The Regional Municipality of Durham
COUNCIL INFORMATION PACKAGE
January 20, 2017

Information Reports

2017-INFO-9 Commissioner of Works - Utilization of Engineering and Architectural Consulting in the Delivery of Regional Projects

2017-INFO-10 Commissioner of Corporate Services – re: E-Agenda Update

Early Release Reports

There are no Early Release Reports

Staff Correspondence

1. Memorandum from Dr. R. Kyle, Commissioner and Medical Officer of Health – re: Health Information Update – January 13, 2017

Durham Municipalities Correspondence

1. City of Pickering – Resolution adopted at their Council meeting held on September 19, 2016, report IT 01-16, regarding Information Technology Strategic Plan, Broadband and Intelligent Community Initiatives

Other Municipalities Correspondence/Resolutions

1. Municipality of Thames Centre – Resolution passed at their Council meeting held on January 9, 2017 with the respect to the cost of hydro for rural residents

Miscellaneous Correspondence

1. Toronto and Region Conservation Authority advising Amended Resolution #A210/16 was approved at their meeting their meeting held on January 6, 2017, regarding Draft Wetland Conservation Strategy for Ontario

2. Association of Municipalities of Ontario (AMO) Policy Update – Provincial Cabinet Shuffle

3. University of Ontario Institute of Technology – re: Event Invitation February 1, 2017, regarding The Future of Politics

4. Lake Simcoe Region Conservation Authority (LSRCA) re: Annual General Meeting – Keynote Speaker Dr. Blair Feltmate, Head, Intact Centre on Climate Adaptation, University of Waterloo

Advisory Committee Minutes

There are no Advisory Committee Minutes

Action Items from Council (For Information Only)

Action Items from Committee of the Whole and Regional Council meetings

Members of Council – Please advise the Regional Clerk at clerks@durham.ca by 9:00 AM on the Monday one week prior to the next regular Committee of the Whole meeting, if you wish to add an item from this CIP to the Committee of the Whole agenda.

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 3540.

The Regional Municipality of Durham
Information Report

From:	Commissioner of Works
Report:	#2017-INFO-9
Date:	January 20, 2017

Subject:

Utilization of Engineering and Architectural Consulting in the Delivery of Regional Projects

Recommendations:

Receive for Information.

Report:

1. Purpose

1.1 This report provides an overview of engineering and architectural consulting services utilized in the delivery of Regional Municipality of Durham (Region) projects.

2. Background

2.1 At the September 7, 2016, meeting of the Committee of the Whole, the following motion (as amended) was approved:

> "That staff report back during the 2017 budget process on a business case for increasing the number of projects which are managed directly by the Region, whether through employees or contracted staff."

2.2 The Works Department is responsible for the planning, design, construction, life cycle, and perpetual maintenance of a variety of infrastructure assets across the Region. To effectively deliver and support the range of infrastructure projects managed by the department, a variety of disciplines are required. Currently, this demand is addressed through a combination of internal and external resources.

3. Engineering and Architectural Services

3.1 The Works Department utilizes engineering and architectural services to support

and deliver a variety of projects and initiatives under its responsibility. For these undertakings, there can be several disciplines required to effectively support and deliver the required work. Projects can vary in scale and complexity, requiring specialized teams contributing at various levels, stages and amounts throughout the life of an individual undertaking.

3.2 The following list provides a high level overview of the some of the services required to deliver projects or initiatives within the Works Department sphere of responsibility:

- Municipal Class Environmental Assessment (MCEA) services to:

  A) Identify specific issues and opportunities related to the undertaking to fulfill the requirement of MCEA;

  B) Develop and evaluate the range of solutions available;

  C) Inventory the natural, social, heritage and economic environments through research and investigations to identify opportunities and constraints including phase 1 and 2 archaeological assessments;

  D) Review the natural environment impacts and mitigation approaches, and develop appropriate documentation to address permit requirements; Conduct a fisheries and species at risk analysis/screening to determine impacts and mitigation options, permit requirements and construction windows; Prepare the required environmental study reports;

  E) Develop and evaluate alternative design concepts related to the project;

  F) Facilitate stakeholder consultations and respond to all inquiries related to the MCEA; Identify all third party approvals and permits to complete the detailed design and construction of the proposed undertaking.

- Environmental Site Assessment Services (ESA) to:

  A) Identify areas of concern prior to acquisition of land or at onset of project development (Phase 1 ESA); and

  B) Detailed investigation and analysis of site conditions to complete the requirements for Record of Site Condition documentation for conversion to more sensitive use and/or to commence the development of appropriate remediation and containment measures (Phase 2 ESA).

- Site Master Plans Development services requiring:

  A) Completion of Phase 1 and 2 Archaeological Assessments;

  B) Facility design and site layout, including green building/site concepts;

  C) Civil, electrical and environmental systems preliminary design, storm water management calculation and options;

  D) Management of existing natural features in consultation with the appropriate municipal and conservation authority representatives; and

  E) Review and consideration of ESA findings in site layout and land utilization.

- Detailed Design, Technical Specification and Tender Development that:

  A) Is customized and satisfactory to the particular type of infrastructure (roads and bridge construction/maintenance systems, traffic control, environmental remediation/mitigation, waste management and recyclable processing facilities, water distribution systems including water mains, treatment plants, wells, standpipes and pumping stations, and sanitary sewage collection and treatment systems) requiring input from specialized resources;

  B) Incorporates the MCEA, site plan approval, and permit and other known requirements, and complies with all required codes and legislations;

  C) Reflect geotechnical and other conditions on site that will impact construction and long term operations/maintenance activities;

  D) Delivers the best value for the Region in terms of intended use and lifecycle maintenance;

  E) Provide specialized services through sub-consultants which may include field, facility and subsurface surveys; geotechnical and hydrological investigations; natural environment analysis; noise analysis; value engineering and quantity surveys; archeological studies; traffic studies; systems program; and structural, electrical and chemical engineering.

- Construction Administration and Inspection services to:

  A) Monitor and advise on adherence to contract documents;

  B) Inspect and monitor work on site for quality and conformance to

design;

C) Review and advise on construction conflicts for the duration of the project including design interpretation issues and clarifications; and

D) Validate work completed for appropriate payment of progress work completed and provide associated documentation.

- Asset Management Inspection services that:

  A) Inspect and review the current condition of assets including structural integrity, electrical services and a variety of infrastructure operational components (pumps, HVAC equipment, roofing, civil site works); and

  B) Recommend appropriate cycles for maintenance and replacement activities.

- Environmental Services including:

  A) Field work and reports by Certified Environmental Practitioners to satisfy the conditions related to closed landfill monitoring requirements;

  B) Preparing advice and reports to satisfy Ministry of Environment and Climate Change (MOECC) requirements related to the operation and care of the Region's closed landfills, water supply and sanitary sewage treatment facilities;

  C) Providing expertise related to contamination mitigation and remediation strategies, landfill recovery and site repurposing activities (e.g. landfill mining);

  D) Analysis of energy efficiency options and alternatives;

  E) Recommendations related to process improvements and asset optimization;

  F) Identification of threats and potential actions to mitigate impacts of climate change; and

  G) Development of engineering solutions to address site contamination issues as a result of Regional or historical operations.

- Process Engineering including:

  A) Optimization studies related to water supply and sanitary sewerage treatment, waste management;

  B) Field sampling and testing of processed water; and

C) Computer model simulation utilizing industry software packages.

- System Master Planning exercises for:

A) Regional roads and cycling network;

B) Water supply and sanitary sewerage system; and

C) Long term waste management strategies.

3.3 A variety of resources and disciplines are employed to meet the requirements of the projects and initiatives noted above. As needs and issues emerge, the Works Department assesses the requirements and assigns the skillsets necessary for the effective project delivery or resolution to the issue.

3.4 It is important to note that regardless of whether internal or external resources are utilized to deliver a project, a Regional project manager is assigned to oversee each project. Staff assuming the role of project manager range from technical staff to project engineers. Each manages multiple projects on an ongoing basis utilizing internal resources and consulting services as required.

4. Benefits of Current Service Delivery Model

4.1 As outlined in Section 3 of this report, there are a variety of skillsets and disciplines required to deliver and manage Regional infrastructure projects. While projects can be effectively designed, managed, and implemented utilizing Regional resources, there can be some form of external expertise required.

4.2 For projects of a larger scale and greater complexity, a more diverse cross section of resources may be required from a variety of disciplines to ensure an effective delivery of the requirements. As many of the external engineering and architectural firms have these specialities already ‘in house’, utilizing this consolidated expertise is often more effective from a cost and a project delivery perspective.

4.3 While project specific teams can be established ‘in house’ to deliver distinct initiatives, retaining the variety and quantity of resources required may become problematic. Attracting qualified and experienced technical staff from full time employment to a temporary project delivery scenario has been attempted and has proven difficult in the past. Typically, these opportunities have attracted Regional staff looking for additional experience, leaving gaps in base project delivery activities.

4.4 When engaging external consultants and engineers, liability is transferred to those engineering and architectural firm when contracted by the Region. The Professional Engineers Act and the Professional Engineers Ontario (PEO) have measures in place to ensure the appropriate licensing and insurance requirements are met for all engineering firms providing engineering services to the public and

stamping documents related to infrastructure design. Similar requirements apply to architects through the Architects Act, the Royal Architectural Institute of Canada and the Ontario Architects Association.

4.5 Contract Administration is most effectively delivered by the party that developed the detailed design and tender specification documents whether by 'in house' staff or external services. The role of Contract Administrator relies on the designer to interpret and advise on design conflicts, schedule management and quality control.

5. Conclusion

5.1 The Works Department continually assesses project resource requirements to determine the appropriate delivery method based on the scope and complexity of each individual project. This report, while not a business case, outlines the benefits of the current model. It is recommended that this current model, which combines the use of external consultants and internal staff resources, continues to be utilized to maintain responsive, efficient project delivery.

Respectfully submitted,

Original signed by:

S. Siopis, P.Eng.
Commissioner of Works

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2095

The Regional Municipality of Durham
Information Report

From:	Commissioner of Corporate Services
Report:	#2017-INFO-10
Date:	January 20, 2017

Subject:

E-Agenda Update

Recommendation:

Receive for information

Report:

1. Purpose

1.1 The purpose of this report is to provide an update on the E-Agenda project.

2. Background

2.1 In 2016, the Region of Durham issued RFP 1038-2016 to obtain a software-as-a-service (SaaS) solution for an Electronic Agenda Meeting Management System (henceforth referred to as an “E-Agenda”). In June of 2016 Regional Council authorized the award of the contract to Accela Inc. The RFP contract was executed between the Region of Durham (”Durham”) and Accela Inc. on August 15, 2016.

2.2 Durham’s project team worked with Accela representatives on the project in accordance with the project schedule included as a part of their proposal. Said schedule provided that they could meet Durham’s requirement of having the E-Agenda system functional for usage by January 1, 2017.

2.3 During the course of several meetings on the project, it became apparent to staff that there were issues with Accela’s product delivering the functionality which had been represented by them in their proposal.

2.4 Despite multiple expressions of concern by the project team, Accela Inc. was unable to demonstrate functionality that met Durham’s requirements.

2.5 Durham initiated contract termination proceedings by way of correspondence dated December 19, 2016 which identified that Accela Inc. was in material breach of the requirements of the contract and giving them until January 5, 2017 in order to come up with a satisfactory resolution of the deficiencies.

2.6 The aforementioned notice to Accela Inc. complied with the contractual requirement to provide no less than five days' notice to remedy a material default prior to termination.

2.7 Accela Inc. delivered a response on January 5, 2017. Accela's response validated the project team's position that they could not meet certain requirements of the E-Agenda project in a timely way.

3. The Issues

Item #1 - Accessibility for Ontarians with Disabilities Act ("AODA") Requirement

3.1 The Accela application has failed to meet the mandatory technical requirement of the RFP of being a fully AODA compliant solution. This issue has not been resolved nor has Accela offered a realistic expectation of achieving compliance with this requirement.

3.2 Throughout the project, the project team clearly communicated concerns regarding this issue to Accela without seeing a successful resolution. Ultimately, the project team concluded that Accela would not be able to meet this mandatory requirement despite the fact that their bid submission contained a signed a declaration indicating that their solution would be fully AODA compliant.

3.3 With Durham rolling out a redeveloped Durham.ca website in late 2017, the requirement for AODA compliance is more than contractual, it is also statutory. Durham is required under the AODA to have all material in an accessible format as a result of the website upgrade.

Item #2 – Data Encryption Requirement

3.4 Durham required that the E-Agenda system provide a secure method of logging into the application in order to protect user id's and passwords, as well as to ensure the protection of confidential documents. In its proposal Accela committed that this functionality would be available by September 2016. Since September 2016 the project team has requested updates on this issue from Accela. Accela Inc. has been unable to demonstrate that its solution provides this level of security nor has it provided an updated timeframe for inclusion. This was a component of Accela's bid submission to the Region and, as such, a contractual requirement which they have confirmed they cannot meet.

Item #3 – Location of Data

3.5 The Accela solution does not meet the mandatory technical requirement of a cloud based SaaS solution. The Accela solution is not a true Cloud-based/SaaS solution as the installation of the Minute Traq thin client is required for all submitters/approvers. This means that updates and installs would need to be completed on all Regional devices rather than using a web browser to access the application. From the perspective of functionality and ease of process management, Durham was looking for a solution with minimal presence on our own equipment, preferring a cloud based option. Accela indicated that an online solution was currently being implemented however no fully online solution was demonstrated or made available to Durham.

4. Termination of Contract

4.1 Based on the above deficiencies and Accela Inc.'s inadequate response thereto, the project team unanimously agreed to terminate the contract. A letter of termination was sent out dated January 13, 2017.

4.2 As of the date of termination, no compensation had been paid to Accela Inc.

4.3 Accela Inc. has yet to respond, but in the letter the Region has invited them to contact Regional staff should they wish to discuss any residual concerns.

5. Next Steps

5.1 The project team anticipate working with Finance Department – Purchasing Section to review and refine the Region's requirements. It is anticipated that a revised RFP will be issued in the spring of 2017.

5.2 Staff commit to providing Regional Council with further updates as they become available

Respectfully submitted,

Original signed by

M. Gaskell
Commissioner of Corporate Services

Interoffice Memorandum

Date: **January 20, 2017**

To: **Committee of the Whole**

From: **Dr. Robert Kyle**

Health Department

Subject: **Health Information Update – January 13, 2017**

Please find attached the latest links to health information from the Health Department and other key sources that you may find of interest. Links may need to be copied and pasted directly in your web browser to open, including the link below.

You may also wish to browse the online Health Department Reference Manual available at Health Department Reference Manual, which is continually updated.

Boards of health are required to "superintend, provide or ensure the provision of the health programs and services required by the [Health Protection and Promotion] Act and the regulations to the persons who reside in the health unit served by the board" (section 4, clause a, HPPA). In addition, medical officers of health are required to "[report] directly to the board of health on issues relating to public health concerns and to public health programs and services under this or any other Act" (sub-section 67.(1), HPPA).

Accordingly, the Health Information Update is a component of the Health Department's 'Accountability Framework', which also may include program and other reports, Health Plans, Quality Enhancement Plans, Durham Health Check-Ups, Performance Reports, business plans and budgets; provincial performance indicators and targets, monitoring, compliance audits and assessments; RDPS certification; and accreditation by Accreditation Canada.

Respectfully submitted,

original signed by

R.J. Kyle, BSc, MD, MHSc, CCFP, FRCPC, FACPM
Commissioner & Medical Officer of Health

UPDATES FOR COMMITTEE OF THE WHOLE
January 13, 2017

Health Department Media Releases/Advisories/Publications

https://goo.gl/WbvPPB

- The Year in Review 2016 (Dec 19)

https://goo.gl/Jq08so

- STOP Program returns for smokers who want to quit (Jan 6)

https://goo.gl/YynwpK

- Residents are reminded it's never too late to quit during National Non-Smoking Week (Jan 9)

FAX Abouts (on DurhamMD.ca – UserID: drhd; Password: health)

- Annual Report on Vaccine Safety in Ontario 2015 (Dec 13)
- Menactra…A Publicly Funded Vaccine! (Dec 15)
- TB Workshop for Healthcare Professionals! (Jan 4)

GOVERNMENT OF CANADA

Employment and Social Development Canada

https://goo.gl/H3s1k6

- Change to the Employment Insurance waiting period begins January 1, 2017 (Dec 22)

Health Canada

https://goo.gl/YwlT4S

- Government of Canada announces new comprehensive drug strategy supported by proposed legislative changes (Dec 12)

https://goo.gl/yGhOJY

- Task Force on Cannabis Legalization and Regulation presents its advice on a framework for legalization and regulation of access to cannabis (Dec 13)

https://goo.gl/BvI27p

- Statement from the Government of Canada on the Receipt of the Report from the Task Force on Cannabis Legalization and Regulation (Dec 13)

https://goo.gl/MihVxi

- Government of Canada Initiates Studies Related to Medical Assistance in Dying (Dec 13)

https://goo.gl/vDOqiI

- Government of Canada finalizes changes to the Nutrition Facts table and list of ingredients on packaged foods (Dec 14)

Innovation, Science and Economic Development Canada
https://goo.gl/7NyFzp
- Government of Canada to ban asbestos (Dec 15)

Natural Resources Canada
https://goo.gl/n6eV61
- New Energy Efficiency Regulations Reduce Greenhouse Gas Emissions and Costs for Consumers (Jan 4)

Transport Canada
https://goo.gl/QBBmVe
- Pilot project to test use of roadside screening devices for drug-impaired driving (Dec 14)

https://goo.gl/nkyg1u
- New reporting tool and initiatives improve drone safety (Dec 21)

GOVERNMENT OF ONTARIO

Office of the Premier
https://goo.gl/kwdkyG
- Sale and Trade of Electric Power (Dec 15)

https://goo.gl/V722f6
- New 2017 Regulations to Lower Household Costs and Increase Consumer Protection (Dec 20)

https://goo.gl/pTvtnZ
- Growth that Creates Shared Benefits the Hallmark of Ontario in 2016 (Dec 29)

https://goo.gl/H42Rst
- Ontario's Parliamentary Assistants Working to Help People in Their Everyday Lives (Dec 30)

https://goo.gl/tWJLCA
- Ontario Helping People Start and Grow their Families (Jan 10)

Ontario Ministry of the Environment and Climate Change
https://goo.gl/Vdcw4Q
- Ontario Moving Forward to Protect Water Resources (Dec 16)

https://goo.gl/Si7BZ2
- Minister's Annual Report on Drinking Water (Dec 21)

Ontario Ministry of Finance
https://goo.gl/sgPGul
- Provincial and Territorial Finance and Health Ministers Seek Fair and Sustainable Health Partnership with the Federal Government (Dec 19)

https://goo.gl/HTlbeh
- Statement by Finance Minister Charles Sousa on Federal Health Care Funding (Dec 19)

Ontario Ministry of Health and Long-Term Care
https://goo.gl/lEkLyY
- Ontario Proposes New Three-Year Plan to OMA (Dec 14)

https://goo.gl/BVYKGa
- Ontario Training More Volunteers to Support End-of-Life and Palliative Care at Home (Dec 19)

https://goo.gl/S3tNui
- Keep Your Food Safe This Holiday Season (Dec 22)

https://goo.gl/3Bk2dX
- Shingles Vaccine Free for Ontario Seniors (Dec 29)

https://goo.gl/hc0TVg
- Calorie Amounts Coming to Ontario Menus Beginning January 1st (Dec 30)

https://goo.gl/gQH17Y
- Statement from the Minister of Health and Long-Term Care on Supervised Injection Services (Jan 9)

https://goo.gl/Y093j9
- Ontario Strengthening Quality and Safety Inspections in Long-Term Care Homes (Jan 11)

Ontario Ministry of Tourism, Culture and Sport
https://goo.gl/im3IPX
- Celebrate Ontario's 150th Anniversary in 2017 (Jan 3)

Ontario Ministry of Transportation
https://goo.gl/Z8Eud4
- Ontario Helping Cities and Towns Improve and Expand Public Transit (Dec 12)

https://goo.gl/QS3413
- Tolling Set to Begin on Highway 407 and Highway 412 (Jan 3)

OTHER ORGANIZATIONS

Canadian Institutes of Health Research
https://goo.gl/bWusNs
- University of Toronto researcher receives The Wilfred and Joyce Posluns Chair in Women's Brain Health and Aging (Dec 14)

Central East LHIN

- Central East LHIN appoints Dr. K. Jennifer Ingram as Physician Lead for Seniors Care (Jan 11)

Council of the Great Lakes Region

https://goo.gl/XPCFkQ

- Report recognizes unique role Ontario's nuclear fleet will play in electricity system (Dec 20)

Financial Accountability Office of Ontario

https://goo.gl/Q2UcQE

- FAO says province not on track to meet 2016 budget health sector expense targets (Jan 10)

LCBO

https://goo.gl/ciYVqI

- New LCBO Campaign Aims to Spark Conversation About Moderation (Dec 14)

National Energy Board

https://goo.gl/G61RI7

- NEB pipeline applications to require more emergency response information (Jan 11)

Ontario Medical Association

https://goo.gl/rLnH2w

- OMA statement: "Disrespectful and Unacceptable" (Dec 14)

ParticipACTION

https://goo.gl/eKLfKm

- Wood chopping anyone? ParticipACTION 150 Play List revealed for Canada's 150th (Jan 6)

Traffic Injury Research Foundation

https://goo.gl/HwXkA7

- Progress in curbing drinking and driving but continued vigilance needed: poll (Dec 13)

City of
PICKERING

Corporate Services Department
Legislative Services

C.S. - LEGISLATIVE SERVICES

Original
To: CIP
Copy
To: S. Siqus
D Beaton
C.C. S.C.C. File
Take Appr. Action

September 21, 2016

Debi Wilcox
Regional Clerk/Director of Legislative Services
Region of Durham
605 Rossland Road East
Whitby, ON L1N 6A3

Subject: Director, Corporate Services & City Solicitor, Report IT 01-16
Information Technology Strategic Plan, Broadband and Intelligent Community Initiatives
File: A-1400-001-16

The Council of the Corporation of the City of Pickering considered the above matter at a meeting held on September 19, 2016 and the following recommendations were adopted:

1. That this Report and the Technology Review and Roadmap (Attachment 1) prepared by Prior & Prior Associates Ltd. and dated January 11, 2016 be received;

2. That the Technology Review and Roadmap be endorsed, provided that funding requirements, if any, be subject to the budget approval process;

3. That Council recognize the importance of fast, reliable and affordable high-speed internet access for all residents and businesses within the City of Pickering;

4. That Council endorse the "Dig Once" Standard, providing for the inclusion of conduit to accommodate fiber optic (internet) cable in the standard design specification for all future City road construction projects;

5. That Council direct appropriate City staff to communicate and collaborate with their counterparts at the Region of Durham and at the other lower tier Durham municipalities, to encourage the other municipalities within Durham Region to adopt policies similar to the City's Dig Once Standard, so that the infrastructure necessary to accommodate a Region-wide broadband system can be built over time;

6. That staff within the City's Information Technology Section be directed to continue their efforts to have the City recognized as an Intelligent Community by the Intelligent Community Forum;

7. That copies of this Report be forwarded to The Regional Municipality of Durham and area municipalities;

8. That the appropriate officials of the City of Pickering be authorized to take the necessary actions as indicated in this Report.

Please find attached a copy of Report IT 01-16. Should you require further information, please do not hesitate to contact the undersigned at 905.420.4660 extension 2019.

Yours truly

Debbie Shields
City Clerk

Copy: Martin de Rond
Director, Legislative & Info Services/Town Clerk
Town of Ajax
65 Harwood Avenue South
Ajax, ON L1S 2H9

Anne Greentree, Municipal Clerk
Municipality of Clarington
40 Temperance Street
Bowmanville, ON L1C 3A6

Sandra Kranc, City Clerk
City of Oshawa
50 Centre Street South
Oshawa, ON L1H 3Z7

Christopher Harris, Clerk
Town of Whitby
575 Rossland Road East
Whitby, ON L1N 2M8

Thom Gettinby, CAO-Clerk
Township of Brock
P.O. Box 10, 1 Cameron Street East
Cannington, ON L0E 1E0

Debbie Leroux, Director of Legislative Services/Clerk
Township of Uxbridge
P.O. Box 190, 51 Toronto Street South
Uxbridge, ON L9P 1T1

Nicole Wellsbury, Town Clerk
Township of Scugog
P.O. Box 780, 181 Perry Street
Port Perry, ON L9L 1A7

Manager, Information Technology

City of
PICKERING

Report to Executive Committee

Report Number: IT 01-16
Date: September 12, 2016

From: Paul Bigioni
Director, Corporate Services & City Solicitor

Subject: Information Technology Strategic Plan, Broadband and Intelligent Community Initiatives
- File: A-3700-002-13

Recommendation:

1. That this Report and the Technology Review and Roadmap (Attachment 1) prepared by Prior & Prior Associates Ltd. and dated January 11, 2016 be received.

2. That the Technology Review and Roadmap be endorsed, provided that funding requirements, if any, be subject to the budget approval process.

3. That Council recognize the importance of fast, reliable and affordable high-speed internet access for all residents and businesses within the City of Pickering.

4. That Council endorse the "Dig Once" Standard, providing for the inclusion of conduit to accommodate fiber optic (internet) cable in the standard design specification for all future City road construction projects.

5. That Council direct appropriate City staff to communicate and collaborate with their counterparts at the Region of Durham and at the other lower tier Durham municipalities, to encourage the other municipalities within Durham Region to adopt policies similar to the City's Dig Once Standard, so that the infrastructure necessary to accommodate a Region-wide broadband system can be built over time.

6. That staff within the City's Information Technology Section be directed to continue their efforts to have the City recognized as an Intelligent Community by the Intelligent Community Forum.

7. That copies of this Report be forwarded to The Regional Municipality of Durham and area municipalities.

8. That the appropriate officials of the City of Pickering be authorized to take the necessary actions as indicated in this Report.

Executive Summary: Attachment 1 to this Report is the Technology Review and Roadmap prepared by Prior & Prior Associates Ltd. and dated January 11, 2016 (the "IT Roadmap"). The IT Roadmap is a multi-year strategic plan which represents the City's first comprehensive review of the role of information technology in the City's administration. The IT Roadmap identifies the need for (i) adequate staffing to meet service demands, (ii) governance of IT decision-making to ensure

that the needs of the City as a whole are met by every IT project and (iii) upgrades and improvements to existing IT infrastructure and business systems.

The importance of high speed internet (broadband) service is now widely recognized, and is crucially important for the City's ongoing economic development. By adopting the "Dig Once" Standard, the City will take a modest first step toward building the broadband infrastructure necessary to serve the growing demand for broadband from residents and businesses.

Recognition of Pickering as an Intelligent Community will demonstrate the City's commitment to maximizing the use of technology to enhance the lives and opportunities of its residents. Intelligent Community status will assist the City in its ongoing economic development activities.

Financial Implications: There are no financial implications arising directly from this Report, as any budget allocation required further to any of the Recommendations will be subject to future Council approval.

That being said, it is essential for the economic development of the City of Pickering that high-speed Internet access be more widely available to residents and businesses. Furthermore, recognition of the City of Pickering as an Intelligent Community will serve to elevate Pickering's profile and further increase economic development opportunities.

Discussion:

The IT Roadmap

The City of Pickering is on the cusp of major expansion. The development of Seaton will bring significant growth and change to the City. Combined with planned intensification of development within the City center, as well as proposals for a major tourist and entertainment complex and the possible Federal airport, this new growth will demand that we use technology to continue the City's ongoing transformation from a bedroom community to a thriving urban center. A corporate culture that embraces the strategic role of technology will give the City a competitive advantage. Strong and innovative IT solutions will improve City services, support growth and development in a sustainable way, spur investment from global players, and enable more open, transparent and responsive government.

The IT Roadmap (Attachment 1) is a multi-year strategic plan which represents the City's first comprehensive review of the role of information technology in the administration of the City and the delivery of its services. The IT Roadmap represents an opportunity to rethink the use of technology at the City and to assess what changes are required to ensure that the City and its residents obtain the maximum possible benefit from technology-enabled services. City staff must work within the financial constraints imposed upon the City, but short-term cost sensitivity should not deter the City from considering strategic investments that will enhance efficiencies and save money over the long term.

The IT Roadmap identifies a number of key issues which are summarized below:

1. The IT Section is understaffed and challenged to meet current demands.

The City of Pickering IT division is underfunded and understaffed as compared with similar municipalities, according to a municipal benchmarking study completed by Prior & Prior and research conducted by Deloitte (Appendix "B" of the IT Roadmap). In order to meet the demands of a growing municipality, it is important to realize efficiencies and position staff for success through investment in technology today. The City of Pickering's IT Section has managed to stay the course over the last 15 years with a net zero increase in resources, however the ability to meet current, let alone future needs may be unsuccessful without immediate improvements. Many important business systems, including our financial application and telecommunications infrastructure, require attention ranging from upgrades to complete replacement. This upgrading will place additional demands on the City's existing IT staff complement. The current inability to meet staff technology needs, from both a support and a strategic perspective, is a barrier to the City being able to realize its full potential.

2. IT Infrastructure requires attention.

Many technology infrastructure components currently supporting the business operations of the City of Pickering are 8 to 10 years old. During an investigation of the City's Network and Security Infrastructure performed in 2015, staff found that the City was about 3 years behind on security related updates. Critical security flaws in the City's network infrastructure were found and fixed, but IT staff require training and additional IT processes and procedures must be put in place.

3. Major business systems require attention ranging from upgrades to complete replacement.

The City is in dire need of a new financial system. With additional investment, many existing systems such as the planning and permitting system (Amanda) could provide significant increases in efficiency and automation, resulting in improved service levels and increased ability to manage a higher volume of planning and permit transactions. Without investment in new applications and the associated IT staff necessary to design and administer them, the City will increasingly run the risk of system failure and may miss out on opportunities to leverage technology to keep current with residents' expectations for service delivery and community engagement.

4. Corporate oversight on technology projects.

"IT governance" is the process for direction, management and monitoring of how the City makes use of technology. More than a single committee, IT governance consists of all the various staff teams that are involved in IT decision making. Council is of course involved in IT governance, to the extent of authorizing major projects and approving any necessary budget allocations. The goal of IT governance is to ensure that the right people are making the right technology decisions at the right time and for the right reasons.

Until now, decisions regarding the prioritization of technology projects have been left to the IT Manager. These decisions may have far reaching consequences for the operation of the City as a

whole. For this reason, staff (with the support of the CAO) have formed an IT Steering Committee to provide advice regarding the prioritization and initiation of new technology projects. Drawing staff from all Departments, the IT Steering Committee will ensure that technology decisions are made with the best interests of the entire corporation in mind.

5. Following the IT Roadmap.

Implementing the IT Roadmap is subject to Council's budget approval process. To date, the IT Section has taken on one new staff member to increase its capacity to deliver basic technical support on a daily basis. An additional staff position has been added in the approved 2016 budget. These changes will increase the ability of the IT Section to meet the growing demand for its services. The creation of the IT Steering Committee will provide a coherent framework for IT governance. These changes recommended by the IT Roadmap are already improving the effectiveness of the City's IT Section.

Broadband Service in Pickering

Technology enhancements are necessary to enable the success of the City's businesses and residents – now and in the future. Access to high speed internet service (broadband) is becoming essential for health care, education, employment, social and political inclusion and overall economic success. With the opening of a Microsoft data center inside Canada, the use of cloud computing will only increase, and the need for broadband will increase along with it.

Some of the benefits of accessible and reasonably affordable fibre optic connection to the internet are:

1. It provides businesses, public organizations, residents, and farmers equitable access to marketplaces, healthcare, education and government services, putting Pickering on a competitive footing with some of the best connected communities in Canada and around the world;

2. Federal and Provincial funding is available to subsidize the cost of building fibre optic infrastructure, with most of the remaining funds coming from telecom service providers;

3. It will provide residents and businesses in Pickering with more competitive choices, leading to better services and lower prices – a platform for future economic prosperity and social equality; and

4. It will reduce operational costs that the City currently pays to ISP's for network connectivity. These costs will continue to grow as the need for connectivity increases and broadband access becomes critical for both administration and service delivery.

Increasingly, high-speed Internet service is looked upon as a necessity. In the USA, the Federal Communications Commission and many cities now regard broadband as a new public utility - a service to be delivered like water pipes and highways. Robust and widely accessible broadband infrastructure is needed for Pickering to become recognized as a prime location for new

businesses to operate. Broadband will help attract new investment to the City. Following the example of many American jurisdictions, City staff have introduced the "Dig Once" Standard for future City road construction. "Dig Once" simply means that the standard design specification for future city road construction projects includes an additional conduit to accommodate future broadband requirements. The conduit will then be in place to accommodate fibre optic cable as and when the City wants to have it installed.

Corporate Services staff have worked together with staff in Engineering & Public Works in order to implement "Dig Once". Over time, as road construction proceeds, "Dig Once" will ensure that broadband service can be accommodated with only a tiny incremental increase to the cost of future road construction projects. "Dig Once" is a modest but necessary step towards the construction of broadband infrastructure throughout the City.

In an effort to expand broadband service throughout the Region of Durham, the City's Information Technology and Economic Development staff currently participate in a Regional Broadband Working Group consisting of staff from the Region, Veridian, Whitby and the Whitby Chamber of Commerce. City staff strongly recommend the adoption by all municipalities within Durham Region of policies similar to "Dig Once". The construction of broadband infrastructure on a region-wide basis will increase opportunities within Pickering and throughout the Region to provide broadband access in areas which are currently underserviced.

Intelligent Community

The Intelligent Community Forum ("ICF") is a global network of cities and regions with a think tank at its center. Its mission is to help communities use information and communications technology to create inclusive prosperity, to tackle social and governance challenges and to enrich quality of life. The ICF formally recognizes eligible municipalities as "Intelligent Communities" on the basis of criteria including broadband availability, knowledge level of workforce, digital equality and innovation.

The main purpose for seeking recognition as an Intelligent Community is to attract innovative and tech-oriented businesses to Pickering. Intelligent Community status signals that Pickering is a City that strives to enhance the quality and efficiency of municipal services, and to reduce costs and resource consumption. Achieving these objectives will enhance opportunities for the City's residents and businesses.

IT staff have already begun the task of having Pickering recognized as an Intelligent Community. No specific budget allocation has been required for this purpose.

Attachments:

1. Technology Review and Roadmap prepared by Prior & Prior Associates Ltd. dated January 11, 2016.

Prepared By:

Dale Quaile
Manager, Information Technology

Approved/Endorsed By:

Paul Bigioni
Director, Corporate Services & City Solicitor

PB:ks

Recommended for the consideration
of Pickering City Council

[illegible] 7, 2016

Tony Prevedel, P.Eng.
Chief Administrative Officer

ATTACHMENT# 1 TO REPORT# IT 01-16
1 .of. 46

REPORT

Technology Review and Roadmap

January 11, 2016

Prior & Prior
Associates Ltd.

Table of Contents

Executive Summary

Introduction

This Corporate Technology Multi-Year Plan is the first technology review that the City has undertaken and the first technology plan that the City has developed. It is an opportunity to re-think the way technology is perceived at the City and assess what changes are required to re-position both the IT department and technology enabling services at the City. Enhanced Technology services align with all five corporate priorities and in the near term will enhance our ability to realize better opportunities for community engagement and corporate best practices.

The City of Pickering is poised on the precipice of significant growth and expansion. Development in Seaton alone is noteworthy and combined with concurrent initiatives including Downtown Intensification, the Durham Live Entertainment Complex and an International Airport, our ability to transform from a sleepy bedroom community into a hub for sustainability, innovation, technology, culture and commerce will be tested.

A corporate culture that embraces the strategic role technology can play has a competitive advantage. Strong and innovative IT solutions will improve City services, support growth and development in a sustainable way, spur investment from global players, and lead to more open and transparent government systems. A technologically advanced city will attract a higher caliber talent pool to Pickering needed for ICT and a Broadband Infrastructure plan should be developed in order to attract Information and Communication Technology (ICT) companies and advanced manufacturing employers.

In order the meet the demands of a rapidly growing municipality, it is important to realize efficiencies and position staff for success through investment in technology platform today. The last 25 years has seen an insurgence in technology innovation and many organizations have attained competitive advantage and realized success while others who failed to innovate, no longer exist. The City of Pickering's IT department has managed to stay the course over the last 15 years with zero increase in resources, however the ability to meet current, let alone future business and technological needs may be unsuccessful without immediate improvements. Municipalities operate on tax dollars. As a result, often times we are too focused on short term, cost sensitive items, rather than strategic investments that will enhance efficiencies and save money in the long run.

The Opportunity

While many organizations are reaping the benefits of technology as a competitive advantage, Information technology as a platform and an enabling mechanism at the City has yet to appreciate its full potential and operational efficiencies have not been realized. Municipalities large and small face daunting challenges as they continue to deliver the same or enhanced services with fewer resources and tax dollars.

In response to this challenge, the Corporate Technology Review and Roadmap sets out tactical directions and frameworks to position the City of Pickering to be an organization that is SMART (Sustainable, Modern, Agile, Resilient and Technology enabled).

Smart City ecosystems enhance quality and performance, reducing costs and consumption while better engaging residents, businesses and key stakeholders. Enhanced technology can aid in real-time decision making, helping senior staff make informed and timely decisions.

The goal is to increase the efficiency of municipal services to residents and businesses. Technology is central to the City's success and building a City that does business differently, more efficiently, a City that looks at all opportunities to work *smarter* is a central concept of the IT Roadmap.

An independent assessment of the City's IT landscape and its technology management approach confirms that the City needs to address challenges in IT Service delivery and governance as staff and resident's expectations for online services and solutions continue to increase. The more traditional methods of service delivery are no longer acceptable and certainly not in a community that will grow and transform quickly in the very near future.

There are several risks and gaps that have been identified that should be addressed, specifically:

- The IT Organization is understaffed and challenged to meet current demands.
- The infrastructure has some solid components but there are significant gaps such as with remote facility connectivity, a lack of a test environment and limitations to the security and disaster recovery capacity.
- The major business systems all require attention ranging from upgrades to complete replacement. An overhaul of the project methodology is required in order to move forward efficiently and effectively.
- The customer facing layer of technology has identified several opportunities to improve the customer experience from enabling online payments and other online service offerings.
- A lack of corporate oversight on technology projects including decision making and priority setting.

In order to meet the demands and expectations that technology can deliver, the City will have to invest in IT, both resources and products. New technologies are emerging every day that can have great impact on municipal operations. The City should be prepared to take advantage of

opportunities as they are presented in order to implement the solutions that deliver the best value for this community.
Reflecting the growing importance of technology, the roadmap recommends changes to the governance of IT to help ensure that the City can execute effectively. Specific recommendations include:

- Establishing a corporate Information Technology Steering Committee to oversee information management and technology decision making and priorities
- Establishing a project intake and prioritization process for all technology projects
- Maintaining an approved IT project list
- Revising corporate IT policies.

The strategy also recommends changes to the IT Team to support the sustainability of the technology environment and the delivery of the projects, including:

- Reorganizing the IT team into 3 discrete sections to better service current and future needs of the organization.
- Grow the IT team – according to a municipal benchmarking study completed by Prior & Prior and research conducted by Deloitte, the City's IT department is significantly understaffed to meet the current requirements never mind the future requirements expressed by the business departments or through the surveys. The following positions are recommended:
    - Short term:
        - Hire the Network Analyst position (currently approved)
        - Hire a new Database Administrator/Analyst
        - Hire a new Supervisor of Client Services

- Hiring new resources as soon as possible will transition the IT Manager from day-to-day operational responsibilities in order to focus on more strategic activities.
- Progressively adding several new IT positions over the next 5 years to support the growing business demands for new technology solutions:
    - Medium term:
        - Business Analyst/Project Manager
        - Web and Digital services coordinator
        - Application Administrator
    - Longer term:
        - Business Analyst/Project Manager (2nd position)
        - Application Administrator (2nd position)
        - Web Analyst/Developer

- Since IT is key to 24/7 business operations for several departments, there needs to be formal support for IT outside of 'normal' office hours established.

In response to the issues, the roadmap outlines a plan that addresses, as a priority, the current gaps in infrastructure and business systems areas; these include initiatives pertaining to:

- Improving remote network access and Wi-Fi at all municipal facilities,
- Establish a test environment
- Enhance desktop/laptop device management
- Implement mobile device management strategy and tools
- Develop robust policies and operating procedures
- Modern collaboration tools (instant messaging, video conferencing)
- Preparing the City to address security, redundancy and other business continuity threats

Implementing and/or expanding major business systems that can be used to automate business processes, such as:

- Develop an application inventory and lifecycle standard for all business systems.
- Develop in-house application support expertise to ensure products are implemented that meets the business requirements and overall data strategy.
- Conduct a review or analysis of the Planning, building and permitting solution, (AMANDA).
- Recreation management solution upgrade, review and upgrade or replacement.
- Review the Financial system (Vailtech) for upgrade or replacement.
- Corporate Enterprise Document Management solution review (LaserFiche).
- Continued growth of the GIS system.
- Develop a training/learning strategy for all technology users.

The customer facing services requires an expansion of the City's website to focus on offering online services, service request submission and tracking online, moving bill and invoice payments online and handling permits and licenses online.

It is clear that continued investments in, and development of, technology capabilities are required for the City to meet Council, customer and management expectations. This roadmap identifies appropriate initiatives and activities that must be undertaken to leverage technology effectively to meet these demands. Initiatives and recommendations identified in the roadmap will be brought forward as appropriate through the annual budget and capital planning process.

1. Introduction & Background

1.1 The Importance of Technology for Municipalities

Today, all businesses rely on technology. Whether a firm is in the business of selling products, delivering packages, or providing healthcare – people, process, and technology need to work together for those services to be delivered effectively.

Municipalities are no different. Technology is increasingly central to the City's ability to deliver services. Services as diverse as collecting taxes, dispatching fire trucks, planning a sub-division, communicating and engaging the community, checking out library books, and managing recreation program registration all rely on technology to operate effectively and safely.

While email and smartphones keep every part of the organization connected and communicating, it is the back office systems that allow managers and staff to track permit and planning applications, to manage customer requests, or monitor budgets. These are the tools that will enable the City to maximize its operational efficiency.

Looking to the future, technology will continue to grow in importance. More customers will expect to use their computers and smartphones to make an inquiry, report a problem or submit an application. Increasingly sensors will be used to monitor critical infrastructure throughout the City and notify staff where problems are anticipated, or have occurred. City's need to invest in infrastructure to attract/retain business investment, and meet the diverse needs of a growing population.

1.2 The Importance of the IT Roadmap

Given the importance of technology and its role in delivering City services, and particularly given the many competing demands of the municipal setting, an IT roadmap is very important. It addresses questions that are fundamental to the City's future success:

- Are we doing the right things with technology?
- Are we making the right technology decisions?
- Is our Information Technology environment properly managed, maintained, secured, and able to support our clients?
- Is it cost effective?
- What are our future community and organizational needs?
- Is our technology environment equipped to meet current and future business requirements?
- Are we using technology innovatively to optimize operations, and proactively respond to the future?

Crucially it allows the City to determine the strategic priorities, and set out the key initiatives and activities that will be critical to supporting the City's business goals and objectives.

1.3 Developing this Roadmap

The City engaged Prior & Prior Associates to collaboratively develop this roadmap in the summer of 2015. Prior & Prior worked with the IT Manager and the IT team to understand the current environment and issues they were facing. We also surveyed all departments and staff to conduct a current state assessment of the City's use and management of technology, and to identify future corporate and departmental technology needs. The consultants worked with the IT Manager to identify priorities and directions, develop the organizational plan, and to develop this document – the Technology Review and Roadmap.

2. The Current State

In developing this roadmap, Prior & Prior Associates conducted a current state assessment of the City's Information Technology landscape. The consulting team looked at the current Technology environment, the City's existing IT Management practices and considered the range of future pressures that the City faces. This assessment is summarized over the next few pages, and is the basis for the Roadmap.

The City's current approach to technology is delivering far less than optimal results. The IT Department (and technology) has been viewed as a cost center, a support organization, not an engine of innovation, growth and service delivery improvement. The IT Department operates at a basic level – focusing on the basic sustainment of software systems - keeping the computers running. IT staff are fully utilized supporting what is currently in operation, not working on strategic initiatives that can simplify customer interactions with the City or streamline and automate administrative tasks.

Although many major systems have been implemented by the City (most over a decade ago), many of the basic capabilities needed to run the City are not working well. Because of this, managers and staff spend an inordinate amount of time on administrative processes and tasks that remain largely manual despite opportunities for automation. Excel spreadsheets and word documents are used to manage critical business processes because the systems cannot do the job. Staff cannot quickly access or assemble critical information to carry out their day-to-day tasks. Consequently, Coordinators, Supervisors, Managers, and Directors may operate without the necessary intelligence to effectively manage their operations, increasing the risk of producing inaccurate or incomplete information. These major gaps must be addressed.

Currently, the IT Department manages and supports over 500 staff in 17 locations throughout Pickering consisting of over 465 desktops, laptops and mobile devices supported by 60 Physical and Virtual Servers and 13 business applications and 6 databases. IT staff do a good job of maintaining the existing systems considering the number of resources available however many of the applications are outdated. IT does not have the time to maintain the current technology portfolio let alone investigate new opportunities for technological applications within the City.

Technology Trends and Areas of focus for City IT in the next few years should be:

- Security, Disaster Recovery and Business Continuity Planning
- Internet of Things – Smart Grid / Smart City / Interconnected Systems
- System Integration and IT Automation Process Improvements
- Big Data / Business Intelligence, Data Analytics and Open Government
- Customer Relationship Management System
- Online Services, e-commerce, online payments
- City Mobile Strategy, Mobile Device Management
- Asset Management
- City Financial System Replacement

2.1 Technology Environment Assessment

Prior & Prior's standardized municipal technology architecture shown in Figure 1 below was the basis for evaluating the City's technology environment.[1]

[1] The architecture presented here will be used as a future state architecture for the City, which will guide future technology decision-making.

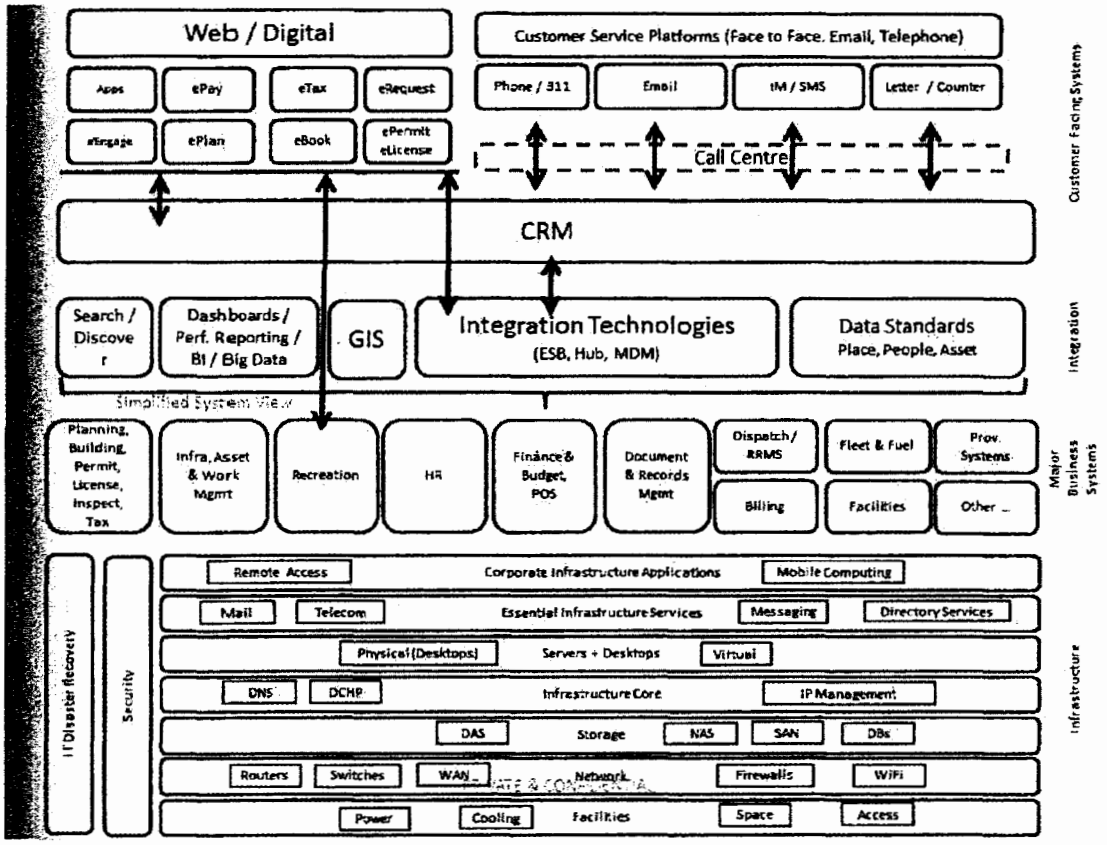


Figure 1: Municipal Technology Architecture

This is a generalized municipal IT model that introduces a number of key concepts that are important for the City at this time, including:

- There are 4 main technology layers (labeled in Figure 1 as: infrastructure, business systems, integration, customer facing), each of which require different IT skill sets to manage effectively
- The Infrastructure layer is the foundation. This must be robust and reliable as it forms the basis for all other layers
- A municipality should focus on a small number of rationalized corporate business systems, to eliminate process and information silos. These business systems are the foundations for automated business processes and will enable online services.
- The municipality's IT architecture must build from the bottom up – Infrastructure first, then business systems and so on.

The following diagram describes a high level assessment of the City of Pickering's technology architecture. The consulting team's assessment has been validated with the IT Manager for accuracy.

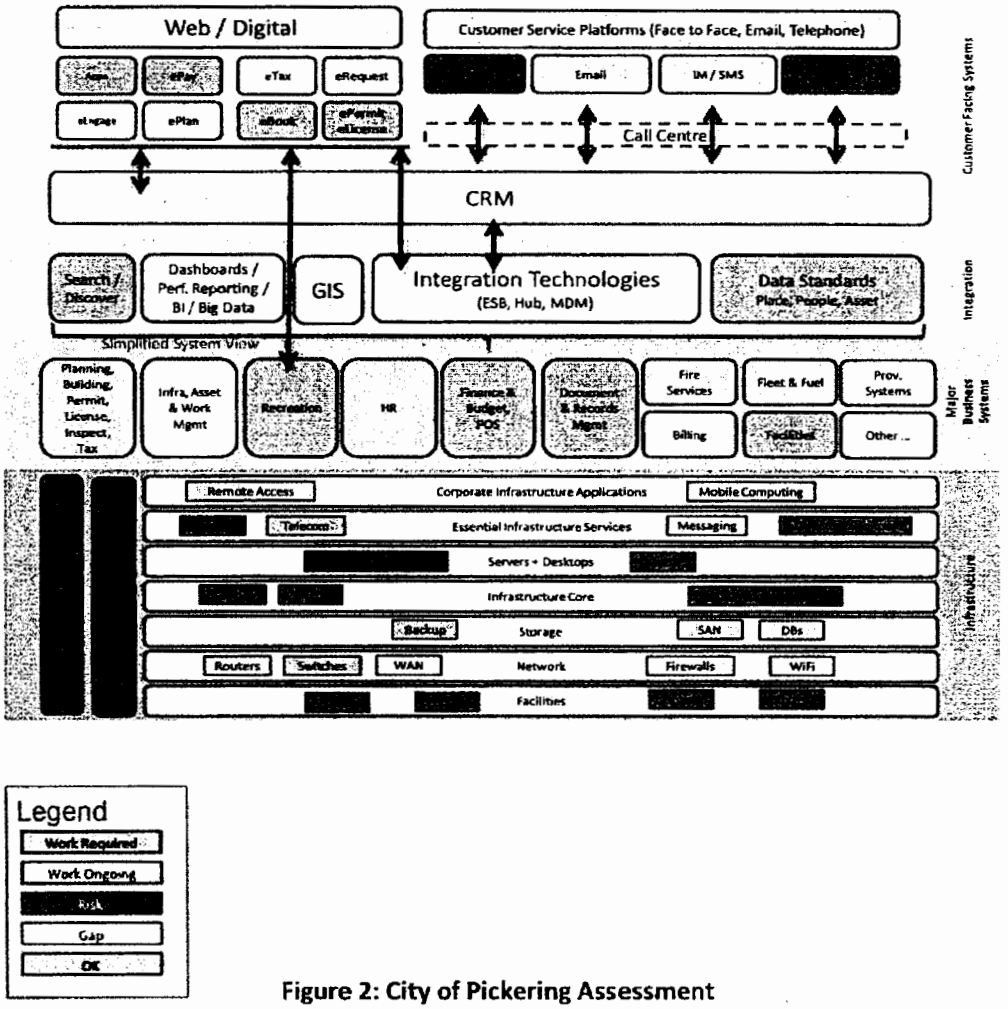


Figure 2: City of Pickering Assessment

At the base of the architecture (the **Infrastructure** layer) the assessment indicates that the City has made progress towards a reliable infrastructure. The City has been successful in implementing a virtualized infrastructure which has reduced operating costs.

2.1.1 Infrastructure Layer Recommendations

The following bullets identify areas that should be addressed as part of the Infrastructure Strategy.

- Remote facility connectivity continues to be problematic due to limited and inconsistent connectivity in the City. Work is ongoing to improve the network and additional work will be required to continue to design and build a cost-effective corporate network with sufficient bandwidth for future needs.
- The City should create and maintain a test environment (sandbox) for technology in which to test upgrade and technology platform changes.

- The City should develop a backup strategy that consolidates their backup solution; addresses de-duplication of data, and ensure processes are documented including the testing of backup/recovery procedures. This would result in a decrease in storage and support costs and ensure continuity in case of system failure.
- Significant work is also needed in the areas of security and disaster recovery / business continuity to ensure that the City is appropriately secured and business continuity ready. Currently the firewalls are managed externally, although there is value to have external support where necessary to augment the expertise and resourcing of internal staff, there was some indication that the responsiveness of services has been problematic. Additionally, the current location of the DR data center is in the Recreation Building which is not suitable due to the close proximity to the main site.
- The City is currently utilizing Citrix technology which provides remote access to applications and internal application delivery. Although Citrix provides the required functionality to users, it is not currently deployed to all staff, and does not address issues around application management for systems that cannot operate in the Citrix environment. IT will actively monitor the environment, and further implement changes the Citrix and Physical Desktop environment as the technology evolves.
- The City is currently on Exchange 2010 and has internal expertise to manage the email environment. However, for the size of the IT department there is value in evaluating Microsoft 365 as a solution that will potentially decrease IT costs, provide additional redundancy in functionality, and lends itself well within the disaster recovery strategy.

2.1.2 Major Business Systems Layer Recommendations

Continuing upwards through the architecture, the **Major Business Systems** layer highlights areas of work with respect to the major business systems – the key corporate systems that the municipality requires.

Specifically, the City needs to determine direction and implement solutions across a range of areas including but not limited to:

- Planning, building and permitting solution review, and upgrade (AMANDA)
- Recreation management solution upgrade, review and replacement (Class)
- Financial system review and upgrade (Vailtech)
- Document Records Management - Corporate Enterprise Content Management (ECM) solution implementation (LaserFiche)

A detailed assessment of business applications with business users is required to accurately determine the level of work needed on major business systems. This work was outside of the scope of this engagement. In order to effectively manage Major Business systems, the IT department will need to adapt new skills (Project Management, Business Analysis, Software Application expertise) as well as continue to establish and maintain the infrastructure foundation.

The City will also need to adopt a corporate approach to technology architecture decision making (IT Governance). These recommendations require a reorientation of the IT team (new skills and staff) and corporate attention to these expanded corporate needs.

2.1.3 Integration Layer Recommendations

The **Integration** layer also features a number of opportunities, including corporate reporting capabilities and expanded systems integration to eliminate errors and staff time wasted on duplicate data entry. There is also a

gap in the ability to discover / search unstructured content and image management (files, documents, images, etc.), requiring further development of the Intranet as a corporate collaboration environment. The Integration Layer can only be addressed once the City has come to an agreement on the major business systems to focus on, as much of the functionality in the Integration Layer is dependent on those decisions.

2.1.3.1 GIS Environment

A detailed assessment of the GIS environment and requirements is recommended. Currently the City has invested in an industry leader GIS system (ESRI), however, the system is managed primarily out of the Planning department, with limited access to other users, or integration with other systems. The GIS environment should be managed in the same way as any other system, in particular systems used by the enterprise. Technical implementation such as project management, business needs analysis, database management and software development should be provided by the corporate IT department with some services such as data management, requirements definition and implementation testing and assistance provided by the user departments. A preliminary review included a current state assessment, an identification of immediate issues and initial recommendations are included in Appendix A. A detailed review, such as a GIS Strategic Plan will further identify user requirements, establish data standards and system governance principles, and design the technology architecture required for the city to fully utilize the product and enhance services delivered to employees and citizens.

2.1.4 Customer Facing Layer

Assessment of the **Customer Facing** layer identifies that the City has established a foundation with the website and the introduction of some e-Services. Currently, the website is managed within the Communications department which causes some coordination and resourcing issues for IT. Some user feedback also suggested that the tool providing the service was not easy to use. Opportunities exist to offer many new services online – although in some cases these projects will be dependent on first implementing the right business systems. Additionally, a majority of citizen based traffic is mobile in nature, and the City should invest in building a responsive website to address this requirement. Key opportunities include:

- Service request submission and tracking
- Billing and online payments (e-commerce)
- Permitting and licensing online
- Online registration and bookings
- Online forms

Overall, the assessment points to a need for the City to direct immediate attention to finishing the remaining work on the corporate infrastructure layer, next the focus should shift toward the business system layers of the architecture. This means:

- Ensuring the infrastructure is sustainable by building out the corporate network, implementing effective security and DR provisions and appropriately staffing the infrastructure function
- Turning attention to the corporate business systems area, re-organizing the IT team, and establishing the business systems that will drive the City's business processes and improve the City's operational effectiveness.

Thereafter, in the medium-term (two to three years), attention can move to the top 2 layers – integration and customer facing, where significant value and improvements in customer service can be gained.

Appendix D provides a more detailed explanation of the Enterprise Architecture.

2.2 Technology Management Practices Assessment

In reviewing the City's technology management approach, a number of positive aspects were noted, including:

- Strong leadership from the new IT Manager
- The IT team is well liked, respected and appreciated
- The IT team is customer oriented and works hard to resolve issues and deliver solutions.
- Many best of breed infrastructure technology solutions capable of scaling to meet the City's growth have been implemented

A number of areas for improvement were also identified:

- There is a lack of formal Corporate IT governance. This means that IT decisions and priority setting occur without Senior Management Team involvement, which can result in un-coordinated activities, missed opportunities and missed expectations
- There are limited IT policies, procedures, practices and documentation
- Some internal partnerships between IT and departments are not effective due to IT not always being consulted on initiatives involving significant IT requirements
- Improvements to the efficiency of the helpdesk service will be necessary to maintain high service levels without disruption to operational and project activities of all IT team members
- The IT department can leverage their existing help desk tool to assist them in formalizing IT processes, as well as enhance user self service capabilities
- There are opportunities to improve IT processes including change management, to ensure more reliability of IT services, and to support traceability of problems
- There are opportunities to allocate IT staff more effectively based on the city's priorities and requirements, their skills and capabilities
- The City requires a formalized approach to providing after hours IT support

2.2.1 Technology Management Practices Recommendations

- Establish an IT Steering Committee to support corporate wide decision making on technology projects.
- Establishing IT helpdesk standards and expectations, including prioritization of incidents.
- Implement a formalized help desk, and optimize use of existing help desk system.
- Implement self service capabilities (e.g. self service password resets and group membership management).
- Develop a formalized after hours IT service (staff on standby / call-out rotation).
- Establishing change management procedures, including a standardized IT maintenance window.
- Developing formalized agreements with arm's length organizations regarding IT service levels.

Further details regarding Technology Management Practices can be found in Chapter 5.

2.3 Survey Results

An online survey was distributed to all employees, and an email survey provided to department managers and supervisors. Overall, the survey results and comments are very much aligned with the consultant's team infrastructure review, and IT department meetings. The following is a compilation of those results and recommendations.

2.3.1 Respondents

- 25 departments responded to the online survey, 196 staff, 9 departments to the email survey

- 74% Employees, 21% Managers/Supervisors, 5% Directors
- Staff with a good distribution of service years, slight majority over 20 years of service
- Responses were primarily from Pickering Civic Complex
- All Staff that responded have access to business technology

2.3.2 Technology Overview

In general staff is Neutral/Satisfied with their business technology. Overall, 75% of staff are satisfied with IT Services at the City.

About 25% of respondents commented on:

- slow network performance, mobility
- issues with their PC/Laptop,
- challenges with printing.
- access to accurate updated GIS information, and
- consistent access to projectors/equipment in meeting rooms.
- technology (inconsistency as well as performance) was noted by employees outside of the Civic Complex.

2.3.2.1 Technology Overview Recommendations

1. Create a consistent, stable and reliable network in all facilities for all employees.
2. Implement a network strategy to support the needs of a mobile workforce.
3. Implement an IT asset management program for all desktops/PCs, loaner laptops, mobile devices, projectors, and meeting room equipment in all buildings. This program should query all departments to confirm their user requirements annually. This program will provide all staff with equipment that is reliable, and reduce workload on IT staff to support equipment that is outdated.
4. Equip meeting rooms with fixed projectors and computer equipment.
5. Evaluate telecommunication requirements and resource availability to provide effective functionality for all users.

2.3.3 Business Applications

Generally, staff seemed to have neutral perceptions of the existing applications used by the City. This suggests that staff may not be aware of the possibilities of technology, are unable to form a knowledgeable opinion and have become accepting of the current software status. Additionally, since a number of employees have a high number of years of service, it can also mean a hesitation to raise concerns due to the changes that may result in the work environment.

A significant number of respondents were dissatisfied with Vailtech, OnPoint GIS, and AMANDA. Both OnPoint and AMANDA are considered best of breed application in the municipal space which suggests dissatisfaction may be related to a number of issues such as lack of in house expertise for timely user support, lack of integration with other applications, awareness of users on functionality and business process improvement opportunities, and/or maintenance/upgrade cycles that cause service disruptions.

Based on our discussions with IT staff, management of business applications (software evaluation, purchases and ongoing maintenance, upgrade cycles) have been decentralized to departments. IT is invited into a discussion very late during the procurement cycle, and is not able to proactively manage licensing, and update

cycles. IT should also have the opportunity to evaluate how the application can integrate into the environment to ensure the City optimizes access to data, and reduces duplicate information entry, or purchases. IT can assist the department by supporting an evaluation of business processes, and software functionality to ensure the product is fully utilized, and other departments that may benefit included in the conversation and implementation. Centralizing the business application budget will also give the organization insight into the overall application spend, and begin the dialogue on return on investment, and impetus to fully utilize available functionality.

A number of "other" systems were identified by employees as problematic (see list below) that were not listed by IT, this is likely as a result of decentralization, and individuals refer to systems with different names.

1. MES
2. CCTS (Customer Care Tracking System)
3. Supply Bidding
4. ADP ezLabour Manager
5. ADP Payroll
6. Guardall System
7. Past Perfect
8. Adobe
9. GTechna Parking Ticket Software
10. Vital Stats
11. Integrated Library System/Horizon
12. GPS/Webtech Interfleet GPS Software
13. Crisys
14. Identicam
15. Corporate Customer Care
16. Lizard GeoViewer
17. PAD AED
18. Late/Absence /Early Departure
19. Vacation/Lieu
20. RFID
21. Woordworks Structural Program
22. H&S Functional Abilities

2.3.3.1 Business Applications Recommendations

1. In conjunction with departments, develop a business application inventory and lifecycle standard that outlines the core business applications used by the City, the primary business owner, business and IT support protocols (e.g. database, version maintenance, upgrade cycles), and funding requirements. Annually, the IT department should review business requirements to determine new areas/problematic areas/services that need to be considered to enhance citizen services or internal employee productivity.
2. Create a centralized business application budget that is funded by departments that primarily use the application (primary business owner). IT should be the steward of this application budget to ensure departments are funding the appropriate number of licenses, maintenance dollars, hardware, database licensing/maintenance, and ongoing support. Final decisions on procurement still reside with the

primary business owner, however, decisions to purchase will include appropriate dollars to handle the ongoing software maintenance and support charges.

3. Develop in-house application support expertise with business analyst skills on major business systems to support end users leverage technology, and formalize partnerships with external agencies with subject matter expertise to ensure products are fully utilized and managed effectively.

2.3.4 IT Department

A majority of those surveyed are satisfied with timeliness of IT response, resolution, quality of response, knowledge and the Help Desk. Individuals commented freely on the quality of the Help Desk, and helpfulness of Staff. In general, comments around 24x7 coverage, vacation coverage, issues that not everyone can support everything and general lack of resourcing were raised. Currently the IT department does not have a dedicated help desk environment, rather, the help desk phone line is responded to by members of the Network Support team. Centralizing the help desk with consistent staffing will provide a higher level of service to staff, provides a consistent approach to dealing with issues, and creates an avenue to identify reoccurring problems that can be prevented moving forward. A knowledge base can also be maintained to assist staff in solving problems quickly and eventually lead to a self-service environment where end-users can find answers to their problems conveniently. IT staff also commented on the silo environment in which they generally function, and their inability to support one another effectively.

2.3.4.1 IT Department Recommendations

1. Focus is required to create a team environment within IT. Time should be spent developing a shared vision, and updating IT's mission as related to the new services and processes IT will be embarking on as required by the City.
2. Create a help desk environment with appropriate staffing to provide effective coverage during business hours, provide staff training and proactively manage work orders. A focused help desk environment would also enable staff to proactively work with the business to develop service level agreements based on user requirements, provide an avenue to escalate issues, and ensure ongoing capture of IT metrics to proactively improve IT services and prevent issues. IT currently uses Alloy Software to manage help desk tickets. Alloy is based on ITIL principles which are considered industry best practice in managing IT services. It includes service management, asset management and other enterprise IT tools that would be valuable improving the overall effectiveness and functionality of IT.
3. Processes should be implemented to ensure all IT staff have the capacity to develop good documentation. The City is at risk because individual IT staff members are solely responsible for particular services which results in support issues when they are away. Although backup resources are identified, staff commented on their discomfort on backfilling a service because they weren't aware of any resources that could help them (e.g. documentation), or they didn't feel they were trained sufficiently to support the issues. Time must be allocated to cross train resources, and create effective documentation to ensure ongoing coverage and continuity of IT services to the City.

A more detailed overview regarding the IT Organization is included in Chapter 6.

2.3.5 After Hours Support

17% of respondents indicated they have a need for after-hours support. Although the majority suggest it is not a requirement, recognizing the City operates on a 24x7 basis, and the increasing dependence on technology, it is necessary for IT to evaluate after hours support requirements.

2.3.5.1 After Hours Support Recommendations

1. Based on user requirements, IT should develop an afterhours support strategy that identifies additional staffing to provide support, provide support outside of regular business hours balanced with redundant systems, and spare equipment for areas whose service hours extend outside of the core business hours.

2.3.6 Access to Systems

In reviewing comments related to *"Are there IT systems, technologies or tools that you don't have access to that the City should have in place? Are there systems you think the City should implement?", and are there new IT services that the IT team should provide,* respondents recognize the need to leverage technology to provide convenient online services to citizens, and enhance internal productivity. Comments related to:

- Customer data mining software
- integrating systems (e.g. AMANDA and GIS),
- providing mobile real-time solutions
- leveraging the GIS
- training
- high performing wired and Wi-Fi network
- access to technology equipment in meeting rooms
- new infrastructure and asset management system
- Utilize/upgrade Amanda
- Upgrade Class
- Upgrade Vailtech
- Security systems
- LaserFiche licensing
- Phone system issues
- Image Management
- Audio Visual Management
- Online customer/citizen portals
- Employee self-service (online processing of leave requests, password resets)
- Access to City Development applications
- Project management tools

Recommendations provided earlier will address the issues described above.

2.3.7 Training

Although a majority of respondents felt they were adequately trained to use the technologies available to them, 23% of staff never received any type of training and 27% staff received training more than 2 years prior. As the pace of technological change continues to increase, and citizen expectations continue to rise, it is important to

provide staff with training not only to do their jobs, but also create an environment to explore using existing technology to improve business processes and service provided.

2.3.7.1 Training Recommendations

IT in partnership with HR and other departments, develop a technology training/learning strategy that address the core competencies in business technology, as well as addresses business specific applications to ensure all staff have the capabilities to carry out their roles.

3. Municipal Comparisons

Nine municipalities were included in the environmental scan – Ajax, Aurora, Caledon, Cambridge, Georgina, Newmarket, Stratford, Waterloo and Whitchurch-Stouffville. (It should be noted Stratford was included as it has achieved the Intelligent Community designation that the City of Pickering has expressed interest in pursuing.) The City of Pickering's population size of 95,000 positions it in the middle of these comparative municipalities. The information provided by these organizations focused on number of staff, budgets, support volumes, governance, staff compensation and organization structure.

Benefits to be derived from this type of scan have become increasingly difficult to achieve, in part due to the range of services provided by the different municipality, as well as the types of services provided by the IT organization and to whom.

Findings on IT resources and spending on IT initiatives suggests that the City of Pickering funding of IT projects is a very low proportion of the overall capital budget.

The City currently employs 7 Full time resources to support and provide services to its xxx staff who are becoming more dependent on technology than ever before. At the City, the ratio of users to IT staff is 89:1. In comparison, the median of the benchmarked groups studied is 45:1. This means that City IT staff are supporting twice as many end users as their comparators.

Another way to compare is IT cost per capita of the population. The City of Pickering spends $20 per person whereas the median for the comparators is $44 per person. Indicating a significant underspend to service the residents.

The detailed benchmark study can be found in Appendix B.

4. Emerging Trends

4.1 New Pressures

In addition to the current gaps and opportunities, the City must also take into account new or emerging factors that will affect future business and IT strategic directions.

- Population Growth and Focus on Investment
- **Changing Resident and Council expectations.** Residents expect to be able to interact with the City electronically, when they want, where they want, using devices to interact with the City, instead of coming in to the Civic Complex. Processes in the back office must be digitized so that they can be offered electronically to residents.
- **Changing staff requirements.** City staff require access to the information and systems necessary for them to effectively deliver services. Millennial's are replacing boomers in the workforce, bringing with

them different expectations. Attracting and retaining this new talent will be important – and technology will be part of that. They expect a range of technologies to be readily available to them, and not just during standard business hours. They will place new demands on technology and the IT team, and expect their employer to provide the necessary tools and solutions.

- **Everything is becoming digital – The Internet of Things.** New technologies are constantly emerging, transforming everyday 'dumb' devices into smart devices that must connect to the network. Today traffic lights and building security controls, garbage trucks and irrigation systems, even the garbage cans themselves are becoming smart devices that connect to the City's technology infrastructure. These devices connect to databases and systems that allow staff to monitor and manage their operation more effectively and efficiently than in the past. This places additional demand for the IT division to be involved with projects in which they previously may not have been – further creating the need for additional IT resourcing.

- **New technologies are emerging daily** that promise to help staff do their jobs more effectively. Examples include solutions that borrow from consumer technology such as virtual reality headsets that help field workers identify buried assets, or real time glasses-based video streaming that allow building inspectors to seek a second opinion from a colleague. This may sound like sci-fi, but progressive municipalities are using this *real* technology today. As a small municipality, with limited resources, the City will need to be cautious, identifying and selecting only those initiatives that deliver real value.

- **Continuous improvement relies on operating insights.** Digitization of processes means that data is available to provide insights that can enable benchmarking and spark continuous improvement of operations.

All of this results in an overwhelming amount of demand. In light of this the City must determine;

- Which, of the hundreds of possible IT initiatives, are the right priorities
- How can IT activities be coordinated so that the City gets the best value for its IT investments

IT Governance is the process by which senior management can take a leadership role to align IT decisions to the overall strategy of the City.

5. IT Decision Making: IT Governance

5.1 What is IT governance?

IT Governance is the processes and structures which inform, direct, manage, and monitor how the organization makes the best and most effective use of technology. This is more than a single steering committee, this is the various teams and groups that are involved in IT decision making.

The goal of establishing an IT governance framework is to ensure that the right people are making the right decisions, at the right time and for the right reasons. In some cases this will mean collective decision on corporate priorities, in other areas it will involve technical decision making on the best data storage technology or networking protocol.

Organizations often view such decisions about technology as complicated, technical and "best left to the experts in IT". However, in many cases, decisions about technology have ramifications, well beyond the technology itself:

- How do we want to use technology in our business?
- What technology do we want our people to use, and how do we want them to use it?
- How much should we spend on technology?
- Which of our business processes should we direct our IT dollars towards?
- What do we need to tackle first?
- Should we do this now, or later?
- How secure do we want to be?

These are not decisions that technologists alone should be making, they are important business decisions that the leaders of the organization must address through a corporate IT Steering Committee. There are of course purely technical decisions to be made, and the right IT staff (with the appropriate skillsets) need to be involved – but in most cases IT experts should be advising the business leaders.

The IT Steering Committee can evolve and grow as needed but this is a recommended starting point.

5.2 IT Department

The IT Team remains responsible for delivery of IT services, and the IT team continues to be responsible for operational IT matters. The IT governance arrangements are designed to assist the IT Manager in strategic decision-making – not take over operational responsibilities. The IT Manager is responsible for sharing the insights about IT operations (e.g. IT resource availability, emerging risks) that are necessary to assist the IT Steering Committee in strategic decision-making.

In terms of project work, while IT staff will lead technology infrastructure projects, for business systems, integration and customer facing projects, the IT team will be a strategic business partner with the business lead for the initiative. In these cases, it is not IT who will project manage the initiative, a business leader will lead this work. The IT Manager will be the communication conduit for project status updates.

5.3 IT Policies and Standards

5.3.1 IT Policies

Policies and standards establish the parameters within which the City uses technology, creating clear expectations for those that use and manage technology. In keeping with the commentary throughout this section, many of the decisions related to technology are business or management decisions. These are not decisions to be made by IT on behalf of the corporation. For example;

- Which employees get smartphones
- Who is authorized to register a web domain for the City
- Which websites staff can access, and whether that activity should be tracked
- What content is saved when an employee retires
- How much space does an employee have in email

For each of these decisions a number of factors need to be weighed, including business impacts, employee impacts and importantly, cost impacts. A standard IT policy framework typically addresses the following areas.

- Acceptable use
- IT Security *

- Backup, recovery, BC and DR *
- Asset lifecycle management *
- Hosted / cloud solutions *
- Data management (lifecycle, privacy) *
- IT procurement processes *
- Email & voicemail standards (including archiving)
- Encryption standards

The IT team should review, revise and augment the corporate IT policy framework in the context of this roadmap, to ensure that it accurately reflects how the City wishes to use and manage technology. The items flagged with an * should be of particular focus for the City.

5.3.2 IT Standards

Documentation of IT technical standards, or SOP's (Standard Operating Procedure's), are important internal documents and tools to help the IT team deliver its mandate and comply with policy directives.

5.3.3 Processes and Methods

"Keeping the main thing the main thing, is the main thing"

Stephen R Covey

The main challenge facing the City is there is too much demand for technology projects. Picking the right technology projects and ensuring that selected projects are executed well is the primary goal for the new IT governance model.

To deal with this the City will create and manage an approved list of active technology projects, for which progress can be reported and monitored at senior levels. It is recommended that the City adopt a 3-step process in considering new technology opportunities; the 3 steps are:

1. Identify
2. Evaluate
3. Select

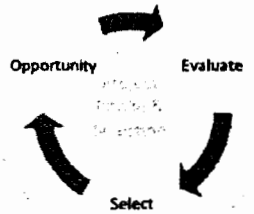


Figure 3: Project Intake and Evaluation

5.3.3.1 Project Intake – Identify

It is recommended that all new projects that include a technology component must be reviewed between the business lead and the IT Manager in sufficient detail to reach a full understanding of the opportunity and the approach.

The business lead and the IT Manager must jointly complete an Opportunity Statement Document (standard to be proposed by the IT Manager), which captures the scope, project size, cost and resource requirements. The IT Manager will complete an evaluation of the technology requirement with the business lead, and depending on thresholds will be in a position to make recommendations to IT Steering Committee as to whether the project can proceed, or whether it should be considered the opportunity.

No projects will be added to the 'Active Project List' without this step being completed.

5.3.3.2 PROJECT PRIORITIZATION - EVALUATE

Evaluation of all projects will be based on two factors: Urgency and Importance.

This will help the City realistically compare disparate projects to ensure the IT Steering Committee can select the highest priorities.

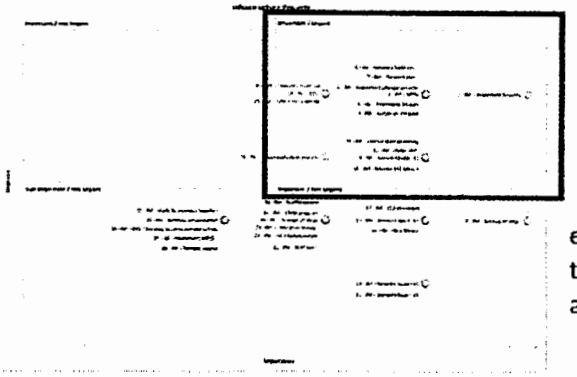


Figure 4 illustrates a sample of results of the evaluation for a collection of IT projects. In this example, the projects identified in the top right hand quadrant are those that the City should focus on as priorities.

Figure 4: Sample Prioritization Grid

5.3.3.3 APPROVED PROJECT LIST – SELECT

The IT governance process, involving IT Manager, Director of Finance and the Steering Committee will determine which projects are added to the Approved project list (based on prioritization and resource availability). The IT Manager will maintain a live 'Approved Project list', which will be published for transparency purposes. This will be the basis for regular (monthly) reporting to the Steering Committee on project status.

5.3.3.4 PROJECT EXECUTION

Selecting the right projects is a good start. Executing the projects effectively is critical. Therefore, it is recommended that the IT Manager lead the adoption of a more formalized methodology for running IT projects.

Many organizations, including municipalities, have adopted the Project Management Institute – Project Management Book of Knowledge (PMBOK) methodology (note other methodologies are also available) for structured project management. This is a methodology that has proven to improve project outcomes and success rates. These methodologies establish a structured approach, with prescribed steps, activities and documentation as integral to the project management lifecycle. Figure 5 below illustrates the key stages and activities of the lifecycle.

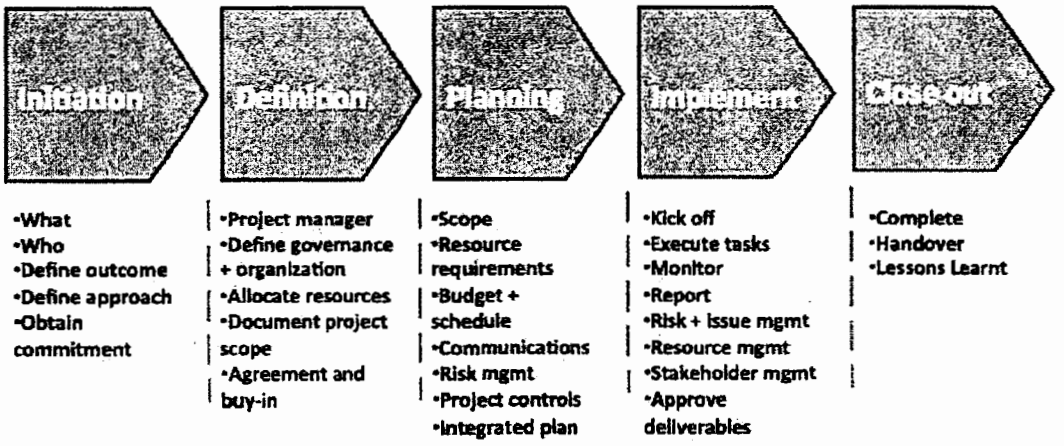


Figure 5: Project Management Lifecycle

It is recommended that the IT Manager work with the IT Steering Committee to introduce an appropriate methodology for the City's IT projects.

5.3.4 Measurement & Reporting

5.3.4.1 Project Portfolio Reporting

Reporting on the status of the project portfolio is important, in order that the IT Steering Committee can monitor both overall portfolio performance and the progress of individual initiatives. The Steering Committee should regularly receive a status report on the Approved Project List. The IT Manager will be responsible for developing the portfolio status report.

As part of the review of the IT portfolio on a monthly basis the IT Steering Committee will review

- Prioritization changes
- Review red and yellow status projects
- Projects due for completion
- Projects due for startup
- New proposals

5.3.4.2 Other Reporting

In addition, the IT team will develop a new set of business-focused metrics to help better monitor the City's performance in executing this roadmap, as well as the day-to-day operations. Topic areas for new metrics include:

- Ideas portfolio (new, transitioning to project)
- Service Requests (volumes, performance against targets)
- Change Requests (volumes, performance against targets)
- Assets (status, investment by category, resource use by asset)
- IT Resource (availability, utilization, allocation)
- Financials (cash flow, budget vs. actual, spend by portfolio category, spend by asset)

6. IT Organization

6.1 Current IT Organization Structure

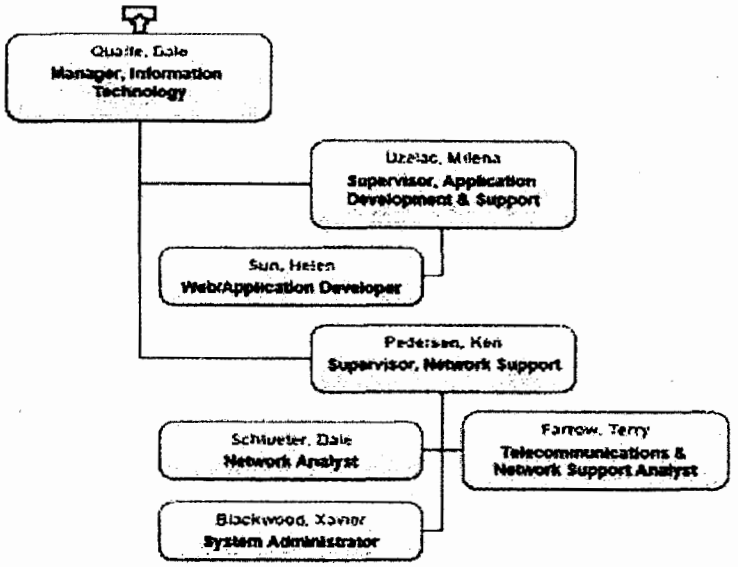


Figure 6: Current IT Organization

A number of staffing risks and challenges emerged during the assessment, including:

1. Having all IT staff involved in support activities leads to high levels of satisfaction, however the reactive nature of this activity diverts from critical project and maintenance activities, in turn leading to project delays and some missed maintenance activities
2. There is insufficient staffing in IT to support the implementation of the services required by the City.
3. The City has one resource focused on web development. The City should focus on leveraging existing products, opposed to in house web development which is resource intensive and difficult to support long term.
4. There is need to separate technical side of database administration back into infrastructure, and application support into Business applications.
5. In addition to the new and changed positions, it is recommended that all of the current job titles and roles and responsibilities of the existing IT positions be re-visited to ensure alignment with the intended roles of the new teams.

6.2 Future Goals for the IT Team

The consulting team has identified the following goals for the IT Team:

1. Transitioning the IT Manager from day-to-day operational responsibilities to focus on IT strategy and planning, business systems, project delivery

2. Reorganizing the team to establish dedicated teams within IT, that allows for specialization in three key areas:
    a. Client Services (help desk and customer support)
    b. Business Applications
    c. Technology Infrastructure
3. Building sustainability into the IT organization by:
    a. Addressing the staffing gap
    b. Increasing staffing to support Business Applications (based on identified strategic directions)
    c. Re-allocating some staff to roles that best suit their capabilities

6.3 Proposed IT Organization Structure

Ideally the IT Department would be set up to specialize in three teams to address all the different functions and requirements around technology implementation and support. The following is a best practice breakdown of the different job functions:

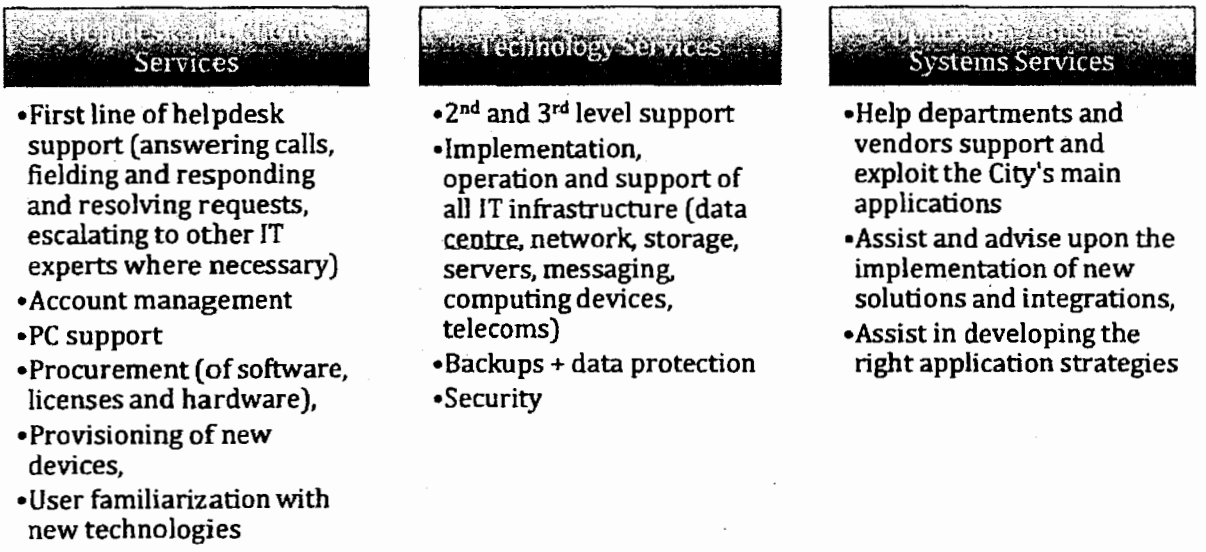


Figure 7: Recommended IT Organization Structure

The following table outlines the recommended resources, the timeframe for their new positions to support strategic plan activities and the rationale for the new position.

Year	Resources	Rationale
2016	Supervisor, Client Services	Transforming the user experience of IT is a top priority. This requires a leader who has experience running a service desk, that can dedicate the time required to redesign services and processes, and help staff through the transition.
2016	Help Desk Technicians (2)	Front-line Help Desk Technicians provided much-needed immediate response support. They are able to resolve the majority of routine support requests at point of contact. They will perform initial triage on other calls before escalating to a more senior IT resource. This frees up the senior resources to focus more on projects and major issues. (to be funded through existing FTE change)
2016	DBA (Database Administrator / Analyst)	The IT team requires more DBA capacity, initially this in order to transition database activities that departments have taken on, and to support future work on reporting, data standards and integration.
2016	Network Security Analyst	This is a senior IT position with a focus on security and network expansion. Security is a growing concern for any organization and requires more daily monitoring and planning.
2017	Business Analyst/Project Manager	Dedicated business analyst / project management staff, with training and experience will be critical resources to help translate business needs into systems requirements, and then help implement the projects. Creating this position will help ensure that the IT Manager can be less involved in leading projects – and more focused on strategy and developing team capabilities. See section below for more details re: Business Analyst function.
2017	Application Administrator	For major business applications, the City should hire Application Administrators to fully support the applications – to accelerate the implementation of new capabilities, but also to ensure that as the systems are more broadly adopted, support can be provided in a sustainable way. This recommendation is for an Amanda or GIS Application Administrator to start.
2017	Application Administrator	See rationale for Amanda Application Administrator. This is recommended for an ERP (FIS) Application Administrator – which will bring

Year	Resources	Rationale
		the complement to two. Serious consideration should be given to adding this position to support the new FIS requirements and potential solution.
2018	Business Analyst/Project Manager	See rationale for BA/PM.
2018	Help Desk Technician	A third Help Desk Technician to handle to expected growth of the City as well as the increased reliance on technology.
2019	Web and digital coordinator	No staff member currently has responsibility for the web. Given the importance of the web as a communications and customer service vehicle a coordinator is required to spearhead web, social media and other digital activities.
2019	Web Analyst / Developer	To support the ongoing growth of web and e-Services, the City should expect to retain in-house analyst / web developer capabilities within the IT department.

6.3.1 Business Analyst

Larger organizations separate out IT roles, because specialist skills are required for different functions – it is unusual and difficult to find staff that are good at all of the roles required in IT. For example, in larger municipalities, the Project Manager, Business Analyst, System Analyst, Network Specialist, Helpdesk Analyst (and many others) are separate job roles. At Pickering, the small team tries to cover off all the different roles.

Technology projects represent an opportunity to streamline business processes, reduce duplication, make processes more customer friendly/accessible as well as faster and more efficient. However, this is dependent upon conscious effort being applied to rethinking business processes before any implementation of technology begins. To be successful before an IT project can begin or a technology solution can be chosen, the business problem must be fully explored and understood, the project must be scoped, and the scope agreed with all stakeholders. Without getting this part right, the City may implement the wrong solutions, to the wrong problems, with unsatisfactory and costly results.

Leading this definition of the needs of the organization requires different skills from the technical skills required to ultimately implement the chosen solution. The Business Analyst role brings the skills of process analysis and process improvement, which can be put to use on more broad corporate and departmental projects that do not necessarily involve technology.

6.3.2 Contracting Positions

It is also important that the City recognize the significant resource demands of some of the major projects identified such as Work Management and Document Management. These are significant undertakings that will require fully allocated resources with previous experience. When undertaking such significant projects, the City should consider funding contract staff (e.g. project manager, analysts) as part of the overall capital project, to resource the project and to backfill existing resources both in IT and the departments.

6.4 Opportunities for Partnership

The City is fortunate to be located in an area that is fertile for partnership working. Moving forward there will continue to be a wealth of opportunities to work with partners. Given the size of the City and some of the challenges this presents – specifically the limited availability of technology and software solutions for small to medium sized municipalities - the City should always be seeking to identify partnerships with other municipalities and Durham Region that could help the City implement a shared solution (with lower operating costs) or provide a higher caliber solution than the City could realistically afford independently.

6.5 IT Service Delivery- the Help Desk

To accommodate the new demands and to achieve the goals laid out in this roadmap, further IT service improvements are also recommended. IT service delivery must become more agile and responsive to new and emerging needs as well as become more proactive and strategic.

Partnerships are built on trust, and unless departments can rely on IT for basic services, they are unlikely to trust them with such complex activities as business transformation. It will be very important tactically for the IT team to earn its credibility by making significant improvements to this service. Improving the help desk service is therefore a priority for IT and the City. A number of organizational recommendations are made to help give the help desk authority within IT, to gain more focus, attention and improve its services.

- Establishing IT helpdesk standards and expectation, including the prioritization of incidents
- Implement a new help desk system and processes
- Develop a formalized after hours IT service –by/call out)
- Establish change management procedures
- Strong IT governance to prioritize projects and deliver on corporate requirements

6.6 Adopt a Hybrid Delivery Model

Traditionally the IT team has undertaken most of its work in-house, occasionally contracting out specific tasks where technical expertise has been required. The reality of current IT departments, particularly with smaller teams, is that maintaining all of the necessary skills and resources in-house to manage the complex technical environments is impractical. To do so would mean hiring a large number of additional and specialized staff.

Smart IT organizations rely on a small team of in-house staff who in turn work with a network of trusted partners, vendors and solution providers to deliver the required services. The focus is on "getting it done" rather than IT staff figuring out how to do it themselves. This is a hybrid model of IT service delivery that relies on a combination of internal IT and business skills and market based expertise and services. Ultimately this means the IT team and the IT manager take on the new role of coordinator of IT services.

Some of the IT systems that the City operates are specialized for the municipal business such as tax management and building permit systems. Some technologies however, such as networks, servers, file storage and email are more generic. It is recommended the IT team secure the ongoing services of a third party technology provider on a retainer basis to support and mange the complex technical environment, under the direction of the IT Manager.

6.7 Resource Technology Projects Appropriately

One of the key reasons that projects fail is simply due to the lack of resources allocated during implementation. Major corporate projects such as those the City is now considering (e.g. Document Management, Asset Management) are complex, business transformation solution, and typically need far more resources to successfully implement them than initially expected. The current list of demands to implement new solutions and improve existing solutions far outstrip the IT (and departmental) resources of the City.

It is clear from experience that projects face particular challenges in securing the level of staffing needed for effective project management, configuration, implementation and training. The resource constraints impact both IT and the departments. It is particularly important to secure departmental buy-in as part of the planning process to ensure that the need for appropriate subject matter experts is acknowledged and supported.

Some key suggestions in terms of resourcing projects and initiatives include:

- For major projects, resources must be dedicated (projects cannot be in addition to existing day-to-day responsibilities); in future backfilling resources should be considered as part of original project funding requests (and should be funded through capital budget).
- Where appropriate, specific skills needed for a defined period of time should be secured externally.
- Projects should not commence until the right level of resources can be committed, which should be enforced by IT Steering Committee and the project management methodology.
- The City must be realistic about the capacity that they have to deliver major IT projects (1–2 large projects in any one year).
- All projects that implement a solution will have ongoing operational impacts (maintenance, licensing and operational support costs) therefore future operating funds must be considered and included in the budget at the time of purchase.
- One approach that many other municipalities have embraced is utilizing more external resources and funding these resources through capital project funding. When new staff cannot be hired, external resources can be used to support both operational and project initiatives – to relieve internal staff to focus on value added services.
- External resources can be in the form of:
    - a consultant on a term and task basis,
    - an in-house contractor (short term 1-2 year contracts on a project basis),
    - or a service provider.
- Backfill departmental resources to ensure dedicated project availability (e.g. Business Specialists); for example, if the City plans to implement a new HR system it should look to backfill (with a short term resource) a senior member of the HR team to work/lead the project. This person will return to their permanent job at the end of the project thus ensuring that key knowledge is retained within the City
- Application development and application support may be provided by vendors (e.g. Amanda)

6.8 Building Trust

As has been noted throughout the document successful business transformation comes through a combination of people-process-technology. IT, in partnership with the business units *are* responsible for the technology component – but departments are responsible for the people and process elements.

Developing stronger trust and partnership between business areas and IT will be critical to the City's ability to approach technology in a new way, and to successfully deliver this strategy.

Figure 8 illustrates the transition that is required – moving from an IT organization that is focused upon keeping the lights on, to a trusted supplier, to a proactive business partner.

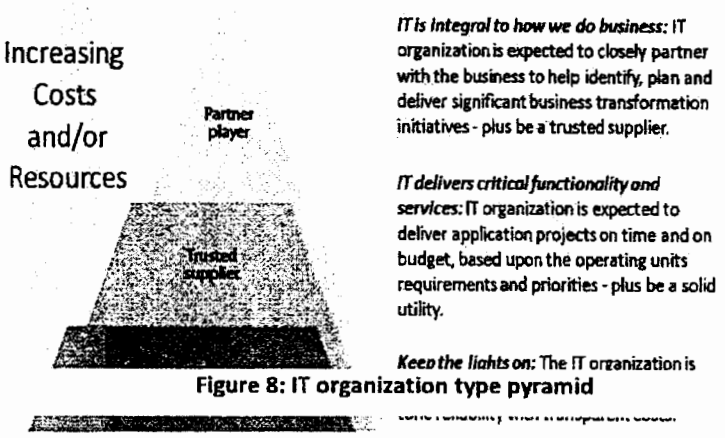


Figure 8: IT organization type pyramid

The strengthening of the governance arrangements through the new IT Governance framework recommended in Chapter 5 is one mechanism that is designed to foster stronger partnership and joint working between business units and IT.

The leadership of IT will become more connected to the departments and providing stronger leadership around the Enterprise Architecture and Enterprise Business Systems.

The IT Manager will continue to build strong relationships with other managers and directors, regularly meeting to communicate plans and directions, discussing business strategies, goals, and the ways in which technology can support those goals.

However, simply put, the City needs a better IT team. One that works effectively together, both between the teams inside IT, and with staff in departments, one that has the right skills and resources to execute, and one that has a customer centric mindset.

7. Conclusions and Major Recommendations

In summary, the City has made progress on technology initiatives over the past number of years. However, the reliance on current technology and the ever-growing demand for new solutions dictates additional resources in the IT division, as well as Senior Management attention in terms of IT governance.

The roadmap makes a range of recommendations with regard to the way in which the City approaches and manages technology. Each is designed to ensure that the City can be more effective in dealing with technology. The key recommendations are:

1. Receive the assessment findings, and acknowledge the identified gaps and risks

2. Adopt the municipal architecture as a framework for IT decision making, and follow the 'bottom up' concept it reinforces
3. Adopt the recommended IT governance framework, including:
    a. Establishing a corporate IT Steering Committee to oversee technology decision making and priorities
    b. Establishing a project intake and prioritization process,
    c. Maintaining an approved IT project list, with only projects that are fully evaluated and resourced
    d. Revising corporate IT policies
    e. Reporting to communicate IT effectiveness
4. Grow the IT Team, by:
    a. Establishing a dedicated 'helpdesk' function
    b. Planning to add additional IT positions over the next 5 years to address the resourcing requirements
5. Improve core IT services through a focus upon:
    a. Establishing helpdesk service standards and formalizing the IT helpdesk service
    b. Improving change management practices
    c. Adopting industry standard approach to project management
    d. Providing after hours IT support
6. Continue investment in core infrastructure initiatives, to establish a modern, flexible, scalable, reliable and secure shared technology environment, including:
    a. Technology asset management and lifecycle
    b. Long term network strategy and build out
    c. Security
    d. Disaster recovery planning and readiness
7. Determine the direction for core business systems, and implement new business systems to address key gaps.
8. Continued investment in technology, as a driver of efficiency and improved customer experiences. Investments will be overseen by the IT Steering Committee, and will be managed through the corporate budget process, using this strategy to guide the priority setting.

This roadmap recommends a range of municipal IT best practices. By adopting the recommendations presented here, particularly with regard to staffing and governance, the City will be position itself well to deal with the ever-growing demands of delivering efficient and effective services in a municipal environment.

Appendix A – G.I.S. Review

The City of Pickering has a Geographic Information System (GIS) with the following components:

GIS technology platform

- The City's GIS platform is built around ESRI GIS products, a widely used GIS software, consisting of ArcGIS desktop software, ArcGIS Server software, ArcSDE database (that uses Microsoft SQLServer Database Management System)
- In addition, AutoCAD drawing systems are used by Engineering & Public Works Department for engineering and technical designs and drawings (which in many cases use the GIS property layer as base)
- Rolta's Onpoint Web GIS to provide Web based viewing access to the GIS data for the more occasional users

GIS data

The scope of GIS related data that have been created in the GIS ArcSDE database includes:

- Property/parcel data with the base property data provided by MPAC (Municipal Property Assessment Corporation) monthly and continuously maintained by the City Development department staff to ensure that the property boundaries, ownership and address data in the City are more up to date (relative to the frequency of data provision from MPAC)
- Street network as provided by Durham Region and maintained by the City Development department staff
- Planning data (Local Official Plan, Zoning, Development Applications) created and maintained by the City Development department staff
- Digital Airphoto (via sharing agreement with the Region) updated yearly
- Storm Water data as provided by Durham Region on a yearly basis
- Water Hydrant data as provided by Durham Region on a yearly basis
- Street light data
- Park details, initially created as part of the PSAB Tangible Capital Asset project
- Natural resources data as provided by Ministry of Natural Resource's LIO (Land Information Ontario) facility

GIS Applications

The main applications for the GIS system include:

- Property/parcel, street network, address information
- Regular mapping products and outputs (e.g. local official plan, zoning maps, park trail maps)
- Mapping and data support for planning projects (e.g. location maps, geographic analysis, data extraction)
- Data provision (e.g. data extraction of base mapping information to support Engineering design) and data analysis (e.g. geographic analysis, reporting, queries)
- Provide the capabilities for mapping view via integration with CSDC Amanda system (Permitting, Development Applications, Enforcement, Service Request)
- Information inventory and data provision (e.g. Storm, Hydrant, Streetlight)
- Vacant land inventory
- Information product such as quarterly publication of Active Development Applications list

- Viewing of GIS information via the Rolta's Onpoint Web Mapping platform

User Community

There are two power users of the GIS system, who access the system directly use the ESRI desktop software to import data, create data, maintain data, and use the data for analysis, production of mapping products and reports. They are located in the City Development department. Otherwise there are no regular direct users of the GIS software (i.e. using the ESRI GIS software functionality directly).

Indirect access to GIS data is available via the Onpoint Web Mapping product (for viewing access only). However, the implementation of the product was quite limited and there are very few users thereof.

There is also viewing access to the GIS data via the Amanda to GIS interface, within the context of the functionality of Amanda (e.g. in the context of permits and development application processing).

Information Technology Services provide GIS software platform support (software and database installation and maintenance) through its DBA (Database Administrator).

Issues

Software:

- The GIS software is a couple of versions behind. A software upgrade is planned.
- The performance of the software is not an issue.
- Workstation performance is reasonable for GIS functionality. However, dual monitors workstation configuration would enhance the usage efficiency for the power users.

Data and applications:

- Other than noted above (power users and Amanda interface), the City's GIS data and functions have not been widely used and leveraged.
- Onpoint (Web GIS viewer) implementation was very limited and the functionality of the software itself has fallen behind somewhat in the past few years. The product is planned to be replaced by a more robust GIS Web mapping product GeoCortex (for distributing GIS functionality to the occasional users, including public users, and for integrating with myriad public open source data).
- Given the limited implementation of Onpoint, the user base is limited and the GIS data and functionality are therefore not leveraged.
- City's policy is not in place to support the offering of GIS data and Web functionality for the public. GIS offers a convenient and effective method of providing "what is there" type of information (events, road closures, road projects, planning projects and applications, etc.) to the public via the City's Web site.
- Among City staff, there is not a good level of awareness of the GIS data and functionality and applications

Recommendations

The implementation of GeoCortex provides an opportunity to establish a prominent GIS presence for both internal and external users. The software capabilities to support occasional users are well regarded. Much of the data foundation is in place. The initial functionality (internal and external) can be readily established.

However, a planned and resourced implementation, with the wider user participations, is required to ensure a more robust roll out.

As part of the GeoCortex project, it should be considered as providing the platform to serve the "what is there" type of applications (that have geographic context) to the public users, with the mapping functionality allowing for a more convenient and efficient method to offer the information.

Information Technology should provide overall project management for the GeoCortex project. It should also provide technical implementation resources for database setup, limited complementary development, integration, technical configuration, etc. The power users and other end users will participate for requirements articulation, output definition and layout, testing, review and so on.

GIS software and application implementation should be managed in the same way as other systems, with technical implementation resources (project managers, analysts, developers) from Information Technology Services, supplemented by user resources (requirements definition, and roll out participation). GIS software technical training for these IT resources is needed (as in the case of other systems) so that they are aware of the nuisances and particularity of the GIS software. GIS is moving more mainstream and is just another system with capacities for geographic data processing and presentation.

Given the limited resources in Information Technology Services for system implementation, additional resources are needed for GeoCortex implementation. A minimal resource level of 6 person month of IT implementation resource is needed, plus end user participation. On a continual basis, an allocation of 3 to 6 person months of resources annually is required for new or enhanced functions in the public Web usage area.

Power users, mapping and cartographic expertise should continue to reside in user departments. It would not be efficient for Information Technology Services to provide such specialized services that also require detailed knowledge of data context.

Resources for creation and maintenance of GIS data should continue to reside in the corresponding "owner" departments. Being the owner of the data, they understand the data and its context, and are in the best position to work with the data that flow through their departments.

Basic data documentation should be developed to document the existence and context of the GIS data (data contents, currency, ownership, etc.).

Appendix B – Benchmarking Study

The City is under-invested in technology when compared to peers

Deloitte compared the City's operating and capital spend on information systems against comparable municipalities in Ontario. The data is gathered from publically available sources and classifications of spend may differ across municipalities. The municipalities include:

- Niagara Falls;
- Clarington;
- Chatham-Kent; and
- Ajax.

The table below demonstrates that the City is below average in all four financial metrics measured indicating an under-investment in technology. It is noted that one of the comparator municipalities has undergone a recent ERP implementation which results in higher capital and operating investments in IT.

Metric	Niagara Falls	Clarington	Chatham -Kent	Ajax	Average of comparators	Pickering
2014 IT operating budget/constituent	$23.09	$3.39	$25.21	$17.69	$17.34	$8.70
2014 IT capital budget/constituent	$4.28	$4.32	$0.01*	$4.40	$3.25	$2.14
2014 IT operating spend as a % of total operating budget	1.90%	0.47%	1.76%	3.00%	2%	1.30%
2014 IT capital spend as a % of total capital budget	1.26%	2.26%	9.01%	1.77%	4%	0.36%
Population	82,997	87,700	103,671	109,600	95,992	88,721

*Chatham-Kent is completing an ERP implementation and had high amounts of capital IT dollars allocation in 2011-2013, however 2014 dollars are minimal as the transition completes and costs shift to operating

	Ajax	Aurora	Cambridge	Clarington	Waterloo	Newmarket	Pickering	Median (All)
IT Leadership	IT Manager	IT Manager	Director of Technology Services	IT Manager	Director IT	Director, IT	Manager, IT	
Reporting	Legislative and Information	Corporate & Financial Services	Corporate Services	Corporate Services	Corporate Services	Corporate Services	Corporate Services	
Centralized?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
GIS	Yes	No	Yes	Yes	yes	Yes	No	
Web/ CMS	No	No	No	No	IT and Communications	IT and Communications	No	
FTE	11	11	25	9	20	14	7	
Contract Staff	0	0	0	0	0	4	0	
Total IT Staff	11	11	25	9	20	18	7	
IT people in depts.	Tech support - Library	0	Asset Management Team (6)	0	1	1	0	
Application Support	Through IT Help Desk. Then escalated to appropriate staff.	IT. One application (Maximo) is supported in Engineering Dept.	IT supports. IT will escalate to vendor	IT provides primary support and vendor contact. "Peer support" for application issues.	IT Supports all but Maximo is supported by dept.	front line support. 2nd level escalation to other IT staff. 3rd level to vendors.	IT	
Formalized Helpdesk	Yes, KACE	Yes. BMC Track-It!	Yes - new client service division being created. Heat for tracking calls.	Yes, inhouse solution	Yes - Track-IT	Yes	Yes - Alloy Navigator	
Formal Out of Hours	Yes, password resets, total application, WAN, Phone failures	No	Yes. Policy currently under review	No. IT Manager on call.	Yes 24x7	Yes - SLA's established for different dept requirements	No. Manager and Supervisor are called	
Population	130000	56700	132000	85,000	98780	86,000	95000	
Users	500	400	602	630	550	521	624	
Employees	630	498	700	616	600	832	678	
Workstations	344	291	750	340	600	404	300	
Telephony	300	270	447	150	586	584	414	
Smart Phones	45	114	143	90	222	214	75	
Cell Phones	100	50	150	60	135	63	74	
Radios	0	0	140	0	50	0	31	
Town / City Operating	49,000,000	74,412,700	111,500,000.00	172,655,144	$ 171,300,000	$ 112,926,115	$ 55,336,613	
Town / City Capital	28,000,000	17,932,600	63,000,000.00	79,561,987	$ 71,800,000	$ 29,333,475	$ 24,984,853	
IT Operating	1,800,000	1,807,458	4,846,954.00	1,500,000	$ 3,320,366	$ 2,834,374	$ 1,449,578	
IT Capital	550,000	72,800	1,408,000.00	400,000	$ 1,049,672	$ 955,525	$ 432,375	
Total IT Spend	2,350,000	1,880,258	6,254,954	$ 1,900,000	$ 4,370,038	$ 3,789,899	$ 1,881,953	
IT Governance	No	Yes. BMC Track-It!	yes - steering cte	No	Not any more	Yes - Executive Team & IT Director	No	
Decisions	IT Manager recommends to Senior	Steering Committee	Steering Cte	IT staff	CFO & Corporate Management Team	IT Director recommends to Executive Team	IT Manager	
IT Strategy	Yes	expired 2014	Yes	No	Yes	No	No	
Calculations								
IT staff per 100,000 residents	8.5	19.4	18.9	10.6	20.2	20.9	7.4	18.
IT Staff % of total staff	1.7	2.2	3.6	1.5	3.3	2.2	1.0	2
IT users per IT staff	45.5	36.4	24.1	70.0	27.5	28.9	89.1	36.
% of IT operating of Total Operating	3.7	2.4	4.3	0.9	1.9	2.5	2.6	2
% of IT capital of Total Capital	2.0	0.4	2.2	0.5	1.5	3.3	1.7	1
IT Spend as % of Operating	4.8	2.5	5.6	1.1	2.6	3.4	3.4	3
Total IT Spend as % of Total City Spend	3.1	2.0	3.6	0.8	1.8	2.7	2.3	2
IT Cost per capita	18.1	33.2	47.4	22.4	44.2	44.1	19.8	33.
IT Operating	76.6	96.1	77.5	78.9	3919.9	2979.7	2940.4	96.
IT Capital	23.4	3.9	22.5	21.1	1643.0	774.0	1327.6	23.
PC: IT Staff	31.3	26.5	30.0	37.8	30.0	22.4	42.9	30.
$$ per staff	$ 3,730.16	$ 3,775.62	$ 8,935.65	3084.42	$ 7,283.40	$ 4,555.17	$ 2,775.74	3775
$$ per PC	6831.4	6461.4	8339.9	5588.2	7283.4	9380.9	6273.2	6831

Appendix C – Current Project List, and Work Plan

The following table provides a detailed list of all of the current projects as categorized by the technology architecture. These are intended as a guide only, and the Steering Committee will be responsible for setting the annual priorities and the investment levels.

Projects	Layer	Sublayer	Why	Status
Ping Street	Customer Facing Systems	Customer Service Platforms	Keep Current / Functionality	In Progress
C&R - Membership Email Facilitation	Customer Facing Systems	Customer Service Platforms	New Service / Tech Trend	In Progress
IT Strategic Plan	Governance		IT Service Management	In Progress
On call / After-hours support	Governance		Service Improvement	In Progress
IT Organizational Review	Governance		Service Improvement	
Change Control Process Implementation	Governance		Maintenance	
Operational and Capital Budget	Governance		Financial Management	In Progress
Smart and Intelligent Durham	Governance		Residential Services / E.D.	In Progress
IT Service Request Management Review	Governance		Efficiency	
Pay Phone Replacement	Infrastructure	Corporate Infrastructure Applications	Bell / Cost Savings	In Progress
Alloy Navigator - Configuration for Service Mgmt	Infrastructure	Corporate Infrastructure Applications	Service Improvement	
Citrix Upgrade	Infrastructure	Corporate Infrastructure Applications	Keep Current / Functionality	In Progress

Mobile Device Management Process	Infrastructure	Corporate Infrastructure Applications	Risk Management	
Oracle RMAN Implementation	Infrastructure	Storage	Keep Current / Functionality	In Progress
Dell Compellent Upgrade / REC COMP	Infrastructure	Storage	Service Improvement	In Progress
DRP	Infrastructure	Disaster Recovery	Risk Management	In Progress
Planning / Replacement Scanner/Copier	Infrastructure	Essential Infrastructure Services	Maintenance	In Progress
Bell / Rogers Rate Plan for Cell Phones	Infrastructure	Essential Infrastructure Services	Cost Savings	In Progress
Help Desk Software (Alloy Nav) Upgrade	Infrastructure	Essential Infrastructure Services	Keep Current / Functionality	In Progress
Facility Review for Claremont - Phones, Network, etc.	Infrastructure	Essential Infrastructure Services	Maintenance	In Progress
Blackberry Server Decommissioning	Infrastructure	Essential Infrastructure Services	Cost / Compliance	
Tape Backup Review / Backup Design	Infrastructure	Essential Infrastructure Services	Cost/Compliance	
What's Up Gold - Upgrade and Configuration	Infrastructure	Essential Infrastructure Services	Systems and Network Mgmt	
PCI Compliance Review	Infrastructure	Essential Infrastructure Services	Risk Management	
Office 365 Review	Infrastructure	Essential Infrastructure Services	Keep Current / Functionality	
GFI Upgrade	Infrastructure	Essential Infrastructure Services	Keep Current / Compliance	

Civic Complex - Wi Fi (Next steps)	Infrastructure	Network	Consistency	In Progress
Rogers/Radiant MPLS Network Review	Infrastructure	Network	Increase Reliability	In Progress
Cisco Network / Cleanup / Upgrade / Replacement	Infrastructure	Network	Keep Current / Performance	In Progress
Library Wi-Fi System Upgrade	Infrastructure	Network	Service Improvement	
Firewall Replacement	Infrastructure	Network	DRP/Functionality	In Progress
City Wi-Fi Expansion	Infrastructure	Network	Service Improvement	
Monitoring and Reporting System Evaluation	Infrastructure	Security	Availability	In Progress
Security Assessment - Pen Test	Infrastructure	Security	Security	In Progress
Security Monitoring Review	Infrastructure	Security	Risk Management	In Progress
Desktop Application Patching / Updates	Infrastructure	Security	Security	
Network Security - Managed Services Review	Infrastructure	Security	Risk Management	
McAfee AV - VM / Network	Infrastructure	Security	Security	
Desktop Management Strategy	Infrastructure	Servers&Desktops	Maintenance	In Progress
HP Chassis Upgrade / Replacement	Infrastructure	Servers&Desktops	Keep Current / Performance	In Progress
HP Blade Server Replacement	Infrastructure	Servers&Desktops	Keep Current / Performance	In Progress
Desktop Hardware Purchase / Build	Infrastructure	Servers&Desktops	Functionality	
Desktop OS Imaging Solution	Infrastructure	Servers&Desktops	Efficiency	

Desktop Patching Solution Review	Infrastructure	Servers&Desktops	Compliance	
Monitor Replacement Review for Eng and PW	Infrastructure	Servers&Desktops	In Budget	In Progress
VMWare Upgrade 5.1 to 5.5	Infrastructure	Servers&Desktops	Keep Current / Functionality	In Progress
Backup Solution Review	Infrastructure	Storage	Everything	In Progress
Dell Compellent Controller Upgrade - CIV	Infrastructure	Storage	Keep Current / Performance	
Backup using VEAM / RDM - VMDK	Infrastructure	Storage	DRP/Functionality	In Progress
Open Data / Big Data	Integration	Dashboards/Performance Reporting	New Service / Tech Trend	
ESRI Upgrade	Integration	GIS	Keep Current / Functionality	In Progress
Fire Services Mobile Inspections Solution	Major Business Systems	Dispatch and RRMS	Keep Current / Functionality	In Progress
Emergency Management Configuration - Civic Complex	Major Business Systems	Dispatch and RRMS	Risk Management	In Progress
Fire Services - Crysis Device Review	Major Business Systems	Dispatch and RRMS	Service Improvement	In Progress
EOC - Claremont - Configuration and Testing	Major Business Systems	Dispatch and RRMS	Risk Management	In Progress
Laser Fiche Licensing Review	Major Business Systems	Document&Records Management	Cost / Compliance	In Progress
Laser Fiche Forms Module	Major Business Systems	Document&Records Management	Keep Current / Functionality	In Progress
Library Printing Solution Review	Major Business Systems	Document&Records Management	Service Improvement	
Corporate Print Solution Review	Major Business Systems	Document&Records Management	Service Improvement	

Facilities Management System	Major Business Systems	Facilities	Functionality	In Progress
Geocortex Implementation	Major Business Systems	GIS	Service Improvement	
Amanda RFS Implementation	Major Business Systems	Infrastructure, Asset Mgmt	Process	In Progress
Asset Management System	Major Business Systems	Infrastructure, Asset Mgmt	Maintenance	In Progress
GPS Tracking System for City Vehicles	Major Business Systems	Infrastructure, Asset Mgmt	Service Improvement	
C&R Court Booking Application	Major Business Systems	Recreation	Service Improvement	In Progress
Fire Services - Fire Site Facility System	Major Business Systems	Other	Service Improvement	
Road Patrol	Major Business Systems	Planning, Permitting, License, Inspection	Compliance	In Progress
City Reporter - Parks Inspections	Major Business Systems	Planning, Permitting, License, Inspection	Compliance	In Progress
Bylaw Enforcement App	Major Business Systems	Planning, Permitting, License, Inspection	Keep Current / Functionality	
Amanda System Upgrade - Permits	Major Business Systems	Planning, Permitting, License, Inspection	Keep Current / Functionality	
Class System Review	Major Business Systems	Recreation	Software Upgrade	
Weblink Upgrade / Review	Major Business Systems		Service Improvement	In Progress
Adobe SW Upgrade / Cloud Connect Design	Major Business Systems		Software Upgrade	

Proposed Work Plan and Schedule

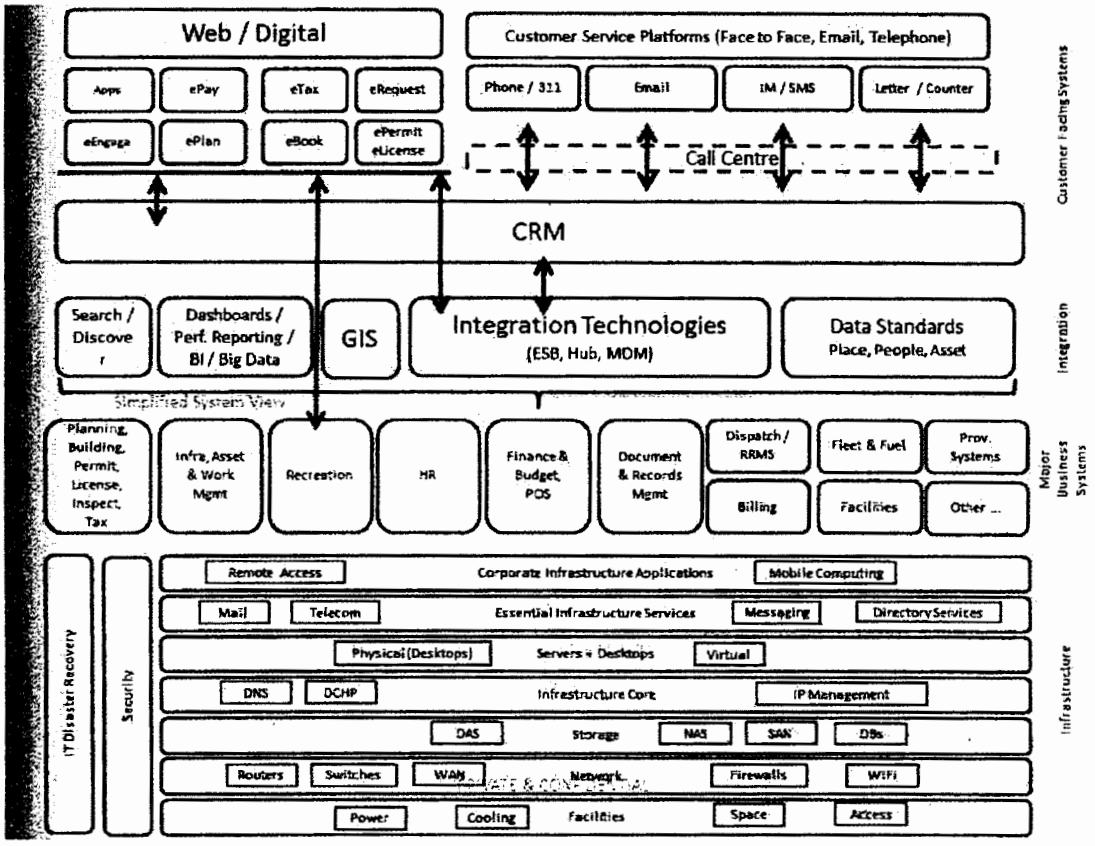
This work plan represents the recommendations included in this Technology Review and Roadmap combined with the highest ranked projects on the current IT Department's Project List.

Projects	Est. Total Budget	Est. OpEx Impacts	'15	'16	'17	'18	'19
Infrastructure	-	-					
Cisco Network / Cleanup / Upgrade / Replacement			■	■	■		
Citrix Upgrade			■	■			
Firewall Replacement			■	■			
Dell Hyperconverged Infrastructure Implementation			■				
Dell Compellent Upgrade / REC COMP			■				
EOC - Claremont - Configuration and Testing			■	■			
Dell Compellent Controller Upgrade - CIV			■				
Review and upgrade where needed, remote facility connectivity				■	■		
Build a test environment				■	■		
Mobile Device Management Plan				■	■	■	
Backup using VEAM / RDM-VMDK			■	■			
Identify Meeting Room technology requirements and upgrade where appropriate.				■	■		
Business Systems	-	-					
Develop a business application inventory and lifecycle plan.				■			
Laser Fiche Licensing Review			■	■			
ESRI Upgrade			■	■	■		
Geocortex Implementation			■	■			
Class System Review			■	■	■		
C&R Court Booking Application			■	■			
Fire Services - Fire Site Facility System			■	■			
Amanda System Upgrade – Public Portal, etc			■	■	■		
Facilities Management System			■	■			
Citywide Asset Management Reconciliation			■	■			

Projects	Est. Total Budget	Est. OpEx Impacts	'15	'16	'17	'18	'19
Customer Facing	-	-					
C&R - Membership Email Facilitation			■	■			
Supporting Activities	-	-					
Governance	-	-					
Establish IT Steering Committee	-	-	■	■			
Establish project intake and evaluation process	-	-	■	■			
Setup project reporting	-	-	■	■	■		
Establish project management process	-	-	■	■			
Develop IT Standards, procedures & policies			■	■	■	■	
Identify budget planning – plan for the future and sustainability				■			
IT Organization	-	-					
Develop an IT Vision & mission – team-building			■	■	■		
Revamp all IT roles and responsibilities / service delivery standards	-	-	■	■	■		
Operational and Capital Budget Management			■	■	■	■	■
Review all IT job descriptions (take through the JIQ process)	-	-	■	■	■		
IT Organizational Review – add new positions to properly resource IT to support the City's goals.			■	■	■	■	■
IT Service Improvements	-	-					
Set IT Helpdesk service expectations and implement supporting processes	-	-	■	■			
Implement self service tools (e.g. password resets)	-		■	■			
Formalize after hours IT support	-			■	■		
Establish change management processes, including change window	-	-	■	■	■		
Review IT recharge mechanisms	-	-		■	■		
Review device provisioning annually	-	-	■	■	■	■	■
Develop a user training program				■	■	■	
Ongoing System Upgrades & Maintenance	-	-					
CapEX and Opex Budget Forecast			■	■	■	■	■
System Maintenance upgrades			■	■	■	■	■
Annual software licence renewals			■	■	■	■	■
Totals							

Appendix D – Architecture

The following section introduces and explains the Prior & Prior technology architecture.



The diagram illustrates Prior & Prior's Municipal 'Enterprise Architecture'

There are four layers. The layers are interconnected. That is each entity within a layer relies upon the other layers for City staff to deliver services to internal and external clients.

Infrastructure: The core underlying technology infrastructure, or computing environment (such as networks, servers, PCs, database, data storage, telephony and security), that provides staff with access to critical computing resources, the Internet, communications tools and business systems. The technology infrastructure provides the necessary technology to staff and the public, in a reliable and secure manner, that is backed up and ready to support business continuity in the event of an emergency. The infrastructure the City provides reflects the needs of the users, is nimble and responsive to new technologies (e.g. tablets, smartphones, file sharing) and changing business norms (e.g. video conferencing, screen sharing) and enables rather than blocks staff from being effective in their jobs.

Business Systems: The business systems (such as Great Plains, Land Manager, Work Manager, CLASS, GIS) that are used to run the department's day-to-day business operations (e.g. track applications, dispatch fire trucks, issue building permits, book recreation classes and take customer payments). The goal here is to minimize the number of major business systems that the City operates. A small number of shared corporate wide business systems are needed to tackle common themes and business

processes (land and property, assets, financial, human resources and spatial), digitally connecting cross-departmental business processes. In addition, many point solutions that enable specific areas of the business, Fire dispatch for example, are operating with a clear support model in place. All of the business systems rely upon the underlying infrastructure to allow them to operate (e.g. databases, servers, network and a PC). Without reliable infrastructure, business systems will not be effective.

Integration: These are the tools, technologies and data standards that allow information from separate business systems to be connected and combined. This integration minimizes work for staff by reducing the amount of duplicate data entry. It also allows staff to easily source information and enables management to gather insights and identify trends and patterns that will help them manage their services more cost effectively. Setting and enforcing common data standards across systems is central to enabling the City to build a common view across all departments of the interactions it has with customers or with properties. GIS ties together all of the work the City does as well as its interactions with a given location, enabling power analysis and spatial trend identification.

Customer Facing Systems/Customer Access Channels: These are the services such as the website, telephone and face-to-face services, with which the City's customers interact directly. Beyond providing information for customers to self-serve, the web should be viewed as a customer service platform.

Using the web (and apps) and web technologies, customers should be able to interact directly with the City – submitting and tracking service requests and enquiries, applying and paying for services, booking City facilities and other routine and complex services. Web apps, and smart phone apps should interact with business systems to feed requests and applications directly into the systems that back office and field staff use to process them. In some cases, back office solutions may have public facing components which can be integrated into the City's website. In other cases, solutions that use the integration layer to pass customer requests through the CRM and into the back office systems will need to be built. This allows the CRM to keep a consistent record of interactions between individuals and the City, irrespective of the department with which they are interacting.

All of the layers are interconnected. Without a stable, secure, infrastructure layer, reliable business applications cannot support efficient and effective service delivery. Without these back-end applications, delivery of integrated end-to-end online services cannot be achieved. And without the integration layer, information remains locked within individual application silos.

The architecture must be implemented from the bottom up – there is simply no other proven way of doing it.

Cc: 'winniempl@onlink.net'; 'info@whitestone.ca'; 'info@whitewaterregion.ca'; 'barb.mcleod@wilmot.ca'; 'clerks@city.windsor.on.ca'; 'wollaston@bellnet.ca'; 'ahumphries@cityofwoodstock.ca'; 'mail.woolwich@woolwich.ca'; 'regional.clerk@york.ca'; clerk@zorra.on.ca

Subject: Thames Centre Resolution Re: Rural Hydro Rates

Attachments: ThamesCentre-RuralHydroRates-01102017.pdf

Dear Premier Wynne,

JAN 16 '17 AM 8:25

Please find attached a resolution passed by the Council of the Municipality of Thames Centre regarding the cost of hydro for rural residents.

Respectfully,

Sara Henshaw
Covering for Jenny Bailey-Wood
Administrative Assistant/Records Clerk
Municipality of Thames Centre
4305 Hamilton Road
Dorchester, ON N0L 1G3
Phone 519-268-7334 ext.244

Thames Centre

Corporation of the Municipality of Thames Centre

4305 Hamilton Road, Dorchester, Ontario N0L 1G3 - Phone 519 268 7334 - Fax 519 268 3928 www.thamescentre.on.ca inquiries@thamescentre.on.ca

January 10, 2017

Honourable Kathleen Wynne, Premier of Ontario
Legislative Building – Room 281
Queen's Park
Toronto, ON M7A 1A1

Dear Premier Wynne:

At its last regular meeting held on January 9, 2017, the Council of The Corporation of the Municipality of Thames Centre reviewed a resolution enacted by the Council of the Township of Zorra, at its regular meeting held on December 6, 2016, concerning the cost of hydro for rural residents.

I wish to advise that the Thames Centre Council enacted the following resolution:

> ***"WHEREAS the Council of the Municipality of Thames Centre, hereby supports the following resolution passed by the Council of the Township of Zorra at its regular meeting held on December 6, 2016:***
>
> ***AND WHEREAS, there is inequity between the cost of hydro for rural residents as compared to urban residents due to higher distribution charges;***
>
> ***AND WHEREAS, this practice targets and negatively affects rural residents, especially those who are already unable to pay for the high cost of hydro;***
>
> ***NOW THEREFORE BE IT RESOLVED THAT, the Council of the Township of Zorra request the Province of Ontario to re-evaluate the structure of hydro in terms of access to delivery and implement structural changes to address the unfair practice of charging more for delivery to rural residents;***
>
> ***AND THAT this resolution be circulated to Kathleen Wynne, Premier of Ontario, Rural Ontario Municipalities Association (ROMA), Ontario Municipalities, Ontario Small Urban Municipalities (OSUM), and the Association of Municipalities of Ontario (AMO)."***

The Council is very concerned with this issue and respectfully requests that further consideration be given to re-evaluate the structure of hydro and indicated in its resolution.

Thank you.

Sincerely,

The Corporation of the Municipality of Thames Centre

Jim Maudsley
Mayor

cc: Rural Ontario Municipalities Association (ROMA)
All Ontario Municipalities
Ontario Small Urban Municipalities (OSUM)
Association of Municipalities of Ontario (AMO)
Township of Zorra

TOWNSHIP OF ZORRA

274620 27th Line, PO Box 306, Ingersoll, ON, N5C 3K5
Ph. (519) 485-2490 · 1-888-699-3868 · Fax: (519) 485-2520

December 6, 2016

Honourable Kathleen Wynne, Premier of Ontario
Legislative Building - Room 281
Queen's Park
Toronto, ON M7A 1A1

Dear Premier Wynne:

Please be advised the Council of the Township of Zorra passed the following resolution at its December 6, 2016, regular meeting:

"WHEREAS, there is inequity between the cost of hydro for rural residents as compared to urban residents due to higher distribution charges;

AND WHEREAS, this practice targets and negatively affects rural residents, especially those who are already unable to pay for the high cost of hydro;

NOW THEREFORE BE IT RESOLVED THAT, the Council of the Township of Zorra request the Province of Ontario to re-evaluate the structure of hydro in terms of access to delivery and implement structural changes to address the unfair practice of charging more for delivery to rural residents;

AND THAT this resolution be circulated to Kathleen Wynne, Premier of Ontario, Rural Ontario Municipalities Association (ROMA), Ontario Municipalities, Ontario Small Urban Municipalities (OSUM), and the Association of Municipalities of Ontario (AMO)."
Disposition: Carried

If you have any questions, please do not hesitate to contact me.

Yours truly,

Donald W. MacLeod
Chief Administrative Officer

cc: Rural Ontario Municipalities Association (ROMA)
All Ontario Municipalities
Ontario Small Urban Municipalities (OSUM)
Association of Municipalities of Ontario (AMO)
Tay Valley Township

16-072

Toronto and Region Conservation
for The Living City

January 12, 2017

Sent via email

SEE DISTRIBUTION LIST

At Authority Meeting #10/16, of Toronto and Region Conservation Authority (TRCA), held on January 06, 2017, amended Resolution #A210/16 in regard to Draft Wetland Conservation Strategy for Ontario was approved as follows:

> *WHEREAS the Ministry of Natural Resources and Forestry (MNRF) invited the public to provide comments on their document entitled, "Draft: A Wetland Conservation Strategy for Ontario 2016-2030" through an Environmental Bill of Rights (EBR) posting #012-7675;*
>
> *AND WHEREAS Toronto and Region Conservation Authority (TRCA) has roles and responsibilities affecting the conservation of wetlands as advisor in the planning and environmental assessment processes, a regulator in the Conservation Authorities Act permitting process, and in ecological restoration as landowners and a resource management agency;*
>
> *THEREFORE LET IT BE RESOLVED THAT TRCA's formal response to the Province of Ontario through the Environmental Registry on November 16, 2016 as outlined in Attachment 1 be received;*
>
> *THAT staff report back on what is being done to protect urban and near urban wetlands;*
>
> *AND FURTHER THAT TRCA's municipal partners, the Ministry of Municipal Affairs, the Ministry of the Environment and Climate Change, and Conservation Ontario be so advised by the CEO's office.*

Enclosed for your information and any action deemed necessary is the report as approved by the Authority. If you have any questions or require additional information, please contact Dena Lewis at 416-661-6600 extension 5225, dlewis@trca.on.ca.

Sincerely

Kathy Stranks
Senior Manager, Corporate Secretariat

cc. Mary-Ann Burns, Senior Planner, Policy, TRCA
Dena Lewis, Senior Manager, Planning and Ecology, TRCA
Aidan Pereira, Planner I, Planning and Policy, TRCA

/Encl.

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Debi Wilcox, Regional Clerk / Director of Legislative Services, Regional Municipality of Durham

Section III – Items for Information of the Board

RES.#A210/16 - DRAFT WETLAND CONSERVATION STRATEGY FOR ONTARIO
Receipt of TRCA's comments to the Ministry of Natural Resources and Forestry on their Environmental Bill of Rights Registry posting "Draft: A Wetland Conservation Strategy for Ontario 2016-2030".

Moved by: Glenn De Baeremaeker
Seconded by: Jim Tovey

WHEREAS the Ministry of Natural Resources and Forestry (MNRF) invited the public to provide comments on their document entitled, "Draft: A Wetland Conservation Strategy for Ontario 2016-2030" through an Environmental Bill of Rights (EBR) posting #012-7675;

AND WHEREAS Toronto and Region Conservation Authority (TRCA) has roles and responsibilities affecting the conservation of wetlands as advisor in the planning and environmental assessment processes, a regulator in the *Conservation Authorities Act* permitting process, and in ecological restoration as landowners and a resource management agency;

THEREFORE LET IT BE RESOLVED THAT TRCA's formal response to the Province of Ontario through the Environmental Registry on November 16, 2016 as outlined in Attachment 1 be received;

AND FURTHER THAT TRCA's municipal partners, the Ministry of Municipal Affairs, the Ministry of the Environment and Climate Change, and Conservation Ontario be so advised by the CEO's office.

AMENDMENT
RES.#A211/16

Moved by: Jim Tovey
Seconded by: Maria Kelleher

THAT the following be inserted before the last paragraph of the main motion:

THAT staff report back on what is being done to protect urban and near urban wetlands;

THE AMENDMENT WAS CARRIED

THE MAIN MOTION, AS AMENDED, WAS CARRIED

THE RESULTANT MOTION READS AS FOLLOWS:

WHEREAS the Ministry of Natural Resources and Forestry (MNRF) invited the public to provide comments on their document entitled, "Draft: A Wetland Conservation Strategy for Ontario 2016-2030" through an Environmental Bill of Rights (EBR) posting #012-7675;

AND WHEREAS Toronto and Region Conservation Authority (TRCA) has roles and responsibilities affecting the conservation of wetlands as advisor in the planning and environmental assessment processes, a regulator in the *Conservation Authorities Act* permitting process, and in ecological restoration as landowners and a resource management agency;

THEREFORE LET IT BE RESOLVED THAT TRCA's formal response to the Province of Ontario through the Environmental Registry on November 16, 2016 as outlined in Attachment 1 be received;

THAT staff report back on what is being done to protect urban and near urban wetlands;

AND FURTHER THAT TRCA's municipal partners, the Ministry of Municipal Affairs, the Ministry of the Environment and Climate Change, and Conservation Ontario be so advised by the CEO's office.

BACKGROUND

In 2015, the Ministry of Natural Resources and Forestry (MNRF) initiated a review of the wetland conservation framework in Ontario. MNRF posted on the Environmental Bill of Rights Registry a discussion paper entitled, "Wetland Conservation in Ontario" (EBR #012-4464), to identify opportunities to strengthen policies and stop the net loss of wetlands. TRCA provided comments supporting the need to develop a provincial strategy for wetland conservation and identifying some important challenges and opportunities to be considered. These comments were received by TRCA's Executive Committee as an information item at its December 4, 2015 meeting by Resolution #B136/15.

The input received on the discussion paper has been used by the Province to develop a wetland strategy entitled "Draft: A Wetland Conservation Strategy for Ontario 2016- 2030" (the Strategy), which was posted on the Environmental Bill of Rights (EBR) August 8, 2016 for public comment. **http://nr-escribe.esolutionsgroup.ca/filestream.ashx?DocumentId=4173**

On November 2, 2016, TRCA staff attended an engagement session for Conservation Ontario and conservation authority staff hosted by MNRF. At the session, MNRF staff presented a summary of feedback on the Wetland Discussion Paper as well as an overview of the content of the Strategy and associated rationale. The presenters indicated that that the next phase of their process would be implementation of the Strategy through a series of separate public consultations.

Overview of the Strategy

The Strategy is premised on two overarching targets:

1. By 2025, Ontario's significant wetlands are identified and conserved to sustain essential ecosystem services.
2. By 2030, the net loss of wetlands is halted in areas where wetland loss has been the greatest.

It represents a 15-year blueprint to improve the conservation of wetlands across the Province and provides a series of action items within a conceptual framework to conserve Ontario's wetlands. The Strategy is intended to serve as a launching point for new, innovative conservation commitments and actions that can push Ontario's conservation efforts to a new level.

The Strategy is underpinned by seven core principles that establish important concepts, values and approaches; including wetlands being integral components of watersheds with ecological functions that provide benefits that are vital to the health and well-being of Ontarians. The principles also recognize the need to take a "precautionary approach" using the best available science and a requirement for strong partnerships among all stakeholders to conserve wetlands. The Strategy builds upon the four strategic directions that were first suggested in the Discussion Paper. They are:

1. Awareness
2. Knowledge
3. Partnership
4. Policy

Each strategic direction has a goal, a desired outcome as well as a number of actions that have been identified. In its movement towards implementation the Strategy identified three actions that have been prioritized:

1. Improving Ontario's Inventory and mapping
2. Developing policy approaches and tools to prevent the net loss of wetlands in Ontario (including potentially a wetland off-setting policy)
3. Improving guidance for evaluating the significance of wetlands

TRCA's Response

On November 16, 2016 TRCA submitted a formal response through the EBR, which can be found in Attachment 1. A summary of TRCA's response is provided below. TRCA also contributed, along with other conservation authorities (CAs), to comments provided by Conservation Ontario (CO) to the Province, in order for CO to provide a congruous message from CAs. Conservation Ontario's comments are provided in Attachment 2.

Overview

TRCA staff supports this important provincial initiative to implement this strategic plan aimed at halting the net loss of wetlands across the Province. A key component to managing water and biodiversity within an urban watershed is protecting and expanding the natural heritage system, including wetlands. TRCA has demonstrated through its watershed-based research and monitoring that the cumulative impact of urban growth and intensification in TRCA's jurisdiction is causing changes to watershed biodiversity, hydrology and overall watershed resiliency; these impacts of urbanization are compounded by the potential conditions of climate change.

TRCA staff's response conveys the message that the Strategy could do more to advance the general directions that were described in the Province's earlier discussion paper on wetland conservation. Staff recognize that the time frame to develop the Strategy was compressed, but feel that after nearly 30 years of experience in wetland protection and conservation, the actions could have been more developed and the prioritization and sequencing more direct on when and how the Strategy could be implemented. The focus of the Strategy's targets should be on net gain of wetlands in areas where the loss has been greatest. It is our recommendation that the timeline for the target of halting the net loss of wetlands should be accelerated. Indeed, in the Greater Golden Horseshoe, planning decisions being made now, to deliver growth by 2030, means that the fate of many wetlands is being sealed long before the Strategy's target timeframe will be realized.

Key Comments

- Conservation authorities should be specifically acknowledged in the strategic directions as they play an important role in wetland protection, restoration, regulation and enforcement. CAs are a key partner because of their expertise in monitoring and restoration and because they fill the gap for activities affecting wetlands that are not captured under a Planning or Environmental Assessment process. CAs also play important roles in improving wetland science and awareness, through research, education and stewardship activities.
- In keeping with the "precautionary approach" espoused in the Strategy, all wetlands should be considered significant until they have been evaluated.
- In urban and urbanizing areas, where losses are greatest and the need for the ecosystem services provided by wetlands is greatest, there should be stronger provincial support for the protection of non-provincially significant wetlands.
- TRCA staff believe that wetland off-setting or compensation could be an important tool to help stop the net loss of wetlands in Ontario and, in fact, could move Ontario towards a net gain in areas where wetland losses have been the greatest. TRCA has been developing an ecosystem compensation protocol designed to ensure that when compensation or off-setting is considered, that the lost ecosystem services are being adequately replaced. The creation of new wetlands should take into consideration the function of the wetland within the surrounding landscape both hydrologically and as habitat for species.

NEXT STEPS

The Ministry of Natural Resources and Forestry will review the feedback received in response to the EBR posting. Upon review, the Ministry will analyze how the constructive comments collected will inform and refine the development of the Wetland Conservation Strategy for Ontario. It is expected that the Province will release the final version of "A Wetland Conservation Strategy for Ontario 2016-2030" in 2017. TRCA staff awaits the release of the final document and is looking forward to assisting the Province and our partner municipalities in their implementation of this important wetland conservation strategy.

Report prepared by: Aidan Pereira, extension 5723, Mary-Ann Burns, extension 5763
Emails: apereira@trca.on.ca, mburns@trca.on.ca
For Information contact: Dena Lewis, extension 5225
Emails: dlewis@trca.on.ca
Date: January 6, 2017
Attachments: 2

Attachment 1

Toronto and Region Conservation for The Living City

November 16, 2016

By Email Only

Terese McIntosh – terese.mcintosh@ontario.ca
Biodiversity and Wetlands Program and Policy
Advisor Ministry of Natural Resources and Forestry
Policy Division
Natural Resources Conservation Policy
Branch 300 Water Street
Peterborough, Ontario, K9J 8M5

Dear Ms. McIntosh:

Re: TRCA Comments on a Wetland Conservation Strategy for Ontario 2016-2030 (EBR 012-7675)

Thank you for the opportunity to provide comments in response to the EBR posting for, A Wetland Conservation Strategy for Ontario 2016-2030. The Toronto and Region Conservation Authority (TRCA) has a vested interest in the development of a wetland conservation strategy for Ontario. TRCA, as you know, is a local watershed management agency with a variety of responsibilities related to natural heritage protection, management and restoration including responsibility for regulating wetlands under Section 28 of the *Conservation Authorities Act* (CA Act). TRCA protects and manages approximately 18,000 hectares of conservation land and works as a key partner to assist its 18 member municipalities in fulfilling their responsibilities associated with natural heritage, water resources and natural hazard management under the *Planning Act* and *Environmental Assessment Act* processes. In 2015, TRCA provided comments on the paper titled, Wetland Conservation Ontario: A Discussion Paper, which helped to identify challenges and opportunities associated with wetland conservation in Ontario. We are pleased that many of our comments have been espoused within this strategy.

Conservation Ontario has coordinated comments from Conservation Authorities (CAs) to ensure a common message on this important initiative. TRCA supports these comments, but wishes to highlight some areas that are particularly important from our jurisdictional perspective, as outlined below:

General Comments

- The conservation of wetland hydrology is so important that it should form part of the guiding principles. There should be a guiding principle that acknowledges that wetlands are complex systems that rely on inputs outside their defined vegetation footprints and that the protection of these inputs is critical to their retention on the landscape.

- In urban and urbanizing areas, where losses are greatest and the need for the ecosystem services provided by wetlands is greatest, there should be stronger Provincial support for the protection of non-Provincially significant wetlands.

- In keeping with the "precautionary approach" espoused in the Strategy, all wetlands should be considered significant until they have been evaluated.

The Targets

- While the strategy is Provincial in scope, it is clear from the information provided that the types of wetlands, the amount and distribution of wetlands, as well as the threats and vulnerabilities, are very different between Northern and Southern Ontario. The targets and actions (including timing of actions) should be different for the two regions. For example, the imperative influence in the Greater Golden Horseshoe is growth planning. Planning decisions that are to deliver growth by 2030 are being made now and could seal the fate of many wetlands before the Strategy can be implemented based on the timing noted for the two Targets.

- Target 1 appears to be an exercise to identify significant wetlands by 2025. A definition of "significant wetland" should be provided. Is this the same as "provincially significant"? Or is it something else? Criteria for the determination of "significant" wetlands and methodologies should be developed much sooner than 2025. It might be more cost effective and timely to require proponents of change to undertake the mapping and evaluation following Provincial standards.

- Target 2: A definition of where wetland loss has been greatest needs to be provided. If a geographic area is not provided, criteria to evaluate or determine where wetland loss has been greatest should be developed. The focus should be on net gain of wetlands in areas where the loss has been greatest. It is our recommendation that the timeline for Target 2 should be accelerated. By setting this target for 2030, there could be potentially 14 more years of losses.

The Strategic Directions and Actions

- TRCA supports the strategic directions that are contained within the Strategy (Awareness, Knowledge, Partnerships, and Policy). We generally support the goals and outcomes that are described, although it is unclear why the goal under policy speaks to "enhancing wetland quality" when the outcome is to stop the net loss of wetlands. The goal should speak to both quality and quantity of wetlands.

- The Strategic direction for policy is good. We strongly support the following actions and feel they should be made a priority in the next 2 years not 15;

    - Support the development of policy tools to improve the conservation of ALL wetlands;

    - Develop policy approaches and tools to prevent the net loss of wetlands in Ontario, focusing on areas where wetland loss has been greatest.

- The long list of actions for each of the strategic directions could benefit from some additional analyses to first make sure they are more focused and clear, and secondly, prioritized and assigned, specific timeframes to begin implementation and, where appropriate, completion. That is, the Strategy should include a step by step approach to sequencing of actions.

Attachment 1

The Role of Conservation Authorities (CAs)

- In the section on Ontario's current Wetland Policies, the description of the *Conservation Authorities Act* Regulations does not capture the full purview of the regulations for wetlands. CAs regulate development in and around wetlands for effects on the control of natural hazards (e.g. flooding and erosion), pollution and the conservation of land, as well as, any development that may interfere with the hydrologic function of a wetland.

- Conservation Authorities should be specifically acknowledged in the strategic directions as they play an important role in wetland protection, restoration, regulation and enforcement. CAs are a key partner because of their expertise in monitoring and restoration and because they fill the gap for activities affecting wetlands that are not captured under a Planning or Environmental Assessment process. CAs also play important roles in improving wetland awareness, and stewardship activities.

Wetland Off-setting

- We believe that wetland off-setting or compensation could be an important tool to help stop the net loss of wetlands in Ontario and, in fact, could move us towards a net gain in areas where wetland losses have been the greatest. The second paragraph describes offsetting as "a policy in which the negative impacts of development..." A key consideration is to define development, i.e., will it include infrastructure and site alteration; will it capture infrastructure that falls under an environmental assessment process? Will offsetting be allowed for PSWs and non-PSWs?

- As you know TRCA has been developing an ecosystem compensation protocol, which we presented to staff from MNRF in December 2015. This work was initiated because natural heritage features (including wetlands) and their ecosystem services were being lost through both the planning and environmental assessment processes and these losses were not being adequately compensated for. Our draft protocol focuses on how to ensure that the lost ecosystem services are replaced in a timely fashion. It is important to note that the TRCA draft protocol does NOT address the issue of when and where it is appropriate to remove a feature with compensation. Currently these decisions are generally made site by site through negotiations between the proponent and the Municipality and CA. Therefore, we strongly urge the Province to identify wetland types and functions that are <u>not</u> eligible for off-setting based on significance, functional importance and vulnerability criteria.

- Wetland offsetting should not occur on already protected lands that are already providing important ecological services (i.e., converting one type of ecosystem to another). Within this Strategy it would be advantageous to outline that the creation of new wetlands will not only focus on the re-creation of wetlands but rather take into consideration the function the wetland has on the surrounding landscape (hydrologically) and its use by species.

- We feel that wetland offsets must be secured in perpetuity. It often requires decades of monitoring to adequately state that a recreated wetland is functioning appropriately and all the ecosystem services optimized. Adaptive management techniques are often required to tweak or change a wetland design based on incoming data analyses. Determining the duration of wetland offsets based on the duration of negative impacts is not in keeping with the "precautionary approach" on which the Strategy is predicated.

Attachment 1

Definitions

- Defined terms should be identified in the text of the Strategy (e.g., through the use of italics)
- In addition, definitions should be included for the following terms used in the Strategy:
    - Development
    - Infrastructure
    - Site alteration
    - Wetland

- The definition of "no net loss" is no decrease in total wetland area. In a framework of compensation, care will be required to avoid having many small wetlands in the landscape replaced with one larger one. Doing this does not always ensure that all the habitat functions of the various wetlands and other ecosystem services are maintained and appropriately distributed on the landscape.

TRCA appreciates the opportunity to contribute to the 15-year blueprint that will guide and enhance the conservation of wetlands across the Province.

It has been demonstrated through TRCA's watershed-based research and monitoring that the cumulative impact of urban growth and intensification in our jurisdiction is causing changes to watershed biodiversity, hydrology and overall watershed resiliency; these impacts of urbanization are compounded by the potential conditions of climate change. Protecting and expanding the natural heritage system (including wetlands) is a key component to managing water and biodiversity in urban watersheds. TRCA believes the Province has taken positive steps in the protection of wetlands and supports the provincial initiative to implement this Strategic Plan aimed at halting the net loss of wetlands across the Province. TRCA looks forward to assisting the Province and our partner municipalities in their implementation of this wetland conservation strategy.

Should you have any questions regarding the comments, please contact Dena Lewis, Senior Manager Planning Ecology at ext. 5225.

Yours truly,

Carolyn Woodland, OALA, FCSLA, MCIP, RPP
Senior Director, Planning, Greenspace and Communications
Toronto and Region Conservation Authority

cc: Brian Denney, Chief Executive Officer, TRCA

Attachment 2

Conservation
ONTARIO
Natural Champions

November 16, 2016

Terese McIntosh
Biodiversity and Wetlands Program and Policy Advisor
Ministry of Natural Resources and Forestry
Policy Division, Natural Resources Conservation Policy Branch
Natural Heritage Section
300 Water Street
Peterborough, Ontario K9J 8M5

Dear Ms. McIntosh:

Re: Conservation Ontario's comments on "A Wetland Conservation Strategy for Ontario 2016-2030" (EBR #012-7675)

Thank you for the opportunity to provide comments on "A Wetland Conservation Strategy for Ontario 2016-2030" (EBR #012-7675). These comments are provided to you on behalf of the Province's 36 Conservation Authorities (CAs) who have significant expertise in wetland conservation, as regulatory bodies under Section 28 of the *Conservation Authorities Act,* as the Province's second largest landowners, through MOUs with their municipalities to provide plan input and review, through their stewardship and outreach activities, and through being facilitators of integrated watershed management. These comments are not intended to limit consideration of comments shared individually by CAs through the Wetland Strategy review process.

Conservation Ontario appreciates the efforts the Province has made to include CAs in the dialogue about this Strategy, including hosting a consultation session on November 2nd. We look forward to future opportunities to discuss proposed improvements to this Strategy and to providing input to any future work plans for implementation of this Strategy.

This letter is arranged by identifying three priority areas for improvement in this Strategy; each priority has a recommendation followed by a Discussion of Conservation Ontario's perspective and, in one case, a Rationale which provides further context. Additional specific comments for improvements to the Strategy are provided in the attachment.

Priority #1: Have One Clear Target to Meet the Mandate of "No Net Loss"

Recommendation: The Strategy should incorporate a NEW target - By 2025, the net loss of all wetlands is halted in Ontario.

Discussion: In 2015 Conservation Ontario (CO) provided comments to the province on "Wetland Conservation In Ontario: A Discussion Paper" (EBR# 012-4464). In those comments, CO outlined a number of concerns relative to the "no net loss" approach, rather than an effort for overall "net gain" in southern Ontario where

the majority of wetlands have already been lost. Furthermore, it was recommended that the legal authority for "no net loss" and the compensation framework should be established in legislation that would harmonize with all corresponding statutes that seek to regulate/influence wetland conservation.

In terms of implementation for the new target, the Strategy will have to differentiate southern Ontario and the near north, from the far north. At the outset of the document, it is acknowledged that "wetlands are among the most productive and diverse habitats on Earth" and that 72% of the wetlands in southern Ontario have been lost. In addition to land conversion, new threats to wetlands are emerging, including invasive species and climate change. Given the historic loss and the new threats, it is strongly felt that this strategy should promote a **'net gain'** approach, for wetlands in Ecoregions 5E, 6E and 7E, where historically wetland loss has been greatest. A 'no net loss' policy is simply not feasible in areas where wetland loss has been greatest (i.e. southern and near northern Ontario).

A differentiated approach is consistent with the *Provincial Policy Statement* and recognizes the differing land pressures in the southern portion of the Province. Conservation Ontario Council, in our submission on the proposed *Provincial Policy Statement* endorsed that the government consider protecting all wetlands in Ecoregions 5E, 6E and 7E as significant. This approach in the Strategy may assist the Province in ensuring 'no net loss' while awaiting evaluation of all wetlands in southern and near northern Ontario.

Rationale: Conservation Authority reviewers expressed a number of concerns with the proposed targets, including questioning if the Strategy as drafted will meet its expressed objectives and whether the proposed targets were sufficiently robust. The proposed Wetland Strategy proposes to measure its success through two overarching targets:

1. By 2025, Ontario's significant wetlands are identified and conserved to sustain essential ecosystem services.

2. By 2030, the net loss of wetlands is halted in areas where wetland loss has been greatest.

Overall the inter-relationship between target 1 and target 2 is not clear. The first target seems to be focused on a wetland's level of significance, rather than indicating that all wetlands are identified. The second target seems focused more so on southern Ontario (i.e. where wetland loss has been greatest), whereas this is supposed to be a Provincial Strategy. It is unclear how target 1 supports the achievement of target 2.

Conservation Ontario is supportive of the Province's efforts to identify and conserve Ontario's significant wetlands in principle. In order to identify these wetlands, an evaluation of most wetlands in Ontario will be required. If the mandate of the Ministry is to stop the net loss of wetlands, it would be more appropriate to allocate resources to the second target (as expressed in the draft strategy) rather than the first. Differentiating between significant and non-significant wetlands automatically creates a hierarchy of protection, which is contrary to the second target. Concern is also expressed about whether there are sufficient human resources at the Province to achieve this first target and it would not be acceptable to fail at the second target because the first could not be achieved.

Notwithstanding the above paragraph, an update to the Ontario Wetland Evaluation System (OWES) to expedite the identification of significant wetlands is appreciated. As alluded to, over the years MNRF has reduced their role in conducting wetland evaluations and shifted the responsibility to proponents. Some CAs have taken on the task of proactively updating wetland evaluations for their municipalities, however there are resource constraints for some of these CAs for continuing, and other CAs for taking on, such evaluation programs. There is currently a gap in wetland conservation because not all wetlands have been evaluated and there is no policy requirement to do so. Any additional training required for Conservation Authority staff in regard to OWES or an equivalent protocol should become a provincially funded priority as CAs are key agencies

in the implementation of wetland evaluation, mapping and regulatory protection. Conservation Halton played a significant role in the field testing of the first edition of OWES in the early 1980s. Conservation Authorities are prepared to assist the Ministry in their implementation of this review.

Overall, it is felt that target 1 actually represents an action item for the support of an off-setting program, rather than an overall target for this Strategy. As the identification of Ontario's significant wetlands would require potentially that *all* wetlands be mapped and evaluated in Ontario details about how this identification would be undertaken (or prioritized) should be provided.

CA reviewers equally expressed concern about the Province's target that there will be 'no net loss' by 2030. With no new policy tools to address wetland loss proposed through this strategy, this target essentially creates 14 years in which wetland loss can continue. The proposed timelines are too far off and it also appears that further wetland loss is to be tolerated outside those areas of the Province where wetland loss has been the greatest (i.e. southern Ontario).

It is also noted that "no net loss" is defined as "balancing wetland loss with mitigation and restoration efforts, so that the total area of wetlands does not decrease, but remains constant or increases". Wetland area is only one consideration in overall wetland health. While the strategy may aim to prevent a decrease in wetland area by 2030 in certain parts of the province, this does not equate to maintaining wetland function. In a framework of wetland compensation, replacing wetlands at a 1:1 or even a 1:2 does not take into account the lag time to gain wetland function back, resulting in an overall decrease in biodiversity and ecosystem function. Care will be required to avoid having many small wetlands in the landscape replaced with one larger one, as this consolidation does not always ensure that all of the habitat functions and other ecosystem services are maintained and appropriately distributed on the landscape and in watersheds. For example, a coastal wetland's function of protecting the shoreline from erosion or improving water quality cannot be compensated by creation of a headwater wetland. Equally, while it is acknowledged that "wetland losses in the south should not be compensated for by gains in the north" care must be given to ensure that overall wetland cover within a region is not shifted, with areas of greatest growth pressure having the least amount of wetland cover and those areas where growth pressures are weaker, being the recipient of numerous wetland compensation projects. With this in mind, more robust parameters beyond 'total wetland area' must be used to monitor the success of this Strategy and ideally compensation assessments should be done on a watershed basis ensuring ecosystem functions and services are maintained.

Priority #2: Recognize Conservation Authorities as Important Partners in the Implementation of this Strategy; including the Regulatory Role

Recommendations:

Incorporate more references to Conservation Authorities' roles throughout the document

Revise Table 1A description of *Conservation Authorities Act (CAA)* Regulations (p.10) and delete the Note found within "Wetlands Defined in Ontario's Municipal Land Use Planning Policy" (p.33)

Identify legislative/policy/guideline support and clarification for the CAA as a priority action under "Towards Implementation" and provide enforcement provisions (e.g. stop work orders) under the CAA to enable efficient and effective protection of wetlands

Discussion: Conservation Authorities (CAs) are integral to the realization of Ontario's wetland agenda. While CAs receive some note within this document, there is scarce reference to the important work that they are currently undertaking to conserve wetlands, regardless of their provincial status. The Strategy should further highlight the role CAs play in the implementation of the strategic directions, (awareness, knowledge,

partnership and policy). As well, the term "towards implementation" is misleading; as many of the actions are currently being implemented locally by CAs.

While it is acknowledged that this is a province-wide strategy and Conservation Authorities have been established in a limited geographic area, it is important to recognize that the watersheds where CAs exist coincide with 90% of the population of Ontario. Equally, it can be argued that the watersheds where CAs have been established are also the areas where greatest wetland loss has occurred historically. It is therefore considered necessary to acknowledge CAs as important partners in the implementation of this Strategy.

As described in our September, 2015 submission, CO supports the need to strengthen policy as it relates to wetland conservation. Section 28 Regulations are a complementary tool to support the implementation of wetland planning policies and can fill the gap for those activities that can cause wetland destruction and may not be subject to Planning Act applications, (e.g. site alteration and fill placement). The gaps in Ontario's current wetland policy framework have created loop holes for wetland destruction. As the *Conservation Authorities Act* (CAA) is currently under review, it is strongly recommended that Province support a harmonization of definitions of wetlands to address current legislative and policy inconsistencies and gaps. The CAA should be acknowledged in the Wetland Strategy as an action under the goal of developing policy approaches and improving policy tools to conserve, restore and enhance the quality of Ontario's wetlands. The CAA should be reviewed with a lens to determine how it can support the Ministry's mandate for 'no net loss' of wetlands and it should be identified as an immediate priority in the Province's Wetland Strategy for future public policy debate.

Further to the above paragraph, the definition of wetland should be updated to reflect the more frequently used definition in the Provincial Policy Statement. The province is encouraged to ensure the term is consistently defined in all provincial legislation, regulation, and guidance documents; and that, there is clarity amongst all Ontarians as to what should be, or should not be, considered a wetland. Moreover, there are outstanding questions related to the definition and interpretations of the terms 'conservation of land' and 'interference in any way' as they relate to Section 28 of the CAA. MNRF should work with CO and CAs, in consultation with others, to provide a clear interpretation of 'conservation of land' and 'interference in any way' through a Section 40 "Definitions" Regulation under the CAA.

Further to the above paragraph, the 'Note' on page 33 of the draft Strategy should be removed. While it has been explained that this note was placed into the Strategy to address concerns related to the *Oak Ridges Moraine Conservation Act*, it could be construed to be referring to the *Conservation Authorities Act* and it is therefore not supported. The note contradicts our support for a consistent wetland definition and basically supports a narrowing of the definition of wetland for specific regulatory purposes (i.e. "it is not intended to be a comprehensive definition of a wetland"). With few regulatory tools at the Province's disposal to achieve 'no net loss' of wetlands these tools should be reviewed in the context of the mandate for 'no net loss' and there should be a public policy discussion in this regard. Conservation Ontario encourages a review and discussion of the additional wording that is included in the regulatory definition of wetland under the CAA and whether it serves the mandate of 'no net loss'.

Similarly, the Strategy should reflect the current and full regulatory scope for wetlands under the *Conservation Authorities Act* (CAA). Specifically, Table 1A references Section 28's Link to Wetland Conservation and Management as being "Regulates development in and around wetlands for effects on the control of natural hazards (e.g. flooding), as well as activities that may interfere with a wetland". As per Section 28 of the CAA and Ontario Regulation 97/04, Conservation Authorities regulate development in or around wetlands where, in the opinion of the Authority, the control of flooding, erosion, dynamic beaches, pollution or conservation of land may be affected. Conservation Authorities also regulate interference in any way with a wetland. It is preferred that this Table be revised to reflect the full regulatory scope of the CAA.

Notwithstanding Conservation Ontario's strong support for education on the value of wetlands and stewardship initiatives, an important piece of wetland protection in Ontario is compliance with regulations. This document does not adequately address the compliance role associated with protecting wetlands. Although administering a Provincial regulation, the costs to go through the court system and prosecute violations are borne by the individual CAs. This system is cost prohibitive for CAs and as a result not all infractions can be appropriately addressed. We know if wetland protection is not adequately enforced, then people will continue to fill in, destroy and adversely impact wetlands. If the Province is committed to wetland protection, the enforcement gaps identified by CO through the review of the CAA must be addressed. These include modernizing the compliance provisions of the CAA to provide CAs with current enforcement tools - e.g. ability to issue stop work orders, set and increased fines, stronger penalties, and, mandatory remediation requirements (or, if not possible, compensation requirements).

Priority #3: Be More Specific About the Purpose and Goals of this Strategy

Recommendation: Revise the Draft Strategy to Include Clear Priorities, Timelines, and Definitions

Discussion: Overall, the success of this strategy is mired by a lack of specificity. For example, the Strategy should more explicitly identify which actions will be undertaken by the Province and which will be led by others. Identifying each stakeholders' role and responsibility will help to facilitate future monitoring and reporting, and ensure accountability.

In the Executive Summary the Strategy indicates that "The intent of the Strategy is to establish a common focus and path forward, so that greater success can be achieved in a more efficient and effective manner". There are several high-level statements like this made throughout the document, but no critical analysis is undertaken to provide detail about what that means. Given that the statement implies that the efforts over the past 30 years have not been successful, efficient or effective, further effort should have been given to identifying current policy gaps (i.e. the *Conservation Authorities Act),* addressing those gaps, and basing this present Strategy on a variety of different actions beyond a continuation of the previous efforts.

For the actions that are identified, and including the addition of the *Conservation Authorities Act* as a priority (see discussion under Priority #2 in this letter), a clear sequencing of events and priorities should be provided. Timelines, responsibilities and benchmarks should be attached to the actions to ensure that we are on track. The Strategy identifies that "progress will be monitored and assessed on a five-year time frame" but it does not identify what the Strategy will be assessed on, particularly since there are no goals until 2025.

There is some discussion in this Strategy about 'significant' wetlands and the use of this term should be consistent with the PPS 2014 definition of 'significant' wetlands and then different terminology used where something different is intended. It is recognized that the evaluation system (OWES) that helps to determine significance of a wetland is proposed to be under review as part of the Strategy and it will be an evolving term.

The lack of clarity in the interpretation of the two targets as described in the draft Strategy has been discussed under Priority #1 in this letter. Overall, additional clarifying language is required for "where wetland loss has been the greatest" and as described, it is recommended that the Province use the delineation in the *Provincial Policy Statement* as a starting point.

Thank you once again for the opportunity to comment on "A Wetland Conservation Strategy for Ontario 2016-2030" (EBR #012-7675) and for hosting an engagement session with CAs. Conservation Ontario looks forward to continued dialogue with the Province on this initiative and would be pleased to provide input to future work plans for implementation. Conservation Ontario notes that the Strategy requires adequate funding and

resources for MNRF to successfully lead and champion implementation; there are a couple of suggestions in the Attachment. Should you have any questions regarding the above comments, please contact Leslie Rich (Policy and Planning Officer) at ext 226 or myself at extension 223.

Sincerely,

Bonnie Fox
Manager, Policy and Planning

Leslie Rich
Policy and Planning Officer

c.c.: CAOs, All Conservation Authorities
Environmental Commissioner of Ontario

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Specific Comments

Introduction

This section identifies a 2015-2030 timeline to improve wetland conservation and to address 'no net loss'. Further to the point above about specificity, it should be clarified at what point in this timeline that changes (i.e. building strong and effective wetland policies) will be made to ensure the achievement of these goals. Also, what are the mechanisms (e.g. municipal policies) that will be used to accomplish this Strategy?

Ontario's Wetlands

Due to the focus on wetland function within the Strategy, the hydrological influences and requirements of wetlands should be included in the descriptions of the various types of wetlands found on page 3. For example,

- Swamps have variable water tables that fluctuate 1-2m from the surface throughout the year and the water table typically falls below the surface, which allows for the growth of woody vegetation.
- Marshes often have shallow water levels that fluctuate.
- Bog water levels are relatively stable and are mainly dependent on precipitation for water.
- Fens have both surface and groundwater movement through them.

The role of wetlands in sequestering carbon is acknowledged. Similarly, the threat of climate change to wetlands should also be acknowledged. For example, while "high water levels in peatlands limit oxidation, thereby minimizing the release of carbon dioxide" it should also be noted that methane releases increase if the water table is above the surface. Increasing temperature also raises the rate of chemical redox reactions resulting in an increased rate of decomposition, especially within peatlands.

Figure 1

It is recommended that this figure be expanded to full-page size to allow for finer detail to be seen. A separate or revised map which more clearly illustrates which land classes are wetlands would be helpful.

The Critical Functions of Ontario's Wetlands

The reference to ecosystem valuation is supported. It may also be appropriate to include a statement that connects the cost/benefits of restoration and re-construction of wetlands that can provide these ecosystem services. As wetland creation and restoration are important components of the Strategy, the connection between the financial costs of wetland ecosystem services is important. Adopting a provincial standard in valuation of wetlands as green infrastructure would be useful. Many practitioners currently employ a suite of tools to do this work, however it would be useful to have some guidance on what is acceptable practice.

Current Status and Threats

This section acknowledges that land conversion is the primary cause of wetland loss in Ontario however all of the additional threats can also be linked to land conversion. Changes in wetland hydrology are an enormous threat/stressor, which should be acknowledged. Even if a wetland is protected in the landscape, other activities on the landscape can change the hydroperiod of a wetland, causing it to degrade or disappear. This Strategy is a good place to start the public education and awareness process about impacts to the hydroperiod.

Land conversion can take many forms, including agriculture. With prices of land being high and supply limited, and it no longer being cost-prohibitive to clear and drain wetlands, there is pressure to develop or convert lands to generate revenues. This document should more clearly explain how the agricultural sector can

conserve wetlands and the Strategy should focus more on options to work with the agricultural community to, in balance, conserve wetlands while supporting normal farming practices.

Conservation Ontario appreciates the reference to and description of cumulative effects. The very nature of wetlands makes them particularly susceptible to additional stresses and the cumulative effects of development can result in significant loss of wetland habitat and function. Development located both within 'adjacent lands', and beyond, can alter wetland hydrology by impacting the surface and/or ground water catchments of wetlands. There is insufficient monitoring information on long-term development impacts and success of various mitigation techniques.

Given that this strategy is supposed to be moving towards 'no net loss', the description of cumulative effects (here and in the glossary) should be modified to include both positive and negative. Positive effects could include upstream improvements for a downstream wetland, restoration of wetlands over one area to enhance the amount of wetland cover, and a better technical understanding of Ontario's wetlands leading to improved conservation efforts.

It is also recommended that Provincial guidance be developed to assess the cumulative effects on wetlands within a watershed. This will be particularly important should the Province decide to move forward on an offsetting policy.

Invasive Species and Wetlands

Conservation Ontario is equally concerned about the impact of invasive species on our wetlands. As such, it is recommended that one of the actions to combat invasive species will be the development of better methods to manage invasive species in wet habitats. In Conservation Ontario's comments on the proposed *Regulation of invasive species under the Ontario Invasive Species Act, 2015* it was noted that until such time as there is a safe and effective (and financially affordable) mechanism recommended for the control of Phragmites, any orders by an inspector to force the control, removal or eradication of the species should not be issued. Caution was noted about the use of Glyphosate in drinking water vulnerable areas.

While invasive species are a cause of wetland degradation, this proposed Strategy focuses more so on policies for wetland protection. Wetlands full of Phragmites still offer many ecosystem services, and therefore should not be considered "lost" and/or with little function. This attitude may open the door for removal of the wetland through decisions made in the land use planning process. A better tactic would be to minimize disturbance to wetlands through long-term protection of structure and functions, as invasive species thrive in degraded ecosystems.

Table 1A: Policy instruments that guide wetland conservation and management in Ontario

Conservation Ontario provided amendments to this table in the cover letter. In addition to correcting information about CAs' regulatory role, the role CAs play as environment planners and promoters of Integrated Watershed Management (IWM) should be outlined.

Both the *Planning Act* and *Provincial Policy Statement, 2014* sections should reference that wetlands can also be part of the natural heritage systems that are required to be identified. The identification of these systems are an opportunity as they will facilitate wetland conservation within these systems, and identify key areas for wetlands to be created and restored as a means of linking natural heritage features together.

Table 1B: Policy instruments that guide wetland conservation and management in Ontario

For the *Environmental Assessment Act (*EA Act) the table notes a requirement to "... **compensate** where avoidance is not possible", however this language is not used in the Act. CAs indicate that they have had difficulty getting compensation or offsetting for loss of features outside of what is covered by the federal *Fisheries Act.* The direct loss of significant wetlands happens most often with linear infrastructure that is subject to the EA Act. The linear nature of these projects means avoidance is often not possible. It is further

noted that, as the definition of development in the PPS does not include infrastructure that falls under an EA process, the PPS and corresponding Official Plan policies are not available as tools for wetland protection either.

International Cooperation for Wetland Conservation
The text should highlight that the North American Wetlands Conservation Act is a U.S. federal piece of legislation. This section could focus on examples of regional U.S.-Canada partnerships that identify priority areas for restoration and rehabilitation of natural habitats, for example, Western Lake Erie Watersheds Priority Natural Area (in conjunction with Detroit River International Wildlife Refuge). This U.S. example provides funding to protect, restore and manage wetlands. Funding comes from fines, penalties and fuel excise tax. It is suggested that Ontario look at similar opportunities to establish a fund to deliver this Wetland Strategy.

Partners in Wetland Conservation
Conservation Ontario appreciates the acknowledgement of CAs' commitment to conducting stewardship projects both on public and private lands. Overall, this section falls quite short with regard to the full-range of activities that CAs and other partners are undertaking on behalf of the Province to conserve wetlands. As described in the cover letter, the Province should examine a new partnership model with the Conservation Authorities regarding wetland conservation.

A Wetland Conservation Strategy for Ontario- Purpose
As described in the cover letter, Conservation Ontario would prefer a stronger target which stops the net loss of wetlands as articulated in the Mandate Letters. The Province is reminded that the mandate letter also included "a review of Ontario's broad wetland conservation framework and identification of opportunities to strengthen policies". More focus could be directed to these two endeavours. The same loose language utilized in the Executive Summary appears in this section as well, including reference to achieving "greater success in wetland conservation...in a more efficient and effective manner". The purpose indicates that this Strategy provides a conceptual framework while simultaneously indicating that the Strategy is operating in the existing legislative, policy and strategic framework which is confusing to the reader.

The current policy framework is fragmented, complex and not effective enough in conserving Ontario's wetlands. There are legislative and policy gaps resulting in development within wetlands. Terms, definitions, implementation instruments and technical guidelines need to be further harmonized or coordinated between policy and legislation. Conservation Ontario urges the Province to address those gaps, as the current policy framework has obviously not met its targets in wetland conservation.

Guiding Principles
Overall, it is felt that this Strategy should promote a 'net gain' approach, rather than a 'no net loss' in areas where wetland loss has been greatest. As previously noted, this Strategy makes a division between provincially significant wetlands and all other wetlands; this is not encouraged. Utilizing this hierarchical approach, particularly in southern Ontario, will work against the purpose of the Strategy i.e. 'no net loss' of wetlands.

As the conservation of wetland hydrology is so important, it should form part of the guiding principles for this Strategy. The guiding principle should acknowledge that wetlands are complex systems that rely on inputs outside their defined vegetation footprints and that the protection of these inputs is critical to the retention of wetlands throughout the landscape.

#3. Given that MNRF intends to develop an offsetting policy, the strategy should prioritize research and the development of guidelines around the identification of essential wetland inputs as well as restoration strategies for different types of wetlands as one of the key action items. An offsetting policy needs to recognize that wetland restoration science is still very rudimentary. Therefore, the development of this science through pilot projects, research grants and the crafting of guidelines needs to be a priority to enable the

success of the offsetting policy.

#4. CAs would support the use of the 'precautionary principle' rather than a 'precautionary approach' as the former is typically considered stronger than the latter.

#5. Conservation Authority staff have concern with the use of the word "encouraged" as it has been their experience through the PPS that encouragement for planning authorities to go beyond the minimum is rarely successful. The cost to defend policies that go beyond Provincial minimums are preventing those policies from being adopted. It is suggested that the principle be amended to state that the "Protection of provincially significant wetlands is a priority as well as facilitating the conservation of all wetlands". While this amendment would be an improvement, it is questionable whether this principle will lead to successfully achieving 'no net loss' of wetlands (see further explanation in the cover letter).

Figure 3: A Wetland Conservation Strategy for Ontario 2016-2030 Framework
Conservation Ontario is supportive of the Province revising the timelines for the achievement of the targets as described in the cover letter. It is suggested that measurable (quantitative) outcomes and goals are needed as part of the Strategy, including restoration targets. This would include a five year analysis on whether or not the Strategy's target(s) have been met.

Landscape Level Planning for Wetlands
The watershed context in landscape level planning for wetlands should be a key consideration in determining the appropriate areas for offsetting projects; watershed-based planning should be explicitly included.

Strategic Direction –Awareness – Goals and Outcomes
Conservation Ontario is supportive of a goal which includes raising awareness and appreciation for Ontario's wetlands. The goal of this strategic direction should reference protecting wetlands and the outcome should be action oriented through referencing its relationship to the target.

Overall the actions appear to be outlining existing programs. There is an opportunity to present unique initiatives being developed and delivered by a variety of organizations that are meeting the identified goal and outcome for Awareness. The variety of organizaations and the unique initiatives include other non-government, internationally supported, CA or municipally-led programs on watershed management, restoration techniques and strategic directions on funding and restoration priorities.

It is recommended that the province support investigations of the role wetlands play in climate change mitigation and adaptation and to communicate and enhance awareness about the benefits. This investigation should include the potential for wetlands to be included as offset projects under the province's cap and trade program. Any evidence based information to support this could positively influence the conservation and restoration of wetlands by private landowners.

Strategic Direction – Knowledge
In moving forward on the goal of increasing knowledge, the Province is encouraged to work closely with CAs to harness their local knowledge and experience where it comes to wetland conservation. CAs are also prepared to assist in the development of new tools to evaluate and monitor wetland function, identify ecosystem services, supporting research in the role that wetlands play in improving water quality and quantity and establishing a framework for determining province-wide priority areas for conservation and restoration.

Of note, there is no specific action to identify wetlands in areas where loss has been the greatest. Inclusion of this action would help to fulfill the first overarching target provided in the draft Strategy should it be retained against our recommendation in the cover letter.

In order to support an offsetting program, the Province should also commit to supporting research in this area, including determining appropriate ratios for offsetting impacts of wetland function and diversity.

Wetland technical guidelines for plan review and offsetting are still an outstanding piece of information which must be tackled as part of a comprehensive wetland strategy. The creation of these guidelines should form part of the actions.

Strategic Direction – Partnership

This strategic direction presents an opportunity to highlight the role CAs play in wetland protection. This section should encourage the Province to partner with CAs in their compliance roles and to share resources in enforcement matters where appropriate.

CAs are supportive of the first action, which is to "clarify roles and responsibilities of various agencies involved in wetland conservation" and are eager to participate in those important discussions.

Strategic Direction – Policy

Conservation Ontario is very supportive of the action to "integrate a clear and consistent definition of wetlands across policy". Through their submission on the *Conservation Authorities Act* review, detailed information has been provided outlining the merits of a consistent definition of wetlands in all Provincial policies. Conservation Ontario is also supportive of strengthening the "provincial level guidance for integrating wetland values in Environmental Impact Statements". As outlined in Priority #2 of this response, CO requests that the Province also identify the review of the *Conservation Authorities Act* as an action under this strategic direction.

The Strategy refers to applying a 'no net loss' policy for areas where wetland loss has been greatest. Recognizing the inconsistency of inventories, mapping and assessment of wetlands across Ontario, it may be difficult to accurately identify where wetland loss has been the greatest – beyond those areas under increasing pressures from land conversion in southern Ontario. One area of policy that is not addressed specifically in this section is how and what provincially endorsed wetland evaluation and wetland ecosystem inventory techniques and methodologies are 'endorsed' by the province for a variety of purposes or, as in the case of the Ontario Wetland Evaluation System (OWES) manual, for the explicit purpose of evaluating wetlands for provincial significance for *Planning Act* applications. The use of the Ecological Land Classification (ELC) is also identified as a requirement for certain *Planning Act* applications using the Environmental Impact Studies (EIS) as a framework. The Conservation Authority permit review process uses a different suite of terms and steps to confirm whether a 'development' application can be approved subject to the application meeting the 5 tests. The province should establish clear technical methodologies for assessing wetlands across different pieces of legislation and policies so there is transparency and clarity in processes. A consistent wetland definition across policy is extremely important as well.

As part of this policy review, the province should recognize through a policy approach wetlands that have been evaluated through provincially endorsed and approved processes and apply those wetland designations to other provincial processes. For example, a wetland that has been identified as provincially significant through a Renewable Energy Approvals process does not automatically receive the same level of provincial protection through the provincial *Environmental Assessment Act* or the *Planning Act*. A municipal planning authority that is updating its Official Plan will not have the information available to them about the significance of the wetland in these two other provincial processes. The province should require the updating of 'provincially endorsed' wetlands into a centralized database to be used by all provincial endeavors and processes (i.e., LIO).

Under the current provincial policy regime, it would be useful to have a provincially approved template for Wetland Environmental Impact Studies (EIS) that would guide implementation under the PPS, CAA, and the

Environmental Assessment Act. It is acknowledged that the scoping of Environmental Impact Studies (EIS) requirements will need to take into account the current limitations of science with respect to determining small scale hydrologic/hydrogeologic changes and it is further noted that research in methodologies to address hydrologic/hydrogeologic impacts to wetlands is needed. A valuable resource for development of a provincially approved template for Wetland Environmental Impact Studies is "Recommendations for Conducting Wetland Environmental Impact Studies (EIS) for Section 28 Regulations Permissions" (Beacon Environmental, Dec 2010).

Comments Related to All Goals, Outcomes and Actions

As identified in Priority #3, this document should include a performance measurement process (including timelines) for each of the goals and actions to determine over time if they are actually achieving desired outcomes. The five year review period should be utilized to see how successful these goals and actions have been at actually protecting wetlands. Landscape-level studies should be conducted at regular intervals to understand how wetlands are functioning, quantify the net loss/gain and to prioritize the protection of wetlands in areas that have been most seriously impacted. This information could then be shared with other partners, including CAs, to prioritize protection (securement, restoration, stewardship) strategies and to identify areas where off-setting may/may not occur.

Wetlands Defined in Ontario's Municipal Land Use Planning Policy

As previously identified, there are several mapping tools available and in use for wetland delineation. It is recommended that whenever OWES is mentioned in the document, that it is clear that OWES is both a mapping and evaluation tool. Some municipalities have been providing protection to 'locally significant wetlands' through their Official Plan policies. This approach may be one option for the Province to consider when defining 'significant'.

Conservation Authority staff have a lot of experience when it comes to on-the-ground implementation of OWES and are eager to provide feedback to the Province on an update to OWES or an equivalent.

As described in the cover letter (Priority #2), Conservation Ontario is not supportive of the Note at the end of this section and requests that this note be removed from the Strategy.

Restoring Wetlands Using the Drainage Act

It is beneficial that this document is highlighting the good practices that can be undertaken to restore wetlands using the *Drainage Act*. The Province should also consider highlighting the work undertaken in partnership with the Maitland Valley Conservation Authority on the Scott and Garvey Glen Drains.

Unfortunately, drainage and wetlands do not always happily co-exist. The Province is reminded that work through the Drainage Act and Regulations Team (DART) has been stalled as a result of a lack of public policy work on terms defined and undefined in the *Conservation Authorities Act* (see details under Priority #2 in the cover letter). In the interim, CAs are tasked with balancing their regulatory responsibilities in the face of new petitions for municipal drains which may have a negative impact on wetland functions. Further policy work on the intersection between the *Drainage Act* and the *Conservation Authorities Act* should be an action under the 'Strategic Direction – Policy' section.

Finally, many of the negative impacts to wetland hydrology from drainage occur outside of the *Drainage Act,* including work undertaken through tile drainage. The Province should consider how future tile drainage will be addressed in the context of the Province's Wetland Strategy.

Monitoring Success

As indicated in the cover letter, Conservation Ontario is not supportive of the two targets as identified. The two targets appear to be discrete and the proposed timelines are too far off; tolerating continuing wetland loss. The Strategy proposes to report on its success every five years, however none of the proposed actions have timelines associated with them making this difficult to report on. This section mentions reporting on the

"total area and condition of wetlands in the province", but does not provide any detail about how the "condition" of wetlands would be determined; guidance would be required.

The Province also commits "to developing a comprehensive performance measurement framework". It is our expectation that the development of this framework will be undertaken through consultation with stakeholders, including Conservation Authorities. The Province is encouraged to consider the use of Watershed Report Cards, as a means to determine wetland changes and at least a partial assessment of the effectiveness of this Strategy where 90% of Ontario's population resides.

Towards Implementation

1) Improving Ontario's Wetland Inventory and Mapping

Conservation Ontario is supportive of this action, particularly in the context of helping "focus conservation, restoration and wetland monitoring programs" to achieve a 'net gain' of wetlands in areas of the Province where wetland loss has been greatest. An important step in updating Ontario's wetland inventory and mapping would be formalizing the partnership between CAs and MNRF as many CAs have undertaken wetland mapping exercises which could be incorporated into Provincial data sets. Currently this is being done on an ad hoc basis.

One important step in this process, not clearly identified, is an update to OWES or an equivalent system to facilitate future wetland identification exercises. The formation of a multi-stakeholder advisory committee is suggested to ensure that the updates to the wetland inventory takes advantage of the technical expertise and knowledge that is housed in organizations outside of the Provincial government, including CAs.

2) Developing policy approaches and tools to prevent the net loss of wetlands in Ontario

Conservation Ontario is appreciative of the commitment of the Province to work with CAs and other stakeholders to develop policy approaches and tools to prevent the net loss of its wetlands. CO also appreciates the recognition that offsetting should look at both qualitative and quantitative impacts. CAs believe that Ontario needs to reestablish and enhance wetlands, especially in southern and near northern Ontario where the majority of wetlands have already been lost.

By adopting a goal of 'net gain' where compensation is being applied it is more likely that in effect "no net loss" will be achieved. Ontario should strive for 'net gain' of wetlands as there are always losses of biodiversity, ecosystem complexity, maturity, and function when you replace a naturally formed wetland with a created wetland. A "net gain" policy should only be considered for the replacement of small, non-significant wetlands and generally should not undermine the strong protections in place for provincially significant wetlands.

CAs support a mitigation hierarchy, as long as the hierarchy emphasizes avoidance and reserves the option of compensation for unique situations that are in the public interest. It is paramount that the focus continues to be on the protection of existing wetlands as opposed to compensation for lost features and/or functions to accommodate development. Compensation should be a last resort and it should be required for any residual impacts, without a requirement to demonstrate that they are "significant". To account for uncertainties in dealing with complex ecosystems like wetlands, the province should require a minimum compensation ratio of 2:1 to ensure 'no net loss' and preferably higher to achieve a 'net gain'.

CO is also supportive that the draft Strategy recognizes that there are some types of wetlands and functions that cannot be compensated for (e.g. bogs, fens, and the Great Lakes coastal marshes). These types of wetlands must be clearly identified as off-limits to any consideration of compensation, particularly in southern and near northern Ontario where these features are exceedingly rare to begin with. Even the replacement of swamps is questionable because of the length of time (decades to centuries) needed to reestablish the biodiversity which was previously present and to restore comparable ecological function.

Should the Province proceed with an offsetting approach, clear and consistent policies and guidelines are needed to support implementation. In order to develop these, a long term funded program for monitoring of wetlands created as part of a compensation strategy is required. A review timeframe will be required (e.g. 5-10 years) and, if it is discovered that compensation efforts fall short or fail to achieve a "no net loss" of wetland area, function or quality, there needs to be a clear process that holds the proponent responsible to address residual impacts. Additionally, if it generally appears that compensation efforts are failing, it should trigger a reassessment of the policy direction that led to the negative outcomes.

Moreover, managing compliance and financial securities required to implement this policy are a challenge to even well-funded and prepared regulatory agencies. For example, Fisheries and Oceans Canada often had trouble achieving a like-for-like replacement of fish habitat, and even at a 2:1 ratio this habitat replacement was rarely truly effective. Funding and training of CA staff would be required in this regard. Outside of *Planning Act* approvals, offsetting is a regulatory challenge for CAs as typical permissions are issued for 2 years or 5 years when, in the opinion of the Authority Board, the work cannot reasonably be completed within 24 months. Should a wetland compensation project fail after the expiration of a CA permit, the CA would have no legal recourse. The Province is cautioned about seeing this as a panacea as many proponents would be alarmed at the costs and timelines required to build new wetlands and demonstrate their viability over the long-term.

Notwithstanding the above noted constraints, Toronto and Region Conservation Authority currently has biodiversity and ecosystem services compensation projects underway and generally Conservation Authorities are eager to participate with the Province in the development of an offsetting policy.

3) Improving guidance for evaluating significance of wetlands

Conservation Authorities are supportive of an update to OWES (or equivalent). Page 41 of the Strategy notes that the current system is used to "regulate wetlands under the *Conservation Authorities Act"* and this should be clarified; both in this Strategy and in any updates to the OWES manual. While some CAs' regulations do differentiate between provincially significant wetlands (PSW) and other wetlands, it should be noted that a wetland does not need to be a PSW to be regulated. Evaluation of wetlands generally should have an increased focus on their hydrologic function. Additionally, CA staff trained in OWES could be allowed to update the Provincial designations through a provincial partnership agreement.

As previously described, CA staff should form part of a committee dedicated to the update of OWES. CA staff would appreciate an update including an evaluation of wetland function, particularly if this is the tool that Province will use as part of their offsetting program.

Glossary

CA staff recommend including the following definitions: Ecological Land Classification (ELC), development, infrastructure, site alteration, significant, wetland, and hydroperiod.

As previously described, CA reviewers have concerns with the proposed definition of 'no net loss' and its narrow, area-focused scope. It is felt that the definition of the "precautionary approach" is incomplete as it does not describe how the decision is reached (or modified) in those circumstances where there are threats of serious or irreversible damage; as noted earlier, 'precautionary principle' is preferred.

The definition of Great Lakes Coastal Wetland appears to be a minor modification from the PPS' "coastal wetland" definition. CA staff require clarification on this definition as it indicates that any wetland on a connecting channel to the Great Lakes within two 2 kilometres *as the crow files* would be considered a Great Lakes Coastal Wetland. Should it be the Province's intention that the PPS definition should also be applied "as the crow flies" it is important that this information be distributed to municipalities and Conservation Authorities. Having two different definitions, one in the PPS and one in the Wetland Strategy is not supported.

From: AMO Communications <communicate@amo.on.ca>
Sent: January-12-17 4:15 PM
To: Clerks
Subject: AMO POLICY UPDATE - Provincial Cabinet Shuffle

January 12, 2017

Today's Changes to Provincial Cabinet

Today Premier Kathleen Wynne appointed new Ministers to Cabinet and made changes to some portfolios in her second Cabinet shuffle since the June 2014 provincial election.

This mini Cabinet shuffle was anticipated after the December 16th departure of former Community Safety and Correctional Services Minister David Orazietti. At that time, Premier Wynne appointed the Minister of Labour, the Honourable Kevin Flynn, to be the intern Minister of Community Safety and Correctional Services.

AMO would like to congratulate the Honourable Marie-France Lalonde on her appointment as the Minister of Community Safety and Correctional Services (MCSCS). Minister Lalonde will also retain her responsibility for Francophone Affairs.

We look forward to working with the new MCSCS Minister Lalonde and her staff on significant municipal issues such as policing modernization and the anticipated *Police Services Act* amendments, the recently announced changes to provincial policing grants and the treatment of property counts in the OPP billing model.

Other Cabinet appointments and portfolio changes today included:

Hon. Dipika Damerla - Minister of Senior Affairs

Hon. Jeff Leal - Minister of Agriculture, Food and Rural Affairs and Responsible for Small Business

Hon. Tracy MacCharles - Minister of Government and Consumer Affairs and Minister Responsible for Accessibility

Hon. Indira Naidoo-Harris - Minister of Women's Issues and Minister Responsible for Early Years and Child Care.

With the Ontario Legislature returning for its Spring sitting on February 21st, the newly shuffled Cabinet Ministers have some time to be briefed on their portfolios. The ROMA Ministers' Forum is on January 30th and there will be ministerial delegations at the upcoming ROMA Conference.

AMO Contact: Monika Turner, Director of Policy, E-mail: mturner@amo.on.ca, 416.971.9856 ext. 318.

Marie Alphonso

From: Nick Boileau <dominique.boileau@uoit.net>
Sent: January-14-17 9:19 PM
Subject: UOIT Event Invitation Feb 1st
Attachments: SSH Future Of Politics banner.pdf; SSH Future Of Politics poster.pdf

We cordially invite you, your staff, and families to join the University of Ontario's free public symposium The Future of Politics?

The event begins at noon on Feb 1st with a lunch provided to guests beforehand.

The event comprises 3 separately moderated conversation panels, each building on the other like puzzle pieces with the full picture emerging at the end. Come for any or all 3 panels.

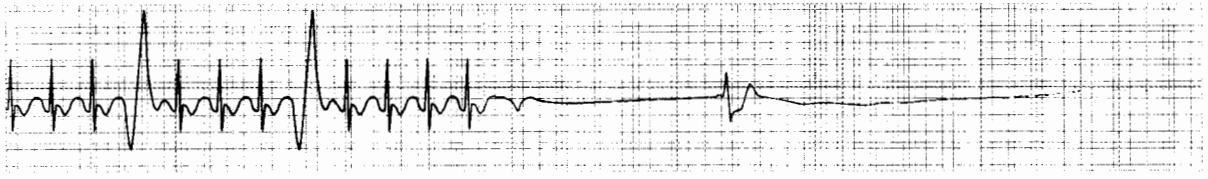
Please see attached links and information for more details. We encourage you to share the event.

https://www.eventbrite.ca/e/the-future-of-politics-the-crises-of-capitalism-and-democracy-tickets-30993255662

https://www.facebook.com/events/251158495297146/

Nick Boileau
Organizer

THE FUTURE OF POLITICS?



Wednesday, February 1, 2017

FREE EVENT
Lunch provided

UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY | FACULTY OF SOCIAL SCIENCE AND HUMANITIES

Sponsored by:

61 Charles Street Building

noon to 2 p.m.

CONTEMPORARY ISSUES IN ECONOMICS: ANTI-AUSTERITY AND THE POLITICS OF COMPETITION

- Dr. Jordan Brennan – Unifor
- Dr. David Newhouse – Trent University
- Dr. Louis-Phillipe Rochon – Laurentian University

2:30 to 4:30 p.m.

GOVERNANCE AND SOVEREIGNTY: POLITICAL LIMITATIONS OF GLOBAL CAPITALISM

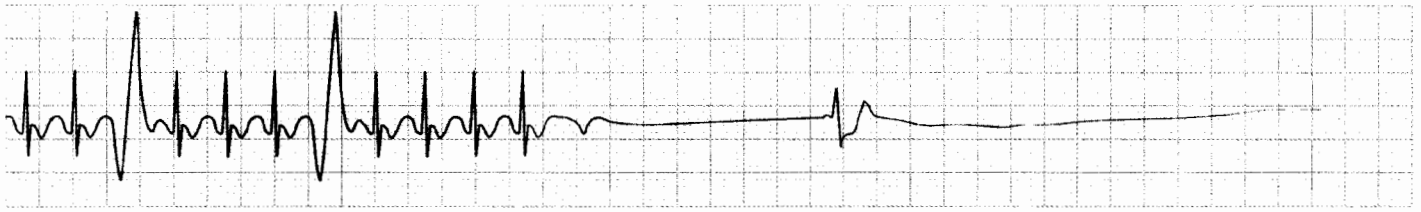
- Dr. Greg Albo – York University
- Dr. Randall Germain – Carleton University
- Dr. Heather Whiteside – University of Waterloo

Regent Theatre
6:30 to 9 p.m.

THE FUTURE OF POLITICS?:
GLOBAL CRISIS AND THE POTENTIAL FOR CHANGE

- Maude Barlow – Council of Canadians
- Dr. Ravindra de Costa – York University
- Dr. David McNally – York University
- Craig Scott – Osgoode Hall
- Dr. Judith Teichman – University of Toronto

THE FUTURE OF POLITICS?



The crises of capitalism and democracy

Wednesday, February 1, 2017

FREE EVENT
Lunch provided

For more information:
uoit.ca/futureofpolitics

61 Charles Street Building, Room 216

noon to 2 p.m.

CONTEMPORARY ISSUES IN ECONOMICS:
ANTI-AUSTERITY AND THE POLITICS OF COMPETITION

- **Dr. Jordan Brennan** Unifor
- **Dr. David Newhouse** Trent University
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- **Dr. Greg Albo** York University
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- **Dr. Heather Whiteside** University of Waterloo

Regent Theatre
50 King Street East, Oshawa, Ontario L1H 1B4
6:30 to 9 p.m.

THE FUTURE OF POLITICS?:
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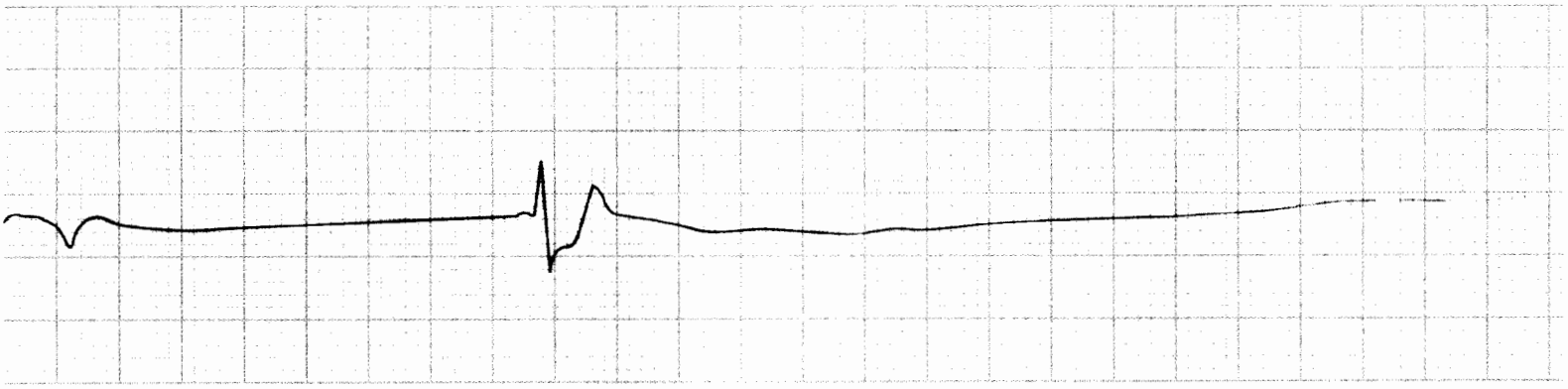

Special thanks to our sponsors:

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For an alternative format of this information, contact marketing@uoit.ca.

Marie Alphonso

From: Katarina Zeppieri <K.Zeppieri@lsrca.on.ca>
Sent: January-16-17 10:49 AM
Subject: LSRCA Annual General Meeting - Keynote Speaker Announcement
Attachments: PictureBlair 013 (4).jpg

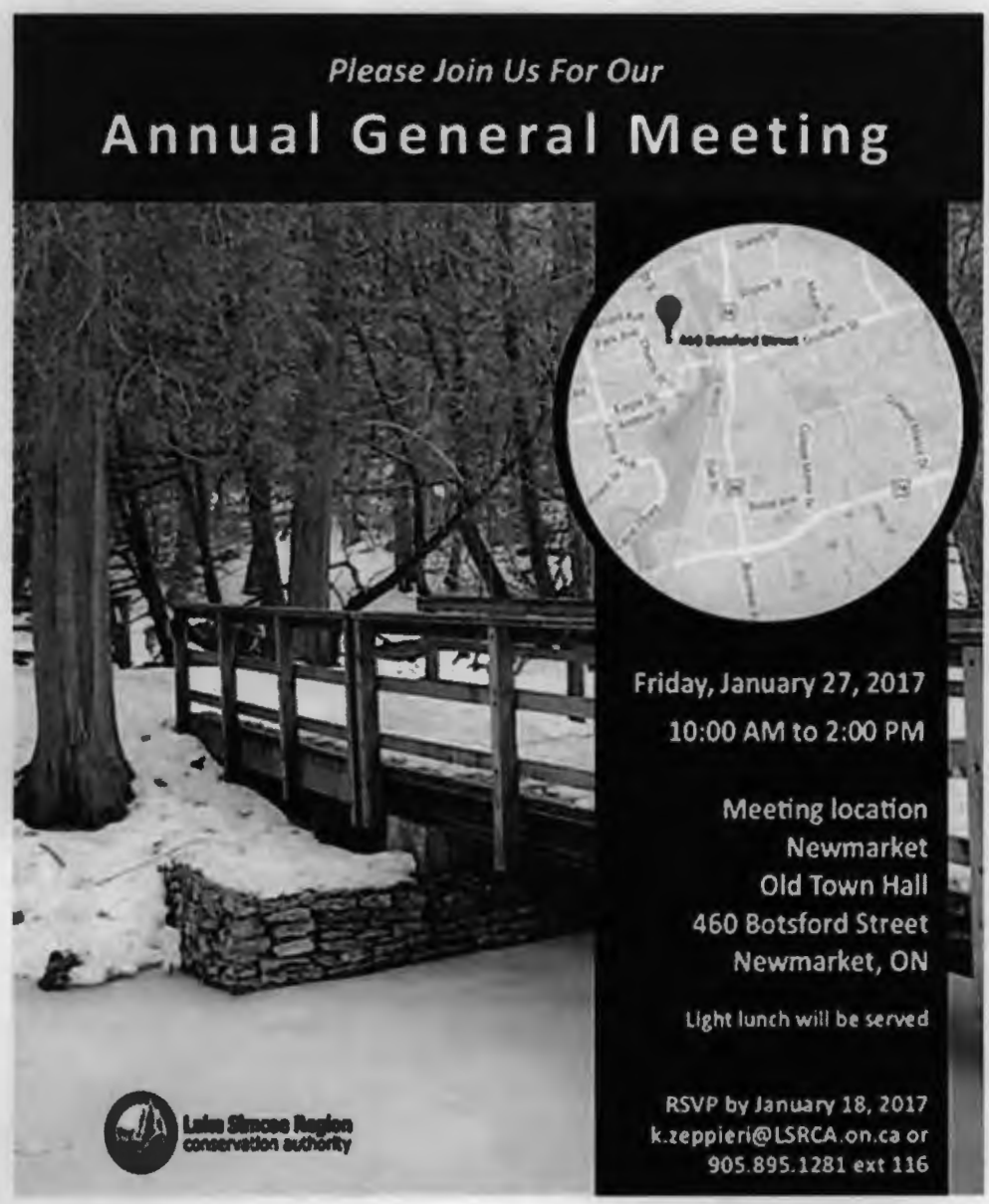
(sent on behalf of Mike Walters)

We are pleased to announce Dr. Blair Feltmate, Head, Intact Centre on Climate Adaptation, University of Waterloo, will be speaking at our AGM on January 27th on the Contagion of Climate Change: Why All Business Sectors are Now Paying Attention to Extreme Weather. Additional details on this topic and our AGM may be found below. We hope you will be able to join us!

The Contagion of Climate Change: Why All Business Sectors are Now Paying Attention to Extreme Weather

There is no denying that extreme weather events are on the rise – from floods, to droughts, fire, wind and hail. Initially, it was the Property & Casualty insurers that seemed vulnerable to extreme weather impacts, while other business sectors remained immune – this is clearly no longer the case. The presentation will highlight how all industry sectors are vulnerable to the "new normal" of extreme weather, and more importantly, what they can do to mitigate risk and maximize opportunity.

Dr. Blair Feltmate: Blair is Head, Intact Centre on Climate Adaptation, University of Waterloo. The primary purpose of the Intact Centre is to mobilize practical and cost-effective means to help de-risk Canada from the costs associated with extreme weather events. Previous positions Blair has held include Vice President, Sustainable Development, Bank of Montreal; Director, Sustainable Development, OPG; and Partner, Sustainable Investment Group/YMG Capital Management. He is generally interviewed by the media 100-150 times per year.



Regards

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Action Items
Committee of the Whole and Regional Council

Meeting Date	Request	Assigned Department(s)	Anticipated Response Date
September 7, 2016 Committee of the Whole	Business Case for Projects Managed Directly by the Region – Increasing the number of projects which are managed directly by the Region, whether through employees or contracted staff – referred to the 2017 budget process.	Works	2017 Budget Process Please see 2017-INFO-9
September 7, 2016 Committee of the Whole	Staff was requested to provide a report on the correspondence from the City of Pickering with respect to the Notice of Motion adopted at their Council meeting held on June 27, 2016, re: residential tax relief to eligible low income seniors and low income disabled persons (Pulled from August 19, 2016 Council Information Package)	Finance / Social Services	
September 7, 2016 Committee of the Whole	Staff was requested to provide information on the possibility of an educational campaign designed to encourage people to sign up for subsidized housing at the next Committee of the Whole meeting. (Region of Durham's Program Delivery and Fiscal Plan for the 2016 Social Infrastructure Fund Program) (2016-COW-19)	Social Services / Economic Development	October 5, 2016
September 7, 2016 Committee of the Whole	Section 7 of Attachment #1 to Report #2016-COW-31, Draft Procedural By-law, as it relates to Appointment of Committees was referred back to staff to review the appointment process.	Legislative Services	First Quarter 2017

Meeting Date	Request	Assigned Department(s)	Anticipated Response Date
October 5, 2016 Committee of the Whole	That Correspondence (CC 65) from the Municipality of Clarington regarding the Durham York Energy Centre Stack Test Results be referred to staff for a report to Committee of the Whole	Works	
December 7, 2016 Committee of the Whole	Staff advised that an update on a policy regarding Public Art would be available by the Spring 2017.	Works	Spring 2017
December 7, 2016 Committee of the Whole	Staff was requested to provide a report outlining the details of an electronic voting system process for in the Council Chambers and to report back to the February 2017 Committee of the Whole meeting.	Corporate Services Administration	February 2017
December 14, 2016 Council	The Notice of Motion by Councillors Henry and Chapman regarding the Oshawa Executive Airport was referred to Finance and Economic Development staff for consideration in the 2017 budget (Notice of Motions Item 2)	Finance and Economic Development	2017 Budget Process