



Region of Waterloo

Final 2019 Budget Issue Papers

**Region of Waterloo
Approved 2019 Budget Issue Papers (\$ thousands)**

Page #	Dept/Div	Description	Annualized Levy Impact	2019 operating budget impact		2019-2028 capital plan impact		
				Property taxes	Reserves Capital User rates Subsidies Other	Tax supported reserves and debt	RDC reserves and debt	Grants & Subsidies
NO LEVY IMPACT								
1	COR/Facilities Management	Project management and additional facility maintenance staff			\$179			
5	PDL/Provincial Offences Court	POA Prosecution and Administrative staff			\$192			
9	PDL/Community Planning	Implementing Community Energy Investment Strategy Actions (Bundle 1 - residential project neutral campaign for 2 years)			\$58			
12	TES/Water Services	Water Source Protection Plan			\$65			
14	TES/Water Services	Supervisory staff for maintenance and programs			\$0			
LEVY IMPACT								
17	CSD/Seniors' Services	Personal Support Workers (Nights)	\$270	\$203				
20	CSD/Seniors' Services	Personal Support Workers (1:1 HINF)	\$111	\$83	\$399			
23	PHE/Paramedic Services	Implementation of Paramedic Master Plan (Year 3) (Bundle 1)	\$517	\$286	\$287	\$582		
33	TES/Transit Services	Implementation of GRT Business Plan (Year 2) (Bundle 1)	\$2,153	\$1,907	\$135			
40	TES/Transit Services	Conestoga College Upass	\$885	\$619	\$49	\$643	\$378	\$2,759
44	TES/Transit Services	Implementation of MobilityPLUS and Kiwanis Transit Five-Year Business Plan (Year 2)	\$354	\$144	\$4	\$59		\$161
23	PHE/Paramedic Services	Implementation of Paramedic Master Plan (Year 3) (Bundle 2)	\$371	\$193	\$194	\$114		
47	COR/ITS	Network infrastructure security and support	\$238	\$27				
50	COR/Facilities Management	Convert 1 FTE from temporary to permanent for implementation of the Facilities safety management system	\$117	\$98	\$19			
54	CSD/Housing	Increased Housing Stability System supports (Bundle 1)	\$620	\$321				
59	COR/ITS	Corporate technology project delivery	\$365	\$37				
62	TES/Transportation	Add 2 signal maintenance positions and 1 signal technician	\$307	\$263		\$65		
67	TES/Transportation	Add 1 FTE for Corridor Management	\$106	\$76				
70	COR/ITS	Asset Management systems implementation and ongoing support	\$119	\$78				
73	PDL/Economic Development	Funding for economic development initiatives	\$100	\$100				
83	TES/Administration	Asset Management support technologist - Waste Management & Airport	\$93	\$79				
86	TES/Transportation	Add 1 FTE for Transportation Planning	\$116	\$101				
90	TES/Transportation	Add 1 FTE for Infrastructure Analysis	\$103	\$69				
54	CSD/Housing	Increased Housing Stability System supports (Bundle 2)	\$624	\$312				
93	PDL/Community Planning	EvolveGreen	\$50	\$50				
33	TES/Transit Services	Implementation of GRT Business Plan (Year 2) (Bundle 2)	\$699	\$0	\$47			
96	TES/Transit Services	Transit Service to Woolwich	\$285	\$112		\$25		
100	TES/Transportation	Traffic signal technology (Option 1)	\$25	\$0		\$300		
100	TES/Transportation	Traffic signal technology (Option 2)	\$600	\$0		\$2,700		
Subtotal			\$9,228	\$5,158	\$1,628	\$4,488	\$378	\$2,920

2019 Budget Impact Summary								
			Operating		Capital			
			Annualized Levy Impact	Property taxes	Reserves/Capital/Other	Property taxes	RDC	Grants & Subsidies
Approved Budget Issue Papers total			\$9,228	\$5,158	\$1,628	\$4,488	\$378	\$2,920
2019 incremental levy impact			\$5,158					
2020 incremental levy impact			\$3,895					
2021 incremental levy impact			\$175					
Subtotal			\$9,228					

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Facilities and Fleet Management – Capital Renewal Positions
Corporate Services – Facilities and Fleet Management
Strategic Plan Focus Area 5 Responsive and Engaging Government Services
Strategic Objective or Action Ensure regional programs and services are efficient, effective and provide value for money.

Brief Description of Request

Three (3) new FTE Project Coordinator positions funded from capital projects to support the execution of growth projects.

Justification/Rationale

Program area master plans and business growth continue to drive resource needs. Council Report COR-FFM-18-07 outlined the need for 10 new project management staff to deliver growth projects and additional Facilities staff to manage the buildings once complete. At that time Council approved four new positions to address immediate needs with consideration in future budget issue papers for the remaining positions.

Resource modelling establishes the relationship between the demand for projects and the required staff capacity to deliver that work. This modelling is informed by past project experience and industry best practices, using a mix of in-house data (e.g. timesheets, project and team performance metrics) and external consultant support (applying an industry lens of best practices and using comparative data from other municipalities). Changing the assumptions and input data to reflect the changes in program area requirements, forecasted staffing levels can be adjusted with some certainty.

Before bringing forward this request for new staff, senior management and program areas re-reviewed the projects expected in the next few years and made adjustments to

the 10 year capital program where possible to better reflect project management staff capacity. This has resulted in various projects being deferred beyond 2019. Subsequently, upon re-calculating the resource model Facilities projects a need for only 3 of the 6 staff previously forecasted for 2019. Similar exercises will be carried out periodically throughout 2019, where resourcing requirements will be evaluated against changing needs such as new ad hoc projects, changes to existing project schedules and unexpected funding opportunities or legislated changes that drive new projects.

The pressure to reduce spending and project management staff needs also faces a counter pressure to complete the work needed to address asset management needs and program requests. In recent years, Project Coordinators have been re-assigned to higher priority growth projects leaving fewer staff to manage the renewal program. The decreased support has resulted in fewer renewal projects being completed on schedule and higher maintenance costs associated with aging facilities and an increasing number of asset failures. Rushing to repair assets after failure is more expensive, often with after-hours premiums to complete repairs, a greater impact on building occupants and can lead to poor decisions as staff do not have adequate time to consider alternate solutions.

Implications of Not Approving

If the three (3) requested positions are not approved, a number of capital projects must be deferred. Staff will recommend adjustments to the capital program to reflect deferral of projects.

Facilities staff have identified a priority score for all planned projects that considers impact on building occupants, impact on operations and the cost of asset failure if projects are not completed. Approximately \$8M in value of projects currently scheduled for 2019 would need to be deferred. These would have to be reviewed by senior staff to review the prioritization. Subject to discussions with the program areas, CLT and senior staff, below is a sampling of the higher impact building improvement projects that would need to be deferred based on the current priority:

- window, plumbing, landscaping and door replacements at Housing facilities,
- roofing and window replacements, flooring and painting at Police facilities,
- electrical and security upgrades, foundation repairs and roof replacements at corporate office buildings
- roofing and paving at Water Services facilities, and
- overhead door replacements at Transit facilities

Also, Facilities' ability to take on unplanned work throughout the year is compromised

with no capacity for resiliency in the face of unknowns that come up year after year. The team expects a certain amount of ad hoc client requested work, but with no new staff to help address this type of work the in-year requests would have to be evaluated by senior management and prioritized against the existing list of projects. In this case, the team's capacity is planned only in line with work that Facilities is aware of.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salaries, Wages, Benefits	148	288
Office Costs	4	6
One-time Office Costs	27	0
Total On-going Operating Expenditures	\$ 179	\$ 294
Revenues		
Recovery from Capital Projects	179	294
Total On-going Operating Revenue	\$ 179	\$ 294
Net Regional Levy	\$ 0	\$ 0
Incremental Operating Budget Impact	\$ 0	\$ 0

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Project Coordinators	3.0	3.0
Total Staffing Impact	3.0	3.0
Incremental Staffing Impact	3.0	0.0

Performance Measures

	2016	2017	2018	2019	2020
Staff effort (hours)	3,200	3,584	3,840		
Value of work completed or planned	\$18.6M	\$7.1M	\$46.5M*	\$110M	\$120M

* Mix of work completed and planned in year 2018

Council Decision

Budget issue paper was approved as submitted

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Provincial Offences Court Administration and Prosecutions Staff Resources
Planning, Development and Legislative Services Department
Strategic Plan Focus Area Responsive and Engaging Government Services
Strategic Objective or Action Ensure Regional programs and services are efficient, effective and provide value for money

Brief Description of Request

The Provincial Offences Court Administration and Prosecutions requires one (1) senior prosecutor and two (2) court administration clerks due to a significant and sustained increase in court processes which the current complement of staff is unable to maintain.

Justification/Rationale

The Province amended the Provincial Offences Act (POA) in 2012 and 2017 to improve defendant access to justice by making it easier to engage court processes. Options for mailing in requests, appearing in court over the phone for some matters, and making requests by email replaced the requirement to file in person at the Court.

Since the POA amendments were implemented, there has been a substantial increase in the number of cases going to POA Court. For the period 2004-2012, the average number of charges engaged in the court process per annum was 10,794, and that are projected to exceed 19,000 in 2018. The volume of charges for 2017 is 7,139 cases more than the average up to 2010: This represents a 66% increase as compared with the volume of charges prosecuted, administered, and scheduled prior to the legislative amendments. To facilitate this influx POA Court utilized over 40 extra court days per year in 2017 and 2018 and the pressure this puts on prosecution and administrative resources will continue next year. During this same period prepaid fines (i.e. tickets

paid without engaging any court processes) dropped from 35,923 tickets (52%) in 2011 to 25,994 (44%) in 2017.

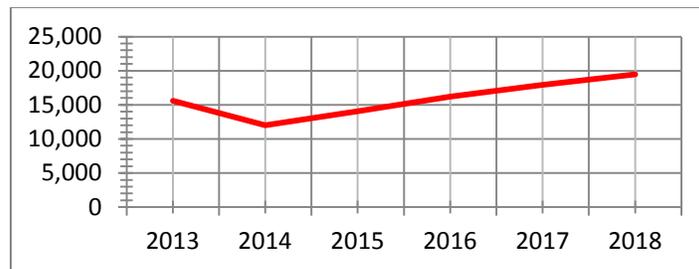


Figure 1: Total cases in court.

It is anticipated that the volume of charges prosecuted and administered will continue to increase in 2019 due to the enforcement of the provisions of the Cannabis Act, 2017, the Region of Waterloo's Code of Use By-Law, enhanced penalties for distracted driving, and the anticipated use of photo radar in school and community safety zones.

The number of Prosecutors has not increased from its current complement of 4 since 2008. Similar and comparable jurisdictions (Mississauga, Brampton, Hamilton, Durham) currently have 6-7 prosecutors and are seeking more starting in 2019. The POA Prosecutions Unit underwent an extensive Lean process review in February 2016 to find efficiencies; however, with the increasing volume of prosecutions, existing staff resources are inadequate. In order to meet service needs the Manager of Prosecutions has been appearing in court on a significantly increased basis (approximately 200 appearances per annum) and outside per diem prosecutors have been utilized (at a cost of \$87,000 in 2017). As a result of the significantly increased volume of prosecutions, two additional senior prosecutors are required. The Prosecutors' Office is proposing that one senior prosecutor be added in 2019. The Prosecutors' Office will then assess whether an additional senior prosecutor will be required in 2020 based on the impact of adding the senior prosecutor in 2019 and any changes to the volume of charges prosecuted and will bring forward a budget issue paper requesting the second senior prosecutor in 2020 as required.

POA Administration underwent an extensive Lean process review in 2017 to find efficiencies and improve productivity due to the difficulty experienced in completing required tasks. The Lean process review concluded there are insufficient resources in comparison to the work required to be done. POA Administration requires 2 additional court administration clerks to manage work properly and better meet the stated goals of the program and ensure legislative and regulatory timelines are met.

Implications of Not Approving

The Region risks non-compliance in regard to its Memorandum of Understanding (MOU) with the Province if the POA Administration and Prosecutions Unit are unable to handle the increase in prosecutions volume. Pursuant to section 5.3.1 of the MOU and subsections 162(3) and 162(4) of the POA, the Region of Waterloo is obligated to prosecute and administer these charges efficiently and effectively within the standards set out therein, failing which the Region of Waterloo may be subject to sanctions for the failure to meet those obligations. The Prosecutorial Standards which form part of the MOU include, but are not limited to: ensuring the timeliness of prosecutions; notifying prosecution witnesses of dates and times of hearings; and ensuring provision of full and timely disclosure. The court administration office must process and schedule all court cases to ensure that matters heard comply with legislation and Charter of Rights and Freedoms court rulings. Failing to comply with the terms above would contravene the Provincial MOU. Further, if the tasks carried out by the Prosecutors and Administration staffs are not performed, there will be a significant impact on the timeliness of service provided to the public. Delay in performing these tasks will lead to charges being dismissed or withdrawn. The experience in other jurisdictions has shown that dropped charges will result and this in turn will likely lead to an erosion of public trust and confidence in court services.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Compensation	173	305
Office costs	3	3
One-time costs	16	0
Total On-going Operating Expenditures	\$ 192	\$ 308
Revenues		
Increased POA collection revenues	192	308
Total On-going Operating Revenue	\$ 192	\$ 308
Net Regional Levy	\$ 0	\$ 0
Incremental Operating Budget Impact	\$ 0	\$ 0

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Senior Prosecutor	1.0	1.0
Court Administration clerks	2.0	2.0
Total Staffing Impact	3.0	3.0
Incremental Staffing Impact	3.0	0.0

Performance Measures

	2014	2015	2016	2017	2018 (projected)
POA Prosecutions Volume	12,015	14,067	16,220	17,933	19,000

Council Decision

Budget issue paper was approved as submitted

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Residential Project Neutral Program
Planning, Development and Legislative Services
Strategic Plan Focus Area Environment and Sustainable Growth
Strategic Objective or Action Working with stakeholders to implement the Community Energy Investment Strategy

Brief Description of Request

Staff request funds to support implementation of a priority project from the recently approved Community Energy Investment Strategy (CEIS). Regional budget support for the Residential Project Neutral Program will enable local homeowners to reduce energy costs and GHG emissions. It will also leverage over \$200,000 investment from project partners and take advantage of current utility incentive programs.

The Program is a community outreach and engagement program that uses an online platform to assist residents in identifying their individual/household carbon footprint in under five minutes. Additionally, the Project Neutral initiative provides participating residents access to a program coach (free of charge) to help create a personalized plan for cost-effective home energy retrofits and to making transportation shifts to lower their emissions. Project partners will also be providing a “one-window” service to help residents access the full suite of existing conservation and efficiency incentives that are available until at least the end of 2020.

This project is co-led by Reep Green Solutions and Project Neutral, and is supported by local utilities and Ontario Trillium Foundation with pending grant requests to Tides Canada and the Federal Government. Reep is prepared to contribute up to \$75,000 annually via in-kind staff time and services in direct relation to the funding support they receive from the other granting agencies. Pending grant applications are valued at almost \$200,000 to support program implementation during 2019/2020. The average investment in residential energy retrofits by participating local home owners is \$9,500 per household which also benefits the local economy via contractor jobs involved in installation in addition to equipment purchases at local retail outlets. Examples of

performance measures monitoring success of the program may include the number of homes/residents participating in the program, dollar value of retrofits implemented and the corresponding residential energy cost savings and GHG emission reductions achieved.

Justification/Rationale

This program, as outlined above, will leverage additional funding and investments from project partners leading the initiative as well as local home owners and the various utility incentives which support energy conservation and efficiency. The requested support for the Project Neutral program is well beyond the dollar amount typically applied for and granted under the Region's Community Environmental Fund.

The volume of outreach achieved will be directly linked to available Program funding which currently expires at the end of 2018. With financial support from the Region and other grantors, Reep aims to connect with 1000 homes in both 2019 and 2020. Through implementation, the Program should improve resident's access to available incentives including lower income households that maybe eligible for the provincially supported Energy Affordability Fund and Home Assistance Program.

Regional funding for this program provides support for implementing a Council approved Strategy and will assist in meeting the Community GHG emission reduction target. The CEIS and GHG target have widespread support from area municipalities, local electric and gas utilities serving Waterloo Region as well as various other stakeholders who participated in the strategy development and target setting process.

Implications of Not Approving

The requested funding is critical to sustain implementation of the program beyond 2018 particularly if any of the other third party grants are not obtained. Residents participating in the CEIS stakeholder engagement activities in 2016 and 2017 clearly identified they want to reduce their energy bills/emissions and need assistance to do so. Not supporting a local community champion who is well positioned to meet this need would reflect poorly on the Region of Waterloo and the commitment that Council made along with other Strategy partners. Lack of appropriate level of budget support to advancing the CEIS would also impact the Region's ability to meet the long-term GHG reduction target recently approved by Council.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	2020	2021
Expenditures			
Residential Project Neutral Campaign	58	58	0
Total On-going Operating Expenditures	\$ 58	\$ 58	\$ 0
Net Regional Levy	\$ 58	\$ 58	\$ 0
Incremental Operating Budget Impact	\$ 58	\$ 0	\$ (58)

Council Decision

Budget issue paper was approved with funding from the Tax Stabilization Reserve. The 2019 to 2021 levy impacts are \$0.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Water Source Protection Plan
Transportation and Environmental Services
Strategic Plan Focus Area Environment and Sustainable Growth
Strategic Objective or Action Protect the quality and quantity of our water resources

Brief Description of Request

Addition of one permanent Water Coordinator, Source Protection Planning to ensure the delivery of the Source Protection Plan approved in 2016.

Justification/Rationale

The Clean Water Act requires municipalities to implement Source Protection Plans to mitigate threats to municipal drinking water supplies. The Province approved the Grand River Source Protection Plan in 2016 identifying over 600 properties that will require legally-binding, property-specific Risk Management Plans to mitigate impacts of land use activities on drinking water supplies, with an estimated implementation timeframe of 10 years. This implementation time frame was based on the current well protection areas in the approved plan. Water Services staff are currently updating the plan and the updated well protection areas are larger than previously mapped indicating many more properties will require Risk Management Plans. As noted in previous reports and budgets to council, a second coordinator position is required to deliver the program to meet the 10-year implementation target and is proposed for 2019. This position would establish contact with property owners and guide them through the Risk Management Plan development process. In addition, the coordinator would coordinate a mandatory inspection program and implement the related database and tracking system.

Implications of Not Approving

Chloride levels in most of the Region’s drinking water supply wells are increasing due to

application of salt on parking lots and roads for winter maintenance purposes. Most of the Risk Management Plans to be negotiated in Waterloo Region are for salt application on parking lots. Not approving this permanent position would delay mitigating the impacts of salt on drinking water supplies, many of which already exceed regulatory levels for aesthetic (taste) quality. Not approving the position would extend the implementation target by numerous years and could raise concerns at the province that insufficient resources are being deployed to meet the Region's Clean Water Act implementation obligations.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
1.0 FTE Water Coordinator	61	91
Office Costs	2	2
One-time Office Costs	2	0
Total On-going Operating Expenditures	\$ 65	\$ 93
Net User Rate Impact	\$ 65	\$ 93
Incremental Operating Budget Impact	\$ 65	\$ 28

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Water Coordinator, Source Protection	1.0	1.0
Total Staffing Impact	1.0	1.0
Incremental Staffing Impact	1.0	0.0

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo

2019 Budget – Major Budget Issue

Water Services Supervisory Staff for Maintenance and Programs
Transportation and Environmental Services
Strategic Plan Focus Area Responsive and Engaging Government Services
Strategic Objective or Action Ensure regional programs and services are efficient, effective and provide value for money

Brief Description of Request

Addition of one permanent Water Supervisor, Maintenance and Programs to ensure continuation of operations and systems during the replacement of critical infrastructure and the implementation of the enhanced asset management program.

Justification/Rationale

A Supervisory position is required to support the ongoing capital and infrastructure projects, provide oversight to the well maintenance program, administer the Asset Management site condition assessments, and administer the operational contracts. The number and complexity of the water capital projects continues to grow, and this has had a major impact on the water operations staff. The Supervisor position will participate on capital project teams and integrate new projects into existing operating processes. Some of the major capital initiatives include: the upgrades at Strange St/Williams St., the Cambridge Water Distribution Upgrades, the new Zone 4-2A Supply, Ozone Upgrades at Mannheim, and contact chamber installations at numerous locations. Asset Management requires that facility and equipment condition assessments be completed for all water sites, and the roll-out/implementation of Lucity and Powerplan are major initiatives that need to be closely aligned with the operations. The Well Maintenance Program is critical to the long term sustainability of the water supply and requires significant coordination with the Hydrogeology and Source Protection Group.

It is requested that the existing temporary fulltime position for the Supervisor, Operations and Maintenance (Water) be converted to a permanent full time position with the title Supervisor, Maintenance and Programs (Water) with no impact to the 2019 User Rate budget.

Implications of Not Approving

The additional support required for the capital and infrastructure projects noted above is critical to the successful delivery of the project. Existing staff is not able to absorb these duties as they are already fully committed on other projects, daily operational responsibilities, or the projects require specialized skills (i.e. operational and water treatment) to support the projects.

Budget Requirements

OPERATING BUDGET (\$000s)	Annualized 2019
Expenditures	
Salaries, Wages, Benefits, Temporary	(139)
Salaries, Wages, Benefits, Permanent	139
Total On-going Operating Expenditures	\$ 0
Net Regional Levy	\$ 0
Incremental Operating Budget Impact	\$ 0

STAFF REQUIREMENTS (FTE)	Annualized 2019
Permanent Staff	
Supervisor, Maintenance and Programs (Water)	1.0
Temporary Staff	
Supervisor, Operations and Maintenance (Water)	(1.0)
Total Staffing Impact	0.0
Incremental Staffing Impact	0.0

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Personal Support Worker Staffing (Nights) – Sunnyside Home
Community Services
Strategic Plan Focus Area Healthy, Safe and Inclusive Communities
Strategic Objective or Action Promote and support healthy living and prevent disease and injury

Brief Description of Request

The following increases to the staff complement at Sunnyside Home are requested:

1. Personal Support Workers (PSWs) to be increased by 3.4 full time equivalents to increase the direct care staffing hours during the night shift at Sunnyside Home. Specifically, this request is to add 3.0 FTE of fulltime Personal Support Workers, and 0.4 FTE of part-time Personal Support Workers to provide coverage for vacation, sick, public holidays of the fulltime positions.

Justification/Rationale

Increasing staff hours on the night shift will support the provision of quality care and will reduce the risk of serious injury to residents and staff.

Residents being admitted to long-term care have increasing complexity. Approximately 64% of residents have been diagnosed with some form of dementia that frequently present with responsive behaviours and 44% have high care needs requiring the assistance of two staff persons for care.

During the hours of 2300-0700 the staffing ratio is approximately 1 staff person for 22 residents. When a resident requires more than one staff person to assist them with care, this requires a staff person to leave their work assignment to support their colleague, which leaves other residents unsupported during that time.

The current staffing model for nights was developed at a time when the needs of residents were much less complex and residents were more likely to sleep through the night. The risk associated with such a high staffing ratio has risen as the number of residents requiring two person care has increased. This is compounded by the number of residents who do not sleep through the night and require frequent care and support during the night hours.

The requested FTEs will increase the staffing ratio to 18 residents to 1 staff person on nights and will ensure better coverage when residents require two person assist. Specifically, this request is to add 3.0 FTE of fulltime Personal Support Workers, and 0.4 FTE of part-time Personal Support Workers to provide coverage for vacation, sick, public holidays of the fulltime positions.

Implications of Not Approving

If not approved, the staffing ratio will remain at 1 staff member to 22 residents on the night shift. This will lead to increased risk of serious incidents and/or injuries on the night shift due to insufficient staffing to appropriately meet the needs of residents.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Wages and Benefits	203	270
Total On-going Operating Expenditures	\$ 203	\$ 270
Net Regional Levy	\$ 203	\$ 270
Incremental Operating Budget Impact	\$ 203	\$ 68

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Personal Support Worker FT	3.0	3.0
Personal Support Worker PT	0.4	0.4
Total Staffing Impact	3.4	3.4
Incremental Staffing Impact	3.4	0.0

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Personal Support Worker Staffing for High Risk Residents – Sunnyside Home
Community Services
Strategic Plan Focus Area Healthy, Safe and Inclusive Communities
Strategic Objective or Action Promote and support healthy living and prevent disease and injury

Brief Description of Request

The following increases to the staff complement at Sunnyside Home are requested:

1. Personal Support Workers (PSW) to be increased by (8.5) full time equivalents to support the permanent implementation of float shifts. The float shifts are intended to cover one to one shifts for high risk residents or unanticipated open shifts that we were unable to replace. Specifically, the request is for 5.0 fulltime and 3.5 part-time staff.

Justification/Rationale

New residents to Sunnyside Home are increasingly being admitted with advanced dementias such as Alzheimer’s disease. This can result in increased confusion and behavioural challenges. To keep both residents and staff safe, one on one staffing is regularly required for residents with high risk behaviours, especially following a new admission. One on one staffing is maintained until a resident’s care plan has been adjusted and interventions have been put in place to ensure ongoing resident and staff safety.

One on one staffing for behavioural management in long term care is eligible for provincial funding on a cost recovery basis through the Ministry of Health and Long Term Care’s (MOHLTC), High Intensity Needs Funds (HINF). The Province funds 95% of the cost and the Home covers 5%. It is anticipated that savings in overtime costs as a result of the additional staff proposed in this paper will offset the incremental costs not

funded by the MOHLTC. Certain costs such as those associated with statutory staff leaves are ineligible for subsidy.

On average, Sunnyside Home could have five or more residents on one to one support at a time, requiring approximately 100 extra shifts to be scheduled per week. This takes away from the existing staff pool needed to fill regular vacancies in the home and results in increased overtime costs and some shifts being left open. The compounded impact of staff consistently being asked to work overtime or working without the full complement of staff is that they are more likely to experience burnout or compassion fatigue. This ultimately has negative consequences for the residents, for the staff and for the Home.

It is anticipated that scheduling float PSWs will alleviate the pressure on the staffing pool, support consistency and reduce overtime premiums by ensuring that float staff are available at straight time to cover the shifts.

Implications of Not Approving

If not approved, staffing required for one on one care will continue to be accessed from the regular staff pool. This will lead to increased staff shortages, inability to fill regular shifts due to vacations or illness and increased overtime costs to maintain staffing levels.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Wages and Benefits	420	560
Wages and Benefits – not eligible for subsidy	62	83
Total On-going Operating Expenditures	\$ 482	\$ 643
Revenues		
Provincial Subsidy 95%	399	532
Total On-going Operating Revenue	\$ 399	\$ 532
Net Regional Levy	\$ 83	\$ 111
Incremental Operating Budget Impact	\$ 83	\$ 28

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Personal Support Worker FT	5.0	5.0
Personal Support Worker PT	3.5	3.5
Total Staffing Impact	8.5	8.5
Incremental Staffing Impact	8.5	0.0

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Paramedic Services Master Plan Implementation
Public Health and Emergency Services
Strategic Plan Focus Area Healthy, Safe and Inclusive Communities
Strategic Objective or Action Optimize Paramedic Services to improve service standards and response times by developing an updated Paramedic Services master plan

Brief Description of Request

The Paramedic Services Master Plan (2017-2027) includes the addition of resources to address the optimized staffing requirements (front line paramedics and support positions), as well as the target unit utilization (UU) rate adopted in principle by Regional Council. Resource enhancements are required as call volumes grow in order to maintain emergency response times in the response time target range and the approved unit utilization range of 35%, as well as ensuring availability of EMS resources at all times.

Justification/Rationale

The Region of Waterloo Paramedic Services Division is undergoing transition to a more performance based system. The transition, which commenced about three years ago, supported by Regional senior administration and elected officials, includes emphasis on:

- Enhanced accountability
- Quality performance
- Effective and efficient delivery of the services
- Risk management, and
- Legislative compliance for certification as a land ambulance operator.

The Paramedic Services Master Plan was adopted in principle by Regional Council in the fall of 2016. The Master Plan resource and staffing enhancements are based on population growth and UU projections, which were identified through data analysis during the creation of the Master Plan. The plan allowed for expansion and contraction of the resourcing should it be required. Resource enhancements are required as call volumes grow to maintain emergency response times in the response time target range and approved UU range of 35%, as well as ensuring availability of EMS resources at all times and implementation of critical support roles and functions.

As reported in PHE-PSV-18- 05, so far in 2018 the service is again operating at or over capacity. The service continues to experience frequent episodic periods of Code Yellow (3 or fewer ambulances are available to respond to the next call) and Code Red (no ambulances are available / they all are tied up on calls), notwithstanding best efforts to align ambulance staffing to hourly variations in demand and service enhancements approved by Regional Council over the same time frames. Even with the three additional ambulances added July 1, 2017, and the 2-12 hour units added in February 2018, UU for 2018 (YTD) is 39.4 %, down only slightly from 40.0 % for the same period in 2017. Overall response time is 9 minutes 16 seconds (at the 80th percentile, down from 9 mins 26 secs in 2017). Offload delays have increased during 2018 and is currently up 57.1 % from this time last year.

The increase in resources has not significantly altered service performance from 2017 levels. The UU has remained at or near the 40 % mark, not migrating to our goal of 35 % as per the Master Plan recommendation. This is due to several factors including the offload delay issue and a slight increase in call demand. There has been a decrease in response time by maximizing efficiency in aligning our deployment plan to call volumes, but this will only temporarily be maintained as call volumes and offload delays continue to escalate. Service demand is increasing although not at rates experienced over the past few years. This could change once flu season is upon us so we will evaluate call volume increases at year end. The service is still experiencing call volumes greater than expected and projected in the Master Plan document.

Additional service enhancements will be needed going forward in response to ongoing growth in service demand and the lack of progress on UU toward the Master Plan goal of 35 %. This growth is anticipated to continue throughout the next decade. Call volume growth and offload delay has been outpacing the Region's ability to gain ground over the Code Reds and Yellows and effectively reduce the UU to the Master Plan target of 35%.

Staff will continue to monitor and report on key indicators and performance measures for the service. If call volumes continue to increase faster than anticipated and there is only limited progress on moving the UU to the target range, it may be necessary to

expedite the addition of resources currently recommended in the Master Plan.

Recommendations

In order to respond to growing call volumes and to progress towards a 35% UU as outlined in the Paramedic Services Master Plan (2017-2027) report the following resources are recommended;

1. Increase service deployment by **2 additional 12-hour shifts** and includes equipment required to staff these requested ambulances funded from associated reserve funds. This includes 1-12 hour unit for 2019 as per the Master Plan document and 1-12 hour unit to additionally be added to attempt to move the UU towards the approved 35 % and address call volume increases from 2018 through 2109. It is recommended that staffing would commence as early in 2018 as possible to address current call volumes and UU rates.
2. To staff the 2 additional 12 hour ambulance shifts, increase **full-time paramedics by 8.0 FTE** (146 FTE up from the current 138), and increase **part-time paramedics by 2.0 FTE** (46.2 FTE up from 44.2) effective July 1st, 2019.
3. This budget issue paper also includes a request for a **1.0 FTE Supervisor Logistics**. This is as identified in the Master Plan due to a restructuring of the Logistics and Support division resulting from the construction and operationalization of our North Deployment station. This position will be crucial to ensure a smooth transition and operation of 2 divisional reporting stations for Paramedic Services.
4. There is also a request for **1.0 FTE fleet support position** in the Logistics and Support division for a technician, as per the Master Plan. This addition will be required to operationalize the North deployment station to ensure ambulances are clean, equipped and ready to be deployed at shift start.
5. A **technology enhancement** through the purchase of the First Watch software system. This system will assist Paramedic Services in interpreting real-time data and allowing the service to respond in real time to operational response issues. This application will also assist in collating and interpreting data through live data dashboards to monitor system performance and response times. This software also allows the service to perform a review of our electronic patient care records (ePCR) and an initial audit of the forms as required by standards. This system is more efficient than the current process and will allow for greater auditing capability of the service going forward to ensure compliance and quality assurance to documentation of care being provided.

Implications of Not Approving

Existing Paramedic Services resources continue to be fully utilized given the current conditions based on factors such as, call volume, demand, unit utilization and offload delay. Paramedic Services also relies heavily on surrounding services to fill in the gaps for service when the Region is unable to respond, which is in contrast to the self-sustaining model we are working toward. While past service enhancements approved by Council have slowed the slide of response time Region-wide, call volumes have grown by over 30% since 2008, presumably due to a growing and aging population. Call volumes in 2018 have shown a minor slowing and have in fact grown by another 3.1 % during the first 6 months of the year. The Region still experiences multiple periods of Code Yellow and Code Red periods in 2018 (as shown in the Performance Measures section of the Issue Paper) as well as increased Offload Delay as previously indicated.

Not approving will impact overall Region-wide response times in comparison with a scenario where resources are added, because call volume growth will not have been offset by additional resources. The Region's ability to meet the targets approved by Council in the Response Time Performance Plan will also be challenged. The Region submits annual reports to the MOHLTC regarding its response time performance. Increased call volumes, even smaller than experienced in past years will drive Code Yellow and Code Red numbers higher without approving the additional resources requested. As per the Paramedic Services Master Plan (2017-2027) UU rates will also continue maintaining or grow from the already high end rate of nearly 39.4%; this will lead to ongoing stress on the service, as well as increases to the number of Code Reds and Yellows.

Priority Bundle 1: Master Plan Implementation

One additional 12-hour ambulance shift (4.0 FTE Full Time Paramedics and 1.0 FTE Part Time Paramedics) and 2.0 FTE Additional Support Positions (Supervisor, Logistics and Logistics & Planning Technician) plus related vehicle and equipment purchases.

OPERATING BUDGET (\$000s)	2019	2020	2021 Annualized
Expenditures			
Salaries, Wages & Benefits	438	876	876
Uniforms, Supplies, Fleet Maintenance, Fuel, Insurance	34	58	58
Contribution to Reserves	101	101	101
Total On-going Operating Expenditures	\$ 573	\$ 1,035	\$ 1,035
Revenues			
Provincial Subsidy	0	287	518
Tax Stabilization Reserve Fund	287	231	0
Total On-going Operating Revenue	\$ 287	\$ 518	\$ 518
Net Regional Levy	\$ 286	\$ 517	\$ 517
Incremental Operating Budget Impact	\$ 286	\$ 231	\$ 0

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Paramedics	5.0	5.0
Logistics & Planning Technician	1.0	1.0
Supervisor, Logistics	1.0	1.0
Total Staffing Impact	7.0	7.0
Incremental Staffing Impact	7.0	0.0

CAPITAL PLAN (\$000s)	2019
Expenditures	
Ambulances (1 staffed, 1 spare)	492
Office Furniture/Construction	90
Total Capital Expenditures	\$ 582
Sources of Funding/Financing	
Paramedic Services Vehicle Reserve	492
Paramedic Services Equipment Reserve	90
Total Capital Financing	\$ 582

Priority Bundle 2: Master Plan Implementation: Unit Utilization Improvement

One additional 12-hour ambulance shift (4.0 FTE Full Time Paramedics and 1.0 FTE Part Time Paramedics) and technology enhancement (re: Quality Assurance, Auditing and Performance Measurement) through the purchase of First Watch Software System.

OPERATING BUDGET (\$000s)	2019	2020	2021 Annualized
Expenditures			
Salaries, Wages & Benefits	338	675	675
Uniforms, Supplies, Fleet Maintenance, Fuel, Insurance	29	46	46
Contribution to Reserves	0	0	0
Software Licence & Maintenance	20	20	20
Total On-going Operating Expenditures	\$ 387	\$ 741	\$ 741
Revenues			
Provincial Subsidy	0	194	370
Tax Stabilization Reserve Fund	194	176	0
Total On-going Operating Revenue	\$ 194	\$ 370	\$ 370
Net Regional Levy	\$ 193	\$ 371	\$ 371
Incremental Operating Budget Impact	\$ 193	\$ 178	\$ 0

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Paramedics	5.0	5.0
Total Staffing Impact	5.0	5.0
Incremental Staffing Impact	5.0	0.0

CAPITAL PLAN (\$000s)	2019
Expenditures	
Ambulances (use existing fleet)	0
Software (Performance Measures)	114
Total Capital Expenditures	\$ 114
Sources of Funding/Financing	
Paramedic Services Equipment Reserve	114
Total Capital Financing	\$ 114

Budget Requirements - TOTAL

OPERATING BUDGET (\$000s)	2019	2020	2021 Annualized
Expenditures			
Salaries, Wages & Benefits	775	1,551	1,551
Uniforms, Supplies, Fleet Maintenance, Fuel, Insurance	63	104	104
Contribution to Reserves	101	101	101
Software Licence & Maintenance	20	20	20
Total On-going Operating Expenditures	\$ 959	\$ 1,776	\$ 1,776
Revenues			
Provincial Subsidy	0	480	888
Tax Stabilization Reserve Fund	480	408	0
Total On-going Operating Revenue	\$ 480	\$ 888	\$ 888
Net Regional Levy	\$ 479	\$ 888	\$ 888
Incremental Operating Budget Impact	\$ 479	\$ 409	\$ 0

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Paramedics	10.0	10.0
Logistics & Planning Technician	1.0	1.0
Supervisor, Logistics	1.0	1.0
Total Staffing Impact	12.0	12.0
Incremental Staffing Impact	12.0	0.0

CAPITAL PLAN (\$000s)	2019
Expenditures	
Ambulances (1 staffed, 1 spare)	492
Software (Performance Measures)	114
Office Furniture/Construction	90
Total Capital Expenditures	\$ 696
Sources of Funding/Financing	
Paramedic Services Vehicle Reserve	492
Paramedic Services Equipment Reserve	204
Total Capital Financing	\$ 696

Performance Measures

Paramedic Services	2014	2015	2016	2017
Vehicle responses	42,096	45,344	48,577	52,982
80 th Percentile Response Time (Regional)	09:36	09:49	09:37	09:21
Offload (Ambulance Days lost per year)	103.7	150.0	91.6	192.7
Unit Utilization	37.5	40.2	38.7	39.2
Total Code Red events (year)	189	254	179	196
Total Code Yellow events (year)	1238	1455	1168	1071

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Implementation of GRT Business Plan (Year 2)
Transportation and Environmental Services
Strategic Plan Focus Area 2 Sustainable Transportation
Strategic Objective or Action Create a public transportation network that is integrated, accessible, affordable and sustainable.

Brief Description of Request

The Grand River Transit (GRT) 2017-2021 Business Plan approved by Regional Council in August 2017 guides the planned improvements to the regional transit network and service levels over five years to work towards achieving the approved Regional Transportation Master Plan (RTMP) ridership targets for 2021 and 2031. The planned 2019 transit service improvements would include the 206 Coronation iXpress and realignment of supporting local routes in Cambridge and improved service levels on routes connecting with ION LRT.

Justification/Rationale

The 2017-2021 GRT Business Plan identifies the transit network changes and service level improvements required over five years to work towards attaining the current RTMP transit ridership targets, support the Region Official Plan growth and urban intensification goals, and to achieve seamless integration of the ION LRT, ION BUS, iXpress and local bus services.

Proposed 2019 Service Improvements

Service changes in 2019 would focus on completing the iXpress network with the 206 Coronation iXpress added in Cambridge. This would provide a frequent, direct link between West Galt, Preston, Cambridge Memorial Hospital and Fairway Station, providing a one-seat ride to ION LRT for some of the most densely-developed, transit-supportive areas of Cambridge. The ION BRT would be extended from Ainslie Street

Terminal to South Cambridge Shopping Centre in 2020 to add further frequent service to Cambridge.

Selected local routes in Cambridge would be restructured to provide more of a grid network integrated with the new 206 Coronation iXpress and 200 ION BUS. Improved hours of operation and increased frequency of service would be provided on selected local routes. The proposed 2019 service improvements would require the deployment of six additional peak buses. Further improvements in Cambridge would occur in 2020 in conjunction with the ION BUS extension from Ainslie Street Terminal to South Cambridge Shopping Centre.

The fundamental strategy of the RTMP is to implement additional transit service to avoid or defer a number of road projects that are costly and disruptive to implement. The RTMP concluded that not implementing the plan would result in the need to expand the road network by about 25 percent or add about 500 new lane kilometres (added to existing roads or by building new roads) within the urban areas. The RTMP reduces this need by about 40% (220 lane kilometres).

To achieve the 2021 RTMP ridership target of 28 million rides, the 5-year business plan recommended adding 50,000 service hours annually. To make it more affordable, the approved business plan would be implemented over 7 years providing 35,000 service hours annually and defers achieving the RTMP ridership target to 2023. Ridership in 2018 is projected to increase by 5%, from 19.7 million in 2017 to 20.7 million riders in 2018.

Implications of Not Approving

Not implementing the proposed transit service improvements would negatively affect ridership growth momentum, thereby increasing the risk of not achieving the RTMP transit modal share targets and broader objectives of creating a vibrant, environmentally and socially sustainable community. Not implementing proposed service improvements to the bus network would not maximize the ridership benefit provided by the high-capacity ION LRT.

The Alternative Service Delivery pilots are funded until August 2019. If the pilot results are successful staff would request additional funding to make the pilots permanent during the 2020 budget process. Without additional funding in 2019 there would be a 5 month interruption of service between August 2019 and January 2020, when the 2020 Regional budget is approved by Regional Council.

The 2019-2028 Transit capital program includes capital projects required to implement the approved 2017-2021 GRT Business Plan. Not approving this budget issue paper as presented will result in amendments to the proposed 2019 capital program to defer or remove associated capital expenditure and funding requirements. Capital expenditure

related to the 2019 implementation of the GRT Business Plan includes the addition of six (6) expansion buses, with total value of \$3.78 million, funded by a combination of proposed ICIP funding (73%), Regional Development Charges (10%) and tax supported debentures (17%).

Budget Requirements

This request has been broken down further into two priority bundles in order to reflect the cost of implementing an additional 25,000 service hours (priority bundle 1) and 10,000 service hours (priority bundle 2), respectively.

Priority Bundle 1

The following table outlines the budget implications of approving an additional 25,000 service hours in 2019. This includes the new 206 Coronation iXpress (replacing most of existing Route 52) and the corresponding integration of local routes including, realignment of Routes 52, 61 and 72, and realignment and merging of Routes 55 and 62 in west Galt.

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Service Operating Costs (Based on 25,000 of 7-yr 35,000 hrs/year in the Business Plan) *	1,752	2,107
Contribution to Bus Replacement Reserve	210	210
Debt Servicing Costs	0	300
Permanent implementation of Alternative Service Delivery Pilot	80	80
Total On-going Operating Expenditures	\$ 2,042	\$ 2,697
Revenues		
Fare Revenue	119	361
Fare Revenue - Alternative Service Delivery	16	16
RDC Recovery – Debt Servicing Costs	0	167
Total On-going Operating Revenue	\$ 135	\$ 544
Net Regional Levy	\$ 1,907	\$ 2,153
Incremental Operating Budget Impact	\$ 1,907	\$ 246

* Note: The 2019 cost includes a \$1.0 m tax levy contribution to the Transit Capital program. If this budget issue paper is approved as presented, the contribution will reduce tax supported borrowing for associated capital projects already included in the 2019 capital plan, and thereby resulting in lower debt servicing costs in future operating budgets.

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Transit Operators	15.0	15.0
Fleet Staff (Mechanics)	1.0	1.0
Fleet Staff (Service Attendants)	1.0	1.0
Supervisors - Fleet, Operations	2.0	2.0
Operations - Admin Support	1.0	1.0
Transit Technician	1.0	1.0
Transit Planners	2.0	2.0
Total Staffing Impact	23.0	23.0
Incremental Staffing Impact	23.0	0.0

Priority Bundle 2

The following table outlines the budget implications of approving an additional 10,000 service hours in 2019. Priority bundle 2 includes adding weekend and late evening service to Route 52, increasing Sunday service from 60 to 30 minute frequency on Route 55, full peak period 15 minute weekday service frequency on Route 61 and 30 minute midday service and evening service on combined Routes 57/111.

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Service Operating Costs (Based on 10,000 of 7-yr 35,000 hrs/year in the Business Plan) *	501	843
Total On-going Operating Expenditures	\$ 501	\$ 843
Revenues		
Fare Revenue	47	144
Total On-going Operating Revenue	\$ 47	\$ 144
Net Regional Levy	\$ 454	\$ 699
Incremental Operating Budget Impact	\$ 454	\$ 245

* Note: The 2019 cost includes a \$1.0 m tax levy contribution to the Transit Capital program. If this budget issue paper is approved as presented, the contribution will reduce tax supported borrowing for associated capital projects already included in the 2019 capital plan, and thereby resulting in lower debt servicing costs in future operating budgets.

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Transit Operators	5.0	5.0
Total Staffing Impact	5.0	5.0
Incremental Staffing Impact	5.0	0.0

Total Budget Implications

The following table outlines total budget implications of approving an additional 35,000 service hours in 2019.

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Service Operating Costs (Based on 7-yr 35,000 hrs/year in the Business Plan)	2,253	2,950
Contribution to Bus Replacement Reserve	210	210
Debt Servicing Costs	0	300
Permanent implementation of Alternative Service Delivery Pilot	80	80
Total On-going Operating Expenditures	\$ 2,543	\$ 3,540
Revenues		
Fare Revenue	166	505
Fare Revenue - Alternative Service Delivery	16	16
RDC Recovery – Debt Servicing Costs	0	167
Total On-going Operating Revenue	\$ 182	\$ 688
Net Regional Levy	\$ 2,361	\$ 2,852
Incremental Operating Budget Impact	\$ 2,361	\$ 491

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Transit Operators	20.0	20.0
Fleet Staff (Mechanics)	1.0	1.0
Fleet Staff (Service Attendants)	1.0	1.0
Supervisors - Fleet, Operations	2.0	2.0
Operations - Admin Support	1.0	1.0
Transit Technician	1.0	1.0
Transit Planners	2.0	2.0
Total Staffing Impact	28.0	28.0
Incremental Staffing Impact	28.0	0.0

CAPITAL PLAN (\$000s) - For information purposes only – approved in the 2017-2021 GRT business plan and included in the proposed 2019 capital program	2019
Capital Expenditures	
Conventional Transit Buses (6 Buses)	3,780
Conestoga College Terminal	3,000
Station Development	700
Conestoga Mall Facility Upgrade	450
Transit Facility Design Guidelines	50
Transit Technology	400
Traynor Trail – ION Pedestrian Crossing	400
Iron Horse Trail Improvements	500
Market Trail to ION Implementation – Phase 1	1,000
EFMS Hardware Spares Base Stock	173
Total Capital Expenditures	10,453
Sources of Funding/Financing	
Investing in Canada Infrastructure Program (ICIP)	5,679
Tax supported – reserves	1,023
Tax supported – debentures	2,362
Development charges – reserves	1,292
Development charges – debentures	98
Total Capital Financing	10,453

Performance Measures

	2014	2015	2016	2017
Revenue Service Hours per Capita (service area)	1.54	1.58	1.60	1.59
Ridership per capita (service area)	49.71	46.73	43.50	42.91
Annual Service Hours	669,408	687,560	724,321	731,964
Annual Ridership (millions)	21.5	20.3	19.7	19.7
easyGO Traveller Information Usage (millions)	4.916	6.959	9.334	9.276

Council Decision

Bundle 1 for budget issue paper was approved as submitted. Bundle 2 for budget issue paper was approved to be implemented on April 1, 2020. The 2019 levy impact of this budget issue paper will be \$1,907,000, the 2020 levy impact will be \$770,000 and the 2021 levy impact will be \$175,000.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Conestoga College U-Pass
Transportation and Environmental Services
Strategic Plan Focus Area 2 Sustainable Transportation
Strategic Objective or Action Create a public transportation network that is integrated, accessible, affordable and sustainable.

Brief Description of Request

Conestoga College students have voted with 58% in support of a Universal Pass (U-Pass) program to be implemented September 2019 subject to Regional Council approval. The semester price of the U-pass would be \$137. Similar to the U-Pass programs at University of Waterloo (UW) and Wilfrid Laurier University (WLU) the U-Pass at Conestoga College would be valid for twelve months. Each full-time college student would pay \$274 (two semesters of \$137) for unlimited use of transit services in a calendar year. This amounts to 75 cents per day.

With the rapid expansion of college enrollment in recent years, ridership to Conestoga College continues to grow. Over the last two years, ridership has increased by 65% from 2,000 to over 3,300 riders daily. In response to growing ridership, GRT has increased service to Conestoga College Doon Campus by almost 40% or 125 more bus trips daily (from 320 to 445 daily trips). With the launch of the ION LRT, an additional 125 daily trips are to be provided with the planned extension of the 201 iXpress from Block Line Station to Conestoga College.

A new transit passenger facility is being designed for the Doon Campus to better accommodate the increase number of buses and riders. The new transit passenger facility is scheduled to be open in September 2019. The Conestoga College U-Pass would continue the high ridership growth trend and requires service improvements on selected routes including increased service frequency, evening and weekend service, and additional service coverage

Justification/Rationale

The U-Pass program for Conestoga College students would provide all students affordable and convenient access to transit services. Greater student transit use reduces campus parking demand and traffic congestion, and supports the goals of the Regional Transportation Master Plan.

Based on student location information provided by Conestoga College, a service plan was developed to meet the projected increased student ridership demand. Implementation of the service plan will require an estimated 15,225 annual service hours and 6 additional buses as set out in the following table.

Route	Service Proposal	Hours (estimate)	Annual Cost	Peak Buses
201	Provide five AM peak directional trips, between 7-9am, from Block Line Station.	802	\$72,371	3
201	Start 10-minute PM peak service at 2pm	365	\$32,896	
16	Extend 15-minute peak service to operate full length of route - increase from 30-minute peak service below Ottawa St.	3,065	\$276,643	2
61	Provide full 30-minute evening service until midnight	2,712	\$244,786	
61	Increase midday frequency in Spring on Route 61 to 30 minutes from 60 minutes	195	\$17,559	
76	Provide new 30-minute midday service	2,772	\$250,173	
111	Improve service between West Galt and Conestoga College (Doon and Cambridge campuses).	2,000	\$180,500	1
203	Provide 30-minute peak service on the 203 iXpress extension in the Spring	339	\$30,622	
203	Provide new 30-minute midday service on 203 iXpress extension	975	\$87,994	
Various	Supplementary service for Waterloo Campus demand on selected routes	2,000	\$180,500	
	Total	15,225	\$1,374,056	6

Implications of Not Approving

Without Council approval, the Conestoga College U-Pass program will not be implemented in 2019. Phasing in the service for the Conestoga College U-Pass Program was reviewed and considered inadequate since i) many Conestoga College students live at home when going to school and therefore have a very dispersed travel pattern requiring improvements to many routes and ii) student travel demand is very concentrated during the peak hours when most classes start and end so required peak service cannot be staged without experiencing significant overcrowding and potentially having to leave passengers waiting at a bus stop. This could result in a loss of confidence in the transit system and cancellation of the U-Pass program by Conestoga College students.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Service Costs related to additional college service	458	1,165
Contribution to Bus Replacement Reserve	210	210
Debt Servicing Costs	0	117
Total On-going Operating Expenditures	\$ 668	\$ 1,492
Revenues		
U-Pass Revenues (incremental)	49	567
RDC Recovery – Debt Servicing Costs	0	40
Total On-going Operating Revenue	\$ 49	\$ 607
Net Regional Levy	\$ 619	\$ 885
Incremental Operating Budget Impact	\$ 619	\$ 266

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Transit operator	9.0	9.0
Mechanic	1.0	1.0
Total Staffing Impact	10.0	10.0
Incremental Staffing Impact	10.0	0.0

CAPITAL PLAN (\$000s)	2019
Expenditures	
Conventional Transit Buses (6)	3,780
Total Capital Expenditures	\$ 3,780
Sources of Funding/Financing	
PTIF	2,759
Tax levy - debentures	643
Development charges - debentures	378
Total Capital Financing	\$ 3,780

Performance Measures

	2014	2015	2016	2017
Revenue Service Hours per Capita (service area)	1.54	1.58	1.60	1.59
Ridership per Capita (service area)	49.71	46.73	43.50	42.91
Annual Service Hours	669,408	687,560	724,321	731,964
Annual Ridership (millions)	21.5	20.3	19.7	19.7

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo

2019 Budget – Major Budget Issue

Implementation of MobilityPLUS and Kiwanis Transit Five-Year Business Plan
Transportation & Environmental Services
Strategic Plan Focus Area Sustainable Transportation
Strategic Objective or Action Create a public transportation network that is integrated, accessible, affordable and sustainable

Brief Description of Request

In June 2017, Council adopted the MobilityPLUS and Kiwanis Transit Five-Year Business Plan 2017-2021. Within this Plan was the recommendation to continue expanding specialized transit services to levels of comparable sized municipalities.

Justification/Rationale

This issue paper outlines the capital and operating budget requirements, needed to expand MobilityPLUS and Kiwanis Transit services in 2019 to address unaccommodated requests for accessible transit service. During the 2018 budget, Council approved a request to increase van service by two (2) vehicles (one dedicated vehicle in each service area) and an increase to the contracted taxi budget by \$30,000 to address the AODA requirement of accommodating persons with cognitive disabilities. MobilityPLUS is currently experiencing in excess of 1,000 unaccommodated trips each month (up from 900 per month in 2017) as there has not been an expansion vehicle added since 2015 (currently MobilityPLUS and Kiwanis Transit are awaiting delivery of these two (2) 2018 vehicles). The approved 2018 budget issue paper indicated that, in addition, to further address unaccommodated requests for accessible transit service in both service areas, it would be anticipated that two (2) additional vehicles (one dedicated vehicle in each service area) would be required in the 2019 budget. Each expansion vehicle will accommodate 6,000 rides annually.

Implications of Not Approving

As the population ages the incidence of disability will increase. Without continual increases to service levels, Specialized Transit Services will not be able to keep up to this rising demand. Unfulfilled requests for service will increase, rides per registrant will decrease and the benefits in transit services that have been gained over the past years for persons with disabilities could regress.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Staffing, fuel, repairs (Mobility <i>PLUS</i>)	60	180
Staffing, fuel, repairs (Kiwaniis Transit)	50	150
Vehicle Replacement	38	38
Total On-going Operating Expenditures	\$ 148	\$ 368
Revenues		
Fare Revenue	4	14
Total On-going Operating Revenue	\$ 4	\$ 14
Net Regional Levy	\$ 144	\$ 354
Incremental Operating Budget Impact	\$ 144	\$ 210

Note: The annual tax levy requirement for Kiwanis Transit will be area-rated to the four townships.

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Specialized Transit Vehicle Operators	1.3	1.3
Total Staffing Impact	1.3	1.3
Incremental Staffing Impact	1.3	0.0

CAPITAL PLAN (\$000s)	2019
Expenditures	
MobilityPLUS Expansion Vehicle (1 vehicle)	120
Kiwanis Transit Expansion Vehicle (1 vehicle)	100
Total Capital Expenditures	\$ 220
Sources of Funding/Financing	
PTIF	161
Accessibility Reserve	59
Total Capital Financing	\$ 220

Performance Measures

	2014	2015	2016	2017
MobilityPLUS Ridership (van, taxi, TaxiSCRIP)	290,568	293,041	306,164	284,272
MobilityPLUS Revenue-Vehicle Hours	56,761	57,290	57,473	61,675
MobilityPLUS Unfulfilled Requests	2,568	2,523	9,603	12,274

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Network Infrastructure Security and Support
COR/Information Technology Services (ITS)
Strategic Plan Focus Area Responsive and Engaging Government Services
Strategic Objective or Action 5.4 Ensure regional programs and services are efficient, effective and provide value for money

Brief Description of Request

Two additional positions in ITS to provide:

- Ongoing operational support for information technology security systems and infrastructure for an ever increasing and complex infrastructure and;
- Project support for all Regional projects requiring information technology security.

These positions will make permanent, two contract positions currently in ITS and these positions are required to ensure ongoing support of program areas at the Region of Waterloo.

Justification/Rationale

The need for this increased capacity is driven by:

- The need to manage and mitigate ever growing threats due to viruses, malware, and hacking;
- The requirement to operate and maintain an up to date infrastructure to support Regional programs and services; and,
- The need for additional resources to design and implement infrastructure required to deliver Regional services.

Specifically the services requiring this increased support include the following examples:

- Transit Services - Electronic Fare Management, GRT-ION integration
- Water Services - SCADA 2020 infrastructure, WREPNET network support for 50+ sites
- Paramedic Services - Vehicle cellular networks
- Fleet & Facilities - ITS infrastructure for new Regional buildings
- Housing - Expanded security and camera requirements
- Traffic Services - ION and Regional traffic control network infrastructure support
- Finance - Payment Card Industry (PCI) security support
- All Regional services that utilize information technology services such as: security, networking, email, file storage, data storage, telephony, etc.

Implications of Not Approving

Without the resources, Regional services dependent on information technology will be at increased risk due to:

- Insufficient resources to manage and mitigate threats and security attacks, as recently encountered by Wasaga Beach and Midland
- Not having sufficient capacity to properly design, build, secure, operate and maintain Regional information technology infrastructure
- A lack of capacity to implement new and upgrade existing information technology systems and services.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salaries, Wages, Benefits	117	234
Office Costs	3	4
One-time Office Costs	37	0
Total On-going Operating Expenditures	\$ 157	\$ 238
Net Regional Levy	\$ 157	\$ 238
Incremental Operating Budget Impact	\$ 157	\$ 81

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
R01155 Programmer Analyst	2.0	2.0
Total Staffing Impact	2.0	2.0
Incremental Staffing Impact	2.0	0.0

Council Decision

Implementation start date of budget issue paper delayed to accommodate budget capacity for Bundle 2 of Housing Stability Supports budget issue paper. The 2019 levy impact of this budget issue paper will be \$27,000 and the 2020 levy impact will be \$211,000.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Facilities Safety Management Project Engineer
Corporate Services – Facilities and Fleet Management
Strategic Plan Focus Area Responsive and Engaging Government Services
Strategic Objective or Action Ensure regional programs and services are efficient, effective and provide value for money.

Brief Description of Request

To convert a temporary Project Engineer (Facilities Safety Management) position to permanent, with funding from capital transitioned to operating. This position is required to lead the development of and take responsibility for actions to reduce high risk activities for operations staff, as set out in the corporate Safety Management System (SMS) program.

Working with Corporate Health & Safety (H&S), this individual will become the technical expert for Facilities, set standards, plan remediation and abatement projects, lead the program rollout to all Facilities staff, advice and train staff and supervisors of their responsibilities under the Occupational Health & Safety Act (OHSA) and other safety legislation. This role will help reduce risk of injury, H&S infractions and fines by the Ministry of Labour and will be responsible to coordinate investigations/assessments of safety hazards in regional facilities, including designated substances, confined spaces, electrical and other hazardous energy and fall protection.

Justification/Rationale

In 2014, following a program review, Facilities assumed responsibility for all Regionally owned buildings rather than just shared corporate buildings as it had previously. Through the adoption of the Corporate Safety Management System, risk assessments were completed for all staff activities and work environments and a number of high risk

activities were identified. It was determined through these risk assessments that safety risks to Facilities Maintenance staff were among the highest in the Region. In 2016 a project was developed to work closely with Corporate Health and Safety advisors to implement mitigation measures to reduce those risks. A contract position was created to address the highest health and safety risks and expires in 2019. Significant safety improvements have been made and further improvements are expected as a result of this project through Facilities process development and a comprehensive program of building hazard assessments.

Through this project, it was determined that a dedicated position is needed to continue to support annual reassessments and implement ongoing risk mitigation measures, as legislation and corporate H&S policy continue to change and as the building portfolio continues to grow. The implementation requires coordination of various investigations/assessments of safety hazards in buildings, including designated substances, confined spaces, hazardous energy and fall protection.

This position will plan remediation projects, set standards and procedures and perform audits to ensure such standards and procedures are followed and become Facilities' technical expert for health and safety related issues. The position will lead the program rollout to all Facilities staff, assist Corporate Health and Safety to advise and train Facilities staff and supervisors of their responsibilities under the Occupational Health and Safety Act and its Regulations and other safety legislation.

It is expected that this role will lead to operational cost avoidance as it will help to reduce and avoid risk of injury, H&S infractions and fines by the Ministry of Labour. Due to the permanent need for the position, it is recommended that the Operating cost of the permanent position be phased in over 2 years with the balance recovered from Facilities capital project 90165 (SMS implementation), the funding source for the current temporary position.

Implications of Not Approving

Although the current Facilities Safety Management System Capital Project will address current safety risks, the program will soon become out-of-date due to the quickly changing Health and Safety legislation and standards. Without continual upkeep of the program, costly projects will have to be planned on a regular basis to address such changes, with the risk that the Region is not compliant between projects.

Without this permanent role, the work will return to a number of different supervisor positions within Facilities. Due to the significantly larger building portfolio, spreading the responsibility across all supervisors would result in inconsistent processes, duplicated

efforts, reduced staff supervision and difficulties administering and measuring the program to ensure H&S compliance. A permanent role will lead to program and staff stability and ensure Safety Management Systems (SMS) projects are successful and completed in a timely manner.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salaries, Wages, Benefits (permanent)	117	117
Salaries, Wages, Benefits (temporary)	(117)	(117)
Total On-going Operating Expenditures	\$ 0	\$ 0
Recovery from capital	\$ 19	\$ 0
Net Regional Levy	\$ 98	\$ 117
Incremental Operating Budget Impact	\$ 98	\$ 19

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Project Engineer (Safety Management)	1.0	1.0
Temporary Staff		
Project Engineer (Safety Management)	(1.0)	(1.0)
Incremental Staffing Impact	0.0	0.0

Performance Measures

Historic performance measures show the Corporate Safety Management System (SMS) program has been effective and efficient in performing a variety of essential safety assessments and that there is an on-going role in maintaining and reassessing the program.

Number of Buildings Assessed	2014	2015	2016	2017	2018
Asbestos mgmt. program - New	491	52	149	45	0
Asbestos mgmt. program - Reassessments	0	61	366	395	455
Electrical safety program - Arc Flash and Lock-Out Tag-Out	4	9	2	14	45
Fall protection program	27	38	11	13	8

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Enhancing the Housing Stability System
Community Services
Strategic Plan Focus Area 4 Healthy, Safe and Inclusive Communities
Strategic Objective or Action Objective 4.3 Increase the supply and range of affordable and supportive housing options Action 4.3.1 Implement the Homelessness to Housing Stability Strategy

Brief Description of Request

There are significant pressures facing the local Housing Stability System related to helping people find affordable housing and stay housed, particularly those with deep levels of need. As Service Manager for Housing and Homelessness, the Region has the responsibility to find and channel resources to address local community pressures in these areas. Additional Regional funding for key priority areas will help to alleviate some of these pressures.

Justification/Rationale

The Region is the Service Manager for Housing and Homelessness, and is responsible for planning and implementing strategies to address local community pressures in these areas by strategically channeling resources to the right places. The local Housing Stability System is facing significant pressures right now related to helping people find affordable housing and stay housed, particularly those with deep levels of need. The waiting list for affordable housing grew by 40% in the last year. The shelter system has been under pressure as the demand for shelter space continues to increase (primarily from single men but also recently families). The waiting list for housing support dedicated to people experiencing chronic homelessness has remained between 250-300 people over the last year (about 40 of whom are living outside). The Eviction Prevention program operated by Lutherwood has been experiencing pressures as community needs continue to increase. In order to properly staff the program and meet

the need in the community an additional annual allocation of \$300,000 is required.

To address these service pressures, additional program investments are required.

These include:

- 1) More funds for the Portable Home-Based Support Program with rent assistance for 30 people with the highest level of need (staff ratio of 1:10); (Bundle 1 & 2)
- 2) Winter response for additional, flexible shelter beds for 45 adults (primarily men) with shelter staffing; (Bundle 1)
- 3) Funds for rent arrears to properly staff and meet the demand through the Lutherwood-based Rent Fund Program; (Bundle 2)
- 4) The increasing demands of the Service Manager role also requires additional staffing to support the homelessness programs area (1 FTE) for services to unsheltered and emergency shelter clients, and those with deep levels of need requiring housing with support (financial and addiction/mental health services). (Bundle 1)

Two of these components can be adjusted to meet community need as the needs change over time – Home-Based Support and Rent Fund (arrears). Investments can increase to serve more people in need or decrease to serve fewer people in need. Budget requirements in this budget issue paper have been presented in two bundles to represent scalability of these components.

Implications of Not Approving

Without this additional Regional funding, the local Housing Stability System will be inadequately resourced to address the growing needs of homelessness in Waterloo Region. Each program is designed to meet a specific need:

- Portable Home-Based Support with rent assistance will address some of the pressures in street homelessness and in the shelters where people can't move into housing without more supports in place because their needs are too high. Serving 30 people is about 10% of the overall demand based on the waiting list.
- The winter shelter response will ensure that everyone who wants to access shelter can do so, with appropriate levels of shelter staffing to help people connect with other services during their stay.
- Funding to meet the need for rent arrears (through the Rent Fund) will ensure that this program does not run of our resources, which would lead to more people being evicted from their housing.

Bundle 1: Serving 10 individuals with portable home-based supports, 45 winter shelter overflow beds, and adding a 1.0 FTE Housing Program Lead

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Home-Based Supports/Rent Assistance	81	162
Winter Shelter Overflow	174	350
1.0 FTE Housing Program Lead	58	116
General training and office costs	8	(8)
Total On-going Operating Expenditures	\$ 321	\$ 620
Net Regional Levy	\$ 321	\$ 620
Incremental Operating Budget Impact	\$ 321	\$ 299

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Program Lead Housing Stability System	1.0	1.0
Total Staffing Impact	1.0	1.0
Incremental Staffing Impact	1.0	0.0

Bundle 2: Serving and additional 20 individuals with portable home-based supports, additional Eviction Prevention funds

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Home-Based Supports/Rent Assistance	162	324
Eviction Prevention Funds	150	300
Total On-going Operating Expenditures	\$ 312	\$ 624
Net Regional Levy	\$ 312	\$ 624
Incremental Operating Budget Impact	\$ 312	\$ 312

Budget Requirements - Total

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Home-Based Supports/Rent Assistance	243	486
Winter Shelter Overflow	174	350
Eviction Prevention Funds	150	300
1.0 FTE Housing Program Lead	58	116
General training and office costs	8	(8)
Total On-going Operating Expenditures	\$ 633	\$ 1,244
Net Regional Levy	\$ 633	\$ 1,244
Incremental Operating Budget Impact	\$ 633	\$ 611

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Program Lead Housing Stability System	1.0	1.0
Total Staffing Impact	1.0	1.0
Incremental Staffing Impact	1.0	0.0

Performance Measures

	2015/ 2016	2016/ 2017	2017/ 2018	Notes Fall 2018
PATHS Waiting List (Demand for Home-Based Support from People Experiencing Homelessness with Very High Needs)	125	243	288 (+19%)	70% are waiting in shelter; 15% are outside/camping
Community Housing Waiting List (Demand for Affordable Housing, e.g., Rent Assistance)	2,680	2,994	4,178 (+40%)	Long wait times due to few unit vacancies and high demand
Occupancy of Adult Shelters (Cambridge Shelter, House of Friendship, YW Shelter)	88%	96%	95%	Need extra capacity for expected higher winter demand – currently using motel overflow for families and some men

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Corporate Technology Project Delivery
Corporate Services – Information Technology Services
Strategic Plan Focus Area 5 Responsive and Engaging Government and Services
Strategic Objective or Action COR 5.4.8 ITS Service Improvements; COR 5.4.9 Technology Support Roles & Responsibilities

Brief Description of Request

Request 3 additional permanent positions to provide the required complement of staff to deliver key projects identified for 2019 and beyond:

- a) Project Manager
- b) Supervisor of Project Management
- c) GIS Programmer Analyst

Justification/Rationale

In 2019, over 100 new technology projects have either been requested or will be continuing from 2018. These projects include certain key upgrades required to maintain secure and stable ongoing operations and projects that will deliver new programs and services for the public and Region as a whole. Very few projects undertaken by the various program areas across the Region do not have an IT component in today's municipal environment. The demand for project resources currently exceeds ITS ability to deliver; this high demand is expected to be a persistent trend.

The following is a sample of the 100+ projects in the queue:

- Asset Management - Work Management System Implementation
- Electronic Fare Management System (EFMS)
- Microsoft Upgrade (Windows 10 , Office 2016) and Deployment
- LRT Integration within GRT - between ION and any other system

- SCADA 2020

The positions being requested are as follows:

a) Project Manager:

The Region requires an additional permanent Project Manager (PM) to adequately manage the 100 plus requested projects across the Region. The current demand for the existing 3 PMs is not manageable given the number of projects. Examples of key projects are listed above.

b) Supervisor of Project Management:

The Supervisor of Project Management is responsible for overseeing the work assignments for PM's and Business Analysts (BA's). They also maintain the overall resource allocation to projects, the capacity plans for projects, set project management and business analyst standards and tool usage. Maintaining overall resource allocations on projects is essential in delivering on the commitments ITS makes to the program areas across the Region in support of the services the Region provides to the public and the internal clients.

c) GIS Programmer Analyst

Since its inception 5 years ago GIS demand has grown exponentially and is now a key component of many of our internal and public facing applications. GIS requires a new Programmer Analyst position to support new functionality and projects being requested by the program areas. When the GIS Strategic Plan was approved by council in 2011, it called for 5 more positions in GIS than the Region currently has (12 FTE vs 7 FTE today) to deliver on the optimal level of service that enterprise GIS would bring to the Region.

Implications of Not Approving

If this Budget Issue Paper is not approved many of the projects requested for 2019 and beyond will not be initiated or completed. The current capacity analysis reflects that the Region has a significant capacity shortfall for the resources being asked for in this issue paper.

The Supervisor of Project Management is a resource required to administer an effective Project Management Office within ITS. Without this position, the division could not deliver or effectively administrate the volume of project work that is being proposed for 2019 and beyond. Visibility into project performance will be limited, inconsistencies in delivery will result in lost efficiencies (costs) and projects will be at risk of delivering late or over budget.

If the GIS Programmer Analyst position is not approved, the following projects will be impacted:

- Maintaining and upgrading the GIS architecture
- Maintaining and upgrading GIS applications (40+)
- Completing the Asset Management Project
- Implementing the Corporate Asset Management Decision Support System
- Ongoing support to the Emergency Management Office

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salaries, Wages, Benefits	180	360
Office Costs	4	5
One-time Office Costs	35	0
Total On-going Operating Expenditures	\$ 219	\$ 365
Net Regional Levy	\$ 219	\$ 365
Incremental Operating Budget Impact	\$ 219	\$ 146

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Project Manager R01292	1.0	1.0
Supervisor of PMs/BAs (new position)	1.0	1.0
GIS Programmer Analyst R01573	1.0	1.0
Total Staffing Impact	3.0	3.0
Incremental Staffing Impact	3.0	0.0

Council Decision

Implementation start date of budget issue paper delayed to accommodate budget capacity for Bundle 2 of Housing Stability Supports budget issue paper. The 2019 levy impact of this budget issue paper will be \$37,000 and the 2020 levy impact will be \$328,000.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Two (2) FTE Signal Maintainers / One (1) FTE Signal Technician
TES/Transportation
Strategic Plan Focus Area 5.4: Ensure Regional programs and services are efficient, effective and provide value for money
Strategic Objective or Action 2.4.2: Implement traffic signals, adaptive signal technology and other technologies to optimize and manage road capacity/congestion

Brief Description of Request

The Region of Waterloo Traffic Operation Signal division of the Transportation Operations Department is currently comprised of one (1) Traffic Signal Supervisor, 3 Signal Technicians (1 Lead hand/2 Technicians) and 8 Signal Maintainers (1 Lead Hand/7 Maintainers). These traffic signal personnel are responsible for the maintenance of over 500 traffic control signals, numerous surveillance cameras at roundabouts, intersection/warning flashers, 3000 +vehicle detection lanes, EMS/GRT Pre-emption, utility locates (10,340 in 2017), yearly installation of new/updated traffic signals through the Region’s Capital Program and soon the addition of the Light Rail Transit (LRT) traffic signals.

The addition of 2 Signal Maintainers and 1 Signal Technician is required in order to continue covering daily maintenance of the 500 plus traffic signals throughout the ROW area and the 52 LRT intersections that will require more time-sensitive and on-demand attention to ensure that ION Revenue Service is not interrupted.

Justification/Rationale

Currently the three (3) Region Signal Technicians are maintaining approximately 167 signalized locations each. Industry standard for Signal Technicians is to maintain 40-50 signalized locations each. With the assumption of the LRT traffic signals upon

completion, it is anticipated that two of the three current Technicians will be required to be involved with the everyday operations of the ION system.

The Region's 7 Signal Maintainers are also maintaining approximately 167 intersections each (3 crews with 2 maintainers per truck each). The general industry standard is one signal crew responsible for approximately 100 signalized intersections. With the assumption of the ION traffic signals upon completion of the project, staff will have a very short window of 3 hours (1:30am-4:30am) to perform routine maintenance so ION revenue service is not disrupted. In order to complete maintenance of the LRT traffic signals while avoiding disruption to ION revenue service, scheduled night time shift work will be necessary. With the added requirement of a night shift, there will not be sufficient daytime staff available to complete routine maintenance on the remaining traffic signals throughout the Region.

With the addition of two (2) FTE Maintainers and related equipment, four (4) aerial bucket trucks will be fully staffed to perform duties with the Lead Hand scheduling, assigning and assisting when required. The remaining Maintainer will continue to perform locates, complete shop duties and act as a temporary backup as a required.

Implications of Not Approving

While already being short staffed compared to industry standards, failure to approve the request to add two (2) Signal Maintainers and one (1) Signal Technician may result in delays to the maintenance of traffic signals throughout the Region possibly resulting in:

- Delays in completing Capital Projects
- Added traffic congestion if repairs to signals cannot be completed in a reasonable time
- Increased collision frequency due to improper maintenance of signals
- Confusion to motorists due to failures of signals
- Increased operating and maintenance costs
- Loss in confidence in Regional Services
- Litigation against the Region
- Increased ION service disruptions

Without the recommended increase in staff resources, existing Signal Operations staff will not be able to provide timely maintenance of the traffic signal infrastructure within industry standards or within the Minimum Maintenance Standard Regulations set out by the province. Additional overtime will be required to complete required work on traffic signals within adequate time frames. Increased overtime may also result in additional

sick time for staff due to work load stresses.

Signal staff will be required to maintain the ION related traffic signals to a higher standard in order to minimize service disruptions to the system. As such most maintenance work will be required to be completed within the 3 hour of non-service window between 1:30am and 4:30am. This will be required as access to the ION corridor may be required resulting in blocking of the train corridor at times. In addition, there may be times when sections of the ION corridor will need to be powered down due to safety regulations so access to specific portions of the traffic signals is possible. In order to minimize service disruptions, it is best to complete as much work as possible at night.

Without the additional staff, it may result in the required Minimum Maintenance Standards inspections not being completed in the specified time lines for the remaining signalized locations within the Region. (See below)

The Ontario Municipal Act, Regulation 239/02 Minimum Maintenance Standards for Municipal Highways states

Traffic control signal systems

13. (1) If a traffic control signal system is defective in any way described in subsection (2), the standard is to deploy resources as soon as practicable after becoming aware of the defect to repair the defect or replace the defective component of the traffic control signal system. O. Reg. 239/02, s. 13 (1); O. Reg. 366/18, s. 13.

(2) This section applies if a traffic control signal system is defective in any of the following ways:

1. One or more displays show conflicting signal indications.
2. The angle of a traffic control signal or pedestrian control indication has been changed in such a way that the traffic or pedestrian facing it does not have clear visibility of the information conveyed or that it conveys confusing information to traffic or pedestrians facing other directions.
3. A phase required to allow a pedestrian or vehicle to safely travel through an intersection fails to occur.
4. There are phase or cycle timing errors interfering with the ability of a pedestrian or vehicle to safely travel through an intersection.
5. There is a power failure in the traffic control signal system.
6. The traffic control signal system cabinet has been displaced from its proper position.
7. There is a failure of any of the traffic control signal support structures.

8. A signal lamp or a pedestrian control indication is not functioning.
9. Signals are flashing when flashing mode is not a part of the normal signal operation. O. Reg. 239/02, s. 13 (2).

Traffic control signal system sub-systems

- 14. (1) The standard is to inspect, test and maintain the following traffic control signal system sub-systems once per calendar year, with each inspection taking place not more than 16 months from the previous inspection:**
(2) The standard is to inspect, test and maintain conflict monitors every five to seven months and at least twice per calendar year. O. Reg. 239/02, s. 14 (2); O. Reg. 47/13, s. 13 (3); O. Reg. 366/18, s. 13.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salaries, Wages, Benefits	237	284
Office	4	4
Vehicle (Fuel/MTCS/License/Insurance)	8	10
Reserve contribution	9	9
Office One Time	5	0
Total On-going Operating Expenditures	\$ 263	\$ 307
Net Regional Levy	\$ 263	\$ 307
Incremental Operating Budget Impact	\$ 263	\$ 44

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff (Traffic Signal Technician)		
Signal Maintainer	2.0	2.0
Traffic Signal Technician	1.0	1.0
Total Staffing Impact	3.0	3.0
Incremental Staffing Impact	3.0	0.0

CAPITAL PLAN (\$000s)	2019
Expenditures	
Signal Van	65
Aerial Truck	See Note
Total Capital Expenditures	\$ 65
Sources of Funding/Financing	
Corporate Fleet Replacement Reserve Technician Van	65
Total Capital Financing	\$ 65

*Note that Fleet and Transportation staff estimate that the current complement of aerial truck vehicles have sufficient capacity to handle the anticipated increased requirements an additional Signal Technician, given estimates of service levels that will be required once the LRT launches. Staff will monitor vehicle capacity during system launch and operations and, should any adjustments be required, they will be captured in updates to future capital programs.

Performance Measures

	2014	2015	2016	2017
Number of Locates performed/year	10319	11385	11662	10340
Number of Traffic signals Maintained/year (including IPS/Mid Block/RRFB/flashers) (approximately 500 in total in 2018)	513	514	515	525
Hours of Over time worked	2009.3	2306.6	2060.0	2369.1

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Corridor Management Engineering Technologist
Transportation and Environmental Services Department
Strategic Plan Focus Area 5
RESPONSIVE AND ENGAGING GOVERNMENT SERVICES
Strategic Objective or Action
5.4 Ensure Regional programs and services are efficient, effective and provide value for the money.

Brief Description of Request

To address the increasing demand on Corridor Management staff to administer an increasing volume of municipal consent and work permit applications, including an increase in applications along the ION corridor due to development growth. The growth in this resource has not kept pace with the growth in the number of municipal consent and work permit applications that are being processed by Transportation. In 2017, four staff processed 233 municipal consents and 1611 work permit applications which represents a two-fold annual increase in applications compared to annual average applications in years between 2010 and 2015. Currently target timelines are not being met and staff overtime is increasing annually. The four staff administering these applications are accumulating hundreds of hours of overtime annually.

Justification/Rationale

The Region has an obligation to provide efficient service to the community and to facilitate continued growth in the Region. Corridor Management staff is a key stakeholder in facilitating growth in our community as they help facilitate the approval of development in the Region as well as applications that help modernize the Region’s community and infrastructure related to the community.

Implications of Not Approving

The time to process an application is increasing and is directly attributable to growth in the Region causing an increasing number of municipal consent and work permit applications being submitted to the Region. Key stakeholders associated with growth in the Region including developers, utility companies, area municipalities and members of the public are incurring unnecessary delays to their projects due to an increasing backlog of projects awaiting review and approval by staff. The Region risks being held accountable for delays incurred by consultants and contractors working on behalf of developers. The Region could be held accountable for financial penalties that these stakeholders incur as a result of Regional delays. Staff will continue to require increasing overtime hours to offset delays in processing applications. An additional FTE would reduce the number of overtime hours required to process applications

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salaries, Wages and Benefits	51	101
Office Costs	3	5
One-time Office Costs	22	
Total On-going Operating Expenditures	\$ 76	\$ 106
Revenues		
Net Regional Levy	76	106
Total On-going Operating Revenue	\$ 0	\$ 0
Net Regional Levy	\$ 76	\$ 106
Incremental Operating Budget Impact	\$ 76	\$ 30

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Engineering Technologist, Corridor Management	1.0	1.0
Temporary Staff		
Nil		
Total Staffing Impact	1.0	1.0
Incremental Staffing Impact	1.0	0.0

Performance Measures

	2014	2015	2016	2017	2018 Projected
Municipal Consent Applications	289	327	296	233	163
Work Permit Applications	1084	1024	1123	1611	2062

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Asset Management Systems Implementation and Ongoing Support
Corporate Services – Information Technology Services
Strategic Plan Focus Area 5 Responsive and Engaging Government and Services
Strategic Objective or Action Asset Management System aligns with the 2015-2018 Corporate Strategic Plan Objective to plan for and provide the infrastructure and services necessary to create the foundation for economic success under Strategic Focus Area 1, Thriving Economy. This includes continuing to implement and improve an asset management plan to optimize the use and availability of existing and new infrastructure.

Brief Description of Request

Request 1 additional permanent Programmer/Analyst to provide ongoing support for the newly developed and implemented Asset Management application (Lucity) and associated Decision Support System for the Region of Waterloo.

Justification/Rationale

As part of the Corporate Asset Management Strategy, the Region purchased and is implementing a new asset and work order management system. This system will integrate with key support systems already in place at the Region (ArcGIS, TAMS, e-DOCS, Oracle Financials) and with other decision support systems required to manage the Region’s assets. This will result in an integrated set of tools that will meet the needs of the above mentioned seven program areas and over 450 staff within various departments.

Going forward, the Programmer/Analyst position is required to maintain, modify, test and ensure data integrity of all Asset Management interfaces for the Corporate Asset and Work Order Management systems including but not limited to:

- i. Financials – (Oracle eBusiness Suite)
- ii. Geographic Information System (ESRI GIS) application suite
- iii. Time and Attendance Management System (Kronos - TAMS)
- iv. Human Resources and Payroll System (Banner)
- v. Service First Call Centre system (Verint/Kana/Lagan)
- vi. Document Management system (eDocs - OpenText)
- vii. Several other enterprise systems (SCADA, Building Automation, Reporting Airport Operations, email etc.)

Duties will also include setup, administration, and maintenance of the newly acquired Corporate Decision Support System.

Implications of Not Approving

If this Budget Issue Paper is not approved, many of the goals of the Asset Management (AM) System project would not be realized, and the program's future would be in doubt.

Missed goals would include:

- Ensuring the Region's Assets are sustainable and appropriate for use would become increasingly difficult for multiple program areas if AM systems are not maintained.
- Increased costs of asset ownership and service delivery if AM systems are not maintained.
- Inability to proactively monitor and address risks associated with asset failure
- Inability to ensure the collection and use of current and accurate asset information and making it available to all
- Facilitating the prioritization and optimization of capital investment in the Region's assets would become increasingly less reliable if AM systems are not maintained.

To this end, the AM system is a complex system that will require diligence in technical maintenance as its functionality and growth in use across the corporation expands.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salaries, Wages, Benefits	58	117
Office Costs	2	2
One-time office Costs	18	0
Total On-going Operating Expenditures	\$ 78	\$ 119
Net Regional Levy	\$ 78	\$ 119
Incremental Operating Budget Impact	\$ 78	\$ 41

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
R01506 Programmer Analyst	1.0	1.0
Total Staffing Impact	1.0	1.0
Incremental Staffing Impact	1.0	0.0

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Funding for Economic Development Initiatives
PDL/Economic Development
Strategic Plan Focus Area Thriving Economy
Strategic Objective or Action Support existing businesses and attract new employers and investments (to stay, grow, thrive and prosper).

Brief Description of Request

The Office of Regional Economic Development (ORED) is requesting additional ongoing operating budget to support a number of strategic economic development related projects and community partnership initiatives. A number of these ongoing projects, such as sector development, pilot projects, smart cities, and support for rural economic development, are priorities for the Region but do not have associated funding to support their development and implementation.

This operating funding would also support the ongoing and annual requests ORED receives from community partners to support strategic sector focus initiatives, which is currently not funded through the existing budget.

Justification/Rationale

The Waterloo Region Economic Development Strategy (WREDS) was established in 2015 and identified key objectives and specific actions to support economic growth throughout the Region. ORED was assigned a lead or supporting role for a number of these initiatives, including cluster/sector development (e.g. aerospace), rural economic development, and support for key transportation initiatives. A number of these identified projects do not have associated funding to support their completion or on-going work.

ORED receives requests to support strategic growth initiatives from different industry associations or economic development organizations. More than half of the requests

received by ORED are one-time requests that have not been planned for. The remaining requests fluctuate in the level of financial support requested. Where possible, these events are supported from existing sources. However, others such as Communitech's True North conference require new funding.

The 2018 Communitech True North Conference had over 3,000 attendees. The Region of Waterloo supported the 2018 conference with a \$50,000 community sponsorship. In 2019, Communitech will be organizing the 2nd annual True North conference in Waterloo Region which will continue to build on the "tech for good" theme in Waterloo Region. As part of this theme, Communitech will be focusing on the Smart Waterloo Region proposal and calling attention to how the community is leveraging technology and data solutions to overcome challenges facing Waterloo Region children and youth. The conference will include keynote speakers, workshops, and other smart city breakout sessions to raise awareness of Waterloo Region's tech for good initiative. Communitech is requesting a community sponsorship of \$80,000 in the form of Grand River Transit bus service (Attachment 1). This GRT bus service is required to move attendees back and forth between pick-up points throughout the community and the conference location. This budget issue paper would support this and other funding requests of an economic development nature.

On a regular basis, new economic development opportunities that align with the economic priorities of the Region become available to Waterloo Region, often on short notice and in between budget cycles. In order to take advantage of these opportunities, ORED often has to commit human and financial resourcing to support the associated projects without the associated operating budget to do so. Some projects have been funded by accessing other sources of funding, such as the Tax Stabilization Reserve, or they have been delayed due to lack of funding. There may be a need to use some temporary additional resources from time to time to implement these projects/initiatives. In 2019, some of these projects will include:

- Supporting the development and implementation of Smart Waterloo Region initiatives – In 2018, Waterloo Region was selected as 1 of 5 big city finalists in the Government of Canada's Smart Cities Challenge. With additional funding, the Region will be able to support specific technology solutions outlined in the Smart Waterloo Region proposal and other Smart City initiatives that supports innovation in municipal service delivery or operations;
- Creating and implementing Waterloo Region economic sector specific profiles/strategies – A number of economic growth opportunities exist in Waterloo Region but require support through opportunities assessment, asset mapping, and a coordination of efforts between the private, academic, and government sectors. Waterloo Region's aerospace sector for example is the third largest aerospace sector in Ontario. This was achieved with little to no coordinated support. With a

coordinated effort, this sector will be able to accelerate its growth and see an increase in business retention, expansion, and talent development;

- Developing a comprehensive rural economic development strategy – Working with Township staff and Waterloo EDC, ORED will identify targeted rural economic development strategies and opportunities that align with the priorities of Townships and the Waterloo Region Economic Development Strategy;
- Supporting or leading Toronto-Waterloo Region Corridor initiatives – ORED will be supporting efforts to support the growth of the Toronto-Waterloo Region Corridor including working with Metrolinx to increase Two-Way All-Day Go between Waterloo Region and Toronto; and,

If approved, staff will develop an approval process for the proposed Economic Development fund that will outline how requests for funding are approved and economic development initiatives are supported. The process will be aligned with other Regional policies (e.g. delegated authority, procurement) and will be presented to Council for approval.

In June of 2018, Regional Council approved the elimination of the vacant unit property tax rebate program effective for the 2019 taxation year (per report COR-TRY-18-50 dated May 29, 2018). The vacant unit property tax rebate program had provided property tax rebates to owners of commercial and industrial property that had vacant units that met specified criteria. The Region's share of the cost of the vacant unit rebate program is an annual expense included in the Region's operating budget and has been reduced by \$200,000 in 2019. This reduction could be seen as a potential offset for the requested operating budget for Economic Development.

Implications of Not Approving

Without funding to support these economic development initiatives, the Region risks not being able to fulfill its commitments through the WREDS. A number of these activities are needed in order to support sector growth and collaboration and will not occur if the Region cannot support this work. This will impact the community's ability to achieve the goals and objectives outlined in the Strategy. Opportunities may also be lost to other communities that are better able to respond and take advantage of these opportunities (e.g. aerospace sector development and investment opportunities may go to other communities that have a coordinated approach and established sector programs to support start-ups and scaling/commercialization).

The Region of Waterloo will also miss the opportunity to leverage matching from Provincial and Federal sources for a number of these initiatives (e.g. sector mapping, strategy development, and foreign direct investment). A number of these programs require municipalities or other partners to provide a fifty percent matching contribution to support

economic development initiatives (e.g. Invest Canada Community Initiatives).

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Economic Development Projects	120	200
Community Partnership Initiatives	80	100
Total On-going Operating Expenditures	\$ 200	\$ 300
Net Regional Levy	\$ 200	\$ 300
Incremental Operating Budget Impact	\$ 200	\$ 100

Council Decision

Total funding of \$100,000 annually was approved for budget issue paper.



**True North 2019
Brief Prepared for:
The Region of Waterloo**

TRUE NORTH 2019 THEMES

Tech changes everything. Be ready.

With a high-level theme of *Tech for Good*, the first True North conference clearly struck a chord with attendees and the community. As digital technology continues to transform virtually every aspect of life, including organizations and businesses, what does Tech for Good look like to actual people? To their homes? Their commutes? Their jobs or businesses? Their health? Their personal relationships? Their places in their community?

From the factory floor to the farmer’s field, from the family room to the emergency room, technology is essential to delivering practical solutions, such as:

- Creating well-paying jobs for people displaced by automation
- Delivering better health care at less cost
- Ensuring a safe food supply
- Protecting our personal data and online privacy
- Moving people and goods more efficiently
- Making government services easier to use and encouraging civic participation
- Keeping our kids healthy and active in an increasingly digitized world

The first True North conference mapped out the big picture of Tech for Good. True North 2019 will go deeper, and focus in on the details. We’ll convene top doers and thinkers from Canada and around the world, from business, government and academia, to deliver insights, engage in debate and lead practical working sessions on creating a better world with people-centred tech.

Attendees will come away from True North 2019 feeling like they are part of a movement,

inspired by new ideas and enthusiastic for the future. They'll leave the conference with a grasp of how leaders are moving, with a sense of urgency, to leverage the digital transformation to create new jobs, business opportunities, better lives and long-term prosperity for our communities. And they'll see a role for themselves, regardless of job level, in this shared mission.

Held in Waterloo Region – Canada's leading technology ecosystem – and built on a 20-year history of meaningful tech events, Communitech's True North conference will bring together 2500+ visionaries to examine issues at the intersection of technology and humanity. To unite around tech for good. And to chart our path forward. True North is a global conference designed for companies that are building life-changing products and people who are passionate about where our world is headed.

AUDIENCE BREAKDOWN

In 2019, True North will host more than 2,500 delegates from industry, academia and the non-profit sector. Breakdown of audience is approximately, 50% Tech, 25% Industry, 10% Academic, 10% Government, 5% Community.

THE PROGRAM

True North offers memorable sessions, workshops and events relevant to tech, humanity and business centred around the theme of Tech for Good.

In 2018, inspiring keynote speakers like Ed Catmull (cofounder of Pixar, author of Creativity Inc.), Sarah Lacy (Founder and Editor in Chief at Pando), Rana el Kaliouby (CEO of Affectiva) and Bozoma Saint John (former CMO Apple Music, Uber) grounded us in reality, gave us hope and inspired us to move forward. True North 2019 will again assemble a thoughtful and unique collection of viewpoints and visionary speakers unlike any conference of its kind.

WHY WATERLOO

True North 2019 will also feature new collaborative sessions where delegates work together to generate insights on issues relevant to the conference themes. Participants in the 2018 Tech for Good Declaration Workshops created a set of guiding principles that all aspiring organizations can follow to create and use technology for the good of humanity and the planet that sustains us. This document lives on at techforgood.ca.

It's about innovation

The Waterloo Region ecosystem is like no other. Top-notch universities and research institutes play side-by-side with global enterprise, growing SMEs and a vibrant startup scene.

Technologies developed in Waterloo Region have shaped the world we live in: from satellite communications, to smartphones, to search technology. Technology innovation continues here with significant investment and momentum around autonomous vehicles, smart products and services, big data and advanced manufacturing.

It's about people

Along the Toronto-Waterloo Corridor, skilled and diverse people drive world-leading research and development in fields as varied and exciting as artificial intelligence, quantum computing, theoretical physics and life sciences. It's a nexus of human innovation and home to 15,000 tech companies, 200,000 tech workers and 5,200 startups.

It's about growth

Waterloo Region continues to be one of the fastest-growing ecosystems in the world and boasts a distinctly collaborative culture set in unique and transformed industrial spaces. Communitech supports the ecosystem with space and programming. It offers a cultivated mix of events, education and networking designed to help technology firms hire talent, access innovation, get in front of customers, raise capital and build relationships. All the ingredients necessary to start, grow and succeed.

THE OPPORTUNITY

Some high level statistics from True North 2018 include:

- The True North 2018 conference saw 2,200 attendees from all across Canada and the world.
- From 15 different countries
- 57 speakers from across the globe, many who have been to the region for the very first time.
- 51 partners of True North wanting to be a part of the conversation. New investment and interest in the region.
- 48 Festival events across the region.

There is untapped destination strength in Waterloo Region's high-tech sector; Communitech alone provides tours for over 16,000 visitors per year. Our event will leverage our considerable drawing power & capitalize on the tech tourism opportunity. We will encourage visitors to stay longer, discover and take interest in our communities. The opportunity for Waterloo Region is twofold:

- Encourage talent to engage and - subsequently - invest in our ecosystem with their time, ideas, money or talent. These are the key supports our firms require.
- Convert short-term attendees to longer-stay tourists and increase expenditure in the Region. These are what our hospitality providers require.

According to the Ontario MTCS, over 888,000 business visitors come to Waterloo Region each

year. Only 10% of these guests stay overnight. Business visitors spent \$99.5M – only 10% of total visitor spending. True North provides an opportunity for the communities, the Region and other stakeholders to come together and create a tech-tourism strategy to increase attraction, expenditure and migration.

TRUE NORTH FESTIVAL

The True North Festival for 2019 will span June 18, 2019 - June 20, 2019 and across the City of Kitchener and City of Waterloo with the hopes of adding the City of Cambridge in 2020. However, all three cities will be involved and engaged in the various conference and festival pieces. Events currently under way for the TN Festival include:

- Data District Deco Party
- City of Waterloo Concert in Uptown Waterloo Square
- Uptown BIA Events
- Two VIP Dinner for approximately 250 guests each
- Three evenings of a True North Lounge
- THEMUSEUM Engagement
- Workshops throughout 3 days activated by various partners within the region.
- Downtown Kitchener Concert
- Downtown Kitchener Events (extending into weekend)
- DTK BIA Events

PARTNERSHIPS

Events of this nature in Waterloo typically attract diverse representation from the media, including Canada's national and local press. We expect to welcome these representatives and more to the conference in 2019. Joining True North as a partner means leading a change in the conversation; it means positioning this region and your brand as a global leader as we work together to better our world through the use of technology. Funding the conference is expected to cost approximately \$2.5-\$3M with 2,500 attendees as a goal. On behalf of the entire Communitel team, we look forward to partnering with you at True North.

OUR ASK : PARTNERSHIP OPPORTUNITY FOR THE REGION OF WATERLOO

Given that the Collision conference will be happening in Toronto May 20 - 23, 2019 and being sensitive to Convocation week in the region we have moved our True North 2019 Conference till June 19 - 20, 2019. This comes at a cost for us, moving our conference to June almost doubles our delegate transportation line item. June is the busiest month for the motor coach industry and the cost per bus is double. In May the average cost for a bus was \$1,520 per day and in June the average cost is \$3,000 per day.

All motor coach companies have contracts with their largest clients (school boards being one of them) during the month of June and availability is very limited due to day and overnight trips that take place during this month. To secure the buses we require for 2019, we will have to work with 5+ motor coach companies and they are unable to confirm until closer to the event. This line item will now cost us \$80,000 for True North 2019.

As such we would like to partner with the region of Waterloo at the National \$90,000 level which can be done in kind with offering regional transportation buses plus cash or a total of \$90,000 in cash.

Below are the logistics and needs for transportation for 2019:

THE NEED

- (12) buses per day for Wednesday, June 19 & Thursday, June 20 running from various locations
- Logistics coordinator (securing the buses and coordinating the schedules and logistics, working directly with someone at Communitel)
- Onsite Coordinator (ensuring the buses are at the correct locations and adjusting any routes if any issues arise)

Buses would run from various locations: The Aud, The Walper Hotel, The Crowne Plaza and Communitel Hub. Our ideal plan is the following:

- (3) buses = The Walper Hotel & Crowne Plaza
- (1) bus = Communitel Hub
- (8) buses = The Aud

THE COST

- (1) 56 passenger is estimated at \$2,688 and the total cost to secure the (12) buses and onsite support is coming in at approx. \$80,000.

DELIVERABLES FOR A NATIONAL PARTNERSHIP

<p>Deliverables</p>	<ul style="list-style-type: none"> ● 10 event tickets ● Including 4 VIP passes for select private parties and events ● \$500 for each additional ticket purchase ● Point of contact at True North help you get the most out of your time ● All 10 ticket holders will have access to the Partner Lounge, which includes meeting spaces ● Each of the 10 ticket holders can invite a ticketed guest into the Partner Lounge ● Attendee lists pre-event (title and company info) one week out
<p>Speaking and hosting gigs</p>	<ul style="list-style-type: none"> ● Introduce a keynote (Stage B) ● 4 tickets to speaker round tables ● Co-sponsorship of the opening night reception
<p>Brand recognition</p>	<p>Your logo will be on:</p> <ul style="list-style-type: none"> ● Stage B signage ● Thank you from the Stage B MC at the start of True North ● Thank you from the Stage B MC at the end of True North ● Brand recognition on stage via video ● On the Partner page of TrueNorthWaterloo.com ● A minimum of 2 social media pushes before, during and after the event ● Partner Wall onsite ● Delegate brochure
<p>True North Follow Up</p>	<ul style="list-style-type: none"> ● Partnership report within 2 months of True North, which includes: <ul style="list-style-type: none"> ○ Website traffic ○ Onsite exposure ○ Post-event analytics (via RFID name tag) ○ Social media pushes

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Asset Management Support Technologist
Transportation and Environmental Services
<p>Strategic Plan Focus Area 1.2 Plan for and provide the infrastructure and services necessary to create the foundation for economic success.</p>
<p>Strategic Objective or Action 1.2.2 Continue to implement and improve an asset management plan to optimize the use and availability of existing and new infrastructure. (SR 1.2, SR 1.24) (MDI)</p>

Brief Description of Request

Request one additional permanent position (Asset Management Support Technologist) to provide ongoing support for the newly developed and implemented Asset Management (AM) application (Lucity) and associated Decision Support System for the Region of Waterloo. Primary role includes the collection and analysis of AM data and ensuring processes have been developed and reviewed for data quality control. This position will provide end user support for the Asset Management Program with a focus on supporting Waste Management and Airport asset management activities. The program areas will be provided training and support for the work management system and the decision support system. This position will also assist with designing and maintaining asset management reports.

Justification/Rationale

The Region of Waterloo has initiated a consistent, comprehensive and integrated approach to the management and maintenance of its assets. This came about with the recognition of the growing need to better spend infrastructure dollars and a new Ontario Government Regulation (O.Reg 588/17 Asset Management Planning for Municipal Infrastructure) driving Level of Service-based Asset Management (AM). The Region of Waterloo is implementing a Corporate Work Management System (WMS) and a Decision Support System (DSS) referred to as the Asset Management System

Implementation Project, or AMSIP.

The project is focusing on optimization planning, implementation and integration of the WMS, DSS and corporate systems (GIS, financial systems, CRM, etc.) across the Region's asset-intense services, including Transportation, Water, Wastewater, Facilities, Fleet, Waste Management and International Airport. This project will involve the following:

- Comprehensive Business Process Mapping and Optimization of all WMS and DSS practices
- An asset data gap review, analysis and development of a Data Management Plan and development of an Asset Register for WMS, DSS and all AM processes
- WMS process optimization, implementation, testing, training, support, and full documentation
- DSS review and specifications, software evaluation and selection, implementation, integration and training
- Technology Review to ensure the successful and optimized roll out of the WMS and DSS to 8 separate divisions

What is currently being built is a comprehensive and integrated environment of systems, data, processes and trained people that can make informed decisions on assets. The project will provide the following benefits to the Region:

- Maintenance of assets in a consistent manner for all departments and all assets within these departments (there are no "forgotten assets")
- Clear identification of the asset "owners" and defined accountability
- Tracking of time, expenses and asset information (condition, repairs, etc.) in a consistent manner that feeds the DSS
- AM processes and decisions in an accurate and up-to-date fashion, providing confidence in the decisions being made
- Linking DSS with WMS allowing the Region to decide on trade-offs between replacing an asset versus increasing maintenance
- The DSS confidently ties investment decisions to the impact on Level of Service to the customers, which can be accurately monitored through the WMS.

Implications of Not Approving

The assessment of the long term staffing resource needs of the Lucity Work Management System have demonstrated a need for staffing resources to ensure Asset Management program can be a success. Implications of not approving this position include the risk of not having adequate staff support to analyze and act on the outcomes of the Work Management System and Decision Support System.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salaries, Wages, Benefits	76	92
Office Costs	1	1
One-time Office Costs	2	0
Total On-going Operating Expenditures	\$ 79	\$ 93
Net Regional Levy	\$ 79	\$ 93
Incremental Operating Budget Impact	\$ 79	\$ 14

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Asset Management Support Technologist	1.0	1.0
Total Staffing Impact	1.0	1.0
Incremental Staffing Impact	1.0	0.0

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo

2019 Budget – Major Budget Issue

Transportation Planning Engineer
Transportation and Environmental Services Department
Strategic Plan Focus Area 2 Sustainable Transportation
Strategic Objective 2.3 – Build infrastructure for, and increase participation in, active forms of transportation (cycling and walking) Strategic Action 2.3.1 – Update the Regional Transportation Master Plan integrating active transportation principles and facilities such as trails and sidewalks. Strategic Action 2.3.2 – Collaborate with community partners to facilitate actions to encourage active and safe routes to school.
Strategic Objective 2.4 – Optimize road capacity to safely manage traffic and congestion Strategic Action 2.4.2 – Implement traffic signals, adaptive signal technology and other technologies to optimize and manage road capacity/congestion

Brief Description of Request

To implement the recommendations of the Council-approved Transportation Master Plan, including the implementation of walking and cycling (active transportation) facilities and "New Mobility" initiatives, requires additional staff resources.

Justification/Rationale

The Transportation Master Plan recommended significant investment in active transportation (AT) facilities, and most Regional road projects include an AT design component. Many municipalities across Canada, including locally at the three cities, that are aiming to increase the presence and use of AT facilities, include specific planning, design and advocacy expertise on staff. Promoting AT also involves significant time spent on internal and external committees, advising on standards, guidelines and policies.

The intersection of advanced technology with transportation (called "New Mobility" in the Transportation Master Plan) is rapidly changing how transportation services can be delivered. Innovations such as Connected Autonomous Shared Electric (CASE) vehicles, Mobility as a Service (MaaS), Transportation Network Companies (TNCs, such as Uber and Lyft), and the opportunities of new sources of data such as SmartCities, require planning and design expertise to develop policies and guidelines, liaise with local stakeholders to take advantage of opportunities, and ultimately demonstrate initiative and innovation in this area.

Delivery of AT planning projects, recently supported by the Federal Public Transit Infrastructure Fund and also arising from other capital projects, has imposed an increased burden on project management staff in both the Transportation Division and the Design & Construction Division. The Region is currently funding the City of Cambridge to complete the Environmental Assessment for a new trail and bridge across the Speed River, because of a lack of Regional project management resources. With the increased interest and attention to AT in the Transportation Master Plan, and accompanying funding to complete the network and increase user comfort through enhanced separation from traffic, more AT planning and design projects are expected.

The AT field is rapidly changing, and staying abreast of these changes is important. There are an increasing number of seminars and conferences devoted to this field, design standards are changing, and public interest is high. Municipal staff are often expected to monitor social media, promote AT as a valuable component of the overall transportation network, and literally "walk the talk" as a component of public outreach.

Recent meetings with the three cities have highlighted an increasing need for area municipal and Region staff to improve coordination of AT network design. Regional roads cross area municipal boundaries, and users reasonably expect the AT network to have consistent design elements throughout. A number of the area municipalities are now initiating updates to their own transportation master plans and AT plans, and Region staff involvement in these plans is important to ensure that Regional priorities are expressed in a consistent and coordinated manner.

In approving the Transportation Master Plan, Regional Council also expressed significant interest in demonstrating initiative and innovation around new transportation paradigms, loosely termed here as "New Mobility". The potential for technological and social change cannot be overstated. However, these technologies and markets are in their infancy and there is considerable uncertainty around the nature and pace of change, and the impacts these changes will bring.

It is expected that taking initiative and demonstrating innovation in New Mobility will require extensive monitoring of ongoing rapid changes in the transportation industry,

consultation with community stakeholders including the area municipalities, and scoping and delivery of projects on which current staff have not previously worked.

Implications of Not Approving

Completing the AT network and planning the Region’s first steps in New Mobility are important to achieve the vision and goals of the Transportation Master Plan. Delays in completing the AT network will compromise the ability of Regional residents to transition to more sustainable modes of transportation. This may lead to increased costs to society at large, in the form of increased chronic diseases or injuries, and may also lead to a need for wider roads sooner than expected, increasing capital and operating costs.

While the implications of New Mobility are not generally understood at this time, delays in work on this file will reduce the ability of the Region to implement the desire expressed by Council at the time the Transportation Master Plan was approved.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salary and Benefits	77	115
Office Costs	1	1
One-time Office Costs	23	0
Total On-going Operating Expenditures	\$ 101	\$ 116
Net Regional Levy	\$ 101	\$ 116
Incremental Operating Budget Impact	\$ 101	\$ 15

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Transportation Planning Engineer	1.0	1.0
Total Staffing Impact	1.0	1.0
Incremental Staffing Impact	1.0	0.0

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Transportation Infrastructure Analyst
TES – Transportation Program Development
Strategic Plan Focus Area 1.2 Plan for and provide the infrastructure and services necessary to create the foundation for economic success.
Strategic Objective or Action 1.2.2 Continue to implement and improve an asset management plan to optimize the use and availability of existing and new infrastructure.

Brief Description of Request

This full time position is required in order to adequately support both the current and changing business process corporately and with the Transportation Program Development team. As a key part of the overall corporate asset management implementation project the Transportation Program Development team supports and manages related infrastructure data for integration into the new corporate work management software and decision support software as well as providing key support to the Corporate Asset Management and Strategic Initiatives team.

Justification/Rationale

This position is currently a contract position which was required due to the additional workload during the asset management implementation project. These new tasks will continue and grow after the implementation phase has been completed and will be ongoing once the systems are fully operational.

The need for another full time position is directly related to ongoing detailed infrastructure analysis and data quality assurance for all the Transportation Division’s asset classes. This position will provide review of infrastructure data from an engineering, compliance and quality perspective. This includes all current and future processes for uploading attribute data and performance data into the corporate GIS system including; annual new asset additions and replaced or rehabilitated

infrastructure assets. This position is a key liaison to the Region’s GIS group within Information Technology Services providing engineering expertise and data quality assurance relating to transportation data assets. This position also provides additional engineering mapping for; capital program preparation, transportation inspection and maintenance programs and report mapping support for the Transportation division’s needs.

Implications of Not Approving

Not approving would create a significant hindrance to staff’s ability to integrate and manage new infrastructure asset data into both the GIS database for spatial data and the new corporate asset management work management system and the decision support system. As a result of this lack of asset data integration, staff will not be able to adequately make use of the data collected annually to make informed decisions about network condition, network growth reporting and the reconstruction and rehabilitation programs.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Salary and Benefits	68	102
Ongoing Operating Costs	1	1
Total On-going Operating Expenditures	\$ 69	\$ 103
Net Regional Levy	\$ 69	\$ 103
Incremental Operating Budget Impact	\$ 69	\$ 34

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Transportation Infrastructure Analyst	1.0	1.0
Total Staffing Impact	1.0	1.0
Incremental Staffing Impact	1.0	0.0

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

EvolvGREEN CleanTech Innovation Hub
Planning, Development and Legislative Services Department
Strategic Plan Focus Area Environment and Sustainable Growth
Strategic Objective or Action Improve environmental sustainability and livability in intensifying urban and rural areas

Brief Description of Request

This request would provide Regional support for the development of the EvolvGREEN Innovation Hub within Evolv1, the new net positive energy building located within the David Johnston Research & Technology Park. The EvolvGREEN hub brings together university researchers and students, start-up clean tech companies, non-profit and for-profit entities, as well as government agencies to foster innovation in the development of the clean tech (low carbon/environmental benefit) economy. EvolvGREEN partners include Sustainable Waterloo Region, the Accelerator Centre, the City of Waterloo, University of Waterloo Institute for Sustainable Energy, and Wilfrid Laurier University.

The Evolv1 building, developed with the Region’s support, is the first and only building in Canada to receive the Zero Carbon Building – Design Certification from the Canadian Green Building Council. The building is a showcase of how sustainable building systems work, and how the programming and management structure can create a culture of sustainability that permeates beyond the walls of the building.

Justification/Rationale

Supporting the EvolvGREEN initiative is an effective means to make a regional impact, and supports the Region's recently approved long-term community greenhouse gas emission reduction target and the Community Energy Investment Strategy. Partnering with EvolvGREEN provides opportunities to engage in collaborative problem-solving across areas of expertise, including the development of low-carbon solutions for existing

Regional operations. The collective support from Hub partners will:

- Provide resources for, and build the capacity of, 40 clean tech start-ups over 5 years (2018 – 2022);
- Support employment and investment around a key ION stop; and,
- Promote sustainable economic development and environmental stewardship.

In addition, the Region as an organization will benefit from access to the world-class Zero Carbon demonstration building on the ION route, targeted programming for businesses and innovators through events and training, and research data on the advanced green building and the culture of sustainability amongst employees within these buildings.

Implications of Not Approving

Not providing financial support for this high profile and innovative initiative would reflect poorly on the Region given its historical commitment to environmentally sustainable growth and economic development, as well as the Sustainable Waterloo Region organization. Other financial supporting agencies including the local Universities and the City of Waterloo will have their logos prominently acknowledged within the physical building, as well as on website and communication materials. The absence of the Region’s logo on this type of initiative will be noticeable amongst tenants/employees, research partners and visitors.

Budget Requirements

OPERATING BUDGET (\$000s)	2019-2022	2023
Expenditures		
Operating grant to EvolvGREEN	50	0
Total On-going Operating Expenditures (4 years)	\$ 50	\$ 0
Net Regional Levy	\$ 50	\$ 0
Incremental Operating Budget Impact	\$ 50	\$ (50)

Performance Measures

	2019	2020	2021	2022
Number of start-ups completing the Clean-tech incubator program (2018 = 10)	18	26	34	40
Energy use compared to same class / size of building built to code (Net positive target)	<100%	<110%	<115%	<120%

Council Decision

Budget issue paper was approved as submitted.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Transit Service to Woolwich
Transportation and Environmental Services
Strategic Plan Focus Area 2 Sustainable Transportation
Strategic Objective or Action Create a public transportation network that is integrated, accessible, affordable and sustainable.

Brief Description of Request

The Grand River Transit (GRT) 2017-2021 Business Plan approved by Regional Council in August 2017 outlines improvements to the regional transit network and service levels over five years to work towards achieving the approved Regional Transportation Master Plan (RTMP) ridership targets for 2021 and 2031.

To continue ridership growth on Route 21 Elmira, it is proposed to increase the frequency of service from 60 to 30 minutes during the weekday midday and from 40 to 30 minutes on Saturday and extend Saturday service from 4:00 pm to 7:30 pm. A new circulator transit route in the town of Elmira would increase neighbourhood service coverage and connect customers with the current Route 21 Elmira. This service would extend the current pilot program being operated by Kiwanis Transit as described in report TES-TRS-18-17. The increase in the net costs for these improvements will be area rated to the Township of Woolwich.

Justification/Rationale

Regional staffs have met several times over the past few years with Woolwich staff and Councillors to discuss transit service and accessibility in Woolwich Township. Feedback from the residents and businesses have indicated that additional services would be beneficial, allowing residents to travel at more time periods and access jobs and services more readily by transit.

Route 21 connects the town of Elmira, the village of St. Jacob's and St. Jacob's Farmers Market to the rest of the regional transit network at Conestoga Mall Station. The proposed service improvements would continue the ridership growth on Route 21. Future improvements would be considered for subsequent years

The Region of Waterloo approved Kiwanis Transit and the Township of Woolwich to operate a community circulator transit service in Elmira as a pilot project from September 4, 2018 to March 1, 2019 (TES-TRS-18-17). The pilot provides service for about seven hours a day, Monday to Saturday. This pilot service is funded by Kiwanis Transit and Township of Woolwich. In order to continue the pilot service as a permanent service, it is proposed that GRT would operate the pilot as a BusPLUS contracted service using a 19 seat fully accessible low floor vehicle equipped with bike racks.

Implications of Not Approving

Without the proposed service improvements, current ridership growth trends on Route 21 could be reversed as potential riders find the service does not meet their travel needs. Without the addition of a circulator route in Elmira, parts of Elmira will continue to be outside the walk distance of Route 21.

Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Route 21 Service Improvements	56	169
Contracted BusPLUS circulator route in Elmira (Weekday)	114	136
Contracted BusPLUS circulator route in Elmira (Saturday)	23	28
Total On-going Operating Expenditures	\$ 193	\$ 333
Revenues		
Route 21 Service Improvements Fare Revenue	11	34
BusPLUS Elmira Circulator Fare Revenue (Weekday)	10	12
BusPLUS Elmira Circulator Fare Revenue (Saturday)	2	2
Total On-going Operating Revenue	\$ 23	\$ 48
Net Regional Levy	\$ 170	\$ 285
Incremental Operating Budget Impact	\$ 170	\$ 115

Note: The annual tax levy requirement for this service will be area-rated to the Township of Woolwich. Staff intend to bring forward a report to Council in 2019 with respect to potential changes to the Region's area rating calculation methodology, which may impact the 2019 cost per household.

STAFF REQUIREMENTS (FTE)	2019	Annualized 2020
Permanent Staff		
Transit Operator	1.0	1.0
Total Staffing Impact	1.0	1.0
Incremental Staffing Impact	1.0	0.0

CAPITAL PLAN (\$000s)	2019
Expenditures	
Transit Stop Infrastructure - Landing pads, shelters	25
Total Capital Expenditures	\$ 25
Sources of Funding/Financing	
GRT Capital Reserve	25
Total Capital Financing	\$ 25

Performance Measures

Year-to-date (end of August 2018) boardings have increased by 12% compared to end of August 2017.

	2014	2015	2016	2017
Route 21 Annual Boardings	114,115	123,324	113,267	127,373

Council Decision

Budget issue paper was approved with Kiwanis Transit operating the service in 2019. The 2019 levy impact is \$112,000 and the 2020 levy impact is \$173,000.

The Regional Municipality of Waterloo
2019 Budget – Major Budget Issue

Advanced Traffic Signal Management System
Transportation and Environmental Services Department
Strategic Plan Focus Area 2 Sustainable Transportation
Strategic Objective or Action 2.4 Optimize road capacity to safely manage traffic and congestion.

Brief Description of Request

To address the increasing demand on Traffic Systems Management staff to recalibrate traffic signal timing plans throughout the Region of Waterloo on a more frequent basis. Regional staff review and recalibrate approximately 90 to 100 traffic control signals per year to enhance coordination with other adjacent traffic signals and to reduce congestion. The Region owns and operates approximately 500 traffic control signals. The current number of traffic signals recalibrated every year (90 – 100) enables staff to recalibrate the entire network of traffic signals over 5 years. Following calibration, optimized corridors are susceptible to operational degradation over time as traffic patterns generally change over time due to new developments, general traffic growth, construction, etc. The traffic data used to recalibrate each signal is limited, requiring Regional staff to monitor operations frequently in the field and to make adjustments as necessary.

Advancements in traffic data collection technology and video imaging software can now enable road agencies to collect traffic data in real time and gain access to large volumes of traffic data versus being restricted to one 8-hour traffic count every three years. The new technology retrieves the traffic data through cameras and other traffic detection devices installed at signalized intersections in real time. The information collected through the cameras and other devices is transmitted via cellular communication or other high bandwidth systems. That information is then processed into a useable format which is made available to Regional staff for review.

Staff can use the information provided by a more advanced system to review traffic

signal timing and coordination plans more frequently as they would have access to information that would better illustrate the dynamic nature of traffic patterns. Staff could also use this information to troubleshoot complaints regarding traffic signal operation more expeditiously.

Justification/Rationale

The Region has an obligation to provide efficient service to the travelling community and to facilitate continued growth in the Region. In order to minimize growing pressure to expand and widen Regional roads, Traffic Systems Management staff is expected to optimize the Region's traffic signal network.

Having a traffic system that could supply continuous real time traffic data would enable Regional staff to recalibrate traffic signals throughout the Region more frequently and would also provide Regional staff, academia and other interested stakeholders access to greater volumes of traffic data never available before. This information could be utilized to conduct new research and optimize the traffic signal network.

It is anticipated that the new system could significantly decrease staff time spent conducting reviews and troubleshooting public complaints in the field. These time savings could potentially allow staff to dedicate more time to recalibrating signals such that the entire traffic signal network could be recalibrated once every 2.5 years versus the current 5 year period. The majority of traffic control signals are already coordinated using the Region's current traffic control system. This system being considered would not change the current structure, rather it would provide staff a more comprehensive suite of traffic information that could be used to build more responsive traffic signal timing and coordination plans that would service the dynamic nature of traffic more effectively.

More frequent re-timing of major corridors has the potential to provide travel time and delay reduction (possible 5% reduction at a 2.5 year cycle), with a corresponding reduction in greenhouse gas emissions. Regional staff does not anticipate that this new system would reduce current congestion levels seen throughout the Region during peak traffic times by a degree that would be noticeable by commuters.

The system if implemented would be installed in a manner that would permit the system to be enhanced with future technology applications that would have the capability to provide more advanced analytics and metrics.

Implications of Not Approving

Should this technology not be purchased, the Region's current 5-year recalibration practice would continue. Regional road corridors would continue to be coordinated and travel times would continue to slowly degrade by 10-15% over the 5-year period following recalibration. Regional staff would be required to continue to collect GPS data by driving Regional road corridors to evaluate the effectiveness of their recalibrated traffic signal timing and coordination plans. Not having access to 24/7 traffic data would limit future Regional staff ability to respond to changing traffic patterns expeditiously and would stifle research initiatives with academia and other interested parties.

Additionally should the system not be purchased, the Region's traffic system would continue to rely on an outdated leased telephone communication network. The outdated communication network is not able to adequately transmit the data generated by new technologies such as the system being considered.

To reduce the Region's recalibration process to a 2.5 year cycle without the purchase of an advanced traffic management system being considered would require hiring two additional FTE positions.

Should a system-wide deployment not be practical, there are optional "scaled-down" applications available for consideration. For example, consideration of a system deployed along the LRT corridor may provide potential benefits. Such deployment would cost approximately 10% of the cost of full deployment. Replacement of system infrastructure should be expected in 10 years.

Budget Requirements (Bundle 1 – Implement LRT Corridor Traffic Signal Network)

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Annual Service Agreements	0	30
Reduction in Conventional Traffic Count and Communications	0	(5)
Total On-going Operating Expenditures	\$ 0	\$25
Net Regional Levy	\$ 0	\$25
Incremental Operating Budget Impact	\$ 0	\$25

CAPITAL PLAN (\$000s)	2019
Expenditures	
Traffic System Infrastructure Costs	300
Total Capital Expenditures	\$ 300
Sources of Funding/Financing	
Property tax supported reserve	300
Total Capital Financing	\$ 300

Budget Requirements (Bundle 2 – Implement Entire Traffic Signal Network – incremental to Bundle 1)

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Annual Service Agreements	0	570
Reduction in Conventional Traffic Count and Communications	0	(295)
Debt Servicing	0	325
Total On-going Operating Expenditures	\$ 0	\$ 600
Net Regional Levy	\$ 0	\$ 600
Incremental Operating Budget Impact	\$ 0	\$ 600

CAPITAL PLAN (\$000s)	2019
Expenditures	
Traffic System Infrastructure Costs	2,700
Total Capital Expenditures	\$ 2,700
Sources of Funding/Financing	
Tax levy – debentures	2,700
Total Capital Financing	\$ 2,700

Total Budget Requirements

OPERATING BUDGET (\$000s)	2019	Annualized 2020
Expenditures		
Annual Service Agreements	0	600
Reduction in Conventional Traffic Count and Communications	0	(300)
Debt Servicing	0	325
Total On-going Operating Expenditures	\$ 0	\$ 625
Net Regional Levy	\$ 0	\$ 625
Incremental Operating Budget Impact	\$ 0	\$ 625

CAPITAL PLAN (\$000s)	2019
Expenditures	
Traffic System Infrastructure Costs	3,000
Total Capital Expenditures	\$ 3,000
Sources of Funding/Financing	
Tax levy – debentures	2,700
Property tax levy	300
Total Capital Financing	\$ 3,000

Council Decision

Approval of total system implementation as described in budget issue paper.