

To: County Council
From: Matt Ash
Date: January 19, 2012
Subject: 2011 Public Works Annual Report

Purpose

This report represents the 2011 Public Works annual report, as well as a synopsis of the proposed 2012 Public Works budget.

Comments

The Public Works Department comprises three divisions, Roads, Fleet and Facilities. This department is responsible for the maintenance and operation of much of Perth County's capital assets, including 440 km of roadway, 114 bridges and structures, a fleet of 45 vehicles and heavy equipment, and 10 County owned facilities. To do this, Public Works employs 19 full time staff, and 24 part time seasonal staff.

This report has been written prior to final year-end, and as a result the figures contained herein are unaudited year-end estimates and may be subject to variation.

2011 Summary

2011 was a year of surprises, both good and bad, for Public Works. For Roads division, strategic tendering decisions made in prior years, combined with good market conditions, resulted in excellent tendered prices for projects. Facilities division however was surprised with unexpected repairs, resulting from rapid deterioration in one case, and a hail storm in another. Fleet was subjected to surprisingly high fuel prices, although this has occurred in the past and is not altogether unsurprising. Overall, the year end position for Public Works is somewhat mixed, with a small net positive for Roads, and a small to moderate net negative position for the other operational divisions.

Public Works, in particular Roads, relies heavily on commodity prices. One of the primary commodities, Asphalt Cement, remained relatively stable in 2011, with prices being on average similar to both 2010 and 2009. Although the price of oil was up considerably in 2011, an industry wide decrease in demand for asphalt kept prices lower than would be expected. Fuel unfortunately did not follow the same trend, and generally rose with the price of oil. On average, fuel was 20% higher in 2011 versus 2010.

Gravel prices decreased slightly in 2011 after sharp increase in 2010. The long term prospects are for overall higher gravel prices due to the increasing scarcity of this resource. Winter Sand prices stabilized, with a marginal 2.3% increase in 2011 over 2010, as did the price of Road Salt with a 0% increase for 2011. The Construction Price Index experienced a second year-over-year decrease, reflecting the ongoing economic downturn in the construction industry.

Total spending on capital projects in 2011, all divisions, was \$5,122,288. This is nearly identical to the capital spending in 2010 of \$5,177,000. Total operational expenses in 2011, all divisions, was \$6,481,000, for a combined total expenditure by Public Works in 2011 of \$11,603,000. This is up only slightly over the 2010 combined expenditures of \$11,168,000.

In keeping with good industry practice, Public Works indexes its asphalt contracts to the current price of Asphalt Cement. In past years, this has at times resulted in an additional payment to the Contractors. However, since 2009 this practice has resulted in rebates to the County, a trend which continued in 2011.

Capital Report

Public Works presented a budget plan for 11 capital projects in 2011, not including engineering studies for future projects. Two of these were fleet replacement purchases, which were successfully completed.

For Facilities Division, 2011 was the year of projects that did not happen. The planned renovations to the Archives building hit a financial roadblock after the estimated cost came back far in excess of budget. As a result, this project was shelved and the Facilities Committee was tasked with exploring alternatives. Another planned project, the renovations for Accessibility upgrades to the Courthouse, was contingent on funding from the Federal Government. As this did not happen, this project was suspended indefinitely. And finally, the planned purchase of property for a new EMS base in Stratford was not completed, due to the ongoing study to determine an appropriate site. While this project was not completed in 2011, it will continue into 2012.

There were three other Facility related projects which did take place in 2011. The Solar Panels, which actually began in 2010, were at least partially completed in 2011 with the installation of one panel in Mitchell. The second panel in Milverton still awaits a connection agreement from Hydro One. The improvements to the Mitchell Public Works yard were also partially completed in 2011, although the planned replacement of the windows could not be done. The window replacement delay occurred as a result of the tornado in Goderich, which caused all local glass suppliers to be unavailable. And finally, the installation of a ramp into the Archives building was tendered in late 2011. While no actual work has yet taken place, the project is moving ahead.

Roads Division undertook three projects in 2011, although the resurfacing of Road 180 in Dublin was in fact a carry-over project from 2010. The other two projects were both successfully completed. Firstly was the rehabilitation of bridge #178058, located on Road 178 in North Perth. The bridge work was done by Huron County forces. Secondly was the repaving of Road 119 from Stratford to Milverton, which had a budget of \$5,205,000. Due to favourable market conditions, as well as project timing, the actual expenditure for this job came in well under budget at approximately \$4,200,000.

Operating Report

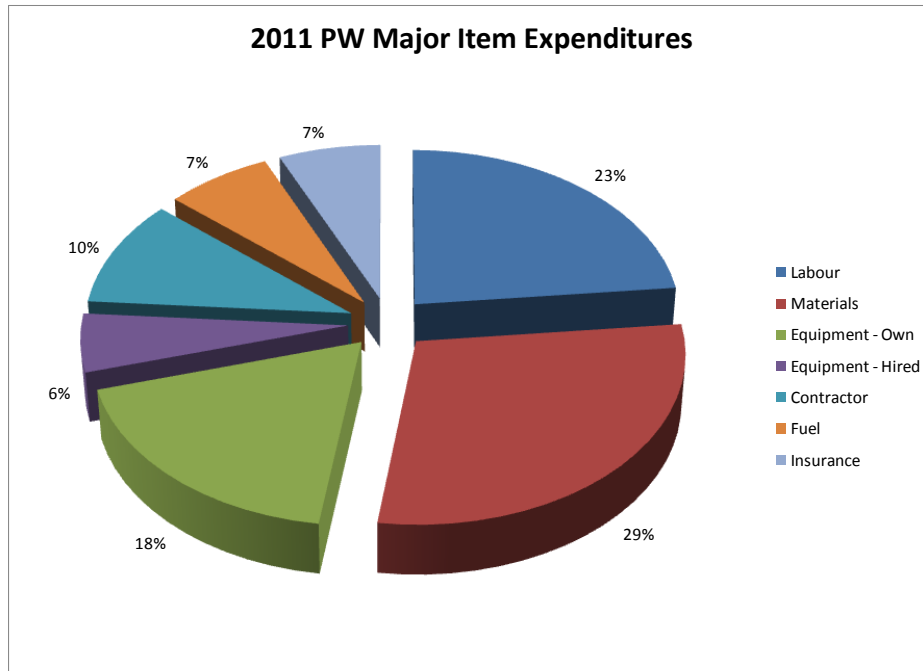
Public Works operating is divided into three operational divisions, being Roads, Facilities, and Fleet. While Roads division can be greatly impacted by commodities prices, as noted

previously, weather remains the single largest factor. The influence of weather on winter maintenance can be very large, as winter maintenance represents nearly 50% of the Roads division budget. The 2011 calendar year began with heavy snowfall and drifting, which drove expenditures for winter maintenance up considerably. Fortunately, November and December were well below average for snowfall, bringing expenses back in line with budget. Roads was able to benefit in some other areas, in particular Resurfacing, which saw very favourable unit prices for slurry seal in 2011 due to an industry-wide decrease in demand. Shoulder Maintenance and Line Painting were also well under budget as a result of unexpectedly low material prices. On the other end of things, Pavement Repairs, which includes pothole filling, ended 2011 considerably over budget. This is primarily the result of some serious road problems which occurred after the difficult winter season of January-March. All other Roads activities ended 2011 generally on budget. As a result, Roads is ending 2011 very nearly on budget, with possibly a slight surplus.

Facilities Division took a couple of large charges in 2011 that were unexpected at budget time. The Mitchell sand dome had extensive damage following an early year hail storm which necessitated re-shingling. At the same time, the dome's structure was renovated and repaired. As well, the sand shed in Milverton started showing significant structural problems in the spring, requiring interim repairs. All other facilities performed as expected, and generally met their budget numbers. However, as a result of the large expenses at the Mitchell and Milverton Works Yards, Facilities ran over budget, with a year-end transfer to reserve of only \$187,000 versus the budget amount of \$343,000. Assuming expenses return to normal in 2012, the decrease in reserve transfers from 2011 should not cause any long term negative effect.

Fleet Division in general experienced an average year. Parts and Labour were nearly on budget, as were other expenses. However, fuel was considerably more costly in 2011 than was expected at budget time. Fuel costs for 2011 were approximately \$45,000 over budget, which translates to an 18% overage. As a result, transfers to Fleet Reserve are slightly off budget, estimated to be only \$290,000 versus a budget amount of \$348,410. Transfers to Fleet Reserve are slowly being increased in order to allow for the long term replacement of all vehicles and equipment, and despite this one year short fall the long term prognosis remains positive. A fleet forecast is presented in appendix 'A'.

The following chart shows a breakdown of the major expenditures incurred to operate the Public Works Department in 2011. As before, materials remain the largest expense, followed closely by labour and equipment.



2012 Budget

The Roads Division capital plan for 2012 is largely geared around bridge and culvert work. There is a substantial backlog of structural work, much of which will be tackled in the period 2012-2014. For 2012, structure work will be done on Road 107, Line 20, and Road 180. These particular structures were selected firstly due to condition, and secondly in order to facilitate upcoming re-paving projects in the same area.

In addition to the structures, there are two road re-paving projects scheduled for 2012. Road 140 will be recycled and paved from Line 88 to Line 91, a distance of 9.7km. This project is in partnership with Wellington County, as Road 140 is a boundary road. Line 91 will also be recycled and paved from Road 140 to Palmerston. Both projects will be tendered together so as to achieve savings of scale. There is also a possibility that the paving contract will be extended to include work planned by North Perth, although this has not yet been finalized.

On the facilities side, a new EMS base in Stratford is being planned. This project includes for both the purchase of land, and the construction of a new base/HQ. Location and the full extent of this project are unknown at this time. The project will be fully financed and recovered through rental charges to EMS. Further, as per the direction from Facilities Committee, a new Archives base is in the planning stages. For 2012, the budget will include only for purchase of land and design of a building. Construction is not anticipated until 2013 at the earliest.

It must be noted that capital funding for Roads and Bridges continues to fall well below the sustainable level. Given an average cost of \$180,000 to re-pave 1 kilometre of road, and an average life-cycle of 18 years, there should be an annual contribution to Roads capital of \$4,430,000. Additionally, with 123 bridges and culverts, an amount of \$750,000 should be contributed to Bridges capital annually, for a combined total of \$5,180,000. For 2012, the total contribution to capital reserves, including the Federal Gas Tax, is \$3,443,000. This

shortfall will begin to manifest itself in the medium to long term, as rehabilitation or replacement of roads and bridges will be increasingly delayed. At current funding levels, road re-paving will need to be extended to 28 years. It is very likely that extending the re-paving cycle to 28 years will result in roads with a service level that is unacceptably poor.

Attached as appendices 'B' and 'C' are 5 year forecasts of road and bridge projects. It should be noted that these forecasts include projects which are identified as needed, however due to funding shortfalls cannot be included in the 5 year forecast.

Operationally, the 2012 budget for Facilities remains relatively static, with only a 2.8% budgeted increase in expenses. Despite the increase in fuel prices, the 2012 Fleet budget is likewise static, with only a 2.4% budgeted increase. Savings in this division come mostly from operational benefits now being realized from the addition of a second mechanic.


Roads division operationally for 2012 has budgeted for an increase of approximately 3.8%, independent of capital reserves and corporate overhead. The main activities which are showing increases for 2012 are Ditching, Pavement Repairs, Crack Sealing, and Winter Maintenance, which despite a calm fall season in 2011 is still trending upwards.

Administration in 2012 is primarily only showing increases in wage and benefit, as per previously approved policies. Corporate overhead continues to be an impact in this area, with a planned budget increase of 4.7% for 2012. Administration costs are not directly levied, but are instead recovered through overhead amounts on all activity-based expenses.

Conclusion

The 2012 Roads budget, at time of writing, represents a 2% increase to the Net Municipal Share. However, due to increased contributions from the City of Stratford for regional roads as a result of the new cost sharing agreement, the actual impact to County taxpayers will be a decrease of approximately 2%.

This is the direct tax impact for the Public Works budget only. It must be noted that increases in rental rates from Facilities and increases in equipment rates from Fleet also have an impact on the net County levy, although indirectly.



Director

Reviewed By: _____
Chief Administrative Officer

APPENDIX 'A' Fleet Forecasting

Veh #	Equipment	Year	Cost	Life	2010	2011	2012	2013	2014	2015	2016
V001	Volvo Tandem Plow	2001	\$240,000	12			\$0				
V002	Volvo Tandem Plow	2004	\$240,000	12							\$240,000
V005	Volvo Tandem Plow	2005	\$240,000	12							
V006	International Tandem Plow	2005	\$240,000	12							
V007	Sterling Tandem Plow	2009	\$240,000	12							
V008	Freightliner Tandem Plow	2010	\$240,000	12	\$241,014						
V009	Volvo Tandem Plow	2009	\$240,000	12							
V019	Volvo Tandem Plow	2002	\$240,000	12				\$240,000			
V024	Volvo Tandem Plow	2002	\$240,000	n/a					\$240,000		
V029	Volvo Tandem Plow	2008	\$240,000	12							
V016	Freightliner Single Axle	1999	\$175,000	15					\$175,000		
V003	Ford F450 dump	2008	\$65,000	13							
V010	Ford F450 dump	1999	\$65,000	13			\$70,000				
V014	GMC Pickup	2007	\$22,000	7					\$22,000		
V015	GMC Pickup	2009	\$22,000	10							
V017	Chev 2500HD Pickup	2011	\$45,000	7		\$42,389					
V020	Dodge Pickup	2010	\$25,000	7	\$20,804						
V021	Ford Pickup	2008	\$22,000	7						\$22,000	
V022	GMD Pickup	2011	\$22,000	5		\$17,673					\$22,000
V023	Ford Pickup	2005	\$22,000	7			\$25,000				
V028	Dodge Pickup	2010	\$25,000	7	\$20,946						
V079	20 Ft. King Float trailer	2005	\$35,000	20							
V034	Champion 740 Grader	1992	\$250,000	n/a							
V035	Caterpillar 12M Grader	2011	\$210,000	20		\$202,095					
V040	Komatsu Loader WA200	2004	\$160,000	15							
V043	Cat 4300 IT Backhoe	2005	\$130,000	15							
V050	John Deere 644K Loader	2011	\$210,000	20		\$200,410					
V055	Etnyre Spray Patcher	1989	\$40,000	20				\$40,000			
V056	145 gal Diesel Kettle	2006	\$55,000	20							
V067	Vermeer Chipper	2009	\$42,000	20							
V074	Gravel Spreader	1991	\$90,000	25							\$90,000
A1276	2008 Crestline Ambulance	2008	\$135,000	7						\$135,000	
A1277	2008 Crestline Ambulance	2008	\$135,000	7						\$135,000	
A1508	2007 Demers Ambulance	2007	\$135,000	7					\$135,000		
A1287	2007 Demers Ambulance	2007	\$135,000	7					\$135,000		
A1506	2006 Demers Ambulance	2006	\$135,000	6				\$135,000			
A1507	2006 Demers Ambulance	2006	\$135,000	6				\$135,000			
A1207	2010 Demers Ambulance	2010	\$135,000	7	\$130,000						
A1258	2009 Demers Ambulance	2009	\$135,000	7							\$135,000
A1264	2010 Demers Ambulance	2010	\$135,000	7	\$130,000						
A1224	2009 Demers Ambulance	2009	\$135,000	7							\$135,000
A1391	2008 Dodge Ram	2008	\$65,000	5				\$65,000			
A1390	2010 GMC Yukon	2010	\$65,000	5	\$65,187					\$65,000	
	Miscellaneous Purchases				\$4,506		\$5,000	\$5,000	\$5,000	\$5,000	\$5,000

