

Infrastructure and Environmental Services Department

About the Infrastructure and Environmental Services Department

The Department is responsible for the planning, construction, operation and maintenance of all Town owned infrastructure assets related to buildings and facilities, transportation networks, water and sewer supplies, solid waste management, and fleet.

The Department supports internal clients by providing fleet management services for all Town owned equipment. This includes management, procurement, and maintenance of equipment such as vehicles, lawn care equipment and excavation equipment. The Department also manages the construction, operation and maintenance of all buildings and facilities owned or leased by the Town which are primarily in place to meet community cultural, recreational and administrative needs.

The Department delivers services and provides support to clients through three organizational divisions: Linear Assets Operations, Facilities and Fleet Operations, and Engineering and Capital Projects.

Services That We Provide

The Department has four major functions and various associated activities including:

Linear Assets Operations

- Water and Wastewater Operations
 - Water meter installations
 - Water quality monitoring
 - Sanitary Inflow and Infiltration management
 - Stormwater system maintenance
 - Asset maintenance and operation
- Road Network Operations
 - Traffic management
 - Winter control
 - Road asset management
 - Street lighting
 - Traffic lights
 - Sidewalks and curbing
 - Bridges
- Solid Waste
 - Collection Contract Administration
 - Customer complaints resolution
 - Diversion strategies

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Facilities and Fleet Services

- Facilities design, construction, repairs, and renovations
- Facility operations
- Fixed and mobile asset management, condition assessments maintenance, revitalization and replacement
- Fleet management and procurement
- Energy conservation and management

Engineering and Capital Projects

- Development review for operational input
- Asset management strategy and implementation
- Capital planning
- Capital delivery
- Development inspections
- Lot Grading

Initiatives that advance the Strategic Plan in 2014

Departmental activities are prioritized to support the Corporate Strategic Plan while continuing to and advance programs and services for the Town. The following are some of the key initiatives planned or ongoing for 2014:

Community Goal: Supporting an exceptional quality of life for all

- Continue to review service levels and cost effectiveness of Town infrastructure to support future population growth while maintaining appropriate services levels for existing communities
- Roll out of Safe Routes to School program as a joint initiative between the 9 municipalities, York Region, and the school boards as an Aurora lead initiative intended to better coordinate school requirements with traffic management
- Complete detailed service level review of the roads and winter maintenance functions and make recommendations to Council on service level adjustments

Economy Goal: Enabling a diverse, creative and resilient economy

- Ensure that the essential public works services are available, safe and reliable, to support the diverse needs and expectations of the business community
- Implement a program to change from black garbage bags to clear bags for the purpose of promoting recycling through increased awareness
- Develop a climate change management strategy focused on risk mitigation and asset protection for increased community resilience

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Natural Environment Goal: Supporting environmental stewardship and sustainability

- Continue to create and promote waste diversion education programs in partnership with York Region through the development and implementation of the Integrated Waste Management Master Plan
- Proceeding with the Towns first LEED Gold building for the new Joint Operations Centre
- Support initiatives in the Corporate Environmental Action Plan including energy retrofits at Town Hall and the rainwater harvesting pilot project
- Submit five year energy conservation and demand management plans to the Province of Ontario by July 1, 2014 as required through current legislation
- Implement conversion of all street lights to low energy LED lighting

Key Performance Measures

The department has selected four key performance indicators that compare the cost for roads, solid waste, facilities and fleet to population. These measures have been selected based on their direct impact to the community and represent an indication of what it costs to deliver these services.

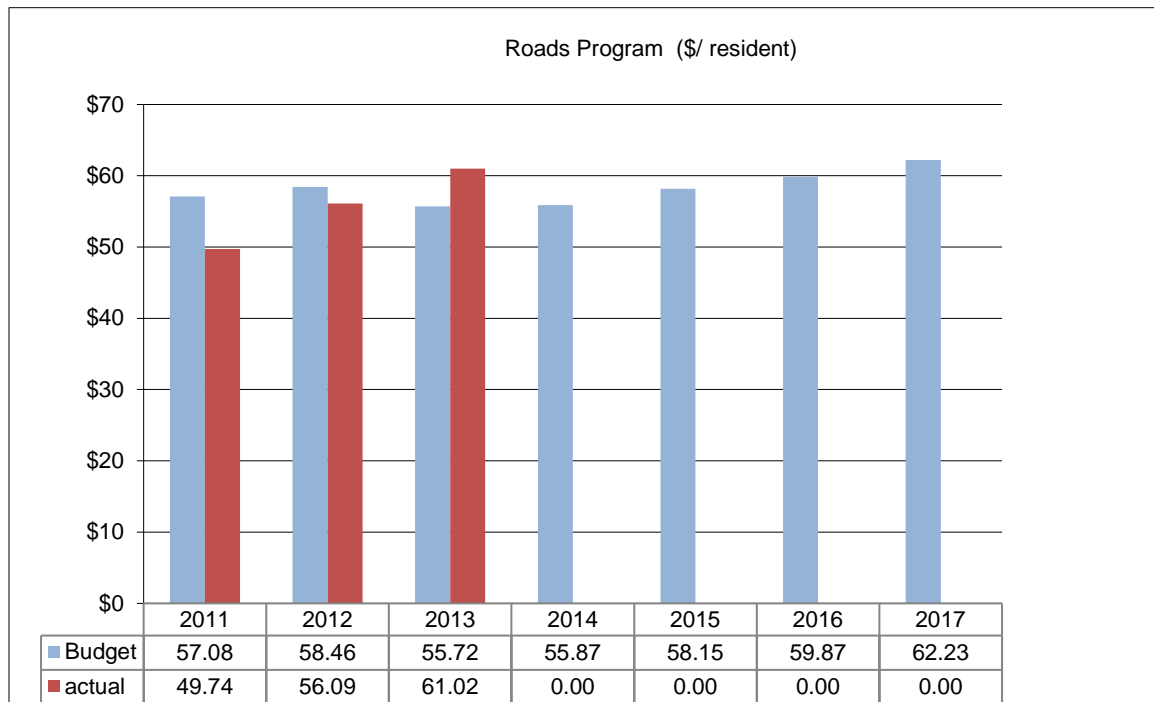
The costs are presented as dollars per resident based on population information provided through the Planning Department. This approach helps to normalize the costs so that the impacts of growth can be considered resulting in a better year over year comparison.

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Roads

This graph includes winter and summer operations as well as traffic management and street lighting.

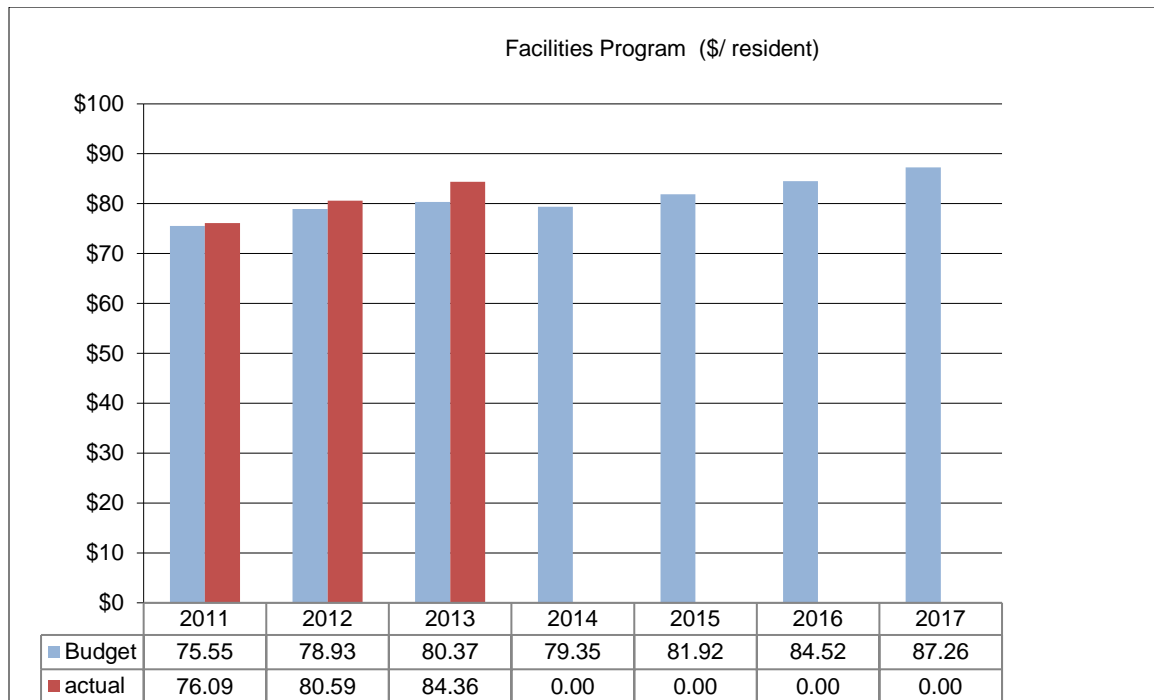
On a per resident basis, the roads program is forecast to experience increased costs with new cost pressures occurring in 2016 and 2017 related to increases to the road network related to the additional of 2C infrastructure. As this budget is sensitive to seasonal conditions, actual costs can vary more dramatically compared to other service areas.



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Facilities

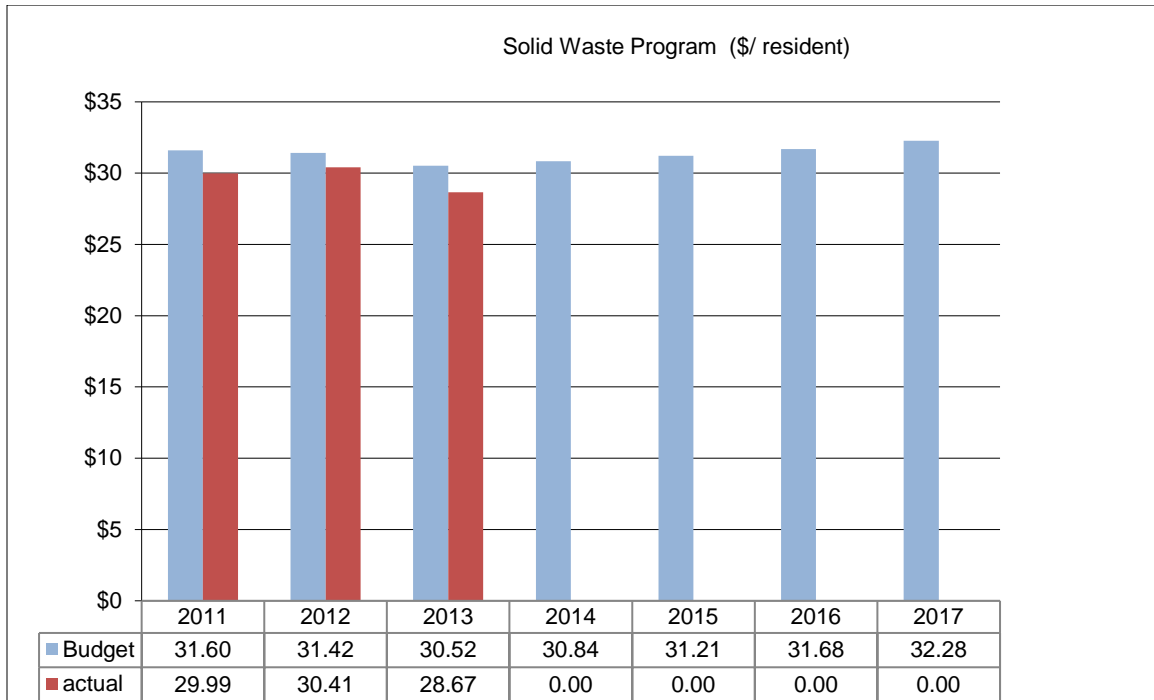
This program has been seeing a cost reduction per capita primarily based on the success of the energy reduction retrofits. However, cost pressures for energy, materials and supplies is expected to continue in the future with a marginal impact on operating costs as well as the introduction of the planned youth centre and new operations centre which factor into the 2015 budget. An additional cost in maintenance has also been occurring as much of the assets are aging. Overall the cost per resident is forecast to remain neutral in the short term.



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Solid Waste

The Town is responsible for solid waste collection with all processing and disposal costs being the responsibility of York Region. With the approval of a Northern six 10 year service contract in 2007, the operating costs for the waste program are very stable with known collection quantities and annual contract cost of living increases. Total weight collected has decreased from 2012 by approximately 4.4% resulting in reduced total costs as this contract is based on total weight collected. Future costs are expected to rise slightly due to annual increases and growth in volumes collected. A benefit to the current contract is that charges are based on collected weight and as materials continue to experience light weighting by more use of plastics and less glass and heavy papers, the cost pressures are somewhat mitigated.



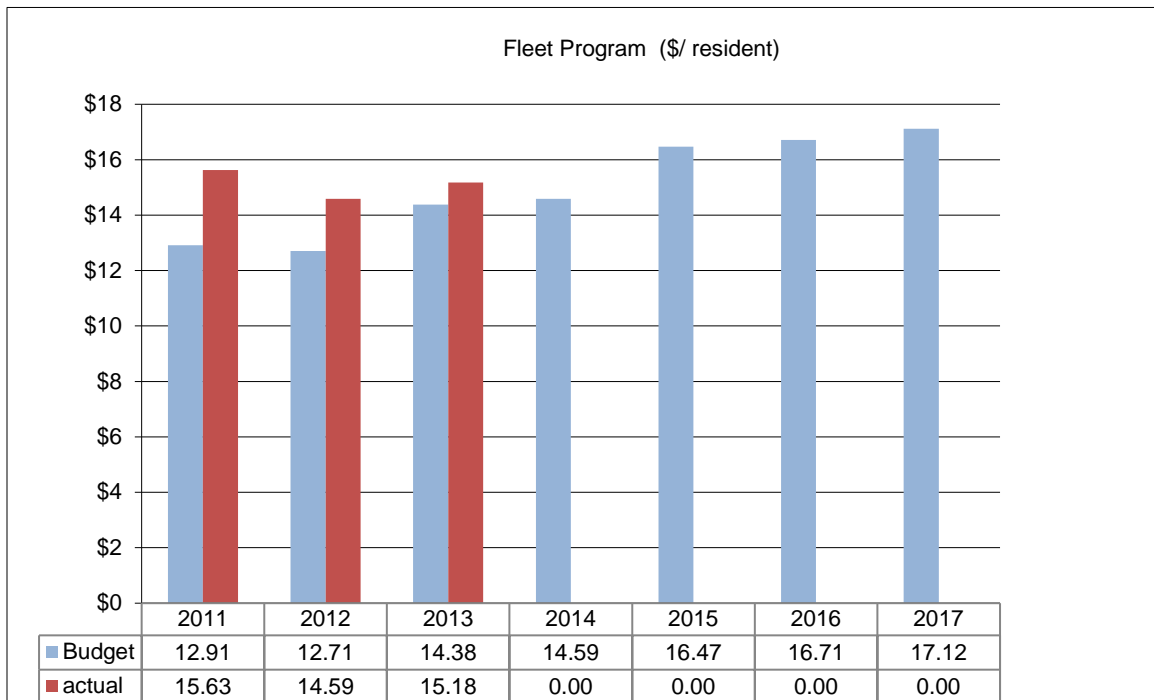
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Fleet

Historically, the fleet has been an internal service with full cost recovery from the various user departments. The costs included mechanics staff, parts, and outsourced services for specialized or large repairs that could not be effectively performed in house. In addition, fuel is purchased wholesale and used for the Town's fleet as well as fire services.

For 2014, the program has been revised to perform as its own program with minimal cost recovery occurring from the rate supported programs and the fire services. This approach was adopted to enable a better understanding of the true costs of fleet and refocus accountability.

Fleet costs for 2014 include the addition of a Fleet/Asset supervisor with those responsibilities defined in the staffing section. The forecast for this program is expected to reduce on a per resident basis based on a gross cost comparison.



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Full-Time Approved Complement and Staffing Requests:

	Starting Approved	2014	2015	2016	2017
Director & Admin Support	6				
Linear Assets Operations	22.5	1.5	2	1	1
Facilities/ Fleet Operations	25		1	1	
Engineering/ Capital Projects	12	1			
Total	65.5	68	71	73	74

*All number based on FTE

2014 Staffing Requests

Linear Assets and Operations:

Request 3 seasonal roads operators (1.5 FTE) to meet service levels for winter operations. Staff are currently completing a winter operations service review and operational plan. A final requirement for these positions is proposed to be based on a future Council report that will outline proposed service level options. Council will have an opportunity to select appropriate service levels for winter management which may modify the need for these positions. These positions will be activated for fall of 2014 for 2014/2015 seasons should they be approved.

Engineering and Capital Projects:

Request for Administrator, Construction Projects. This position is requested to be provided as a three year full time contract position to support the existing three Construction Project Administrators in overseeing the delivery of Capital projects and site inspections for all development activity. The primary driver for this request is the expected workload for build-out of the 2C development area. Once this area is substantially completed the need for this additional position should diminish.

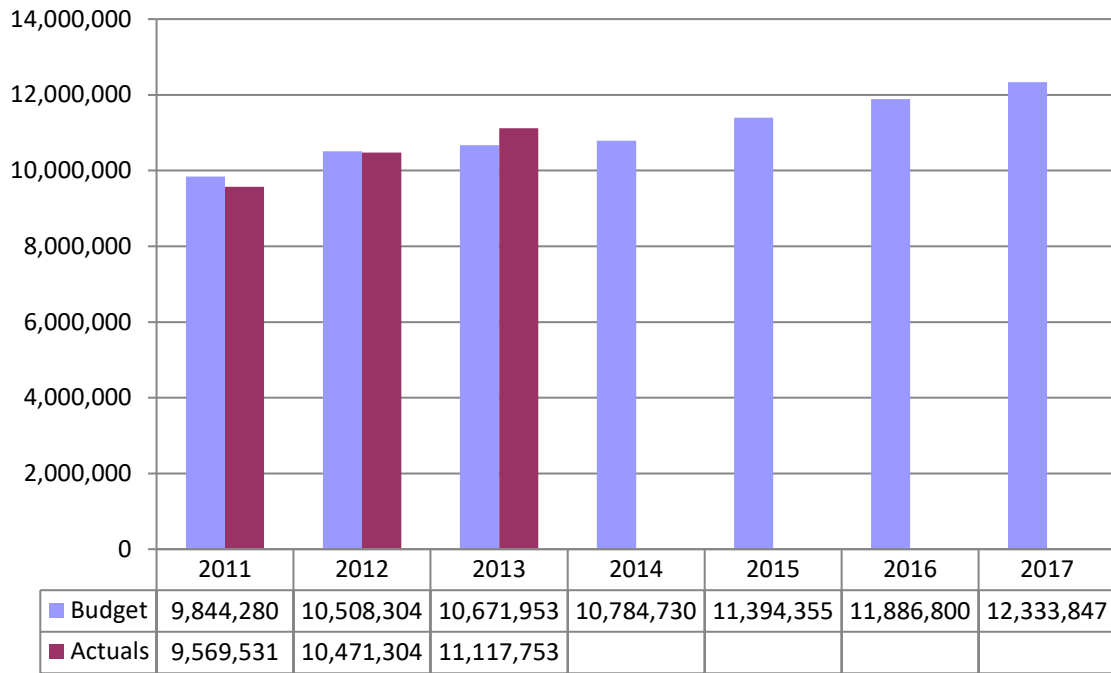
TOWN OF AURORA
2014 BUSINESS PLAN AND BUDGET

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2014 Budget Overview:

The following graph provides a trend for the entire IES budget and historic actuals.

IES Net Operating Budget



Infrastructure & Environmental Services	2012 Actual	2013 Budget (adjusted)	2013 Actual (estimated)	2014 Draft Budget	2015 Outlook	2016 Outlook	2017 Outlook
Personnel Costs	4,522.9	4,545.9	4,818.9	4,763.8	5,186.2	5,433.5	5,605.0
Material Costs	2,904.3	3,003.9	3,325.1	3,008.7	3,198.4	3,381.4	3,512.7
Contracted Services	4,288.5	4,416.4	4,229.0	4,442.2	4,505.4	4,603.5	4,671.8
Trans to Reserves	92.6	43.0	76.2	53.0	58.1	68.1	139.7
Gross Expenditures	11,808	12,009	12,449	12,268	12,948	13,487	13,929
Internal Transfers	(520.2)	(334.2)	(249.4)	(353.7)	(361.8)	(376.1)	(380.6)
Total Expenditures	11,288	11,675	12,200	11,914	12,586	13,110	13,549
Revenues	(981.9)	(1,003.1)	(970.4)	(1,129.3)	(1,186.0)	(1,217.6)	(1,208.8)
Net	10,306.2	10,671.9	11,229.2	10,784.7	11,400.3	11,892.8	12,339.8

Change from 2013 Budget 1.1%

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Infrastructure & Environmental Services	2012 Actual	2013 Budget (adjusted)	2013 Actual	2014 Draft Budget	2015 Outlook	2016 Outlook	2017 Outlook
Administration	506.9	541.2	535.3	521.4	542.4	564.2	582.5
Engineering & Capital Projects	-	-	-	-	-	-	-
Road Network Operations	3,379.9	3,221.7	3,528.0	3,283.5	3,473.2	3,632.8	3,796.0
- Roads Maintenance	1,443.3	1,268.4	1,307.5	1,267.1	1,329.7	1,431.7	1,534.7
- Snow Management	1,291.9	1,210.2	1,454.8	1,240.1	1,340.0	1,373.1	1,406.3
- Traffic	644.6	743.1	765.7	776.3	803.6	828.1	855.1
Solid Waste Management	1,729.2	1,764.7	1,660.4	1,812.3	1,864.1	1,922.7	1,969.1
- Waste Collection Operations	503.8	498.9	508.3	518.6	533.1	550.8	566.5
- Recycling Operations	1,225.4	1,265.9	1,152.1	1,293.6	1,331.1	1,371.8	1,402.5
Facilities & Fleet Services	4,690.3	5,144.3	5,505.5	5,167.5	5,520.7	5,773.1	5,992.2
NET DEPARTMENT COST	10,306.2	10,671.9	11,229.2	10,784.7	11,400.3	11,892.8	12,339.8

Change from 2013 Budget 1.1%

The 2014 budget is proposing a 1.1% increase over 2013 with cost pressures occurring in the following areas:

Salaries

There is a request for 3 seasonal part time positions for the fall of 2014 to augment the winter management program. The need for these positions will be assessed and reported to Council in early 2014 as part of the revised winter management service level review. The Administrator, Construction projects is proposed to be a three year contract position and will not impact the levy as it is funded through the engineering fees. Overall projected cost pressures for salaries is \$217,900 or 4.8%

Materials and Supplies

Material and supplies have a net upward pressure of \$4,800 or 0.2% primarily related to utilities costs.

Contracts

Contracts are seeing a slight increase of \$25,800 or 0.6%. There is an increase in most of the service areas for contracted services with the largest portion of \$17,700 occurring in the solid waste contract increases.

Revenues and Internal Transfers

Revenue is projected to increase by \$126,200 or 12.6%. Internal transfers are budgeted to increase by \$19,500 or 5.5% which is primarily due to the increased cost of fleet maintenance which is charged back to the water and wastewater program.

Infrastructure and Environmental Services Department

Roads And Solid Waste Operations

Division Overview:

Linear Assets Operations for roads assets include pavement, sidewalk and street light management. The services include snow removal, street sweeping, patch and repair work as well as sidewalk repairs and streetlight replacement programs.

Solid waste management is also included in this function and is responsible for waste collection and drop off at the Regional Materials Recovery Facility in East Gwillimbury.

Roads Budget Overview

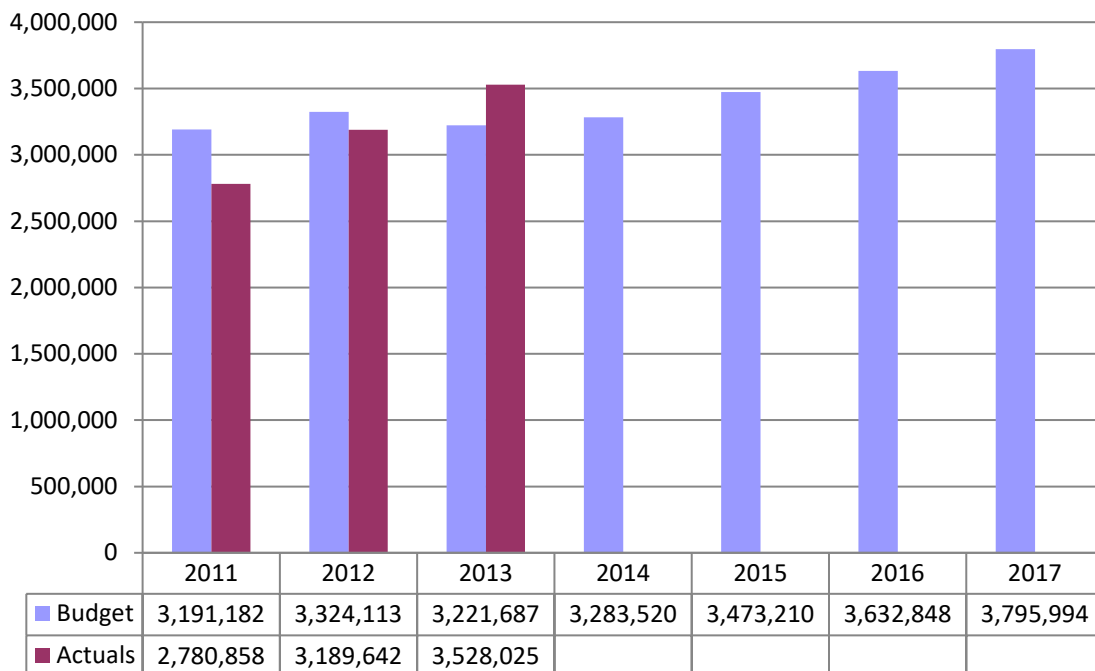
There are no proposed additions or enhancements to service levels in 2014 and there is a small cost decrease related to reduction in some contract areas as a result of a detailed program review.

The significant cost pressure in 2014 is a salary increase for the provision of three seasonal part time salaries, and approximately \$45,000 in additional material and contracted services.

The financial table below provides additional details for 2014. Utilities are increasing due to street lighting energy requirements.

The program is expected to see a net cost increase of 1.9%

Roads Operating Budget (Net)



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Road Network Operations	2012 Actual	2013 Budget (adjusted)	2013 Actual	2014 Draft Budget	2014 Budget vs 2013 Budget Fav / (UnFav)	
					\$	%
Personnel Costs	1,322.2	1,240.6	1,379.9	1,285.4	(45)	(3.6%)
Other Costs:						
Contracts - Roads Maintenance	424.6	500.1	457.3	473.4	26.7	5.3%
Contracts - Snow Management	636.7	522.9	628.7	538.5	(15.6)	(3.0%)
Contracts - Streetlights	145.2	183.0	115.3	200.0	(17.0)	(9.3%)
Contracts - Crossing Guards	96.0	98.0	96.8	101.0	(3.0)	(3.1%)
Equipment Operating Costs	253.2	-	-	-	-	n/a
Streetlight Utilities	323.1	375.0	490.1	400.0	(25.0)	(6.7%)
Operating Materials - Roads Mtce	78.4	70.6	68.5	72.9	(2.3)	(3.3%)
Operating Materials - Snow Mgmt	207.2	255.3	302.0	255.3	-	-
Cost Recovery (Change to Water)	(63.0)	-	-	-	-	n/a
Contribution to Reserve	4.6	4.7	4.7	4.7	-	-
All Other Roads Network Exp.	7.0	17.2	13.5	13.0	4.2	24.4%
Total Other Costs	2,113.0	2,026.8	2,176.7	2,058.7	(32.0)	(1.6%)
Total Expenditures	3,435.3	3,267.3	3,556.6	3,344.1	(76.8)	(2.4%)
Revenues:						
Total Revenue	(55.4)	(45.6)	(28.6)	(60.6)	15.0	32.9%
Net	3,379.9	3,221.7	3,528.0	3,283.5	(61.8)	(1.9%)

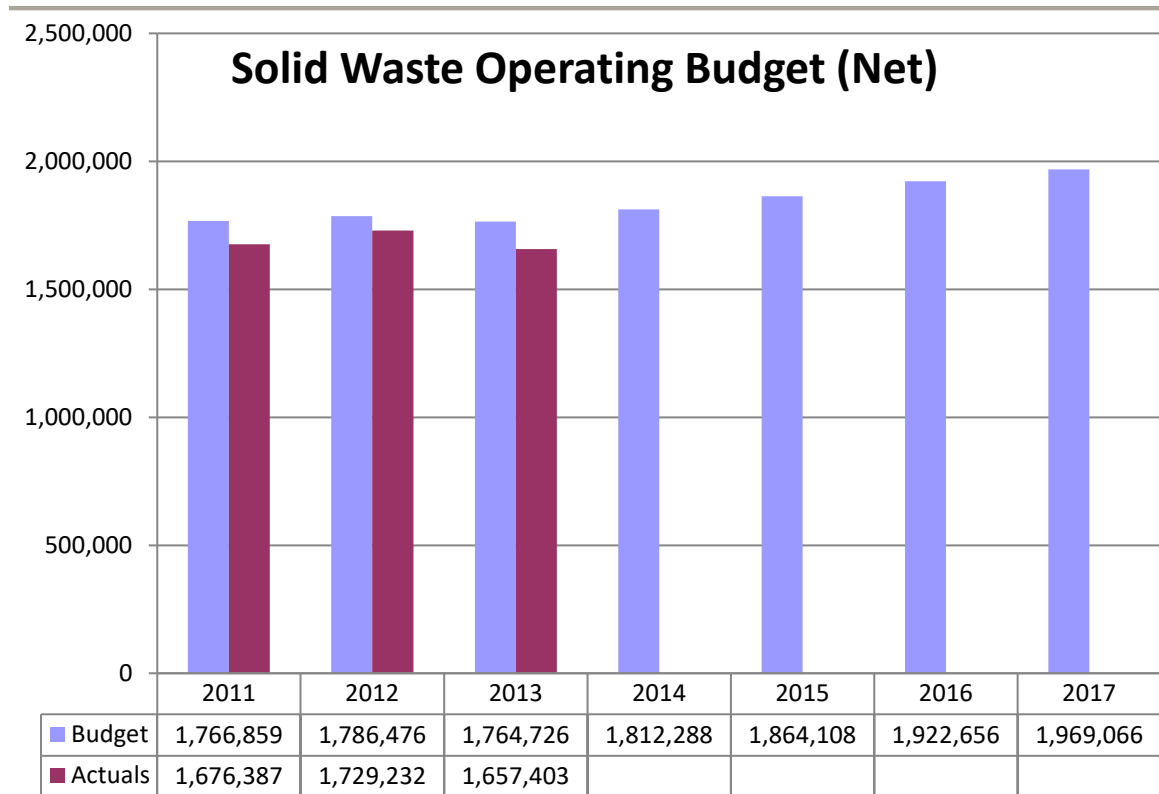
Solid Waste Budget Overview

Solid waste collection costs are relatively stable based on the current fixed term 10 year contract that expires in 2017. Cost pressures are related to community growth and annual contract cost increases for tonnage collected. The program may be benefitting from two deflationary factors being light-weighting of the waste stream as a result of less glass and paper fibres and reduction of waste generated through public awareness and increased environmental ownership by our communities.

The solid waste program is expected to see an increase of 2.7% in 2014

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Solid Waste Management	2012 Actual	2013 Budget (adjusted)	2013 Actual	2014 Draft Budget	2014 Budget vs 2013 Budget Fav / (UnFav)	
					\$	%
Personnel Costs	122.2	117.4	130.9	120.3	(2.9)	(2.4%)
Other Costs:						
Contracts - Solid Waste	458.7	465.0	460.3	480.0	(15.0)	(3.2%)
Contracts - Recycling Operations	1,350.0	1,440.0	1,285.1	1,440.0	-	-
Operating Materials	46.3	37.0	34.7	52.0	(15.0)	(40.5%)
All Other Solid Waste Mgmt Exp.	21.8	13.3	23.1	18.0	(4.7)	(35.3%)
Total Other Costs	1,876.8	1,955.3	1,803.3	1,990.0	(34.7)	(1.8%)
Total Expenditures	1,999.0	2,072.7	1,934.2	2,110.3	(37.6)	(1.8%)
Revenues:						
Recycling Grant	(227.6)	(260.0)	(232.3)	(250.0)	(10.0)	(3.8%)
Other Revenue	(42.1)	(48.0)	(41.5)	(48.0)	-	-
Total Revenue	(269.7)	(308.0)	(273.8)	(298.0)	(10.0)	(3.2%)
Net	1,729.2	1,764.7	1,660.4	1,812.3	(47.6)	(2.7%)

Infrastructure and Environmental Services Department

Facilities and Fleet Services

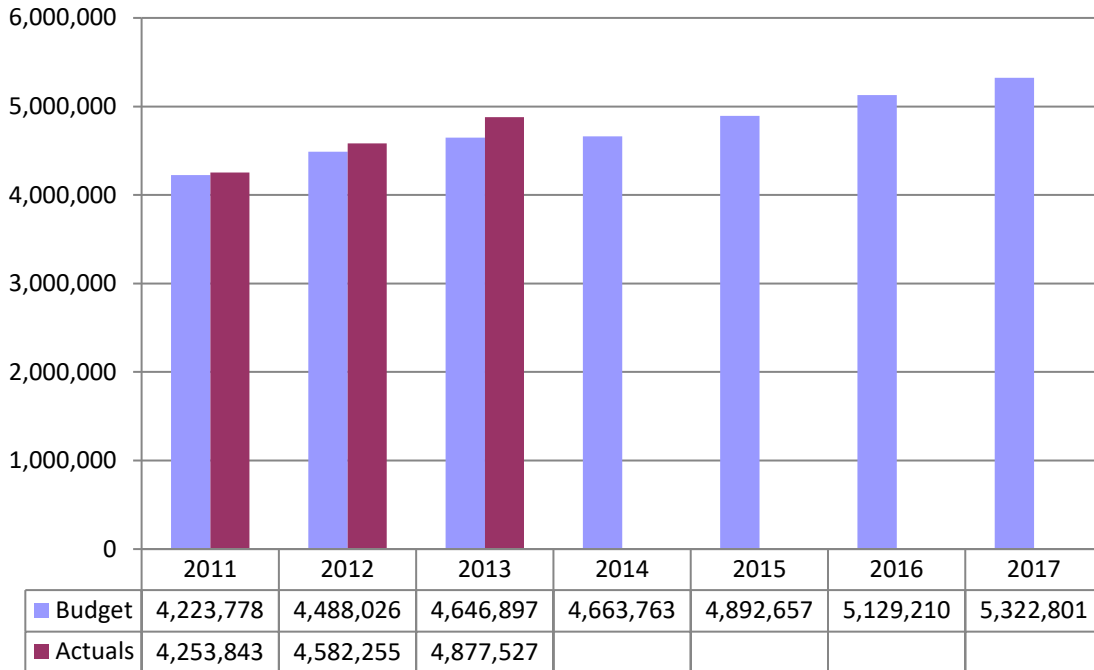
Facilities and Fleet Operations provide design, construction, operational and maintenance services for all Town owned facilities and the fleet inventory. The assets include all buildings which provide accommodations for both Town staff operations as well as all indoor community recreational and cultural activities.

The Fleet program is operated by three mechanics and a Supervisor that manages both the Fleet and Town Facilities.

Facilities Budget Overview

Historic costs have benefited from energy management programs where energy costs are a significant part of the budget. However, as these projects conclude, future cost pressures will continue, resulting in a forecast upward pressure in this program. Further opportunities for energy reductions will be considered once the current retrofit program is concluded in 2013.

Facilities Operating Budget (Net)



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The most significant cost pressures for this program are maintenance costs as many of the mechanical systems are nearing end of life. Significant replacements have occurred with the remaining to be completed by 2015. The 2014 impact for maintenance increase is approximately \$98,000 which is the bulk of the increase.

Fleet Budget Overview

The following figure presents gross operating costs to facilitate analysis of the budget trends.

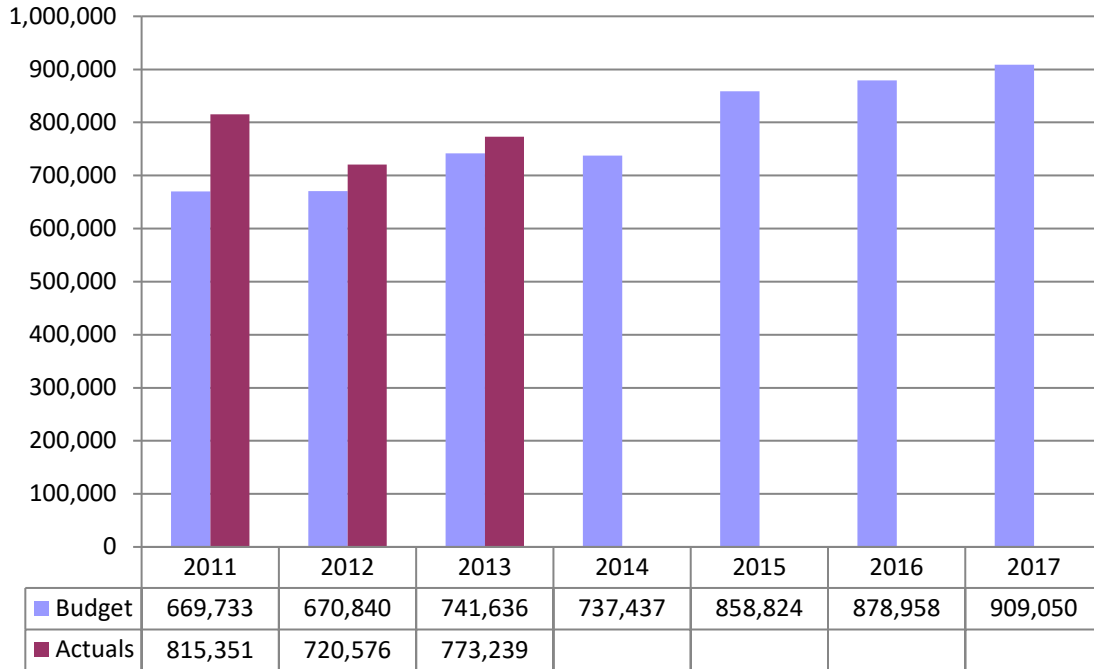
Historic costs have been consistently over budget and reflect the growing cost and volume of repair work that is needed to maintain the Town's fleet. Unexpected repairs that have occurred in the recent past have been a result of major component failure or damage related to use. Staff will be undertaking a more detailed analysis to determine an optimal life cycle for major assets.

The cost pressures in 2014 relate to the addition of a Fleet Supervisor and additional funding for parts and service costs. A review of fleet services in other comparable municipalities was completed and it was found that Aurora's asset volume and service area would justify a dedicated fleet supervisor. Adding a fleet supervisor would alleviate the current situation with the supervisor overseeing both facilities and fleet. Efficiencies in program delivery and long term financial planning and analysis is expected to result in longer term cost savings for the program. These savings are not reflected in the current forecast however are expected to offset the full cost of the fleet supervisor by 2017 (excluding effects of inflation and service level increases).

The gross cost impact for this program is neutral for 2014.

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Fleet Operating Budget (Gross)



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Facilities & Fleet Services	2012 Actual	2013 Budget (adjusted)	2013 Actual	2014 Draft Budget	2014 Budget vs 2013 Budget Fav / (UnFav)	
					\$	%
Personnel Costs	2,002.6	2,087.5	2,177.5	2,153.9	(66.3)	(3.2%)
Other Costs:						
Utilities	1,177.1	1,156.1	1,310.4	1,152.7	3.3	0.3%
Heating Fuel	308.8	362.6	329.8	350.6	12.0	3.3%
Contracts - Facilities Cleaning	369.3	428.0	396.2	426.0	2.0	0.5%
Building Repair & Maintenance	319.6	309.8	340.1	308.8	1.0	0.3%
Operating Materials	223.9	212.0	214.4	183.3	28.7	13.5%
Equipment Service Contracts (HVAC etc)	164.6	127.7	146.9	127.2	0.5	0.4%
Compressor Repairs	72.0	43.5	45.6	36.5	7.0	16.1%
Waste Disposal Fee	33.9	33.9	33.9	33.9	-	-
Vehicle Fuel Cost	183.3	198.0	230.9	210.0	(12.0)	(6.1%)
Vehicle Supplies	274.6	244.8	268.5	243.8	1.0	0.4%
Vehicle Repairs	76.3	82.0	50.5	82.0	-	-
Trans to Reserves (Vehicle Sales)	84.6	35.0	66.7	45.0	(10.0)	(28.6%)
Vehicle Insurance	23.9	21.1	21.1	25.3	(4.2)	(20.0%)
Vehicle Cost Allocations	(721.4)	(334.2)	(249.7)	(353.7)	19.4	5.8%
All Other Expenses	336.8	345.5	364.5	357.3	(11.8)	(3.4%)
Total Other Costs	2,927.3	3,265.5	3,569.6	3,228.6	36.9	1.1%
Total Expenditures	4,929.9	5,353.1	5,747.1	5,382.5	(29.4)	(0.5%)
Revenues:						
Lease Revenue (215 Industrial Pkwy)	(155.1)	(167.8)	(170.9)	(170.0)	2.2	1.3%
Vehicle Sales	(84.6)	(35.0)	(66.7)	(45.0)	10.0	28.6%
All Other Revenue	-	(6.0)	(4.0)	-	(6.0)	100.0%
Total Revenue	(239.7)	(208.8)	(241.6)	(215.0)	6.2	3.0%
Net	4,690.3	5,144.3	5,505.5	5,167.5	(23.2)	(0.5%)

Infrastructure and Environmental Services Department

Administration, Engineering and Capital Projects

Division Overview:

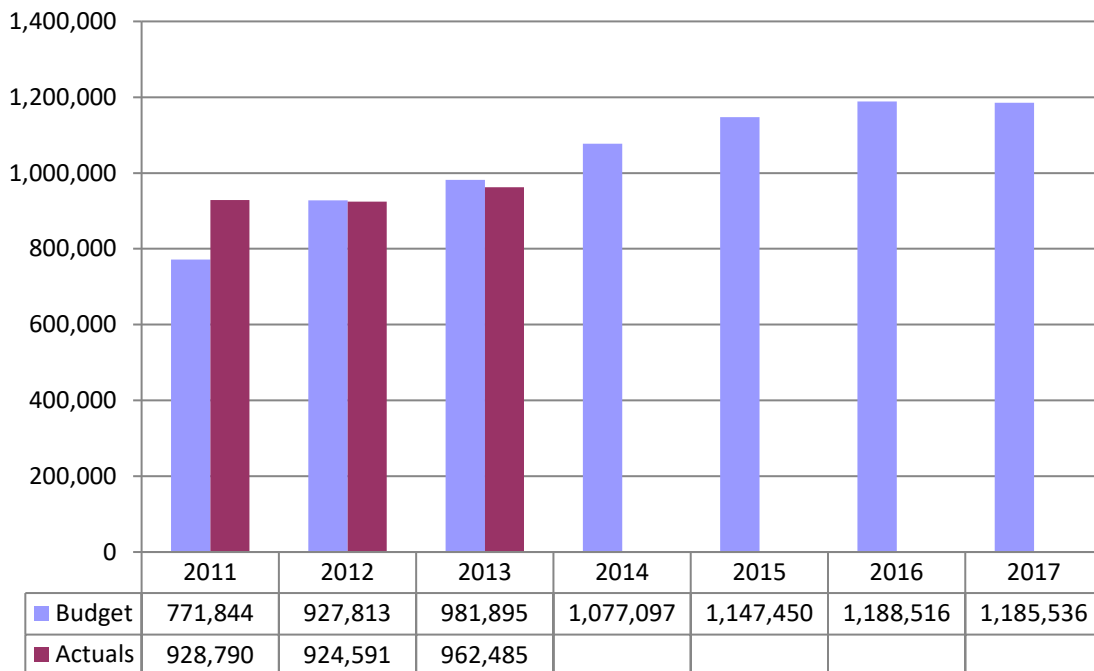
Engineering and Capital Projects is responsible for technical support and services for the other divisions. Primary functions include asset management, capital program forecasting and budgeting, capital delivery, development review support and development construction inspections, and engineering.

Engineering Budget Overview

The engineering budget is primarily salaries and has a tax supported component and a development growth funded component. Gross costs are presented for budget analyses.

Annual cost increases are primarily related to salary with the inclusion of 1 contract position for a three year term to accommodate increased workload related to inspections for 2C. The 2014 net impact is 3.7%.

Admin/Engineering Budget (Gross)



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Combined Administration AND Engineering & Capital Projects	2012 Actual	2013 Budget (adjusted)	2013 Actual	2014 Draft Budget	2014 Budget vs 2013 Budget Fav / (UnFav)	
					\$	%
Personnel Costs	803.3	823.8	832.2	918.5	(94.7)	(11.5%)
Other Costs:						
Contracts	49.5	65.0	56.1	65.0	-	-
Courses & Seminars	14.2	20.6	20.6	20.6	-	-
Office & Computer Supplies	15.5	16.5	13.8	15.5	1.0	6.1%
Mileage	13.3	10.0	12.8	10.0		-
Memberships	5.8	10.0	6.7	9.0		-
All Other Expenses	22.4	36.0	20.4	38.5	(2.5)	(6.9%)
Total Other Costs	120.7	158.1	130.3	158.6	(0.5)	(0.3%)
Total Expenditures	924.0	981.9	962.5	1,077.1	(95.2)	(9.7%)
Revenues:						
Engineering Fees	(21.1)	(150.0)	(270.0)	(250.0)	100.0	66.7%
Transfer from Eng. Fees Reserve	(358.3)	(290.7)	(125.1)	(270.7)	(19.9)	(6.9%)
All Other Revenue	(37.7)	-	(32.1)	(35.0)	35.0	n/a
Total Revenue	(417.1)	(440.7)	(427.2)	(555.7)	115.1	26.1%
Net	506.9	541.2	535.3	521.4	19.8	3.7%