



Administrative Report

Office of the Director of Council & Community Services/Clerk

To: Robert Maisonville, CAO

**From: Mary Birch
Director of Council & Community Services/Clerk**

Date: Friday, July 26, 2019

Subject: One-Time Modernization and Efficiency Grant Proposed Initiatives.

Report #: 2019-0726-CCS-RCA01-MSB

Purpose

This report is to provide the CAO with proposals for the utilization of a portion of the on-time Modernization and Efficiency Grant.

Background

In the spring of 2019 the County of Essex received a One-Time Modernization/Efficiency Grant in the amount of \$725,000. The parameters/criteria for use of these funds are general in terms but the projects must show service delivery impacts via;

- Transformation
- Modernization
- Increase efficiency
- Reduce expenditure growth in the longer term

Council and Community Services has reviewed operations and submits a request for consideration of the following initiatives which will meet or exceed the parameters/criteria set forward for this funding.

Discussion

Records Management Program Review/Needs Assessment

We currently have a very mixed records management system. We keep some electronic records in Laserfiche, (filed according to TOMRMS), but not everyone is utilizing that, so we have a lot of electronic files stored on network drives (or non-network drives) as well as other electronic repositories like e-Claims, Bids and Tenders, Interdev, Point Click Care, etc. As well, we still have a lot of paper records (which are also supposed to be retained according to TOMRMS). Clearly, we have a lot of duplication with copies of electronic files also being stored in paper format and often multiple copies. Records management is very decentralized and not even done consistently within departments. Storage of both paper files and electronic files is an issue, as well as the security of both. The recent audit by KPMG addresses some concerns which relate more to records management practices than IT practices. As well, policies managing electronic records such as email are limited. Records Retentions timelines are not followed at all with respect to records stored on servers or Corporate devices.

Recent office renovations and changes in staff within the Corporation have identified the massive amount of records which have not been managed in accordance with Records Destructions policy and practices, or pre-date implementation of a formal Records Destruction policy throughout the Corporation. Mass purging has been taking place with considerable uncertainty of whether retention periods are being observed. To undertake extensive review of records in addition to one's daily job requirements is not feasible, thus, it doesn't get completed.

As we consider the layout for additional office renovations within our main Administrative Office space it would be prudent to consult with some experts on what type of physical file storage system would be best for our facility and operations. Moving towards a more centralized Records Management system might be a consideration.

We are also lacking in records management policies/procedures. We do have some policies, but they are in need of review and expansion. Ideally, we would have Records Management training tools developed as well. We do not have a full time Records Manager – and maybe that's what a study would show we need.

One records management consulting firm, is suggesting the following approach:

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- a) A current Needs Assessment - this will identify what we have in place that is working, what isn't, and what should be done to fill the gaps
- b) Potentially part two of the needs assessment would be to implement some of the recommendations from the needs assessment, e.g. policies, training, a physical Records Management system, etc.

An RFP would be structured in two parts, and we could then determine to pursue the recommendations from the needs assessment which we feel we require.

County Connect Application

The Employee Engagement Committee has had discussions and received comments on the ability to access CountyConnect (employee intranet) from mobile devices as many of our employees are not working from workstations with stationary PC's or Laptops. In the 2019 budget there is a provision to RFP a new employee intranet, however, funds were not included for the development of an App to provide employee access on mobile devices.

Efficiencies and improved employee productivity could be attained if all employees were able to access CountyConnect for corporate information, including policies and training materials from their mobile devices.

Accessible Document Contract Services Portal

Accessibility for Ontarians with Disabilities Act (AODA) standards and requirements surrounding the need for municipalities (as well as other public and private sector organizations) to create documents which are accessible to all people, regardless of what type of assistive device they are using, is an ongoing challenge for staff and consumes a great deal of time if documents need to be remediated to make them accessible. To date, our most common method for doing this is to use Acrobat Adobe Professional to modify PDF documents to try to make them accessible. To become proficient at this, considerable training is required. In addition, we continually struggle to obtain accessible documents from third party vendors with whom we contract to complete consulting work for us including tender documents, EA's, master plans, etc.

The demand for improved technology to provide more user-friendly options for creating accessible documents has increased options, in addition to Acrobat Adobe.

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Software such as Equidox by Onix and CommonLook are now available and receiving good reviews by municipalities.

It would be necessary to issue an RFI to see what the best option for accessible document creation is for us, given there are starting to be more options, as well as services which will provide document remediation services. The option to create a portal requiring third party documents to pass accessibility checkers would greatly reduce the amount of time administrative staff spend trying to do this.

Efficiencies for staff in trying to create and remediate our own documents would be created by using this type of software. The cost of purchasing additional licenses for this software, on top of already paying for Acrobat Adobe licenses may be mitigated by the reduction in the number of Acrobat Adobe Professional licenses we would continue to need.

Compassion Fatigue Training

Through discussions coming from the Employee Engagement Committee, as well as reported by the Community Services Co-Ordinator, through her work with her team, as well as the VPN paramedics she meets with, it's been recognized that many of our employees may be experiencing "Compassion Fatigue".

Compassion Fatigue has been described as the "cost of caring" for others in emotional pain. Statistics show that workers are profoundly affected by the work they do. Whether it is by direct exposure to traumatic events (for example, working as a paramedic, or nurses/personal support worker, etc.); secondary exposure (hearing people talk about trauma they have experienced or helping people who have experienced trauma); or the full gamut in between (such as working with people who are chronically in despair, witnessing people's inability to improve their very difficult life circumstances or feeling helpless in the face of poverty and emotional anguish). The work of helping requires professionals to open their hearts and minds to other people – unfortunately, this very process of empathy is what makes helpers vulnerable to being profoundly affected and even possibly damaged by their work.

It can also be caused by the stress of caring for individuals in one's personal life (ie. senior parents with dementia, children with disabilities) while continuing to work in a full-time job.

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Symptoms of CF:

- Difficulty concentrating
- Intrusive imagery
- Feeling discouraged about the world
- Hopelessness
- Exhaustion and irritability
- High attrition (helpers leaving the field)
- Negative outcomes (dispirited, cynical workers remaining in the field, boundary violations)

Current life circumstances, history, coping style and personality type all affect how compassion fatigue may impact an individual.

Most helpers also have other life stressors to deal with. Many are in the “sandwich generation” – meaning that they take care of both young children and aging parents in addition to managing a heavy and complex workload. Helpers are not immune to pain in their own lives and, in fact, some studies show that they are more vulnerable to life changes (such as divorce and addictions) than people who do less stressful work.

Helpers often do work that other people don’t want to hear about. They spend their time caring for people who are not valued or understood in our society. This may include individuals who are homeless, abused, incarcerated or chronically ill.

Furthermore, our working environments are often stressful and fraught with workplace negativity. This negativity is often a result of individual compassion fatigue, burnout and general unhappiness. The work itself is also very stressful. Dealing with people who are experiencing chronic crises, who have difficulty controlling their emotions, and/or those who may not get better can be draining.

Family Services Employee Assistance Program provides workshops entitled “From Compassion Fatigue to Compassion Satisfaction: Essential Considerations, which could be provided to County Employees to provide them with information and coping mechanisms for dealing with Compassion Fatigue. There are other companies who provide this type of training, but Family Services is the County EAP provider and would offer to do individual counselling sessions with any employee feeling the need for additional supports following the group workshop.

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One-Time Modernization and Efficiency Grant Proposed Initiatives.

Financial Implications

The estimates for the proposed initiatives are as follows:

- Records Management Program Review/Needs Assessment - \$30,000
- County Connect App - \$20,000
- Accessible Document Contract Services Portal - \$20,000
- Compassion Fatigue Training - \$6,000

Recommendation

That the CAO receive the report for information and consideration for the One-Time Modernization and Efficiency Grant Proposed Initiatives.

Respectfully Submitted

Mary Birch

Originally Signed by

Mary Birch Director of Council & Community Services/Clerk



Administrative Report

Office of the Administrator, Sun Parlor Home

To: Robert Maisonville, CAO

**From: Jayne Brooks-Keller
Administrator, Sun Parlor Home**

Date: Friday, July 26, 2019

**Subject: One-Time Modernization & Efficiency Grant – Sun Parlor
Home Food Service Upgrades**

Report #: 2019-0723-SPH-JBK

Purpose

This report is to provide the CAO information on the application proposal for the utilization of a portion of the One-Time Modernization & Efficiency Grant.

Background

In the spring of 2019 the County of Essex received a One-Time Modernization/Efficiency Grant in the amount of \$725,000. The parameters/criteria for use of these funds are general in terms but the projects must show service delivery impacts via;

- Transformation
- Modernization
- Increase efficiency
- Reduce expenditure growth in the longer term

As a department of the County, SPH requests that the following application for consideration will meet or exceed the parameters/criteria set forward.

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One-Time Modernization & Efficiency Grant – Sun Parlor Home Food Service Upgrades

Discussion

Sun Parlor Home is a multi-level long-term care home located in Leamington. This application will outline Food Services upgrades completed to improve operational efficiencies at the Home.

The purpose of this project was to:

- reduce the resource utilization including electricity
- improve infection control best practices
- use current space wisely and provide a better location for food services workers to clean the dishes
- achieve operational efficiencies within the dietary department.

There was one centralized dish room to wash the dishes and small wares from 4 residential home areas where 100 people have their meals. All the dirty dishes and small wares were brought through the Home to the centralized dish room on the main floor to be cleaned and sanitized.

The environmental scan demonstrated that there was an opportunity to re-locate dish cleaning equipment within the existing food service serveries on each resident home area.

This change decreased the use of the elevator moving carts of dirty dishes down to the centralized dish machine; more efficient use of food service worker time on resident home area; and improved infection control practices. These improvements will ensure a suitable, safe and healthy environment is maintained.

Financial Implications

The cost for this project was \$29,529 including labour and installation

Recommendation

That the CAO receive the report for information and consideration for the One-Time Modernization & Efficiency Grant – Sun Parlor Home Food Service Upgrades

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One-Time Modernization & Efficiency Grant – Sun Parlor Home Food Service Upgrades

Respectfully Submitted

Jane Brooks-Keller

Originally Signed by

Jayne Brooks-Keller, Administrator, Sun Parlor Home

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Administrative Report

Office of the Manager of Information Technology

To: Robert Maisonville, CAO

**From: Wendy St. Amour
Manager, Information Technology**

Date: Wednesday, July 24, 2019

**Subject: One-Time Modernization & Efficiency Grant –
Information Technology Project Proposal**

Report #: 2019-0724-FIN-R01-WSA

Purpose

This report is to provide the CAO information on the application proposal for the utilization of a portion of the One-Time Modernization & Efficiency Grant.

Background

In the spring of 2019 the County of Essex received a One-Time Modernization & Efficiency Grant in the amount of \$725,000. The parameters/criteria for use of these funds are general in terms but the projects must show service delivery impacts via;

- Transformation
- Modernization
- Increase efficiency
- Reduce expenditure growth in the longer term

As a department of the County, Information Technology requests that the following application for consideration will meet or exceed the parameters/criteria set forward.

Discussion

As part of the approved 2019 Capital Budget, the Corporation retained KPMG to conduct a network security audit. The audit identified areas for improvement and made recommendations for augmenting the Corporation's formal security plans. Many of the recommendations have already been completed or are in the implementation phase.

Municipalities are increasingly becoming targets of cyber-attack and ransomware. As witnessed by some municipalities in Ontario over the past year, an attack can result in costly downtime to network operations that have a direct impact on service delivery and overall security. Removing the risk entirely is not possible however protocols and plans can be put in place to ensure a coordinated and comprehensive response to a cyber-attack should one happen.

A series of projects aimed to address the Corporation's gap in documentation were identified as part of the KPMG audit:

- Business Continuity Plan
- Disaster Recovery Plan
- IT Policy Review including Policy Development and Data Classification Protocols
- Incident Response Procedures
- 2 Factor Authentication Protocols
- Information Security Onboarding Programs

A review of internal IT staff resources and workload determined that outsourcing these projects to industry specialists would allow the Corporation to address these recommendations in a more timely fashion.

Completion of these initiatives will provide the following to the Corporation's service delivery of Information Technology services:

- Modernize and develop strategic plans
- Increase efficiency in responding to security threats and attacks
- Reduce expenditure growth into the future

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One-Time Modernization & Efficiency Grant – Information Technology Project Proposal

Financial Implications

Administration obtained the following estimates to complete this work using third party consulting services:

Item	Cost
Business Continuity Plan	\$90,000
Disaster Recovery Plan	\$31,000
Policy Review / Development Including Data Classification Protocols	\$13,250
Incident Response Procedures	\$12,200
Network Security 2 Factor Authentication Protocols	\$8,000
Information Security Onboarding Program Development	\$3,000
TOTAL	\$157,450

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One-Time Modernization & Efficiency Grant – Information Technology Project Proposal

Recommendation

That the CAO receive the report for information and consideration for the One-Time Modernization & Efficiency Grant – Information Technology Project Proposal.

Respectfully Submitted

Wendy St. Amour

Originally Signed by

Wendy St. Amour, Manager of Information Technology

Appendix No.	Title of Appendix
N/A	N/A



Administrative Report

Office of the Chief, Essex-Windsor EMS

To: Robert Maisonville, CAO

**From: Bruce Krauter
Chief, Essex-Windsor Emergency Medical Services**

Date: Tuesday, July 23, 2019

Subject: One-Time Modernization/Efficiency Grant, Essex Windsor EMS Pelee Island Station Repairs and Transnomis Real Time Mapping Solution

Report #: 2019-0723-EMS-BK

Purpose

This report is to provide the Treasurer and CAO information on the application proposal for the utilization of a portion of the One-Time Modernization/Efficiency Grant.

Background

In the fall of 2018 the County of Essex received a One-Time Modernization/Efficiency Grant in the amount of \$725,000. The parameters/criteria for use of these funds are general in terms but the projects must show service delivery impacts via;

- Transformation
- Modernization
- Increase efficiency
- Reduce expenditure growth in the longer term

As a department of the County, Essex Windsor EMS requests that the following application for consideration will meet or exceed the parameters/criteria set forward.

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One-Time Modernization/Efficiency Grant, Essex Windsor EMS Pelee Island Station Repairs and Transnomis Real Time Mapping Solution

Discussion

Pelee Island Station Repairs

Essex Windsor EMS operates from twelve (12) stations located throughout the City of Windsor, County of Essex and Pelee Island. This application will speak directly to the Station located on Pelee Island.

Two paramedics staff the Pelee Island Ambulance Station, seven (7) days a week, 365 days a year. The paramedics are on call (notified of a call by pager) from 3 pm to 7 am and one site from 7 am to 3 pm each day. Due to the remoteness of the island, the paramedics are transported to the island by ferry during the warm months and by aircraft during the winter months. The staffing schedule is normally four concurrent shifts and the crews are rotated on this schedule. The staffing compliment is historically part time paramedics. During periods of poor weather, the paramedics may spend an additional day or two on the island.

The ambulance station is attached to the Pelee Island Nursing Clinic in a shared facility. The nursing clinic is operated by the VON, under contract from the ESC LHIN. The station has a single vehicle garage, lower level office, washrooms and storage. The upper level houses a one-bedroom apartment, with kitchen, bathroom, shower and living area. The upper level is the living accommodations for the paramedics during their assignment to the island.

The Township of Pelee owns the building. It has recently been determined that a lease agreement has not been formalized for the use of the building as an ambulance station between the County of Essex and the Township of Pelee. Historically normal maintenance and upkeep was borne by the County through the building repairs and maintenance line of the EWEMS budget.

Over the past several years EWEMS has improved the kitchen, bathroom and flooring of the apartment to maintain a habitable environment for staff. In review of the building, with a contractor it has been found that other items need attention as a priority, as the material required is dependent on the availability of the ferry for transportation.

The items that require attention are:

- 12 windows, upper and lower levels combined
- Stackable washer and dryer

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One-Time Modernization/Efficiency Grant, Essex Windsor EMS Pelee Island Station Repairs and Transnomis Real Time Mapping Solution

- Interior painting
- HVAC lower level
- HVAC upper level replace (heat pump due to lack of natural gas)
- Replace garage carbon monoxide detection system
- Replace roof due to leaks
- Cement pad to park spare ambulance at station

All items listed are a necessity to ensure a health and safe work place and to reduce unnecessary wear and tear on the vehicle. EWEMS is exploring avenues to share costs with the VON for the roof and some windows. This project will provide the following to the Pelee Island Ambulance Station;

- Modernize
- Increase efficiency
- Reduce expenditure growth into the future and long term

Understandably, these repairs may not be considered as a responsibility of the County of Essex. The issue remains that County of Essex staff reside from within the structure and a core service is provided from the structure. The Township of Pelee is a funding partner and but does experience funding shortfalls in all aspects. These improvements will ensure a suitable, safe and healthy environment is maintained.

Transnomis Real Time Mapping Solution

Essex Windsor EMS is a department within the County of Essex that is responsible for the provision of Land Ambulance Service and Emergency Management. In the provision of both services, accurate, reliable, timely and informative mapping and GIS data is imperative for the efficient delivery of service. EWEMS utilizes and requires accurate mapping on a continual basis during the course of our duties. EWEMS is moving across all municipal boundaries across the region, and the province, and therefore requires mapping that is seamless, multi-jurisdictional and informative. Emergency Management requires mapping on a daily basis. Whether it is monitoring flooding issues locally or the road networks for backups and detours, both items are critical on having timely and accurate information to make key decisions. I am confident ISD utilizes and requires continual and updated road mapping information.

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One-Time Modernization/Efficiency Grant, Essex Windsor EMS Pelee Island Station Repairs and Transnomis Real Time Mapping Solution

EWEMS is proposing the purchase of 1.5 years of Transnomis Municipal and Responder 511. This is a web portal based solution that integrates GIS road information, traffic use, road closures to be used by multiple and local municipal services. On the County perspective it would integrate, ISD, EMS, Emergency Management and communications into one portal and one interface for both inward use and outward use. As an example, we currently post our road closures on social media or our website. EMS then has to take this information and integrate it into our mapping solution and it then gets pushed to the ambulances or communicated by email. In the use of Transnomis, once ISD input a construction project start and end date and location, the webportal projects it to all users and shares of the portal. There is a public facing site, so anyone with web access would get it.

On an EMS perspective, MTO is a user and we therefore get all road work or closures on our mapping. In this case, if the 401 gets closed, ISD would be aware and able to plan for County Road use. Emergency Planning is aware of Road closures immediately during a disaster and clear and concise communication is maintained. The County can direct local municipalities to place their road work into the portal and therefore all work is projected across the system. Moving into the future, local municipalities could cost share the integration piece to expand the program as needed.

From the attached email you can see the City of Windsor is looking into the system. The system is also utilized in various parts of the Province and all road networks are visible. This is an excellent tool for EMS.

This tool creates

- Efficiency due to the reduction of information input,
 - Increased clarity of road networks,
 - Easily integrated with the local municipal services (fire, public works, police).
 - Modernizes the GIS and mapping data system within the entire region
- Reduces expenditure growth across departments moving into the future.

Financial Implications

Pelee island Station Repairs

The Pelee Island Station repairs required contractors to be contacted for an inspection and only one replied to the request. A quote was received and identifies the work to be completed and the associated costs. The estimate is

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One-Time Modernization/Efficiency Grant, Essex Windsor EMS Pelee Island Station Repairs and Transnomis Real Time Mapping Solution

plus HST and includes transportation and accommodations on Pelee Island for the contractor.

The estimated cost and application for this project is \$77,022 (plus HST)

Transnomis Real Time Mapping Solution

Transnomis was contacted and provided a quote for service for the remainder of 2019 and through to December 31 2020 for the service license. The license would include. This would include user accounts for the County as well and the 9 lower tier municipalities, OPP and ambulance dispatch. EWEMS understand the City of Windsor is exploring Transnomis as well for the same reasons. There are possibilities to collaborate usage and licensing between the County and City.

The estimated cost and application for this project is \$55,374.36 (plus HST)

Total EWEMS Proposal Consideration

The total amount of the EWEMS One Time Modernization Efficiency Grant is \$132,396.36 (plus HST)

Recommendation

That the Treasurer and CAO receive the report for information and consideration for the One-Time Modernization/Efficiency Grant, Essex Windsor EMS Pelee Island Station Repairs and Transnomis Real Time Mapping Solution

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One-Time Modernization/Efficiency Grant, Essex Windsor EMS Pelee Island Station Repairs
and Transnomis Real Time Mapping Solution

Respectfully Submitted

Bruce Krauter

Originally Signed by

Bruce Krauter, Chief, Essex-Windsor Emergency Medical Services

Appendix No.	Title of Appendix



Administrative Report

To: Robert Maisonville, CAO

**From: Robin Greenall
CEO/Chief Librarian, Essex County Library**

Date: August 7, 2019

Subject: Modernization Grant Proposal

Purpose

This report is to provide the Board with information on the Open+ Library concept, and for their consideration to move the concept forward as a proposal for funding through the County of Essex One-Time Modernization & Efficiency Grant.

Background

In the spring of 2019, the County of Essex received a one-time Modernization/ Efficiency Grant in the amount of \$725,000. The parameters/criteria for use of these funds are general in terms but the projects must show service delivery impacts via;

- Transformation
- Modernization
- Increase efficiency
- Reduce expenditure growth in the longer term

The Essex County Library was offered an invitation to submit a funding proposal for Council's consideration. The Open+ Library Technology service (or comparable systems) would meet the parameters/criteria of the grant funding.

Discussion

Open+ Library Technology Service

The Open+ Library service incorporates the use of technology to complement the current staffed hours of the library and supports greater community access to library resources and services.

The Open+ Library Technology service (or comparable systems) is the installation of site monitoring systems and resource self-check systems, that integrates with the Library's current Integrated Library System (ILS) database.

The Hamilton Public Library (HPL) recently implemented the Open+ service in their rural community locations. The implementation allowed HPL to extend community access of one site location from 17 hours per week to 60 hours per week. HPL maintained (increase) staffing to support information literacy and programming service and used technology to allow the community greater flexibility to access library resources during typically closed hours. Within months of installation, HPL observed a 37% increase in library usage, 52 % increase in overall attendance (gate counts), 40% increase in computer systems occurred during Open+ hour and 19% increase in system wide usage.

Benefits of the Open+ Library Technology service

Open+ Library Technology service would provide ECL the following benefits:

- Increased community access to sites typically utilized 17 hours a week or less.
- Increased access to library resources and services.
- Greater flexibility of use for community residents in small locations.
- Greater flexibility for ECL to direct staffing service and resources.
- Supports a County initiative to provide "cradle to grave" learning and education supports.

Open+ supporting documentation can be found at:

https://www.bibliotheca.com/open-library/?gclid=EAIaIQobChMI8tn-yqzT4wIVCdbACh2xzgjUEAAYASAAEgL1FPD_BwE

Financial Considerations

The Administration of the Essex County Library would recommend a proposal for one-time modernization funding be invested to support the implementation

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Modernization Grant Proposal Report

of an Open+ Library technology service (or comparable systems) as a trial at one small community branch. The estimated cost of implementation is \$70,000 - \$100,000 (dependent on specific site needs).

The final selection of the site is beyond the purpose of this report and would require a further discussion with the Board. Possible sites would need to be assessed for ease of access, security and general overall condition. Possible sites to consider would be the Ruthven, Cottam, Comber or McGregor branches.

Recommendation

It is recommended that the ECL Board supports the concept of Open+ Library Technology service to be moved forward as a proposal to the County Council for grant funding considerations.

Submitted by,

Robin Greenall

Robin Greenall
CEO/Chief Librarian



Administrative Report

Office of the Director of Infrastructure Services

To: Robert Maisonville, CAO

**From: Jane Mustac, P. Eng.
Director of Infrastructure Services/County Engineer**

Date: Wednesday, August 14, 2019

Subject: One-Time Modernization & Efficiency Grant

Report #: 2019-0814-IS-JM

Purpose

The purpose of this report is to provide the Chief Administrative Officer (CAO) with information on the application proposal for the utilization of a portion of the One-Time Modernization & Efficiency Grant.

Background

In the spring of 2019 the County of Essex received a One-Time Modernization /Efficiency Grant in the amount of \$725,000. The parameters/criteria for use of these funds are general in terms but the projects must show service delivery impacts via;

- Transformation
- Modernization
- Increase efficiency
- Reduce expenditure growth in the longer term

As a department of the County, Infrastructure Services requests that the following application for consideration will meet or exceed the parameters/criteria set forward.

Discussion

The County of Essex currently owns, operates and maintains 43 traffic signals within the County with the majority of the signals located on key arterial and collector roadways. Baseline communication infrastructure identify that all intersections run semi-actuation and are not coordinated. A sample group of 3 signals; i) CR22 & CR19, ii) CR19 & Amy Croft and iii) CR19 & Lanoue are coordinated to clear the traffic turning left off CR 22 onto CR 19 and allowing continuation through to Tecumseh Rd, to reduce the cue from CR 22. The 2 signals on either side of the Pike Creek Bridge are also coordinated to ensure traffic moves through both signals, not cueing up on the bridge.

Installation of Video Image Vehicle Tracking and Detection System for monitoring traffic on roads and paths can detect stopped vehicles, estimate the traffic flow and automatically alerts operators to queuing and congestion on the roads. Video detection will be able to detect vehicles, bicycles, and pedestrians in zones set up by the traffic operations center to support signal timing plan implementation. Also, depending on the type of technology procured, video detection may be able to collect real-time turning movement counts to support more real-time signal timing adjustments required. Additional detection can support more traffic-responsive signal timing to detect the key corridors more effectively.

Equipment will be installed in the form of camera and processor and require devices to be mounted on one pole location to be able to view all legs of the intersection and, as feasible as possible, to view to the next intersection location.

Transformational

Based on advanced video detection technology, it allows the County to monitor two different lanes/zones of traffic simultaneously. Each system consists of a camera with fisheye lens, horizon viewing capabilities for intersection actuation, traffic data collection and situational awareness. The accompanying processor highlights the intersections phases, calls, and status and contains a suite of vision tracking algorithms to build a 3- dimensional model of the approaching objects. All data is downloaded to the Cloud to allow continuous monitoring of each intersection.

Advancing capabilities for the provisions for Connected Vehicle/Autonomous Vehicle technology, multi-modal considerations (including transit), as well as other important initiatives in the region that are advancing innovative technology deployment.

Modernization

Traffic operations and management technology is constantly advancing and evolving and continuous improvement to the traffic system performance, safety, sustainability and reliability is required. The County of Essex road network is continuously expanding to accommodate the growth in each of our municipalities and this traffic signal software application will process and analyzes traffic signal data to display and report performance metrics of an individual traffic signal, corridor, and/or across the traffic signal network.

Increase Efficiency

This system enables the County to proactively identify trouble areas, report on corridor performance, and facilitate efficient traffic management. Can ultimately eliminate communications gaps that may exist along key traffic movement corridor by utilizing wireless technologies to achieve more robust communications coverage.

Video Image Vehicle Tracking and Detection System are continuously undergoing fundamental changes, including the introduction of more sophisticated technologies, a shift to integrated operations (multiagency, multimodal), and improvements to customer service capabilities. It is crucial to continue to advance the technology utilized on the County Road Network.

Financial Implications

A planning level cost to purchase complete system per intersection location:

Capital cost: \$28,000 per unit

SIM Card: \$1,000 per year

The County of Essex has installed the system at 14 of the 43 locations and has initiated a program to install at all locations. Total cost to upgrade the 28 remaining locations is provided as follows:

Capital $\$28,000 \times 28 \text{ units} = \$784,000$

Communication - SIM Cards - $\$1,000 \times 28 = \$28,000$

Total program costs - \$ 812,000

*can be adjusted based on value available to Infrastructure Services Department (ISD)

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One-Time Modernization & Efficiency Grant

Recommendation

That the CAO receive the report for information and consideration for the One-Time Modernization & Efficiency Grant

Respectfully Submitted

Jane Mustac

Originally Signed by

Jane Mustac, P.Eng, Director of Infrastructure Services/County Engineer



Subject: One-time Modernization / Efficiency Grant

Background

The Intergovernmental Panel on Climate Change has affirmed that the evidence for human influence of a warming climate system is unequivocal. With clear indication of current climate risks, the likelihood and frequency of extreme weather is expected to increase over the coming decades.

In response to severe flooding, significant shoreline erosion and infrastructure failure, new and renewed threats from invasive species, beach closures, and other issues, the ERCA Board of Director's directed ERCA to lead the development of a regional climate change strategy with municipalities and other partners. Through this collaborative, ERCA has initiated a number of sector-based Implementation Teams, including Human Health, the Built Environment, Natural Hazards, Agriculture, and Nature & Ecosystems, and Energy. Each Implementation Team will consider identify vulnerabilities and likely impacts resulting from climate projections in their sector to inform action. In addition, the Energy sector will also explore opportunities for mitigating climate change and reducing greenhouse gas emissions.

As part of this process, ERCA's Climate Change Specialist met with regional Planners (IMPCC) and a Planning Sub-Group to identify priorities for linking climate action to planning needs and the development of a regional Community Energy Plan (CEP). A CEP is comprehensive long-term plan that helps define community priorities around energy with a view to explore how energy could be generated, delivered, and used in the community now and in the future. Similar plans have been developed for the City of Windsor and Chatham-Kent.

Currently, the Ontario Ministry of Energy, Northern Development and Mines provides funding (up to \$90,000 or 50% of the project) to support Energy Planning. ERCA would coordinate a regional application to the Municipal Energy Plan fund to undertake the following work. ERCA has had preliminary discussions with several municipalities, who support the project and the value of working in partnership to reduce overall costs of the plan, increase efficiencies by developing a plan that reflects all municipalities and the County, and the ability to align energy needs and opportunities.

Essex Region Community Energy Plan

As well as the direct environmental benefits (reduced emissions, healthier ecosystems) and health benefits (improved air quality, improved physical and mental health), energy costs are an important economic driver, particularly in terms of business retention and expansion. The price of energy is rising in Ontario, placing a hardship on individuals and businesses. A Community Energy Plan will allow a better understanding and improve the relationship between high quality economic-development, related infrastructure, and economic growth. Ensuring an adequate supply of serviced employment land is essential to the economic health of the region. Incorporating energy data and policy into land use and economic development decisions will attract investment, allow businesses to benefit from synergies, and assist in reducing energy costs for businesses.

This work will build on the mandatory Energy and Conservation Demand Management Plans recently updated by all municipalities, and support existing regional initiatives, including the County Wide Active Transportation System (CWATS) and regional transit.

The Essex Region Community Energy Plan will:

- Enhance regional economic development and identify cost savings.
- Reduce our carbon footprint and advance the County's priorities to "encourage reduced greenhouse gas emissions and energy consumption in the County by promoting built forms and transportation systems that create more sustainable, efficient, healthy, and livable communities.
- Align with provincial and federal energy strategies.

Timelines

ERCA, in partnership with the County and municipalities, will retain a consultant to aid in the development of an integrated plan based on a traditional strategic planning model. A Project Management Team, which will include administration from the County, municipalities, ERCA, energy distribution companies, industry, and NGOs, will guide the process.

Phase 1, gathering baseline data and identifying stakeholders, will start in the fall of 2019. Pending successful outcome of this application and an application to the Ministry of Energy, Phases 2, 3, and 4 CEP process (see below) will take place from January 2020-July 2021. Throughout the Plan's development there will be integration of community and stakeholder engagement using innovative and traditional methods to stimulate the conversation and contribute to buy-in of the final plan.

The proposed phases of plan development are as follows:

September 2019 - December 2019

Phase 1: Project Work Planning: Gather Stakeholders, Define Current Conditions, and Prepare Baseline Energy Studies

January 2020 - July 2021

Phase 2: Forecasts and Targets: a) Develop business as use GHG forecasts, b) develop spatial modeling and energy mapping, c) review inventories, forecasts, and energy maps d) develop community sector-based targets, e) prepare GHG inventory update, forecast and targets report

Phase 3: Community Climate Change Mitigation Plan and Community Energy Plan: a) community and stakeholder engagement, b) develop vision, short-term and long-term goals, c) develop long list of actions/strategies and energy conservation potential, d) develop policy recommendations and prioritize "quick win" actions

Phase 4: Implementation Plan and Reporting: a) Prepare implementation Plan, b) presentation of draft plans to councils as needed, c) community engagement d) Review and refinement of the draft plan.

Budget

Green Jobs Initiative, Parks and Recreation Ontario	\$5,500
County of Essex (Proposed)	\$75,000
Ontario Ministry of Energy (Application in development)	\$90,000
Municipal Support \$12,500 x 7 (To be presented/confirmed) (Towns of Tecumseh*, LaSalle, Amherstburg*, Lakeshore*, Kingsville, Leamington, Essex) * Support in Principle	\$87,500
Total	\$258,000

