plants, Parks Building

Tonnage: included in Multi-res. tonnage

Total: \$4,300.00

##### **Other Operations**

Including: responding to Collect Complaints and Road Side Dumping; Tag Sales; Promotions and Education; Printing, postage and advertisements: \$5,100

Tag Revenue: \$7,500

**Total Staff Costs** for Garbage Collection not including any office admin or Landfill Site staff allocation: \$16,155 (Manager 20%)

## **Waste Diversion**

### **Recycle Collection**

**Curbside** (residential, small IC&I, and IC&I carts) – approximately 4543 units at \$52.32 per unit including approximately 25 commercial roll out cart collection locations

Tonnage: 738.74

Contract cost: \$237,709.37

**Multi-residential Units Cart Collection** – 1388 units at \$28.19 per unit

Including Depot based roll-off bins at Osler and Castle Glen

Tonnage: 132.98

Contract cost: \$39,133.24

### **Town Facilities Carts**

Town Hall, Harbour, Community Centre,

Tonnage: included in Curbside Tonnage

Contract cost: \$2,628

### **Landfill Depot (Roll-off Containers)**

For use during hours of operation serviced by Miller Waste Systems as part of the Multi-res contract

Tonnage: 60.93

Contract cost: \$3,409.08

### **Waste Diversion Ontario Grant**

\$90,716 (2010)

### **Recyclables (Blue Box) Sales 2010**

Curbside (Mid Ontario Disposal) \$7,993.25

Multi-res (Miller) \$14,961.91

### **Tire Diversion (Ontario Tire Stewardship Collector Site)**

Free drop-off for Site patrons

Costs: no dedicated costs\*\*

Tonnage: 8

Revenues from OTS: \$1,247.85 (2011 to date)

**azardous Waste Diversion (Stewardship Ontario Orange Drop Location)**

Free drop off for Site Patrons  
Collection Costs: no dedicated costs\*\*  
Tonnage: 16.04

**Hazardous Waste Diversion**

Post Collection Costs  
Transport/recycle/disposal Contract (Clean Harbors): \$15,753  
Tonnage: 16.04  
Revenues: \$15,989 (Stewardship Ontario Payments)  
Future revenues to cover collection and post collection of Phase 1 and 2  
(\$1,940/tonne)

**Electronic Waste Diversion (Ontario Electronic Stewardship Collector Site)**

Free drop off for Site patrons  
Cost: no dedicated costs\*\*  
Tonnage: 10.64  
Revenue: \$1,791.51

**Brick and Concrete (Collected and Stockpiled)**

\$50/Tonne  
Cost: no dedicated costs for Stockpiling\*\* –will need to process eventually!  
Tonnage: 91 (2010)  
Revenues: \$4,550.00

**Metals Diversion**

Half rate (\$50/tonne) for metals drop off  
Cost: no dedicated costs\*\*  
Tonnage: 118.12 (depot collected)  
Marketed Revenues: \$9,455.08 on 91.95 Tonnes  
Tipping Revenues: \$5,906.00

**Compost Facility** (Certificate of approval to compost yard and fruit waste)

Free drop off for residential yard waste and brush

\$50/tonne for commercial hauled yard waste, brush, fruit waste

Cost:

Item	Amount
Landfill Budget Portion (15%) excluding direct landfill contracts i.e.: compaction) Includes Staff, shop, loader, etc)	\$49,155.00
Sampling compost	\$3,500
Screening (849 m <sup>3</sup> or 595 tonnes screened in 2011)	\$8,490.00
Brush Chipping (364 tonnes in 2010)	\$6,854.12
<b>Total</b>	

Tonnage:

Source	2010 Inputs (Tonnes)
Christmas Trees	5.33
Residential Drop off	215.8
Bulky Drop off	224.18*
Municipal	270.63
I,C&I	261.33*
<b>Total</b>	<b>977.27</b>

Marketed Compost Revenues: \$0.05/kilogram

16.65 tonnes in 2010 sold/used by Town = \$332.50 in revenue

Current tonnes for sale 302 tonnes = \$15,100.00

\*Tipping Revenues: \$18,650

(New source in 2011 from Golden Town)

**Freon Service**

\$25 per unit

Cost: \$10.00 per unit

Tonnage: 132 units = 11.88 tonnes

Serviced Units: 145 units – 13.05 tonnes

Tipping Revenues: \$3,300

**Provision of carts, boxes and composters**

Sold at the Landfill

\$84.00 per cart for system user

\$10.00 per box for a patron to purchase (Town cost \$9.10 with HST)

\$30.00 per composter for a patron (Town cost \$41.58 with PST)

2011 budget to buy materials \$2,500

**Promotions and Education**

Blue Box portion of:

Brochures/Pamphlets; Paid Print Ads; School Tours/Presentations; System

Website/Hotline; Telephone Information; "Twitter" Notice; Social Based Marketing kit

\$8,522.00

Postage and Advertisements: \$2,550.00

**Training, Travel and Health and Safety**

\$3,290.00

**Equipment and Maintenance**

\$750.00

**Total Staff Costs (4 staff) \$63,215 (2011)**

Manager 25%, Operator 40%, Operator 10%, Environmental Initiative Coordinator 30%

**Depot Diversion\*\***

All of the above Depot activities (excluding Composting) use 20% (\$65,540.00) of the Landfill Site Budget to support the above activities.

*Example of Cost allocation for Hazardous Waste Depot - collection costs*

<i>Staffing</i>	<i>6 events</i>	<i>\$17,704</i>
<i>Communications</i>		<i>\$4,416</i>
	<i>Telephone</i>	
	<i>Advertising</i>	
	<i>Postage</i>	
	<i>Tax notice flyer</i>	
	<i>Printing</i>	
	<i>Computer</i>	
	<i>Courier</i>	
<i>Training</i>		<i>\$3,940</i>
	<i>Travel</i>	
	<i>Course Fees</i>	
	<i>Accommodations</i>	
<i>Materials</i>		<i>\$5,015</i>
	<i>Office Supplies</i>	
	<i>Clothing</i>	
	<i>Safety equipment</i>	
	<i>Misc. materials</i>	
	<i>Table replacement</i>	
	<i>Box replacement</i>	
	<i>Allowance</i>	
	<i>Janitorial Supplies</i>	
<i>Utilities</i>		<i>\$740</i>
<i>Equipment</i>		<i>\$1,532.58</i>
<i>Vehicle</i>		<i>\$160</i>
<i>Insurance</i>		<i>\$1,445</i>
<i>Property Taxes</i>		<i>\$1,200</i>
<i>Overhead</i>		<i>\$1,746</i>
<i>Total</i>		<i>\$20,194.58</i>

# The Blue Mountains - Solid Waste Division

## Service Review 2011

### Waste Disposal Site and

### Environmental Initiatives - Sustainability

Prepared for: Infrastructure and Recreation Committee

July 26, 2011

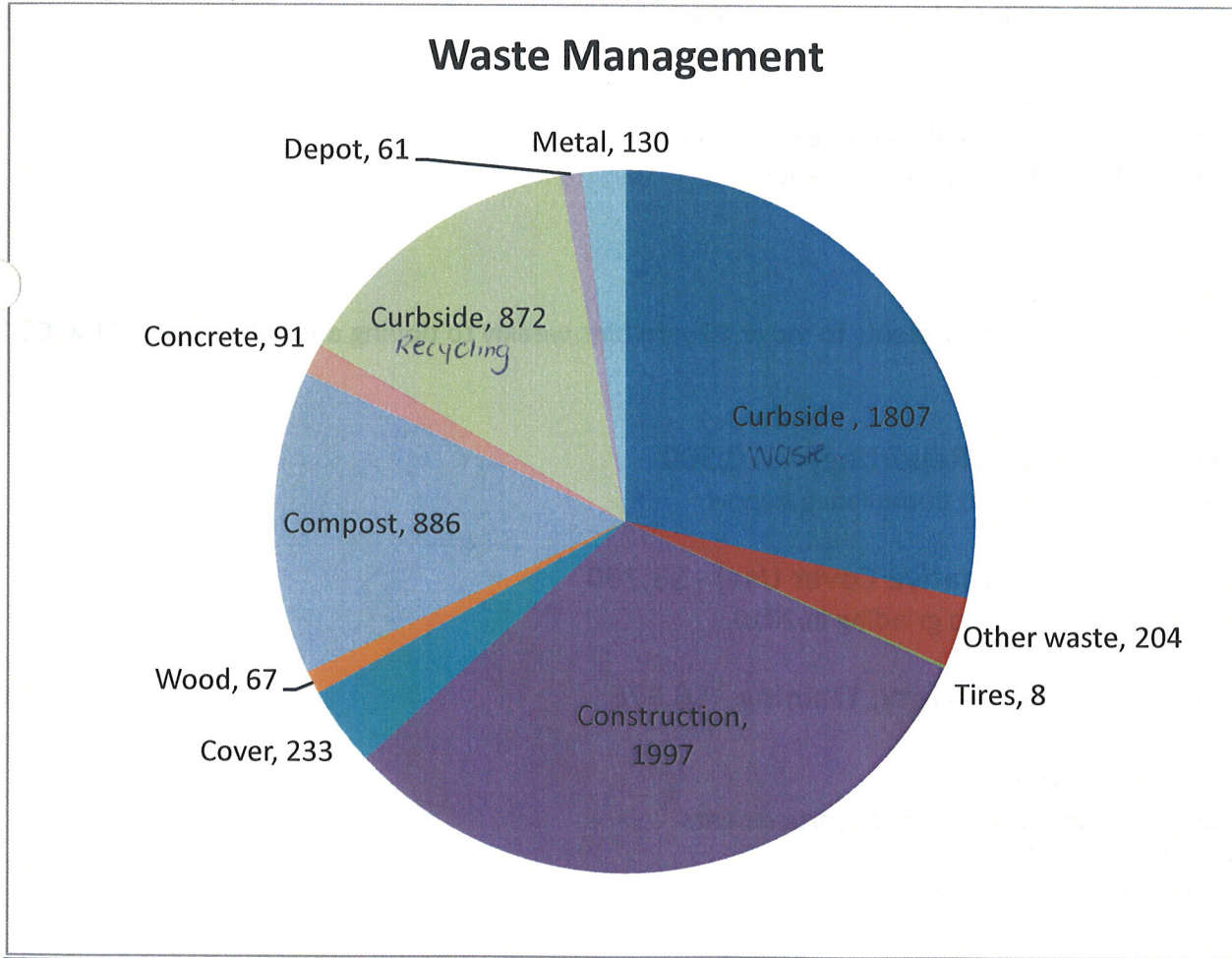
## Disposal Site

Site Visits 2010 – 10,198

Estimated Revenue for 2011 - \$275,000

Fees \$100.00/tonne

Tonnage (2010)



## **Waste Compaction and Cover**

### **Cover Haulage - \$12,000**

Move sand from pit to active area for daily cover contract work with various haulers as they are available or Town Staff

### **Compaction and Cover Contract - \$144,600**

Monday, Tuesday, Thursday, Friday and Saturday Compaction at 3 hours per day (\$184/hour)

### **Berm Building - \$16,000**

Excavation, grading and hauling of material to prepare new landfill cell (Contracted work)

### **Compliance Contingency - \$6,000**

Leachate haulage, upgrading internet service in 2011

## **Other Site Maintenance**

### **Office Supplies - \$2,450**

### **Utilities - \$5,600**

(Hydro, Gas, Water)

### **Loading Gravel for Other Divisions – Loader time**

## **Site Equipment Maintenance**

### **Building and Equipment repairs and new - \$5,700**

### **Loader and Pick-up Maintenance - \$10,000**

### **Fuel – \$9,500**

## **Waste Transport - \$10,700**

Contracted to Miller Waste Systems to move 40 yard bins weekly to tipping areas (first bin is \$140.00 each after that is \$35.00)

## **Engineering (Monitoring and Reporting) - \$20,500**

Hydrogeological Report and Compliance Report

## **Wood Waste Grinding (Alternative Cover Use) - \$3,200**

\$18.83/tonne for contracted grinding in 2010

## **Site Inspections, Health and Safety, Training - \$6,576**

## **Communications - \$ 6,385**

Telephone, internet, postage and advertisements

## **Promotions and Education - \$ 2,500**

Portion of wastewatcher guide

## **Total Staff Costs (Salaries and Benefits) - \$117,045.00**

Manager (40%), Operator (60%), Operator (20%), Part-time Scale Attendant (100%)

### Landfill Schedule of Fees (2005)

ITEM	DESCRIPTION	FEE OR CHARGE
Authorized Waste	household, commercial, construction and demolition	\$100.00/tonne (set fee)
Authorized Waste	containing recyclable waste, reusable material, burnable waste, yard waste or non-acceptable waste	Twice the set fee
Recyclable Waste, Reusable Material, Contaminated soil, Yard Waste, and/or Burnable Waste	unloaded in the designated area and contaminated with non-conforming material	Twice the set fee
Scrap Metal and White Goods, Recyclable Material, Reusable Waste, Yard Waste	placed in the designated area and free of non-conforming material	Half the set fee
Contaminated Soil	Owner must provide documentation of certified testing results and obtain Town approval before delivery	\$125.00/tonne
Asbestos		Not Accepted
Chipped Wood	uncontaminated, untreated, unpainted wood chips	Free
Recyclable Material	any material defined as recyclables in the Town Collection By-law # 1603	Free
Small Quantities of Waste Material	household, commercial, construction and demolition	\$5/visit minimum fee
Refrigerators, Freezers, Air Conditioners, Dehumidifiers	uncertified - certification fee	\$25 each
Propane Tanks	must be empty	\$2.00/tank
Tires	<p>Without Rims: passenger tire made for rims up to 18.5" light truck made for rims up to 17.5" heavy truck made for rims up to 22.5"</p> <p>With Rims: passenger tire made for rims up to 18.5" light truck made for rims up to 17.5" heavy truck made for rims up to 22.5"</p> <p>BUK loads - 2-10 with or without rims</p>	<p>\$5.50/tire \$5.00/tire \$11.00/tire</p> <p>\$4.50/tire \$7.00/tire \$11.00/tire</p> <p>\$200.00/tonne</p>

### Capital Projects

- Landfill Expansion
- Obtaining new buffer lands
- Receiving Area Improvements

## **Environmental Initiatives - Sustainability**

### **Capital Programs**

- Area Light Retro Fit
- Organics Composting Project (Certificate of Approval Application)

### **Operational Programs**

- Stationary Waste Box Signage Project (funding supported)
- Blue Flag Beaches
- Green Streets Tree Planting Program (funding supported)
- ICSP Steering Committee (Sustainable Path Implementation)
- Greenhouse Gas Reduction (Energy Management)
- Eco-Procurement (Training and Coordination)
- Green Fair (Community Garden Forum) and Goods Exchange
- Blue Box Diversion Plan (funding supported)

### **Total Staff Costs (Salaries and Benefits) - \$41,480.00**

- Part of Manager and part of Coordinator



## **The Blue Mountains**

### **Wastewater Section**

### **2011 Service Delivery Review**



## **History**

The Wastewater Treatment Plants (WWTP) and associated collection system is owned by the Town and is operated by employees of the Town. The Wastewater Section consists of 5 licenced wastewater operators and receives support from the Manager of Water and Wastewater Services, the Compliance and Efficiency Coordinator, the Operations Assistant and the Administrative Assistant for Water and Wastewater.

The Wastewater Section maintains two Wastewater Treatment Plants – one located at 146 Long Point Road, Craigeith and one located at 1 Grey Street South, Unit 2 in Thornbury. Both facilities are classified as Class 3 Treatment facilities. The associated collection systems are both Class 1 systems.

Operators are responsible for the operation and maintenance of two Wastewater Treatment Plants and twelve Sewage Lift Stations.

The main Wastewater Treatment Plant in Craigeith is an extended aeration treatment process with tertiary treatment (sand filtration) and ultra violet disinfection. This facility was constructed in 1986 and was upgraded in 2002. This treatment system was chosen due to fluctuating flows and loading from seasonal residents. There are a total of 125 pumps and motors complete with controls and flow meters at this plant that require ongoing and scheduled maintenance.

The Thornbury Wastewater Treatment Plant is an extended aeration treatment process with ultra violet disinfection. There are a total of 32 pieces of equipment at this facility that require ongoing and scheduled maintenance. Upgrades to this facility may be required in three to five years due to development pressure.

Of the twelve Sewage Lift Stations, there are three higher flow systems with ± 100 HP pumps and controls. Each of these has twelve pieces of equipment to be maintained. 4 medium flow systems with smaller HP pumps and each with twelve pieces of equipment to maintain. The remaining five Sewage Lift Stations are lower flow systems with pumps in the 5 to 8 HP rating and ten piece of equipment each to maintain. Also in conjunction with these systems are 82 kilometers of gravity sewers, 11 km of forcemain sewers, 10 km of outfall, 889 manholes and 4 air relief chambers to maintain.

## **Core Services**

The operation and maintenance of reliable wastewater treatment and collection systems is the core service supplied by the Wastewater Division. Staff delivers these services with a primary focus on Health & Safety.

There are a number of legislative requirements that have measures in place to ensure this service is met including, but not limited to:

- Bi-weekly sample testing at both Wastewater Treatment Plants
- Extensive preventative maintenance program conducted for each piece of equipment, including maintenance on 82 pumps and annual complete re-build of 65 pumps.
- Inspection and maintenance of 889 sanitary manholes
- Inspection of sanitary sewer collection system

- Daily and weekly rounds which consists of security checks, pump operation, chemical flow monitoring, and clarifier operation to ensure proper functioning of each facility
- Internal monitoring, repair and maintenance of backflow prevention devices for wastewater facilities
- Testing and monitoring of on-site standby diesel generators
- Testing and responding to equipment alarms and dialers
- Responding to resident inquiries regarding blocked sanitary laterals and broken property line cleanouts
- GIS locating and mapping of 889 manholes
- Locating water and sewer services
  - 544 locate requests were received from January 1 to June 30, 2011
  - 491 locate requests were received in 2010
  - The amount of locates has increased substantially since the Town has become a member of Ontario One Call. Locates are required to be completed within a specified time frame, putting additional pressure on staff workload.
- An Operator is on-call 24 hours a day/seven days a week in order to respond immediately and effectively to alarms or wastewater emergencies. The on-call Operator carries a pager so they can be notified in the event an emergency occurs. In addition to this, Operators also conduct weekend rounds at stations throughout the collection system.

**Revenue Generating Services**

A hauled waste receiving station is located at the Main Sewage Lift Station in Craigeleith. It is through this facility that approved liquid waste haulers can discharge septage, leachate and holding tank waste.

The chart below details the amount of hauled waste received from 2006 to 2010:

		<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>Hauled Waste m<sup>3</sup></b>	Holding Tank	6,939	17,062	16,344	9,380	11,008
	Septage	2,245	2,505	81	29	66
	Leachate	16,932	21,567	21,226	2,296	2,270
<b>Total m<sup>3</sup></b>		<b>26,116</b>	<b>41,134</b>	<b>37,651</b>	<b>11,705</b>	<b>13,344</b>

The revenue generated from all hauled waste sources is as follows:

<b>2011 to date</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
\$208,862.75	\$173,067.52	\$290,554.04	\$203,949.10	\$52,423.04	\$65,273.32

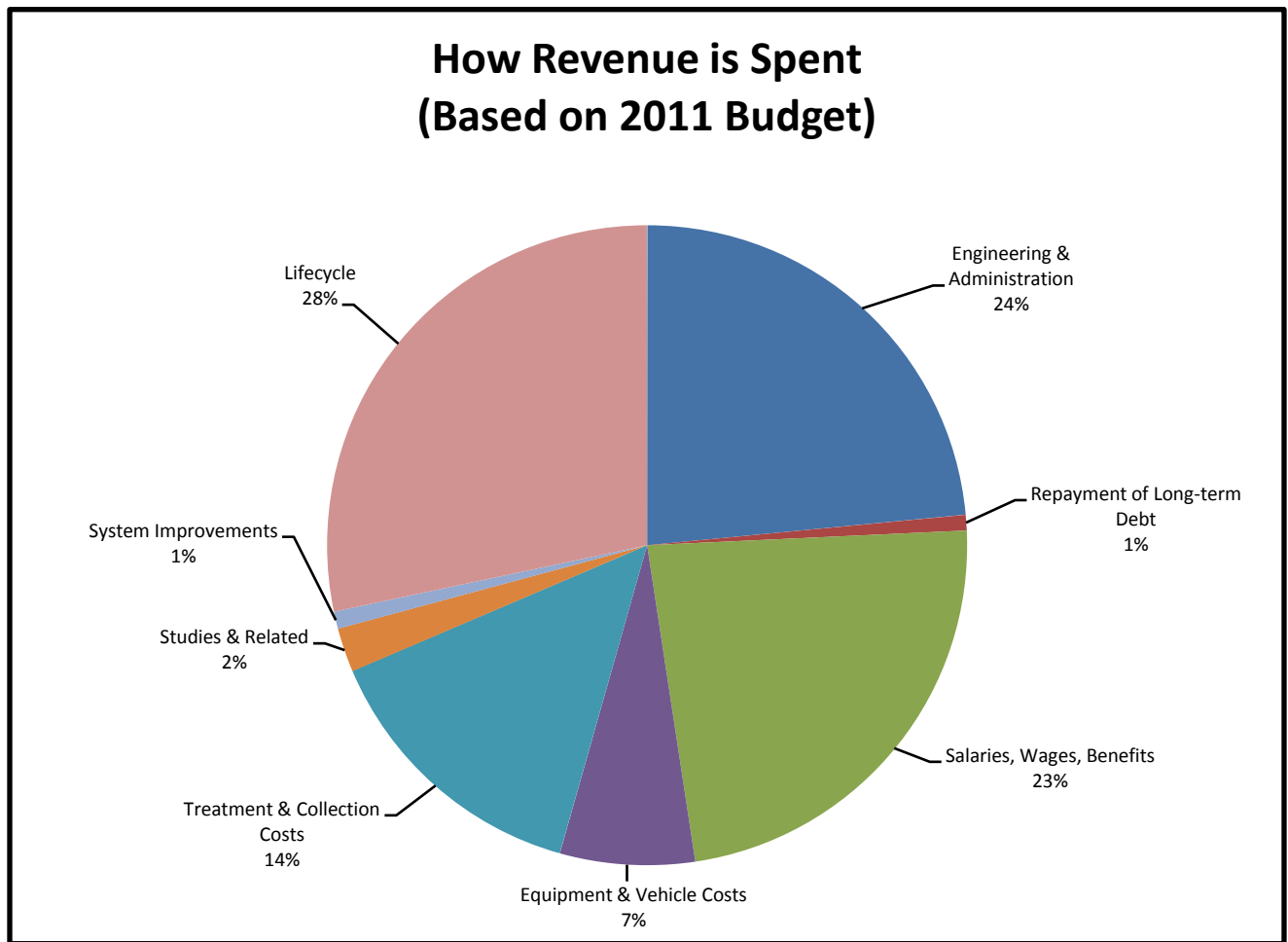
The costing for Hauled Liquid Waste is dependent on a number of factors such as where the product originated from and the strength of waste. Prior to accepting hauled waste a lab report is required to be submitted to the Town. Staff analyzes the lab report to ensure the makeup and strength of the hauled waste will not upset the day to day operation.

The Hauled Liquid Waste Costing is as follows:

<b>Waste Class</b>	<b>Waste Strength</b>	<b>Price per m<sup>3</sup></b>
Septage A – Out of Town	3,000 – 10,000 mg/L	\$15.05/m <sup>3</sup>
Septage A – Within Town	3,000 – 10,000 mg/L	\$14.00/m <sup>3</sup>
Septage B – Out of Town	10,000 – 15,000 mg/L	\$25.50/m <sup>3</sup>
Septage B – Within Town	10,000 – 15,000 mg/L	\$23.00/m <sup>3</sup>
Leachate	1,000 – 3,000 mg/L	\$6.50/m <sup>3</sup>
Holding Tank – Out of Town	300 – 1,000 mg/L	\$4.30/m <sup>3</sup>
Holding Tank – Within Town	300 – 1,000 mg/L	\$4.00/m <sup>3</sup>

The Wastewater Operating Budget can be divided into the following categories:

- Lifecycle \$638,003.00
- Engineering and Administration \$529,108.00
- Salaries, Wages, Benefits \$525,540.00
- Treatment and Collection Costs \$319,575.00
- Equipment and Vehicle Costs \$153,198.00
- Studies and Related \$ 50,000.00
- System Improvements \$ 20,000.00
- Repayment of Long-term Debt \$ 17,640.00



## **Training Requirements**

The owner of the facility is required to ensure that every operator employed in the facility is given a minimum 40 hours of training each year.

The training may include, for example, training in new or revised operating procedures, reviews of existing operating procedures, training in safety, and training on studies of information and technical skills related to environmental subjects.

Staff participate in a number of training seminars throughout the year to ensure this requirement is met.

## **Detailed accounting of Wastewater Services Provided**

<b>Service Provided</b>	<b>Calculated Hours</b>
Supervision and Job Management of Operations Staff	1040 Hours
Sample Program	104 Hours
Daily Rounds	624 Hours
Locates	737 Hours
Legislative Training Requirements (Minimum)	200 Hours
Weekend On-Call	416 Hours
Confined Space	468 Hours
Health and Safety – Tailgate Meetings	156 Hours
Thornbury Collection Preventative Maintenance	1026 Hours
Thornbury Treatment Preventative Maintenance	1081 Hours
Thornbury Wastewater Treatment Plant Laboratory Work	208 Hours
Craigeith Collection Preventative Maintenance	537 Hours
Craigeith Treatment Preventative Maintenance	3908 Hours
Craigeith Wastewater Treatment Plant Laboratory Work	416 Hours