

Tax Base Issue Papers

I1 - I5

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BUDGET ISSUE PAPER: Assessment Growth

Related Budget Request(s):

- TRAN.2019.004 - Assessment Growth from 2018
- TRAN.2019.006 - Additional Assessment Growth from 2017
- TRAN.2019.005 - Contrib. to CRF and CIRRF from 2018 Assessment
- TRAN.2019.007 - Contrib. to CRF and CIRRF from 2017 Assessment

Issue/Background:

Assessment Growth built in to the budget for 2019, includes additional assessment growth from 2017 (realized after the final roll of return) of \$102,331 and assessment growth from 2018 of \$1,088,655 or 1.5%.

Assessment Growth

Assessment Growth is new taxes from new or expanded homes or businesses to pay for the services they receive. Assessment growth is added to the prior year tax levy annually along with budget increase to calculate the new tax levy. This tax levy is divided by the weighted taxable assessment to calculate the tax rate.

Description	Amount	Note
2018 Tax Levy	\$72,287,541	Includes the additional Assessment Growth from 2017 of \$102,331
2018 Assessment Growth	\$1,088,655	1.5% Assessment Growth from 2018
Proposed Budget Increase	\$1,403,428	To be approved by Council February 2019
2019 Tax Levy	\$74,779,624	Proposed
/Weighted Taxable Assessment	TBD - \$	Released by MPAC in December 2018
Residential Tax Rate	TBD - %	= 2019 Tax Levy / Weighted Taxable Assessment

See brief [video on City website](#) to help understand how assessment growth impacts the tax base.

Change in Market Value

This is the change in market value assessed by the Municipal Property Assessment Corporation (MPAC) for existing homes. MPAC assesses homes every four years and phases in increases over the next four years. The City does not bring in additional taxes from these changes. Some properties may pay more as a result but other properties will pay less. In aggregate, the net impact to the city for changes in market value is nil.

See brief [video on City website](#) to help understand how a change in your home's market value impacts your taxes.

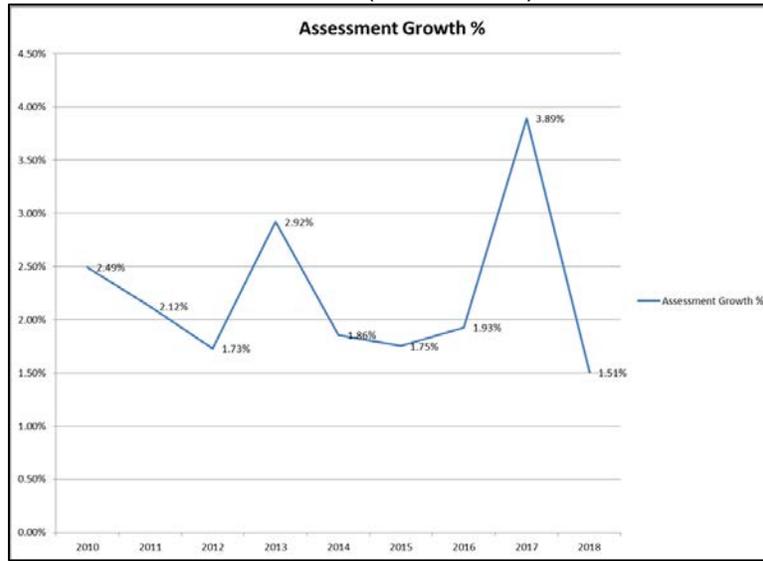
Budget Impact

The 2018 budget was based on 2017 assessment growth of \$2,550,806 or 3.7%. Final roll of return resulted in an additional \$102,331 in assessment growth being realized. This amount was been included in the 2018 Tax Levy budget as financial contingency, per policy. The 2019 Budget will allocate this assessment growth based on council approved policy, with 60% of this amount being retained in operating while the remaining 40% is transferred to the Capital Reserve Fund (10%) and the Capital Infrastructure Reserve Fund (30%).

The 2019 budget also includes 2018 actual assessment growth of \$1,088,655 or 1.5%. Based on council approved policy, 60% of this amount will be retained in operating while the remaining 40% is transferred to the Capital Reserve Fund (10%) and the Capital Infrastructure Reserve Fund (30%).

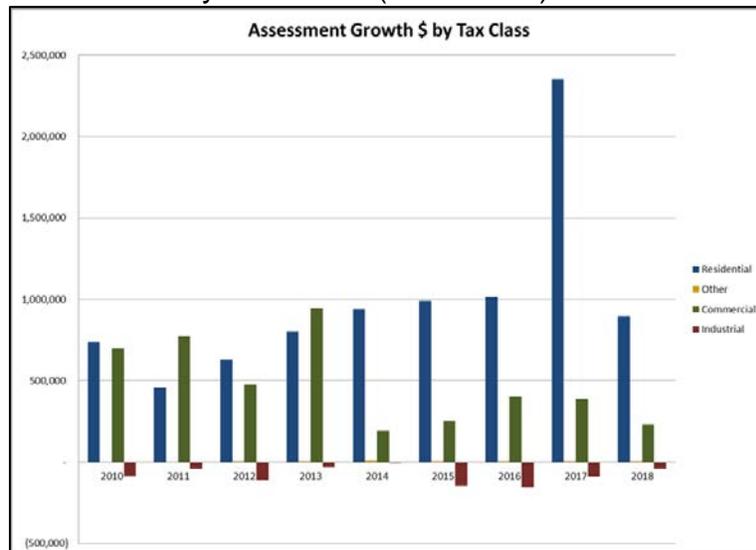
Any changes to Final assessment totals will be incorporated into the levy and tax rates approved in April/May 2019. The excess amount will be temporarily budgeted in financial contingency. It is not likely that final assessment totals will differ from the current year-to-date amount, as changes to the roll changes are now closed.

Chart 1: Historical Assessment Growth % (2010-2018):



Assessment growth has fluctuated between 1.5% and 3.9% over the last nine years (average of 2.2%). This is due to the timing of construction and the timing of MPAC assessing the value the new properties. The high point of 3.9% (2017) was largely driven by Assessment based management efforts which ensured a larger than usual annual amount of multi-storied residential building were added to the assessment roll in 2017 along with the Costco development. To be conservative the low point amount of 1.5% or \$1,100,000 will be used for budget forecasts and the long term financial plan. Since the amount for 2018 is already known and unlikely to change, the 2019 budget will incorporate the actual amount of assessment growth for 2018 of 1.5% or \$1,088,655.

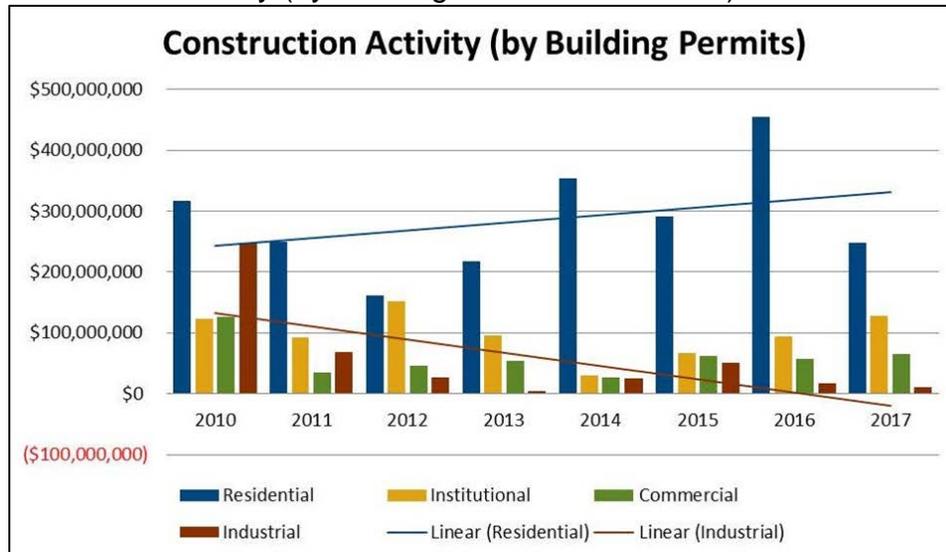
Chart 2: Assessment Growth by Tax Class (2010-2018):



Assessment growth has been largely driven by residential growth over the last nine years. Commercial growth has shown a history of several years of increased growth followed by several years of reduced growth. Industrial growth in Waterloo has been negative in many of the past nine years.

The forecasted assessment growth of \$1,100,000 has been achieved in each of the last nine years except for 2018 which fell slightly below the target.

Chart 3: Construction Activity (by Building Permits 2010-2017):



\$1,100,000 in assessment growth would translate to approximately \$331 million in residential growth or \$170 million in commercial growth. The largest ongoing risks are significant delays from permit issue to occupancy. Building permit activity in 2014-2017 will represent the growth in 2019 and beyond due to timing difference between issuance of permit to occupancy permit to assessment.

It is reasonable to use \$1,100,000 in assessment growth for the forecasted years in the budget due to the amount of residential and commercial permits issued in this time period.

Summary

The actual amount of assessment growth for 2018 of \$1,088,655 and the excess amount from 2017 of \$102,331 should be included in 2019 budget.

Taking into account the historic amount of assessment from the last nine years, the historic mix of tax classes of assessment and the future outlook from the building permits issued, staff would recommend using \$1,100,000 in future budget forecast and the long-term financial plan.

Staff will continue to monitor building activity in preparation for 2020-2022 Budget.

Key Points:

- Assessment Growth for 2017 exceeded budget by \$102,331.
- Assessment Growth for 2018 is at \$1,088,655 or 1.5%.
- It's recommended that future budgets and the LTFP continue to use a target of 1.47% or \$1,100,000.
- Finance Staff will continue to monitor and manage the Assessment Base to ensure these targets are achievable.
- Change in Market Value from Reassessment do not contribute additional taxes to the city overall.

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BUDGET ISSUE PAPER: WPL and ESL Funding Agreements

Related Budget Request(s):

- TRAN.2019.002 - Waterloo Public Library Funding Increase
- TRAN.2019.018 - East Side Library Assessment Growth Allocation

Issue/Background:

WPL Funding Agreement

On November 20, 2017, Council approved CORP2017-076, Library Funding Agreement between the Waterloo Public Library Board (WPL) and the Corporation of the City of Waterloo. The funding agreement is in effect for 10 years, from January 1, 2019 to December 31, 2028.

This agreement was the result of a collaborative effort by WPL and City staff to create one cohesive and comprehensive document that replaced two existing agreements, the WPL Operating Agreement and the WPL Funding Agreement. The funding agreement is intended to provide the necessary operating funds for the WPL to operate all the library locations although new branches or expansion of services will be submitted separately for consideration through the budget process.

The funding formula has 2 components. The first is to provide inflation on the base WPL levy. The second is to provide the Library with a share of the City's budgeted assessment growth. This method provides protection to both WPL and the City by guaranteeing inflation and a share of assessment growth to the WPL with clear parameters. In addition, this alternative allows for WPL to approach the City for additional funding as part of the City's budget process if there are unforeseen and material circumstances that affect operations.

Table 1 – Calculation of Proposed 2019 Library Levy

Description	Calculation	Proposed Levy for Council Approval
Prior Year Library Levy	Prior Year Approved Library Levy	\$5,434,234
Add: CPIX/Inflation	=Prior Year Library Levy x CPIX/Inflation	\$5,434,234 x 1.31% = \$71,188
Add: Share of Assessment Growth	=(Budgeted Assessment x % Allocated to the Operating budget x Prior Year Library Levy)/Net Tax Levy	(\$1,190,986 x 60% x \$5,434,234)/ \$72,185,210 = \$53,796
Proposed 2019 Increase	CPIX/Inflation + Growth	\$71,188 + \$53,796 = \$124,984
Proposed 2019 Library Levy	Prior year levy + Proposed Increase	\$5,559,218

CPIX/Inflation

The CPIX rate of 1.31% is a rolling average calculated from Sept. 2017 to Aug. 2018. This rate serves a guideline for all budgetary increases.

Table 2 - Breakdown of Budgeted Assessment Growth

	(\$)
2018 Assessment - Projected	\$ 1,088,655
2017 Assessment - Retroactive Adjustment	\$ 102,331
Total Budgeted Assessment Growth	\$ 1,190,986

Key Points:

- Council approved the Library Funding Agreement in November 2017 which will be in effect from January 1, 2019 until December 31, 2028.
- The new funding methodology uses an across the board CPIX/inflation on the Library Levy, with a share of budgeted assessment growth as a % of the net tax levy.
- The proposed 2019 Budget increase to WPL is \$124,984 and the total 2019 proposed Library levy is \$5,559,218.

East Side Branch Library Funding Agreement

On November 20th, 2017, Council approved CORP2017-085 the East Side Branch Library (ESBL) Feasibility Study and approved in principle, the East Side Branch Library funding strategy.

The annual operating and maintenance costs of the proposed ESBL have been estimated at \$984,880 in 2020 dollars.

The funding strategy proposes that 50% of the estimated operating funding is funded through the allocation of assessment growth from 2018-2022 and the remaining 50% is generated from tax increases above inflation in 2020 through 2022.

The rationale behind this split is that the need for the ESBL is partially driven by the need for additional library services (service level increase) and due to growth within the City (growth increase).

The entire proposal is to utilize \$230,000 of the additional assessment growth realized in 2018, \$90,000 of assessment growth in 2019, \$87,440 in 2021 and a final component of \$85,000 in 2022. These amounts will result in \$492,440 (50%) of annual sustainable funding for the ESBL by 2022 and is outlined in Table 3.

The balance of the \$492,440 is proposed to be provided through three years of minimal tax increases above inflation. The increases are proposed to be \$250,000 or approx. 0.37% in 2020 (\$4.89 per Household (HH)), \$156,220 or approx. 0.23% in 2021 (\$3.06 per HH), and the final increase of \$86,220 or approx. 0.13% in 2022 (\$1.69 per HH).

Table 3 – Funding Methodology and Cash Flow

Description	2018	2019	2020	2021	2022	% Inc.
Assessment Growth						
2018 Assessment Growth	230,000	230,000	230,000	230,000	230,000	
2019 Assessment Growth		90,000	90,000	90,000	90,000	
2020 Assessment Growth				-	-	
2021 Assessment Growth				87,440	87,440	
2022 Assessment Growth					85,000	
Total Assessment Growth Funding	230,000	320,000	320,000	407,440	492,440	50.0%
Tax Increase Funding						
2020 - Additional Tax Increase			250,000	250,000	250,000	
2021 - Additional Tax Increase				156,220	156,220	
2022 - Additional Tax Increase					86,220	
Total Tax Increase Funding	-	-	250,000	406,220	492,440	50.0%
% Tax Impact			0.37%	0.23%	0.13%	0.72%
Per Household Impact			\$ 4.89	\$ 3.06	\$ 1.69	\$ 9.63

The rationale behind the sliding scale of increases is that the largest increase of \$250,000 will be initiated in the year the library opens, thereby establishing a direct correlation between the tax increase and the opening of the new library.

This methodology provides sustainable funding for the ESBL, without creating undue hardship to residents, by smoothing the impact over five years. This information was shared with the WPL Board at their November 22, 2018 Board meeting.

Since this strategy was approved the City has begun earmarking a portion of the City's operating funding in 2018 towards the ESBL operating requirements and will continue to increase those amounts over time as per the Table 3 schedule. The ESBL operating requirements start in 2020 as a result, the funds collected in advance will be set aside separately within CIRRF for future allocation.

Key Points:

- The annual operating and maintenance costs of the proposed ESBL have been estimated at \$984,880 in 2020 dollars.
- 50% of the estimated operating funding is funded through the allocation of assessment growth from 2018-2022 and the remaining 50% is generated from tax increases above inflation in 2020 through 2022.
- Ongoing funding of \$90,000 of assessment growth will be set aside in 2019 as per budget request TRAN.2019.018.
- The funding collected in advance of the 2020 ESBL start date will be set aside separately within CIRRF for future allocation.

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BUDGET ISSUE PAPER: Proposed Staffing Changes

Related Budget Request(s):

- CAO.2019.012 - Asset Management Manager
- COMM.2019.005 - Conversion of Casual Life Guard to Aquatic Lead
- COMM.2019.006 - Recreation Services Miscellaneous Expense Reductions
- COMM.2019.010 - Parks General Service Level Reductions
- CORP.2019.002 - Fleet Customer Service position
- CORP.2019.005 - Human Resources Assistant
- IPPW.2019.022 - Junior Technology Administrator
- IPPW.2019.025 - Planning Services - Senior Planner

Issue/Background:

The City of Waterloo is a service based organization in which people (staff) deliver valuable municipal services directly to residents. These services include but are not limited to; fire rescue and municipal enforcement, parks and trails service, roads and transportation including winter maintenance and recreation facilities and programming. In addition, the city also provides essential support services to the operational divisions; services including but not limited to human resources, finance, fleet maintenance and information technology.

In order to help maintain existing service levels and ensure the city is able to keep pace with a growing community, the below 2019 staffing related budget request are included in the 2019 proposed budget. For 2019, a net 4.0 FTE increase is proposed (3 tax base supported and 1 enterprise supported). This represents a 0.55% increase in staffing levels compared to the 2018 FTE total of 733.9. The table below provides a summary of the 2019 staffing related request. Additionally each staffing related request is outlined below in greater detail.

Table: 2018 Approved Budget & 2019 Proposed Budget / FTE Summary by Division:

City of Waterloo
2018 Approved Budget & 2019 Proposed Budget
FTE Summary by Division

Dept	Division	2018 Full Time	2018 Part Time	2018 Total	2019 Base Adj Full Time	2019 Base Adj Part Time	2019 Full Time	2019 Part Time	2019 Total	BR #	Position
CAO	CAO Office	4.0		4.0	1.0		5.0		5.0	CAO.2019.012	Asset Management Manager
	Economic Development	10.4	1.7	12.1			10.4	1.7	12.1		
	Legal Services	3.0		3.0			3.0		3.0		
	CAO Total	17.4	1.7	19.1	1.0	-	18.4	1.7	20.1		
Comm	Comm Commissioner Office	2.0		2.0			2.0		2.0		
	Community Program & Outreach	22.1	3.1	25.2			22.1	3.1	25.2		
	Environment & Parks	52.5	30.5	83.0		(0.6)	52.5	29.9	82.4	COMM.2019.010	Parks General Service level Reductions
	Facility Design & Management	23.0		23.0			23.0		23.0		
	Fire Rescue Services	124.0		124.0			124.0		124.0		
	Municipal Enforcement	31.5		31.5			31.5		31.5		
	Recreation Services	63.6	86.4	150.0	1.0	(1.4)	64.6	85.0	149.6	COMM.2019.005 COMM.2019.006	Conversion of Casual Life Guard to Aquatic Lead RS Miscellaneous Expense Reductions
	Comm Total	318.7	120.0	438.7	1.0	(2.0)	319.7	118.0	437.7		
Corp	CFO & Corp Commissioner Office	2.0		2.0			2.0		2.0		
	Communications	8.0		8.0			8.0		8.0		
	Finance	33.7	0.1	33.8			33.7	0.1	33.8		
	Human Resources	12.2		12.2	1.0		13.2		13.2	CORP.2019.005	Human Resources Assistant
	IMTS	20.0		20.0			20.0		20.0		
	Legislative Services	13.8	0.4	14.2			13.8	0.4	14.2		
	Procurement & Fleet	13.0		13.0	1.0		14.0		14.0	CORP.2019.002	Fleet Customer Service Position
	Corp Total	102.7	0.5	103.2	2.0	-	104.7	0.5	105.2		
IPPW	IPPW Commissioner Office	7.3	0.1	7.4	-	-	7.3	0.1	7.4		
	Building Standards	19.8		19.8	1.0		20.8		20.8	IPPW.2019.022	Junior Technology Administrator
	City Utilities	46.4	4.2	50.6			46.4	4.2	50.6		
	Engineering Services	28.1		28.1			28.1		28.1		
	Planning	18.0		18.0	1.0		19.0		19.0	IPPW.2019.025	Senior Planner
	Transportation Services	34.0	15.0	49.0			34.0	15.0	49.0		
	IPPW Total	153.6	19.3	172.9	2.0	-	155.6	19.3	174.9		
	Grand Total	592.4	141.5	733.9	6.0	(2.0)	598.4	139.5	737.9		

2019 Proposed Budget – Staffing Related Budget Request

Asset Management Manager

- Budget Request: CAO.2019.012
- Staff Contact: Cameron Rapp
- FTE Impact: 1

On November 14, 2016, Council approved the City of Waterloo's first Comprehensive Asset Management Plan (AMP) through IPPW2016-099 representing 14 asset classes. The AMP was developed internally and used the Asset Management Analytical System (system) developed by staff and GM BluePlan Engineering. One of the recommendations approved as part of IPPW2016-099 was the creation of an Asset Management (AM) section to continue to propel the City's asset management journey forward.

The AM section is important for the City to successfully operationalize and sustain asset management activities and information. Without appropriate staffing resourcing, it will be too easy for asset management data to quickly fall out of relevancy (i.e. if data and systems fail to be updated and refined). The internal resourcing approved by Council included a team of four staff members – one permanently funded through the operating budget and three contract positions funded through capital funding, to be considered for inclusion in the operating budget during the 2019 budget cycle. The four positions and their funding sources are as follows:

- Manager (contract – 2019 proposed position via CAO.2019.012)
- Infrastructure Asset Management Analyst (permanent)
- Data Management Analyst (contract – 2019 menu item)
- Asset Management Analyst (contract – 2019 menu item)

Staff is proposing the Asset Management Manager position for 2019. This position would:

- ensure the Asset Management Planning for Municipal Infrastructure regulation (O. Reg. 588/17) requirements are met
- lead the Asset Management (AM) section
- encourage that AM activities become a priority in the various asset areas
- implement AM process improvements across the City

Conversion of Casual Life Guard to Aquatic Lead

- Budget Request: COMM.2019.005
- Staff Contact: Steve Heldman
- FTE Impact: -0.2

Staff is proposing the conversion of part-time staff resources (-1.2) to an experienced full-time aquatic lead position (1) at a net cost of \$15,000 to support ongoing programming needs and more importantly, to better assist in ensuring deck leadership and a healthy and safe environment for aquatic customers.

This position would assist with numerous operational challenges being faced by Recreation Services including but are not limited to:

- recruitment of qualified aquatic staff
- staff turnover
- health and safety
- program delivery and expansion (i.e. water fitness and therapeutic recreation)

Recreation Services Miscellaneous Expense Reductions

- Budget Request: COMM.2019.006
- Staff Contact: Steve Heldman
- FTE Impact: -0.2

The Recreation Services Miscellaneous expense reduction request includes small adjustments to part-time wages associated with program delivery. The desired outcome is to not impact service level standards, but rather realized savings through division efficiencies.

Parks General Service Level Reductions

- Budget Request: COMM.2019.010
- Staff Contact: Jeff Silcox-Childs
- FTE Impact: -0.6

The Parks General Service Level Reductions request includes reducing student hours for days taken off without pay each summer as well as minor reductions in various miscellaneous items within the division budget areas.

Fleet Customer Service Representative

- Budget Request: CORP.2019.002
- Staff Contact: Tracie Bell
- FTE Impact: 1

Staff is proposing a Fleet Customer Service Representative. The Fleet team supports over 350 assets. This position is required to reduce or eliminate the current administrative backlog associated with creating work orders, purchase orders, Commercial Vehicle Operator's Registration (CVOR) files and vehicle licensing for the related assets. This position will serve internal client groups including frontline managers and field staff as well as work with external vendors and government agencies. This position will work in a highly regulated environment and will be a critical resource for the Fleet team.

This position was recently identified by the external Fleet review consultant as a priority item and would assist with numerous operational challenges being faced by Fleet including but are not limited to:

- vehicle registration and licensing
- maintain record of CVOR registration files
- assisting with fleet procurement including vehicle rentals, vehicle replacement and disposition of old assets
- fleet staff training and winter control schedule coordination
- coordinating the disposal of used oil

Human Resources Assistant

- Budget Request: CORP.2019.005
- Staff Contact: Susan Farrelly
- FTE Impact: 1

Staff is proposing a Full-time Human Resources Assistant to assist in the areas of Recruitment, Health and Safety, Training and Development and Volunteer Services. This proposed front-line position is needed to ensure the HR Division can be resilient and able to provide service, both internally and externally, in a timely manner while meeting increasing corporate demands.

This position would assist with increasing volume, legislative requirements and progressive corporate initiatives, such as:

- maintenance of employee's driver files and assisting with driver's abstract monitoring
- participating in the coordination of training and development sessions
- supporting tasks associated with recruitment and onboarding activities
- sending out options for exit surveys for departing staff members
- ensuring support for Volunteer Services functions
- providing assistance for Health and Safety initiatives

Junior Technology Administrator

- Budget Request: IPPW.2019.022
- Staff Contact: Ralph Kaminski
- FTE Impact: 1
- ***Note** – This position is fully funded by the Building Standards Enterprise and has no Tax Base impacts

Staff is proposing a Junior Technology Administrator. As Building Standards advances with e-permitting the demands on technology support are increasing. Building Standards has reached capacity with current staff levels and requires increased staffing resources. The Junior Technology Administrator will allow Building Standards to:

- keep pace with increased permit volumes
- ensuring Building Permit activity can be processed in a timely manner leading to increased development related revenue
- utilize technology such as e-permitting
- provide succession planning opportunities

Senior Planner

- Budget Request: IPPW.2019.005
- Staff Contact: Joel Cotter
- FTE Impact: 1

Staff is proposing a Senior Planner. The Planning Division is a small division managing a substantial and complex workload with limited staff resources. In 2018 (to the end of October), the Division processed approximately 185 applications (i.e. zoning by-law amendments, plans of subdivision, condominium applications, site plan applications, variances, etc ...). Additionally, Planning staff are working on advancing key corporate projects including but not limited to: implementing the new comprehensive Zoning By-Law 2018-050, updating the Urban Design Manual, evaluating improvements to planning notices and engagement practices, engaging in the Regional Municipal Comprehensive Review, and completing the Uptown Public Realm Strategy, to name a few.

This position is required to ensure the Planning Division is appropriately resourced to handle the high volume of applications, legal obligations, and strategic planning and urban design initiatives of the City. An additional Senior Planner would allow the Division to more effectively work on a wide range of planning projects and development application, including but not limited to:

- advance strategic corporate planning and urban design initiatives
- allocate more resources to legal matters to defend City planning at Local Planning Appeal Tribunal (LPAT) hearings and before the courts
- allocate more resources to community and stakeholder engagement
- balance workloads to meet legislative timeframes
- relieve pressure and excessive staff workload
- ensure development activity can be processed in a timely manner leading to increased planning related revenue

Key Points:

- The City of Waterloo is a service based organization in which people (staff) deliver valuable municipal services directly to residents.
- In order to help maintain existing service levels and ensure the city is able to keep pace with a growing community, staffing related budget request are included in the 2019 proposed budget.
- For 2019, a net 4.0 FTE staffing increase is proposed (3 tax base supported and 1 enterprise supported).
- This represents a 0.55% increase in staffing levels compared to the 2018 FTE total of 733.9.

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BUDGET ISSUE PAPER: LED Streetlighting Electricity & Maintenance Savings

Related Budget Request(s):

- IPPW.2019.004 - LED Streetlighting Electricity & Maintenance Savings

Issue/Background:

In June 2017 work began on the replacement of old high-pressure sodium cobra-head streetlights with new energy efficient LED streetlights. The City of Waterloo had an estimated 8000+ existing high-pressure sodium cobra-head streetlights converted to LED as part of this project. This work was substantially completed by December 2017. There are two components to the savings realized through this conversion project; streetlight maintenance costs (Transportation Services within IPPW) and electricity usage (Facility Design Management Services within COMM Services).

The operating savings associated with this project were estimated to be; \$420,000 with 50% or \$210,000 of the savings expected to be realized in 2018 (approved as part of the 2018 budget – IPPW.2016.049) and the remaining \$210,000 starting in 2019 (included in the 2019 proposed budget – IPPW.2019.004).

Maintenance Costs

Maintenance activities were expected to decrease by 50% as a result of the LED streetlight conversion project. In 2016 (baseline year) the streetlight maintenance costs were \$205,000, as seen in Table 1 below. In 2017 (after substantial completion) the streetlight maintenance costs decreased by \$65,000, as seen in Table 1 below. Based on the first nine months of data for 2018, annualized maintenance cost savings could be as high as \$99,000 for 2018, compared to the 2016 baseline year. As a result, the City's future maintenance cost savings could range from approximately \$65,000 to \$99,000 annually. At this time, the full maintenance costs savings are unknown.

Staff will continue to monitor and forecast the actual savings as more information becomes available and incorporate any additional savings realized (over and above the original estimate) into the 2020-2022 budget.

Table 1: Streetlight Maintenance Cost Savings

Year	Actual Cost (\$)	Cost Savings Compared to 2016 (\$)
2016	\$205,000	-
2017	\$140,000	(\$65,000)
*2018	\$106,000	(\$99,000)

*Note – estimate based on Jan-Sept 2018 Actuals.

Electricity Usage

The LED project was expected to decrease electricity cost by 48%. This LED conversion project is showing substantial savings in terms of electricity use, as can be seen in Table 2. The 2018 usage and cost data includes 3 months of forecasted data. The results are compared to 2016 (baseline), which is the last full year of using non-LED streetlights. In 2018, \$451,000 is expected to be saved on electricity costs for streetlights compared to the 2016 baseline year, but this is still subject to change based on the use of 3 months of forecasted data.

Table 2: Streetlight Electricity Usage and Cost Savings

Year	Electricity Use (kWh)	Actual Cost (\$)	Cost Savings Compared to 2016 (\$)
2016	4,919,000	\$832,000	-
2017	3,486,000	\$592,000	(\$240,000)
*2018	2,114,000	\$381,000	(\$451,000)

*Note – estimate based on Jan-Sept 2018 Actuals.

Budget Considerations

As a part of the 2016-2018 budget IPPW.2016.049 identified anticipated annual operating savings from converting to LED streetlights of \$210,000 in 2018 (\$164,000 from electricity usage and \$46,000 from maintenance) with an additional savings of \$210,000 in 2019 (\$164,000 from electricity usage and \$46,000 from maintenance). Budget request IPPW.2019.004 is included in the 2019 proposed budget to incorporate the remaining estimated savings of \$210,000 into the 2019 budget.

Based on 2018 year-to-date projections, there are potential additional savings that once verified and actualized, will be submitted as part of the 2020-2022 budget process. See Table 3.

Table 3: Streetlight Electricity Usage and Cost Savings

Year	Electricity Savings (\$)	Maintenance Savings (\$)	Total Savings (\$)
*2018 Forecasted Streetlight Savings	(\$451,000)	(\$99,000)	(\$550,000)
2018 Budgeted Streetlight Savings (IPPW.2018.049)	\$164,000	\$46,000	\$210,000
2019 Budgeted Streetlight Savings (IPPW.2019.004)	\$164,000	\$46,000	\$210,000
Savings to be verified for 2020 budget	(\$123,000)	(\$7,000)	(\$130,000)

**Note – estimate based on Jan-Sept 2018 Actuals.*

Future Budget Considerations:

To date the operating savings achieved as part of the LED streetlight conversion project have been positive. Based on 2018 forecasted data (includes 3 months of forecast) it is anticipated that the electricity savings will exceed the original estimates. Based on 2018 forecasted data (includes 3 months of forecast) it is anticipated that the maintenance savings may achieve its target.

At this time, there are still some unknowns regarding the final electricity and maintenance savings to be realized as part of the LED streetlight conversion project. As such staff has incorporated the original 2019 estimated savings of an additional \$210,000 into the 2019 budget and are recommending that once the final savings over above this original estimate are confirmed that the additional savings also be incorporated into the operating budget as part of the 2020-2022 budget process.

For 2019, should Council wish to advance a portion of the potential additional savings, \$50,000 would be suggested by staff as a reasonable value (2019 menu item #10).

Key Points:

- Effective December 2017, the LED streetlights conversion project in the City of Waterloo has been substantially completed.
- A 2019 operating budget reduction is being recommended based on the original estimated electricity savings and reduced maintenances costs: savings of \$210,000 in 2019.
- The total budgeted savings is \$420,000 from 2018 and 2019 from the conversion.
- Final savings, once verified are likely to exceed this amount and additional savings will be incorporated into the 2020-2022 budget.

Prepared For:	Council	Status:	Information Sharing
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Date:	December 10, 2018	Page:	1 of 2

BUDGET ISSUE PAPER: Fleet and Equipment Operating Pressure

Related Budget Request(s):

- CORP.2019.010 - Fleet & Equipment Operating Pressures

Issue/Background:

The city maintains a fleet comprised of over 350 vehicles and equipment. The tax-based operating divisions use over 75% of the city fleet to deliver services, in the areas of Parks (for grounds maintenance, horticulture and forestry), Transportation (for snow plowing/sanding and road maintenance), Facilities (for mechanical/electrical maintenance), Fire Services (rescue and prevention), Municipal Enforcement and Festivals & Events. The other 25% of the city fleet is used by enterprises (City Utilities, Cemetery and Building Standards) and because enterprises are funded through user-rates (and don't rely on tax-based funding) they are not included in the overall fleet and equipment operating pressure discussed in this issue paper.

Understanding the costs:

Annual general operating costs for the city fleet and equipment, such as maintenance, repairs, parts and service continues to increase and exceed budget each year. In addition to these general operating costs, each vehicle and piece of equipment pays an annual replacement cost allocation to the equipment reserve; as the purchase prices continues to increase (due to inflation, foreign exchange or other market pressures), so does the annual replacement cost allocation.

Due to increased legislation and health and safety/certification requirements, increased garage labour time is spent on certain vehicles and equipment (e.g. Trailers). Initiatives to "green the fleet" such as data loggers to monitor idling have also contributed to increased costs. City growth (new parks, sports fields and boulevards), the addition of new vehicles and equipment has been necessary and operating budget provisions for this expansion has also not kept pace with increasing costs. The 2019 budget includes a Fleet Operating Impacts of Expansion Capital Purchases request (TRAN.2019.016), to cover growth related impacts of Fleet & Equipment expansion, in 2019.

What is the current Tax-Based operating fleet and equipment pressure?

Over the period of 2015-2017, the total tax-based fleet and equipment deficit to budget averaged \$412,000 – see table below; averaged to take into account seasonal factors such as levels of snowfall/precipitation and other elements affecting usage.

Fleet & Equipment Operating Expense to Budget Variance (in 000's)			3 Yr* Ave.	2019
Area	2017 Expense	2017 Budget	(Deficit)/Surplus	Budget Request
Parks - Note 1	1,282	1,055	(227)	125
Transportation** Note 1	1,049	890	(159)	
Fire	266	179	(87)	60
Facilities	197	125	(73)	65
Municipal Enforcement	36	26	(10)	20
Festivals & Events	14	9	(5)	5
Recreation Services	168	173	5	
Engineering	37	38	1	
Total (000's)	3,049	2,495	(555)	275
*2015-2017				
** Excluding Regional Road Maintenance (does not impact the tax base bottom line)				
Note 1: CORP2018-011 LTFFP - Staff Scenarios approved \$115K for Winter Control (Parks \$30K and Transportation \$85K)				

A 2019 operating budget request (CORP.2019.010) has been submitted in the amount of \$275,000 to address the overall tax-based Fleet and Equipment operating budget pressure. Approval of this request would increase the budget for Parks (\$125,000); Facilities (\$65,000); Fire (\$60,000), Municipal Enforcement (\$20,000) and Festivals & Events (\$5,000).

Through the approval of report CORP2018-011 Long-Term Financial Plan – Staff Scenario, a budget increase of \$115,000 was already approved for Winter Control (city fleet expense) going to Transportation (\$85,000) and Parks (\$30,000). This \$115,000 helped mitigate the pressures in those two areas reducing the 2019 budget request to \$275,000.

Key Points:

- The City has over 350 vehicles and equipment in its Fleet; approximately 75% is used by the tax-based operating divisions.
- General operating costs for vehicles and equipment continues to increase and exceed budget each year.
- Purchase prices for vehicles and equipment continues to increase due to inflation, foreign exchange and market pressures, increasing the need to set more aside each year for capital replacement
- The 2015-2017 average fleet and equipment operating deficit is over \$400,000
- \$275,000 is being requested in the 2019 operating budget to address the shortfall
- \$115,000 was previously approved through the Long-Term Financial Plan for the pressure of Winter Control (fleet expense in Transportation (\$85,000) and Parks (\$30,000))