Toronto and Region Conservation Authority

Authority Meeting

Agenda

#5/16

June 24, 2016

9:30 A.M.

HEAD OFFICE, 101 EXCHANGE AVENUE, VAUGHAN

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1. MINUTES OF MEETING #4/16, HELD ON MAY 27, 2016
https://trca.ca/wp-content/uploads/2016/04/04-16-Report-Package-Authority_May27_2016.pdf

2. BUSINESS ARISING FROM THE MINUTES

3. DISCLOSURE OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF

4. DELEGATIONS

5. PRESENTATIONS

   5.1 Presentation to Paul Ainslie of his 10-Years of Service Recognition Award.

   5.2 A presentation by Brian Denney, CEO, TRCA, re: item 7.1 - Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority.

6. CORRESPONDENCE

   6.1 An email dated June 17, 2016 from Regional Councillor Gino Rosati, City of Vaughan, in regard to item 7.1, Project for the Construction of an Administrative Office Building for the Toronto and Region Conservation Authority 4

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11. NEW BUSINESS

NEXT MEETING OF THE AUTHORITY #5/16, TO BE HELD ON JULY 8, 2016 AT 9:30 A.M. AT HEAD OFFICE, 101 EXCHANGE AVENUE, VAUGHAN

Brian Denney, Chief Executive Officer

/jr

"Rosati, Gino"
<Gino.Rosati@vaughan.ca>
06/17/2016 12:41 PM

To '"jreda@trca.on.ca"' <jreda@trca.on.ca>
cc '"kstranks@trca.on.ca"' <kstranks@trca.on.ca>
bcc
Subject Item 7.1 - Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority

History: This message has been forwarded.

To: Toronto and Region Conservation Authority Chair Maria Augimeri and Board Members

RE: Item 7.1 - Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority

Unfortunately, I will not be able to attend the meeting of June 24th, 2016. However, I would like to give you my brief comment with reference to the above item, and I am in full support of the staff recommendations.

This project has been before us for quite some time and I do believe it is time to move forward, as I believe a new administration center is really needed for the TRCA.

Gino Rosati
Local and Regional Councillor
City of Vaughan

Item 7.1

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #4/16, Friday, June 24, 2016

FROM: Brian Denney, Chief Executive Officer

RE: **PROJECT FOR THE CONSTRUCTION OF AN ADMINISTRATIVE OFFICE BUILDING FOR TORONTO AND REGION CONSERVATION AUTHORITY**
5 Shoreham Drive, Toronto

KEY ISSUE

Approval of the "Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority (TRCA)".

RECOMMENDATION

THAT the Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority (TRCA) (Project), at a cost of $70,000,000, be approved;

THAT the regional municipalities of Peel, York, Durham, the City of Toronto, the Town of Mono and the Township of Adjala-Tosorontio be designated as the benefiting municipalities on the basis as set out in the Project;

THAT the Minister of Natural Resources and Forestry be requested to approve the Project in accordance with Section 24 of the *Conservation Authorities Act* (Act), and the application to the Project of the provincial share of land disposition proceeds on the basis as set out in the Project;

THAT pursuant to Section 3(5) of the *Conservation Authorities Act (Act)*, the Minister be requested to approve an interest rate on funds borrowed to finance the Project not to exceed 3.75% for the life of the Project;

THAT pursuant to Section 24 of the *Act,* the Ontario Municipal Board be requested to approve the Project, if required;

THAT staff be authorized and directed to take the necessary action to complete the Project, including obtaining any additional approvals which may be deemed necessary and the execution of any necessary documents;

AND FURTHER THAT staff be directed to report to the Authority upon response from the Province of Ontario and the participating municipalities.

BACKGROUND

At Authority Meeting #12/15, held on January 29, 2016, Resolution #A257/15 was approved as follows:

> *THAT a project to build a new Toronto and Region Conservation Authority (TRCA) head office at 5 Shoreham Drive, based upon the schematic design developed by DTAH be accepted in principle, with the condition that staff be directed to:*

- *approach TRCA member municipalities for new funding support for the construction of a new head office building based upon the design developed by DTAH Architects Limited;*

- *initiate a competitive procurement process for a consulting team to lead detail design;*

- *confirm financing and borrowing opportunities and strategy (i.e. public private partnerships, liquidation of assets, government grants and support from industry partners etc.);*

- *proceed with an Expression of Interest (EOI) for the Black Creek Pioneer Village parking lot site, which may consider a design/build option for a new TRCA head office, as part of a potential public private partnership, in accordance with the parameters attached as Attachment 5; and*

- *report back at Authority Meeting #4/16, scheduled to be held on May 27, 2016 on member municipality funding support, financing strategy, outcome of procurement process and EOI.*

RATIONALE

Since Authority Meeting #12/15, held on January 29, 2016, staff has conducted research and analysis of available financing and borrowing opportunities that has been informed by discussion with key stakeholders and experts. This has included discussions with TRCA's municipal partners, in which the Project has been well received. The findings from TRCA's work to date are summarized as follows:

Investigation of Public Private Partnership

TRCA retained PricewaterhouseCoopers LLP (PwC) to undertake a financial analysis of the Project through a Public Private Partnership (PPP) or design-build-finance-maintain-operate project delivery method versus a conventional Design-Bid-Build (DBB) process. PwC reviewed TRCA's existing cost estimate and used this information to calculate a cost comparison of both procurement models, which included Net Present Value of the total project as well as the annual cash requirements. PwC also outlined for TRCA the benefits and drawbacks of each approach as summarized in Attachment 1.

Based on this comparison, the Project net present value under PPP was calculated to be $27 million higher on a whole life basis than through a DBB approach. TRCA staff has concluded that there is not sufficient risk associated with the Project that would warrant the projected increase in cost anticipated by using a PPP method. Staff is therefore recommending a more conventional project delivery method.

Procurement Method and Schedule

As informed by the PwC report and discussions with other leaders in the field, staff has confirmed that the most effective delivery of the Project will be achieved using a conventional procurement approach, supported by a construction manager, and similar to a PPP will be coupled with an integrated design process that assembles a design team early in the planning process, to benefit from the input of the constructor and operator on constructability, operation, maintenance and life cycle requirements. TRCA staff will explore another benefit of PPP (pay for performance advantage) by utilizing financial incentives or penalties to encourage innovation, and mitigate potential schedule or scope creep.

Further to the findings related to the advantages of the PPP approach, TRCA staff has also made provision for an annual contribution to a major maintenance reserve to ensure that there is available budget to undertake a proactive maintenance and replacement schedule based on the Project life cycle requirements. TRCA staff will work with the project team to detail the opportunities for building life cycle efficiency and inform the long-term operation and maintenance.

Staff will now proceed with the Request for Qualification phase (Phase 1) of the procurement process, as directed by Resolution #A257/15, to retain a design team. Phase 1 will be followed by the Request for Proposal phase (Phase 2). Following the completion of Phase 2, staff will report back to the Authority as required by the TRCA Purchasing Policy. The timing and decision to award will be influenced by progress related to Project approval.

Project Financing
Recent feedback from municipal staff, potential lenders and PwC, suggests that TRCA will be able to achieve a rate of interest comparable to those generally available to our participating municipalities, and certainly lower than the rates generally available through private financing provided in a PPP model. While the option of having one of TRCA's participating municipalities borrow the required funds on behalf of the organization has not been ruled out, TRCA must also be prepared to borrow directly from a financial institution. The Royal Bank of Canada, TRCA's banker, has expressed an interest in advancing the required Project funds, provided that the Project is adopted by both the participating municipalities and the Province of Ontario, in accordance with all the provisions of the *Conservation Authorities Act* (Act.)

One of the requirements of the banker is approval of the project by the Minister of Natural Resources and Forestry under section 24 of the Act. Staff has contacted staff from the Ministry and confirmed that in order for the Minister to provide approval of the project there must be provincial funds allocated to the project. In as much as the proposed project funding model calls for the application of $10 million in land sale proceeds, of which approximately $5 million is deemed provincial funding, this condition can be satisfied. The rationale for the application of land sale proceeds is addressed below.

Under subsection 3(5) of the Act the Minister is also required to approve the interest rate for the associated Project borrowing. It is proposed that the Minister be requested to approve an interest rate ceiling of 3.75%, which appears adequate based on staff's research to date.

FINANCIAL DETAILS
The maximum total Project cost is $70,000,000 (including contingency provision.) The elements of the Project include: base building; design; project and construction management (design and construction); furniture and equipment; permits, approvals and legal fees; and disbursements.

Project Funding
The Project will be funded as follows:

Participating Municipal Funding:	$60 million
Land Disposition Funds:	$10 million

TOTAL:	**$70 million**

The participating municipal Project contributions will be finalized through their respective budget process and will be in accordance with the annual Modified Current Value Assessment (CVA) formula; which is subject to annual updating. Participating municipal Project funding contributions includes two sources: a) confirmed existing annual Major Facilities Project funding of $500,000 over 21 years ($10.5 million total); and b) new annual funding contributions of $1.5 million over a 33 year period ($49.5 million total). Municipal levy funding is summarized in Attachment 2.

Staff will continue to explore opportunities for other grant funding contributions. If successful, these funds would be used to offset the term of the participating municipal contributions.

Land Disposition Funds
As noted, Minister's approval will be required by financial institutions prior to advancing the required funds for the Project. Therefore, subject to approval by the Minister, TRCA proposes that land disposition funds in the amount of $10,000,000 be made available to assist with the funding of the Project. TRCA currently has $2,000,000 in reserves from land disposition funds that could be allocated to the Project.

The final value of land disposition contribution will be determined based on available land disposition funds during the Project, and will be reviewed on a case by case basis. When land disposition proceeds become available TRCA will seek approval of the Minister to allocate the funds as described herein.

The requested land disposition funds will support Project costs directly tied to green technologies that demonstrate the goals and objectives of the *Climate Change Mitigation and Low Carbon Economy Act*, as well as the strategies presented in the Government of Ontario's Green Investment Fund. TRCA has estimated that these green technologies amount to approximately $10,000,000 (including on-site photovoltaic panels, electric heat and cool ground and air source heat pumps, low-carbon wood and concrete hybrid structure, and self-tint electro chromatic glass window system). Additional information on how the Project supports the goals of the Province is provided within the Project document.

DETAILS OF WORK TO BE DONE
Staff will submit the Project document to each participating municipality, with a request for formal approval of the Project and funding contributions.

Staff will continue to seek out the most favourable approach in finalizing the terms and conditions of a loan to finance the Project, including continuing to explore opportunities for a participating municipality to take on a loan on behalf of TRCA, on a cost recovery basis.

Staff will submit the Project document to the Minister of Natural Resources and Forestry for approval in accordance with Section 24 and 3(5) of the Act.

Report prepared by: Ethan Griesbach, extension 5364
Emails: egriesbach@trca.on.ca
For Information contact: Ethan Griesbach, extension 5364
Emails: egriesbach@trca.on.ca
Date: May 12, 2016
Attachments: 2

Table 1. Advantages and disadvantages of PPP and DBB

Advantages of PPP	**Advantages of DBB**
Fixed price, date-certain commitment	Well understood process, allows for the Project to be divided into smaller components as required
Ability to enforce achievement of specifications through the contract and payment mechanism (pay for performance), which includes deductions in case of availability or performance failures	Engineer/designer will work for the TRCA and will provide best recommendation on quality vs. price
Design benefits from input of construction contractors and operators	Opportunity for value engineering with the TRCA's continuous involvement during the design period, that is, the comparative review of technical alternatives compared to their execution cost
Design and overall Project cost reflect whole lifecycle of the asset	Lower up-front ancillary costs for consultants and legal advisors
The private partner assumes significant long-term risks, including interface and coordination risks during construction (such as between design and construction)	
Quality of the assets at the end of the project term is assured through handback condition assessment	
Bidders are encouraged to develop innovative solutions to meet the TRCA's needs	
Disadvantages of PPP	**Disadvantages of DBB**
TRCA is contractually obligated to make maintenance and lifecycle payments in line with the service standards defined in the Project Agreement. This will remove flexibility to divert funds away from these activities in case of budget constraints	Difficult to avoid schedule and scope creep
Success of PPP depends on the quality of the Project Agreement and ability to clearly and accurately communicate performance requirements	Design does not benefit from input of construction contractors and could potentially suffer from a lack of constructability and potential disputes between designer and construction contractor
Planning and procurement take longer than under a DBB procurement	Design does not benefit from an operator's input concerning O&M and lifecycle requirements
This approach can be misunderstood and raise opposition from special interest groups such as trade unions, who fear job losses	Low opportunity/less motivation for innovation by construction contractor and O&M/lifecycle providers
Up-front planning and procurement costs are higher	Limited price and delay risk transfer: engineers and contractors would not provide guarantee of overall "fixed price date certain" commitment, with the TRCA assuming most cost overruns or costs resulting from delays
	Interface risk between designer and contractor(s) and operators
	Warranty on construction and equipment limited to one to two years post completion. Warranty typically not supported through liquid security, putting enforcement at risk
	Lifecycle costs are not always funded in a timely manner (i.e. may be pushed back due to budget constraints in a given year)
	Construction contractors have no responsibility for the lifecycle of the assets and may not be motivated to build with consideration for longevity

Attachment 2

Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority (Project)

5 Shoreham Drive, Toronto

May 12, 2016

Toronto and Region Conservation Authority

INTRODUCTION

This Project description has been prepared by Toronto and Region Conservation Authority (TRCA) in order to obtain the approval of the Project by the Minister of Natural Resources and Forestry in accordance with Section 24 of the *Conservation Authorities Act* (the "Act.") The Project provides the design and build elements of a new TRCA administrative headquarters which will be located at 5 Shoreham Drive in Toronto. Also consistent with the Act, TRCA requests approval of the Minister of a rate of interest for its financing requirements in accordance with Section 3(5) of the Act.

Minister's approval of the Project in accordance with the various provisions of the Act is required by financial agencies prior to entering into loan agreement with TRCA.

This Project outlines the details of the proposed building together with the rationale for the replacement of the existing head office building, the estimated costs and the proposed funding arrangements.

DESCRIPTION OF THE PROJECT

The Project is for a new six storey TRCA headquarters building that is based upon the schematic design completed by DTAH Architects Limited in 2015, as described further herein. The schematic design supports TRCA's business and provides accessible customer service by meeting requirements for office, meeting, collaboration, demonstration, central filling, shipping/receiving and storage spaces. The project will provide 9,724m^2 (100,000ft^2) for office space use and 7,951m^2 (90,254ft^2) for a three level underground parking garage.

The Project will follow best practices in operational efficiency and will supplement energy demand with on-site, renewable power sources (i.e. rooftop-photovoltaic panels). The Project's structure will be a low-carbon wood and concrete hybrid system; and is proposed to achieve Leadership in Energy and Environmental Design (LEED) platinum certification and WELL Building certification; which is the world's first building standard focused exclusively on human health and wellness.

LOCATION

The Project location at 5 Shoreham Drive, Toronto, Ontario has served as TRCA's head office setting for over forty years. (Recently, TRCA moved to an interim, leased head office facility in Vaughan, Ontario.) The Shoreham site is an optimal location for TRCA operations as it provides convenient access to the 400 series highways, is relatively central to its area of jurisdiction and is well serviced by public transit and regional trail connections. The location will result in a reduced auto driver mode share ranging from 45% to 65%, which is less than the 80% range currently experienced by staff and clients at TRCA's interim head office, located at 101 Exchange Avenue, Vaughan.

RATIONALE FOR THE PROJECT

TRCA Space Requirements:

TRCA has grown considerably since its main office at 5 Shoreham Drive was constructed in the early 1970's. The original office at 1,821m^2 (19,600ft^2) was built to accommodate 80 staff. Growth coupled with a lack of adequate office accommodations resulted in long term, chronic space shortages, poor working conditions for staff and a lack of adequate meeting space. These issues were partially addressed with the move of staff to various satellite offices over the years and the lease of additional office space at 101 Exchange Avenue in Vaughan to serve as an interim head office[1] to accommodate over 300 staff. However, TRCA's long-term goal is to consolidate staff currently in multiple facilities to one central location to reduce travel time between TRCA offices, and allow resource and staff sharing. Furthermore, a purpose built facility will allow TRCA to provide optimal customer service and support; achieve accommodation standards for staff comparable to our regional and municipal partners, with a positive influence on staff retention; and ensure that the office can accommodate growth to meet future staff and program requirements.

[1] Lease expires in 2021

TRCA growth projections show that our current interim head office will not have sufficient space to accommodate staff growth beyond 2021. The interim head office has a maximum building capacity of 440 persons (including staff and visitors). At the interim head office, TRCA anticipates a 3% growth rate over the coming years, resulting in an estimated work force of 436 persons in 2021. This number does not include staff from other buildings that TRCA intends to relocate to the new head office building at 5 Shoreham in order to achieve operational efficiencies.

Ownership of the Project:

Building at the 5 Shoreham Drive location will allow TRCA to maintain asset-ownership and reduce cost and risks generally associated with a leasing option (i.e. potential for unfavourable and expensive lease terms; unsuitable working conditions; decreased levels of service delivery; lower workforce productivity; and staff retention). After an extensive analysis of our available options TRCA has concluded, that similar to our municipal partners, a 100% ownership model is the most cost effective solution. Finally, since TRCA owns the lands at the 5 Shoreham location the total project costs will be positively impacted.

Project Green Features and Demonstration of Key Climate Change Mitigation and Low Carbon Economy Act Features:

The Project will demonstrate how the goals and objectives of the *Climate Change Mitigation and Low Carbon Economy Act* (Climate Act), as well as, the strategies presented in the Government of Ontario's Green Investment Fund (GIF) can be achieved. The Project will i) support Ontario's continued growth and global leadership in the development, use and manufacturing of clean energy and green technologies; and ii) demonstrate Ontario's transition to low-carbon urban communities.

Presented in Table 1 below is a comparison of the key GIF strategy areas and how the Project will demonstrate their application.

Table 1: Project's Demonstration of Key GIF Strategy Areas

GIF Strategy Area	How Project will Demonstrate a GIF Strategy Area	Key Project Features to Achieve GIF Strategy
Climate Change – Low Carbon Future	The Project will demonstrate a low carbon footprint through all lifecycle phases (material production, construction, operation and end-of-life). According to model simulations completed by WSP Group (formerly Halsall), operating carbon emissions are estimated to be reduced by more than 50% and embodied carbon by more than 75% when compared to an average building in the Toronto region. The Project is Net-Zero ready, as the systems and the designs have been done in a manner that will allow for them to be reconfigured in the future, to draw from completely renewable sources.	Predominantly all electric heating and cooling system serviced by air and ground source heat pumps. Low carbon, wood structural system. At minimum, 5% of building's energy needs will be met with on-site photovoltaic panels. Passive House design principles, simple, well insulated building envelope will reduce heating and cooling requirements. Self-tint electro chromatic glass system that automatically adjusts throughout the day will optimize the indoor climate and the outside view. Solar thermals panels on the roof will provide heat for domestic hot water demands.

GIF Strategy Area	How Project will Demonstrate a GIF Strategy Area	Key Project Features to Achieve GIF Strategy
Grow Economy and Create Jobs	Where possible, the Project will source from Ontario base firms. The Project will create a point of local demand for clean energy and green technologies. Ontario WOOD Works – a champion for Ontario's wood industry – has expressed support for the Project.	Photovoltaic panels. Solar thermal wall. Low carbon, wood structural system.
Electric Vehicle Charging Stations	Installment of charging stations for TRCA staff and visitors will support and promote Electrical Vehicle use.	Quantity of charging stations to be at 2% of total number of parking spaces.
Green Infrastructure	Project will be regenerative; it will restore green infrastructure systems and their corresponding ecosystem services (i.e. benefits humans obtain from nature) that existed prior to the properties initial development in the 1970s. The Project will manage on-site, stormwater runoff for at minimum the first 25 mm of rainfall.	Rainwater harvesting gardens. Bioswales and permeable pavement. Native plants that will mimic pre-development habitats. Provision for on-site agriculture.
Modal Shift: to low-carbon	Project promotes use of active transportation infrastructure as it is near a transit node, with supporting connections (sidewalks, signalized pedestrian crossings, carpooling), as well as walking and cycling networks that promote accessibility and safety. The Project will provide support for TRCA's corporate fleet of hybrid and electric vehicles, which allows staff to commute to work by way of active or public transportation systems, and use a fleet vehicle for work purposes.	Located within one kilometre of Toronto Transit Commission's new Black Creek Pioneer Subway Station and the York University Bus Loop; which provides regional connections. On-site access to the Black Creek Pioneer Ravine trail system. Fronts Shoreham Drive, which has sidewalks and forthcoming cycling lanes. On-site designated carpool parking spots. On-site electric car charging. Additional parking to accommodate 60 TRCA corporate fleet vehicles. The TRCA corporate fleet is transitioning to 100% electric.
Water Conservation and Stormwater Management	Project will demonstrate design and technologies that reduce potable water use and manage/use-onsite stormwater. The Project will demonstrate a preliminary potable water use reduction of 43%.	Potable water use metres. Ultra-low flow plumbing fixtures. Harvest rainwater for use in the building (i.e. as feed for water closets, urinals and irrigation).

ESTIMATED COSTS
The maximum total Project cost is $70,000,000 (including contingency provision.) The cost elements of the Project include: base building; design; project management (design and construction); furniture and equipment; permits, approvals and legal fees; and disbursements.

FUNDING ARRANGEMENTS
TRCA proposes that the funding for this Project be contributed as follows:

Participating Municipality Levy (see Appendix 1)	$60 million
Land Disposition Funds	$10 million
TOTAL:	**$70 million**

This purpose built facility will allow TRCA to provide optimal customer service and support to all its participating municipalities and residents of its jurisdiction. Therefore, TRCA proposes that the Project be a generally benefiting project and participating municipalities contribute to the Project in accordance with the Modified Current Value Assessment (CVA) formula; which is subject to annual updating. The participating municipal funding will be negotiated with each participating municipality and will be subject to their individual budget processes.

Land Disposition Funds
Subject to approval by the Minister, TRCA proposes that land disposition funds in amount of $10,000,000 will be available to assist with the funding of the Project. When land disposition funds become available TRCA will seek approval of the Minister to allocate the provincial share of the funds as described herein.

The requested land disposition funds will support Project costs directly tied to green technologies that demonstrate the goals and objectives of the Climate Act, as well as the strategies presented in the GIF. TRCA has estimated that these green technologies amount to approximately $10,000,000 (including on-site photovoltaic panels, electric heat and cool ground and air source heat pumps, low-carbon wood and concrete hybrid structure, and self-tint electro chromatic glass window system).

FINANCING RATE
In accordance with Section 3(5) of the Act, TRCA requests that the Minister approve a rate of interest for the Project that is no greater than 3.75%, throughout the life of the Project. Based on proposals from TRCA's banker and discussions with finance staff at participating municipalities it is estimated that this rate represents the ceiling on borrowing costs.

CONCLUSION
Minister's approval under sections 3(5) and 24 of the Act is required in order to satisfy lending conditions which will be required by financial institutions. Furthermore, Minister's approval is also required to contribute Provincial share of land disposition funds towards the Project.

Appendix 1: Breakdown Participating Municipality Levy

Project for the Construction of an Administrative Head Office Building For the Toronto and Region Conservation Authority Levy Apportionment by Municipality				
Participating Municipality	**2016 CVA Factor (Note 1)**	**Existing Project Funding (Note 2)**	**New Project Funding (Note 3)**	**Total Annual Levy Funding**
Adjala- Tosorontio, Township of	0.000067	34	101	135
Durham, Regional Municipality of	0.028247	14,124	42,370	56,494
Mono, Town of	0.00008	40	120	160
Peel, Regional Municipality of	0.113733	56,867	170,600	227,467
Toronto, City of	0.643621	321,810	965,431	1,287,241
York, Regional Municipality of	0.214252	107,125	321,378	428,503
Annual Total	1.000000	500,000	1,500,000	2,000,000
Project Total (21 Years)		10,500,000		10,500,000
Project Total (33 Years)			49,500,000	49,500,000
		10,500,000	49,500,000	60,000,000
Total Project Municipal Levy				
Note 1 - The annual allocation factors are subject to change with the release of updated modified CVA data.				
Note 2 - This funding is available within approved levy allocations to the TRCA.				
Note 3 - This funding is an additional amount the participating municipalities will be required to raise for TRCA.				

Item 7.2

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #5/16, June 24, 2016

FROM: Nick Saccone, Director, Restoration and Infrastructure

RE: **GREENWOOD CONSERVATION LANDS**
Greenwood Conservation Lands Master Plan and Brock North Inland Filling

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KEY ISSUES

Final approval of the Greenwood Conservation Lands Master Plan; the strategic placement and grade of clean surplus fill within an abandoned aggregate extraction area within the Greenwood Conservation Lands at the Brock North tract; the transfer of provincially-owned Highway 407 ETR East Extension Lands; and the strategic acquisition of lands to facilitate inland filling for ecological restoration and financial sustainability.

RECOMMENDATION

WHEREAS the Greenwood Conservation Lands Master Plan was approved in principle by the Authority on November 30, 2012 (Resolution #A219/12);

AND WHEREAS the former aggregate extraction area at the Brock North tract has been identified as a site for habitat restoration and enhancement through the strategic placing of clean fill, and was approved as a possible site by the Authority on January 28, 2011 (Resolution #A13/11);

AND WHEREAS Toronto and Region Conservation Authority (TRCA) staff has initiated planning and discussions with City of Pickering related to the restoration and recreational potential of the property, as was recommended in a report to the Authority on January 28, 2011;

AND WHEREAS the Province of Ontario has acquired lands for the construction of the Highway 407 ETR East extension that may become surplus upon completion of the highway construction;

THEREFORE LET IT BE RESOLVED THAT the Greenwood Conservation Lands Master Plan be approved;

THAT the funds for receiving the clean fill be set aside exclusively for project costs and implementation of the Greenwood Conservation Lands Master Plan, including future restoration and habitat enhancement of the property and the phased implementation of the recreation plan;

THAT the City of Pickering and Town of Ajax be requested to waive all fees, charges & securities (refundable deposits) related to municipal approvals and implementation;

THAT the City of Toronto be requested to waive the requirement for payment of fair market value for all of the entitlements, interests and permissions conveyed or granted by TRCA to the City of Pickering and Town of Ajax for ancillary uses;

THAT TRCA staff continue to work with the City of Pickering and the Town of Ajax to enter into a management agreement related to the permitted ancillary uses;

THAT TRCA staff continue to work with Ministry of Transportation officials and report back on the options for land transfer or use of surplus Highway 407 ETR East Extension lands in the future;

THAT TRCA staff continue to explore strategic land acquisition for inland filling that supports ecological restoration and financial sustainability;

THAT TRCA staff develop a landscape master plan for the Brock North inland fill area that achieves a balance between ecological restoration and recreational facilities, while incorporating approximately 1.7 million cubic metres of clean fill;

AND FURTHER THAT TRCA staff be authorized and directed to execute all the necessary documentation required to facilitate restoration of the property and implementation of the Master Plan.

BACKGROUND

At Authority Meeting #7/15, held on July 24, 2015, staff presented the Greenwood Conservation Lands Master Plan. The report was referred to the September 25, 2015 Authority meeting for more information as follows:

> *THAT the staff report be referred to the September Authority meeting for a staff report with information on possible volumes of fill, clarification of Pickering's plans for recreation fields, options to close the funding gap, provincial lands purchased for the Highway 407 corridor and clarification on conditions of the original transfer of lands from Toronto and mechanism for approval of plans and funding contributions as required.*

The report addresses these issues as outlined below.

Greenwood Conservation Lands

With the most recent acquisition of the Brock Lands in 2011, adding to the adjacent Greenwood Conservation Area (GCA) and Rodar property, the area of the amalgamated properties totals 689 hectares (1,704 acres). For the purpose of integrating the planning of all the lands into the master planning process, the three properties are considered as one large complex called the Greenwood Conservation Lands (GCL) as approved on November 30, 2012 as per Resolution #A219/12. Located within the Duffins Creek watershed in the Regional Municipality of Durham, GCL borders the Town of Ajax and the City of Pickering. Additionally, it is adjacent to Highway 7 and the Highway 407 ETR East expansion in the north and Taunton Road to the south and is located between Sideline 16 and Greenwood Road west and east respectively.

City of Toronto Transfer Agreement

The Brock North former landfill site is located on the north side of the 5th Concession Road, east of Brock Road in the City of Pickering. The Brock South site is located on the south side of the 5th Concession Road, east of Brock Road in the Town of Ajax (Attachment 1). These lands were secured by the former Municipality of Metropolitan Toronto in 1969 as part of a landfill site selection process. At that time, in order to purchase land for use as a landfill in another jurisdiction, the former Municipality of Metropolitan Toronto was required to enter into an agreement with the Township of Pickering. The required agreement, among other matters, provided that “on completion of the refuse disposal sites, the land would be turned over to the Metropolitan Toronto and Region Conservation Authority, for recreation purposes."

The then Municipality of Metropolitan Toronto obtained Certificates of Approval from the Ministry of the Environment for landfill at both Brock North and South. The southwest portion of the Brock North site was used for landfilling in the late 1970’s; however, the waste was removed from the site in 1997. Brock South was never used for waste disposal. Staff reviewed the Remedial Action Plan and The Closure Plan Implementation reports, as well as the Ministry of the Environment files, and was satisfied that there is nothing of any significance in terms of risks associated with the transfer of property. In the Agreement of Purchase and Sale, the City retained the right to continue to monitor, pursuant to any certificate of approval.

The lands were subsequently declared surplus by the City of Toronto’s Solid Waste Management Division in 2008 and conveyed to TRCA for a nominal fee of $2 in 2011. The City of Toronto and TRCA entered into an agreement related to the use of the property by TRCA. The general terms of the agreement are as following:

1. The property is to remain in the ownership of TRCA.
2. The property is to be used by TRCA, Ajax or Pickering or any of their agencies only for open space and park purposes including paths, trails and other passive recreational uses.
3. Any other ancillary uses must be approved by the City of Toronto and will be conditional upon a management agreement between TRCA and Pickering. These uses may include an expansion of the Pickering Museum, a district park having a minimum size of 50 acres serving the entire City of Pickering with facilities such as stadiums, places of assembly and a variety of active and passive recreational and cultural pursuits including soccer fields, softball diamonds, baseball diamonds and football fields.
4. If there are ancillary uses, then the City of Toronto must receive the fair market value of all of the entitlements, interest and permissions conveyed or granted by TRCA.
5. If there is any sale or other disposition by TRCA for other than an ancillary use approved by the City of Toronto, then the City of Toronto has the rights to take the property back or take the profit. The profit is the Fair Market Value of the rights conveyed by TRCA less TRCA's costs of capital improvements, realty taxes, removal of exiting improvements, environmental clean-up costs, real estate commission, cost of acquiring, operating and maintaining the property.

The uses proposed in the Greenwood Conservation Lands Master Plan were contemplated at the time that City of Toronto and TRCA negotiated the transfer of the Brock North and South lands, and were incorporated into the Agreement between the City of Toronto and TRCA. City of Toronto staff has indicated that once TRCA has finalized the Master Plan they would review the plan and advise if further City approvals are required.

Brock North Environmental Conditions
The terrestrial landscape and hydrologic function of the Brock North lands have been severely altered through previous aggregate extraction and landfill operations. Staff has assessed the site and identified opportunities to restore hydrological function, unique landforms, and aquatic and terrestrial habitats. In order to restore the hydrological regime and natural watershed drainage, the importation of fill materials is required to replace the land overburden and reshape the topography in altered areas of the site. The revenue generated via tipping fees during fill placement will provide financial support for the phased implementation of the Master Plan, including restoration activities and the recreation plan.

Inland Fill Plan
TRCA staff has determined that importing approximately a minimum of 1.7 million cubic metres of fill is necessary to meet both restoration and revenue goals in the context of a recreational park. Tipping fee revenue will flow from either public or private partners, such as York Region who has specifically requested that TRCA reserve fill capacity at Brock North for disposal of excess soils associated with future infrastructure work. A very successful collaborative agreement between York Region and TRCA involving the placement of 450,000 cubic metres of clean soil at Brock South was completed in late 2015 as approved at Authority Meeting #6/11, held on June 24, 2011 (Resolution #140/11).

Revenue will also be generated from private sector fill suppliers through a competitive bidding process meeting TRCA's Purchasing Policy. In this scenario, a contractor may be awarded a contract to supply and place a specific quantity of soil within a time frame at a unit cost. The contractor would also be required to restore and stabilize the site via the establishment of a natural cover crop. Past successful inland fill projects have generated tipping fees in the range of $3.50 to $6.00 per cubic metre. This would translate into revenue of between $6 million and $10 million dollars based on a 1.7 million cubic metre fill plan.

Staff estimates that filling would take place over 7 to 12 years depending on design volumes and market conditions; however staff would always endeavor to maximize revenues and may delay filling to do so. A portion of fill revenue or approximately one dollar a cubic metre will be required to manage the filling operation including the implementation of the TRCA Inland Fill Quality Assurance Program. The program includes the pre-approval of all fill prior to delivery, followed by fill tracking, monitoring and laboratory testing. TRCA has achieved excellence in the management of fill operations and will continue to explore options for strategic land acquisition that will facilitate ecological restoration and financial sustainability.

In addition to the restoration of ecological and hydrological functions, the placement of 1.7 million cubic metres of fill also allows for the construction of specific active recreational facilities requested by the City of Pickering. Discussions regarding the future use of the lands have identified that City of Pickering is interested in utilizing a portion of the fill site measuring approximately 20 hectares (50 acres) for recreational park facilities, including sports fields. Additionally, the Pickering Museum has identified a 10 hectare (25 acre) area at the north end of the site, adjacent to their lands, for possible expansion. In total, Pickering is looking to utilize approximately 10 percent of the lands within the City of Pickering.

Since the placement of fill will facilitate the development of a recreational facility, it is understood that a request must be made to Council to waive all fees, charges & securities (refundable deposits) related to municipal approvals and implementation costs. The City of Pickering and the Town of Ajax will also be requested enter into a management agreement for areas related to the permitted ancillary uses. In addition, future discussions with the municipalities will request the consideration of entering into a long term management agreement for the Greenwood Conservation Lands located in the City of Pickering and Town of Ajax. Also, TRCA staff will support The City of Pickering and Town of Ajax with their request to waive the City of Toronto requirement for payment of fair market value for the property being used for ancillary uses.

Highway 407 ETR East Extension

As outlined in the November 30, 2012 report to the Authority, TRCA entered into an agreement with the Ministry of Transportation (MTO) to undertake restoration activities as overall benefit compensation for redside dace as required by the *Endangered Species Act* due to construction of the Highway 407 ETR East Extension. A total of eight stream restoration sites within Brock North will be fully restored by the end of 2017, funded by MTO for a total of approximately $1.8 million. As part of the Highway 407 ETR East Extension, MTO acquired lands for construction and habitat compensation purposes. It is anticipated that upon construction completion the lands will be deemed as surplus for the project and it may be beneficial for TRCA to explore the acquisition of strategic parcels, especially in the area of the GCL.

FINANCIAL DETAILS

The estimated cost to implement the GCL Recreation Plan is $3.6 million, while the estimated cost to undertake full restoration of the site is estimated at $4.3 million. Approximately $95,000 was awarded to TRCA by the Trans Canada Trail for improvements to the Trans Canada Trail within the Rodar Property and Greenwood Conservation Area. Approximately $1.8 million has been secured for habitat restoration via MTO, and TRCA is working with partners, including the Ontario Federation of Anglers and Hunters (OFAH), on additional in-kind restoration works. Revenues from the Brock South fill deposition site will help fund the restoration and recreation plans within the Brock South tract. Based on the estimated filling revenue for Brock North, which also accommodates a recreational complex, an estimated shortfall of $900,000 or revenue of $3.1 million could result for the complete Master Plan implementation. Regardless of the filling scenario, TRCA will continue to explore traditional and non-traditional sources of funding to achieve the phased implementation of the Master Plan.

Projected Costs		**Revenues to Date**		
Restoration Plan	4.3 Million	$1.8 million MTO		
Recreation Plan	3.6 Million	$95,000 Trans Canada Trail	**Potential Fill Net Revenues**	**Potential shortfall or revenue**
Total	7.9 Million	$2.75 million	$4.3 million (based on $3/m^3)	($900,000)
			$8.3 million (based on $6/m^3)	$3.1 million

DETAILS OF WORK TO BE DONE

To achieve the restoration and revenue goals at Brock North, TRCA staff will take the following actions:

- work with municipal partners to confirm their fill capacity requests;
- undertake a competitive bidding process for fill suppliers;
- work with the City of Pickering to confirm the preliminary recreation concept plan;
- facilitate discussions with the City of Pickering, Town of Ajax and the City of Toronto to determine the mechanism for approval of ancillary uses;
- enter into discussions with the City of Toronto regarding the waiving of the market value payment for ancillary uses on the Brock lands.

To achieve the implementation of the GCL Master Plan, TRCA staff will undertake phased implementation based on available funds that will allow for ecological restoration and passive recreation. The phased approach will allow for flexibility in the design of the landform to accommodate both the recreational complex and any changes to the landform. TRCA staff will also continue to investigate traditional and non-traditional sources of funding.

TRCA staff will work with Ministry of Transportation officials and report back on the options for the transfer of Highway 407 East Extension lands in the future.

TRCA staff will also continue to explore options for the strategic land acquisition that requires filling to achieve ecological restoration and financial sustainability.

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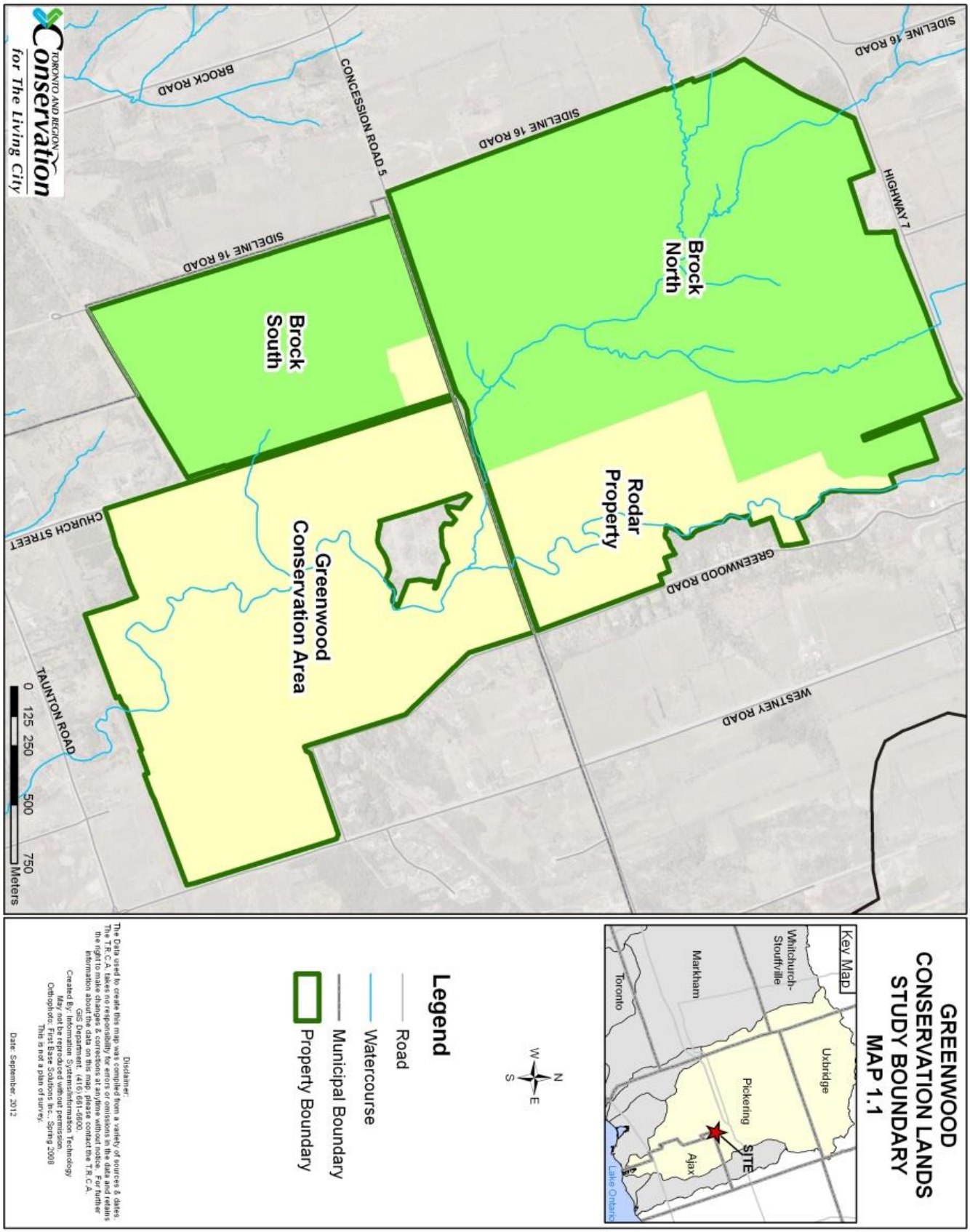
Attachments: 1

Attachment 1



Item 7.3

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #5/16, Friday, June 24, 2016

FROM: Chandra Sharma, Director, Watershed Strategies

RE: **SUSTAINABLE SOLID WASTE MANAGEMENT PLAN: TOWARD ZERO WASTE**

KEY ISSUE

Approval of TRCA's Solid Waste Management Plan for moving the organization away from landfilling solid waste and toward zero solid waste.

RECOMMENDATION

WHEREAS the Province of Ontario has introduced the *Waste Free Ontario Act* which will provide vision and goals for resource recovery to encourage a circular economy within Ontario;

AND WHEREAS Toronto and Region Conservation Authority's (TRCA) municipal partners have adopted and recently increased their waste diversion targets at the regional level;

THEREFORE LET IT BE RESOLVED THAT the Sustainable Solid Waste Management Plan: Toward Zero Waste, as appended, be approved;

THAT TRCA implement initiatives in the Plan to reach an interim goal of 80% diversion by 2020;

AND FURTHER THAT staff be directed to report back to the Authority annually on progress being made in implementing the Plan.

BACKGROUND

At Authority Meeting #6/12, held on July 27, 2012, Resolution #A138/12 was approved, in part, as follows:

> *…AND FURTHER THAT staff report back on what strategies TRCA is using to achieve zero waste and what TRCA is doing to change the public awareness and engagement in waste reduction at all TRCA facilities.*

The purpose of the Sustainable Solid Waste Management Plan is to support TRCA in moving toward zero waste and in becoming a leader amongst its peers in managing its solid waste. TRCA's goal is to divert 80% of material from landfill by 2020.

TRCA has been actively promoting waste diversion at its facilities though its recycling program since the early 1990s. Some of the activities undertaken included: recycling at all locations with multi-stream recycling bins, appropriately designed signage and public education, and organic composting at some locations. Many of these projects continue to function, but can be improved through an examination of industry best practices.

Past waste diversion activities included several informal in-house waste audits conducted at offices by TRCA staff Green Teams, Audubon Certification at certain locations, and annual office clean-up days facilitating reuse of materials and equipment. Formal audits at 19 sites were conducted using third party support in 2013-2014, and currently five sites are being re-audited each year.

In general, waste generated at TRCA can be divided into two broad sources, waste from the operation of TRCA facilities and waste generated through implementation of TRCA programs. The programs produce two-thirds of all of TRCA's waste while facilities account for the remainder. TRCA generated 1,292 metric tonnes of solid waste in 2014 and 542 tonnes in 2015. The significant amount in 2014 stems from work carried out to clear debris from waterways, ice storm damage and additional projects that generated a higher amount of wood material than in 2015. Looking at the total waste generated at facilities and in operations, approximately 5% of the waste stream consists of materials that cannot be diverted. To achieve the corporate target of 80% diversion by 2020, TRCA must divert an additional 300 tonnes from its solid waste stream based on 2014 data. Two promising areas that hold a great deal of potential for diversion are construction and demolition waste and organics, where an additional 150 tonnes and 58 tonnes respectively are considered highly achievable. Pilot projects to increase diversion are planned for these two streams.

A copy of the Sustainable Solid Waste Management Plan is attached (Attachment 1). Recommendations in the Plan address 12 topic areas:

- **Reduction/Avoidance of Waste** - The plan recommends small steps in this area focusing first on paper use, bottled water and developing better systems to track solid waste use.

- **Staff Engagement** - This section recognizes the pivotal role that staff plays on the front line interacting with visitors and managing TRCA's solid waste. Recommendations address developing a culture of conservation through staff education and training and interdepartmental communication.

- **Public Space Visitor Engagement** - This section recognizes the impact that visitors to TRCA facilities have on the amount and type of solid waste that is generated. Recommendations focus on education and raising awareness of the amount of solid waste generated by their activities.

- **Communications and Branding** - Clear and consistent messaging across TRCA is critical to creating a unified brand that visitors and staff can recognize and relate to. Recommendations focus on development of a communications strategy, signage, third party certification programs and external profile for the program.

- **Organics** - Organics provide the opportunity to reuse waste and promote at the same time as diverting material from landfill. Recommendations focus on pilot projects to test and expand organics collection in key areas.

- **Construction and Renovation Waste** - Often overshadowed by waste from weekly collections, occasional and seasonal generation of construction and renovation waste is a significant issue and opportunity for TRCA. Recommendations focus on pre-qualification of contractors and material recovery facilities, solid waste language in contracts for third party construction and renovation projects, and auditing to better characterize the waste generated.

- **Hazardous Waste** - Recommendations focus on the development of corporate policies, plans and procedures for collecting and disposing of hazardous waste such as paints and solvents, propane canisters, fluorescent light bulbs, motor oil, tires, etc.

- **Procurement** - Sustainable purchasing practices are used by organizations to buy goods and services based on best value which can include environmental, social as well as price considerations. Recommendations in this section focus on development of a sustainable procurement strategy which includes provisions for sustainable waste management.

- **Waste Hauler Tendering Process** - Choosing the appropriate waste hauling partner is critical to the success of the solid waste management plan. Recommendations focus on creating of tendering templates that include consideration for sustainable waste practices, data collections, auditing of results, and partnership in finding solutions to solid waste issues.

- **Reduce Contamination** - Contamination can result in a whole dumpster of recycling being downgraded to garbage as well as result in service interruptions. Recommendations focus on procedures to ensure that garbage and recycling streams remain separate.

- **Monitoring and Evaluation** – This is a critical part of TRCA's adaptive management approach. Data is used to assess the success of TRCA's actions, progress toward targets, and provides an empirical approach to decision making. Recommendations in this section focus on waste audits, annual reviews of waste billing information, development of key indicators, annual reporting and review of the Sustainable Solid Waste Management Plan every five years.

- **Facility Plans** - Implementation of the Sustainable Solid Waste Management Plan is supported at the site level through of series of 19 individual facility-based solid waste management plans. Each plan addresses the corporate plan in the context of the waste and circumstances at each individual facility.

RATIONALE

The TRCA strategy comes at an important time for solid waste. TRCA's municipal partners have set ambitious diversion targets with Durham Region and City of Toronto aiming for 70% diversion, York Region aiming for 90% through the use of energy from waste processing, and Peel Region in 2016 increased its diversion from 60% to 75%. Additionally, at the provincial level, 2015 saw the introduction of the new Bill 151 *Waste Free Ontario Act*. This Act will replace the current *Waste Diversion Act, 2002* with the *Resource Recovery and Circular Economy Act, 2015* and the *Waste Diversion Transition Act, 2015*. An important component of the Act is an Organics Action Plan which could include targets aligned with the provincial climate change strategy and/or regulatory actions, such as requiring source separation or imposing disposal bans for organic waste.

Working in partnership with TRCA's Parks and Culture, Education, Restoration and Infrastructure divisions, and Property and Risk Management, the Community Transformation Program (CTP) group is rolling out a multi-year initiative aimed at increasing the diversion of waste and getting TRCA towards zero waste.

FINANCIAL DETAILS

Implementation of the Plan will be supported by TRCA's sustainability coordinator, working with staff in the Parks and Culture, Education, Restoration and Infrastructure division, and Property and Risk Management. Funding for the coordinators time and miscellaneous expenses is available through account code 414-65. Staff costs from the various divisions involved will be covered through existing operating and capital budgets where appropriate.

A number of recommendations in the report will be costed on an annual basis when required and included in capital program budgets as needed.

DETAILS OF WORK TO BE DONE

- circulate the Sustainable Solid Waste Management Plan to internal staff;
- liaise with TRCA staff and waste contractors on waste collection issues;
- monitor, measure and verify waste metrics annually;
- coordinate the implementation of the recommendations from the waste report with TRCA sites and staff;
- begin to develop pilot projects where appropriate;
- monitor municipal and provincial opportunities and regulatory changes, and adjust strategies as appropriate.

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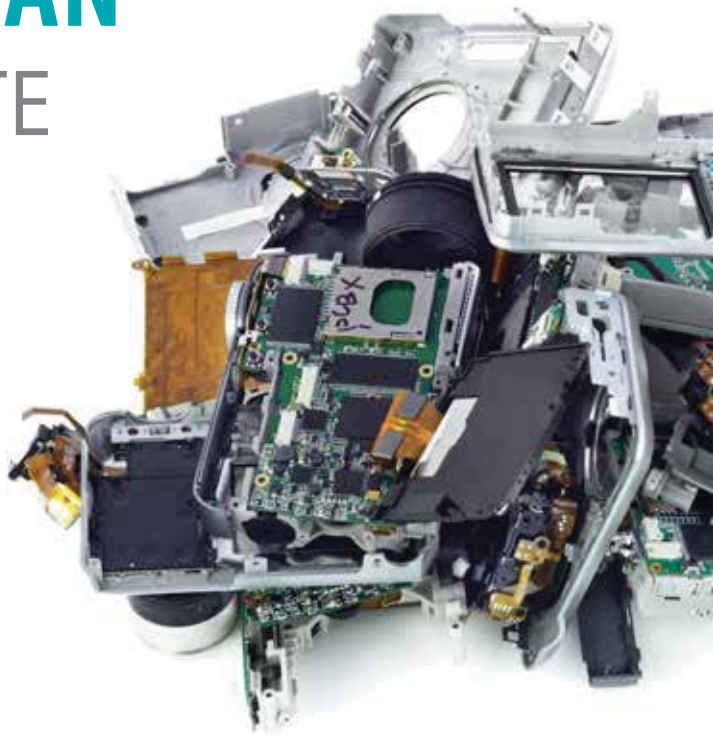
Date: October 13, 2015
Attachments: 1

TORONTO AND REGION CONSERVATION AUTHORITY

SUSTAINABLE SOLID WASTE MANAGEMENT PLAN

TOWARD ZERO WASTE



2015

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1. INTRODUCTION

TRCA

- Owns 18,000 hectares of land
- Operates 19 facilities including field centers, offices, education centres, a golf course and conservation areas
- Nearly 800,000 visitors each year
- Over 800 employees including full and part time and seasonal.
- Generates about 1,280 metric tonnes of waste annually
- Generates about 2,020 metric tonnes of greenhouse gas

This report provides direction for Toronto and Region Conservation Authority (TRCA) staff in moving toward zero solid waste in the day-to-day operations of their many programs and facilities. It provides the background rationale and corporate strategy for moving toward zero solid waste and is complemented by individual solid waste management plans prepared for each TRCA facility. It is anticipated that implementation of the strategy and individual plans will allow TRCA to achieve its corporate sustainability goal of 80% solid waste diversion by 2020 and set the stage for near zero solid waste in the future. Attaining these outcomes will also help TRCA achieve its long term goal of carbon neutrality by 2025.

TRCA is in the business of sustainability. In 2012 the Authority Board adopted "Building the Living City" our 10-year plan that lays out the strategic direction TRCA intends to pursue from 2013 to 2022. The plan outlines our commitment to safeguarding and enhancing the health and well-being of the residents of the Toronto region through the protection and restoration of the natural environment and the fundamental ecological services our environment provides. Toward Zero Solid Waste is an aspirational goal in keeping with the strategic direction and supports the direction of our municipal partners.

Furthermore, this report was prepared in direct response to Board direction where, at Authority Meeting #6/12, held on July 27, 2012, Resolution #A138/12 was approved, in part as follows:

"...AND FURTHER THAT staff report back on what strategies TRCA is using to achieve zero waste and what TRCA is doing to change public awareness and engagement in waste reduction at all TRCA facilities".

The intent of the Sustainable Solid Waste Management Plan is to support TRCA in moving toward zero waste and in becoming a leader amongst its peers in managing its solid waste. This direction aligns well with the current corporate vision to become carbon neutral by 2025 and the goal to achieve a waste diversion rate of 80 per cent by 2020 from the baseline year of 2014[1]. For TRCA to be considered a leader in the field of waste diversion, we will need to move beyond mere compliance with legislation and exceed the 60 per cent diversion target set by the Province for our municipal partners.

Our municipal partners have committed themselves to either meeting or exceeding the Ministry of the Environment and Climate Change's diversion target of 60 per cent, set in 2004. While Ontario, as a whole, has only achieved 47.3 per cent diversion in 2013, most of our municipal partners have been above the average with their diversion rates and in their goals.

Partner	2013 Diversion	Goal, year
Durham Region	54%	70% by 2015
Peel Region	44%	70% by 2016
York Region	59%	90% by 2016 (including EFW[2])
City of Toronto	53%	70% by 2016

[1] Diversion rate is the waste reduced/avoided, reused, recycled or recovered from total waste generated that would otherwise be designed to landfill measured from 2014 waste baseline.

[2] Energy from Waste

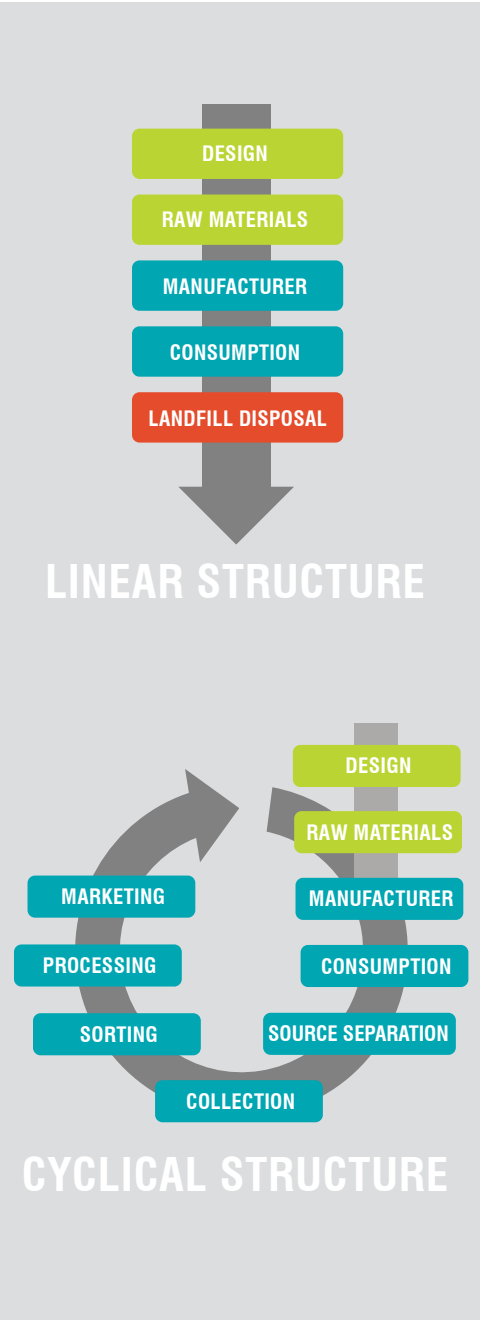


Figure 1: Cyclical structure of a zero waste system. Traditional systems follow design, raw materials, manufacturing, consumption and landfill/disposal line, whereas zero waste systems build on natural resource cycling where the need for extracting raw materials is substituted by recycling via source separation.

1.1 UNDERSTANDING ZERO WASTE

Organizations struggle with the idea of achieving zero solid waste until they realize that it is an aspirational target that should be viewed as a journey. Zero waste is a concept that challenges the current system of waste disposal and focuses on the design of resource cycles, which builds on the common waste hierarchy of: reduce, reuse, recycle, recover and landfill/energy from waste. As leaders in the field of conservation and sustainability, it is important that TRCA demonstrate to our municipal partners that we are committed to matching or exceeding their own waste diversion targets.

Where the need to generate solid waste cannot be eliminated, zero waste seeks to emulate sustainable natural cycles, where all waste materials are destined to become resources for others to use, see figure 1. This also referred to as cradle-to-cradle thinking, in that a material is recycled into a new product at the end of its life, so that ultimately there is little to no waste. TRCA faces challenges in influencing resource flows outside of its control, especially at our facilities open to the public. Those challenges can be overcome by presenting increased options for diversion, enacting policies that reduce waste and encourage recycling and reuse, and redesigning our waste management procedures.

To aim for zero waste requires TRCA to: avoid waste generation where possible; provide options to our visitors to divert their waste to recycling or compost streams; enact sustainable procurement policies which source the most suitable product or material using a combination of weighted sustainability factors; re-examine our list of material currently classified as landfill material and find substitutes or recycling destinations for it to be diverted. Where recycling, reducing and reusing are not available, TRCA must explore options for resource recovery, such as waste to energy. An additional consideration is for visitors and staff rethinking reusable versus disposable when considering product selection, or the packaging being used on a product. This can be addressed through education and awareness.

Cradle-to-Cradle Planning

When choosing waste bins for the new head office in 2015, bins were selected from a company that had a progressive environmental policy. The plastic bins were composed of recycled material and can be picked up and recycled by the company at the end of their lifespan; around 20 years.

Additionally, pre-consumer plastic off-cuts created in the manufacturing process are used to create bird houses for Project Nest Box, an initiative that gets students to set up houses and report on nesting data.

Selecting these bins created increased market demand for recycled plastic, supported reuse of cut-offs and planned for the future recycling of the bin at end of life.

Provincial Legislative Context

Solid waste management and recycling in Ontario is regulated through the Ministry of the Environment and Climate Change under the Environmental Protection Act. Ontario's Regulations are designed to ensure programs are developed to reduce the amount of valuable resources going to landfill and generally relate to the two areas where waste is generated: the residential sector and the industrial, commercial and institutional (IC&I) sector. TRCA fits within the IC&I sector.

Organizations can be obligated to carry out waste audits and waste reduction work plans under Ontario Regulation 102/94 of the Environmental Protection Act. The Act encompasses educational institutions, hospitals; hotels and motels; manufacturing and retail establishments; restaurants and office buildings. Since TRCA does not have an office building totalling 10,000 m^2, nor restaurants with sales above $3 million per year, nor does it fall under an educational facility where students are formally enrolled, TRCA is not obligated legally to conduct audits and waste reduction plans.

Existing waste diversion programs at TRCA facilities go above and beyond those outlined in the Regulations for the IC&I sector. Although not obligated, TRCA audits waste as part of the broader effort to manage its own path towards sustainable waste management.

1.2 REPORT ORGANIZATION

This project is divided into two parts – the first, this corporate report, focuses on the 2014 performance of TRCA in regards to generation management and diversion of waste, the challenges and opportunities that currently exist and the corporate strategy to move forward on advancing existing goals. The report focuses on commonalities shared between sites and operations to provide an overall strategic view as it relates to the corporate target of towards zero waste.

The second part of the project builds on the Corporate Strategy to provide solid waste management plans for individual facilities. The individual site reports for the 19 facilities provide the tactical approach for the plan, focusing on specific audit findings and tailored recommendations. Acting as a report card, the site reports outline unique opportunities for improvements with coverage on the potential impact the recommendation may have, the resources required and who is involved or responsible. These reports are geared towards the site managers and provide site specific details on generation, characterisation and management.

2. WASTE QUANTIFICATION AND CATEGORISATION

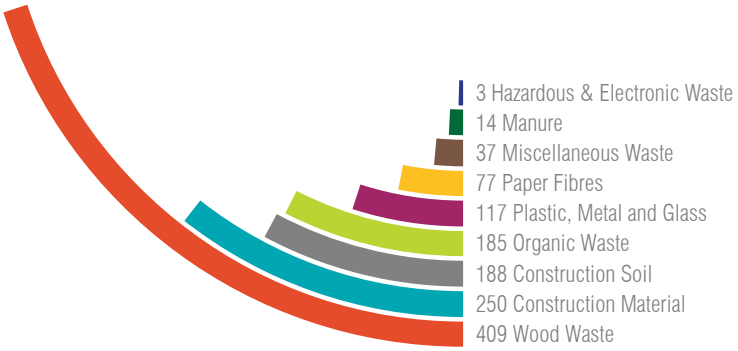
In order to be able to formulate a corporate solid waste management strategy and plans for individual facilities, it is important to first understand the amount and composition of the waste TRCA generates. The quantity and characteristics of solid waste managed was determined through a series of 20 waste audits, conducted across the breadth of TRCA's sites and facilities, data from contracted waste haulers, tip weights from roll-on bins and conversations with staff. Supporting elements for this report, including a description of audit methodology, detailed audit results and findings from the staff survey, are found in a separate appendix report and is available upon request.

2.1 WASTE GENERATION

32.0% Wood Waste
19.5% Construction Material
14.7% Contaminated Soil
14.5% Organic Waste
9.1% Plastic, Metal and Glass
6.0% Paper Fibres
2.9% Miscellaneous Waste
1.1% Manure
0.2% Hazardous & Electronic Waste

TRCA generated 1,280 metric tonnes of solid waste in 2014 across the nine categories. Categories of solid waste collected include wood debris, contaminated soil, construction waste from project implementation as well as plastic, metal, glass, organic waste, paper fibres, electronics and hazardous waste (paint, oil, light bulbs etc.) and manure. By far, the largest category of solid waste is wood debris[3] at 409 tonnes (32%) generated through our program work cleaning out flood channels, addressing storm damage and invasive species. Construction and renovation waste[4] at our facilities and properties account for 250 tonnes (20%), contaminated soil stands at 188 tonnes (15%), and organic/food waste at 185 tonnes (15%) from our offices and public facilities. The remaining categories include hazardous and electronic waste, paper fibres, miscellaneous waste and manure account for 248 tonnes, makes up 18% of all waste generated.

TRCA TOTAL WASTE GENERATED (TONNES) - 2014



[3] Includes live and dead branches, trunks and leaves collected from greenspaces; not lumber from construction and renovation operations.

[4] Includes drywall, lumber, concrete, brick, piping, wiring and carpeting from renovation projects and new construction; also includes operational waste from nursery and workshops.

In general, waste generated at TRCA can be divided into two broad sources, waste from the operation of our facilities and waste generated through implementation of our programs. These materials can be grouped into nine dominant categories.

Our programs produce two-thirds of all of our waste, while facilities account for the remainder. Program generated waste primarily comes in from our field operations and is composed of construction and renovation waste, wood, or contaminated soil. Invoices for the disposal often indicate if the material was wood or contaminated soil, however this material was not audited. Unspecified invoices were destined for landfills. In addition, other than some of the construction and demolition waste nearly all of the program waste is remediated or recycled.

SOURCE	MATERIAL	QUANTITY (t)
Programs	Contaminated Soil	188
	Construction Material*	250
	Wood Waster	409
Facilities	Plastic, Metal and Glass	117
	Organic Waste	185
	Paper Fibres	77
	Miscellaneous Waste	37
	Hazardous & Electronic Waste	3
	Manure	14
	Construction Material	Included in program waste[5]

* Additional construction waste is generated from project under taken by contracted parties and where the collection and disposal of waste is included as an element of the contracted service, therefore it is not quantified, and therefore not included in this tally.

Waste generated at our facilities is primarily from visitors to those facilities. With, the majority of the solid waste composed of organics (43%) from lunches, kitchens and picnics, followed by recyclable plastic metal and glass (27%). These three categories collectively account for 88% of all solid waste generated at our facilties

FACILITY WASTE GENERATED (%) - 2014.

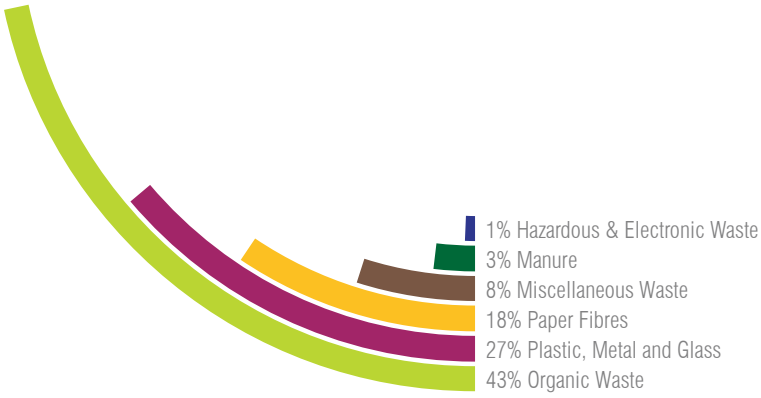


Figure 2: Total waste generated within all recycling, composting and garbage streams at the 19 TRCA facilities in scope.

[5] In terms of construction and demolition waste, it is generated by both facilities and programs but the tonnage generated was captured under programs as it is managed using temporary roll-on bins rather than regularly scheduled pickups

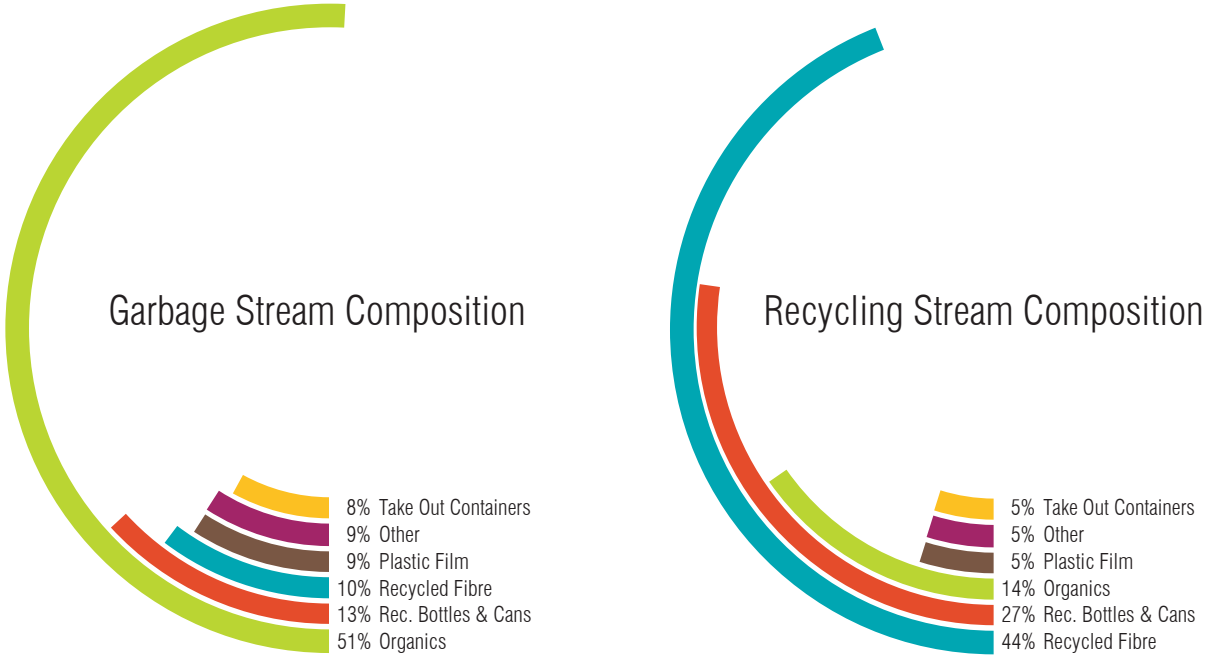


Figure 3: Breakdown of the composition of the two waste streams from our all TRCA facilities.

Livestock Residents of BCPV

- 2 horses
- 1-2 dairy cows (summer only)
- ~12 sheep (lambs on-site for a couple months - then sold)
- 4 goats
- 10 chickens
- 15 other fowl *(e.g. heritage geese, guineafowl)*

Within the garbage and recycling streams, these dominant categories shift, with organics taking a larger share of the garbage stream and paper fibres taking a larger share of the recycling stream.

The garbage stream includes 31% recyclable materials (bottle and cans, fibre and half of take out containers). The largest contaminate in the recycling stream is organic waste at 14%, with residual food from picnics.

Because of local and informal approaches, the tracking of hazardous waste generated each year is difficult to quantify. The reported weight is based on annual estimates derived from conversations with staff at sites. Where invoices exist for the hauling of the material, there seldom is a weight value provided as the service is often not priced by weight. For e-waste, where the TRCA receives payment for the material, invoices do include the weight of the material; therefore e-waste has beenincluded into the annual total waste generated. The three main sources of hazardous waste include: material from our offices that act as central hubs where staff can bring in batteries from home for recycling; TRCA facilities that produce their own hazardous waste through operations; and at campgrounds and conservation areas where visitors bring in hazardous materials such as small propane tanks.

Manure is generated from the TRCA livestock holdings at Black Creek Pioneer Village. The Village houses various farm animals and the annual production was estimated to be 14 tonnes per year. The largest proportion of this waste is generated from Ross and Integra, the horses of Black Creek.

2.2 WASTE MANAGEMENT

Waste is managed in a number different ways across TRCA. At our facilities, we rely on private and public contractors to remove waste on a scheduled and seasonal basis. Our programs rely on a number of on-call roll-on bin providers who haul the waste material to numerous locations for final disposal. These roll on bins are also used at some facilities to accommodate regular waste generated at big events as well as construction and renovation waste.

Tendering for waste management services from private hauling companies is done for the majority of TRCA sites. Of recent, TRCA has moved away from sites selecting their own tendering and moved towards a group tender covering all waste serving needs (garbage, recycling, cardboard, roll on bins). Currently, the only sites that do not fall under the current tendering contract are 101 Exchange, Eastville and our Peel Region sites.

The eight streams of solid waste collected are managed in a variety of ways. Garbage is landfilled for the most part, except for some of the waste collected by Peel Region and at 101 Exchange which is sent to energy from waste facilities. Recycling can be separated and managed at different sites in four ways. At areas where we have high numbers of public visitors, we have single stream management, similar to many municipal recycling programs. At areas where either volume is high enough, or where we have good participation from TRCA staff and field centre visitors, we use multiple collection streams. At some of our smaller offices compost is managed locally onsite using composters, but where we have collection from haulers it is destined to anaerobic digestion. E-waste and certain hazardous waste are recycled, but certain fluids are incinerated for disposal.

STREAM	MANAGEMENT
Facility Waste	
Garbage	To Landfill
	To energy from waste operations
Recycling	Single stream
	Mixed container
	Paper
	Cardboard
Organics	Small scale collection on site
	Anaerobic digestion
E-waste and Hazardous Waste	Recycling
Manure	Composing
Program Waste	
Construction and Renovation Waste	To landfill
	To recycling
Wood Waste	To recycling
Contaminated Soils	To remediation

The TRCA manages a variety of hazardous waste and e-waste Within this stream the types of material managed include, but are not limited to, solvents, propane canisters, fluorescent lightbulbs, e-waste, batteries, paints, motor oil and tires.

In a pilot study at Petticoat Creek Conservation Area to measure the importance of proximity for waste receptacles, garbage and recycling wire mesh bins were chained at the bottom to prevent them from becoming separated. These 'twinned bins' were compared with bins that were unattached and that became moved around by patrons to facilitate their picnics,

Audits revealed that although 'twinned bins' did not lead visitors to recycle more by weight, it did make them recycle more accurately leading to a significant drop in contamination, from 85% in the control down to 15% with the 'twined bins'.

Disposal of hazardous and e-waste can pose challenges for our staff and a number of unique ways have been developed by each site to deal with it. At BCPV, automotive waste is informally taken back by the mechanic who has the contract to maintain the vehicles on site. RSC has a number of contracts for hauling the hazardous waste to proper disposal. At our Peel Region sites, staff either bring the material to the local Community Recycling Centres, or hand it off to Peel Region employees for proper transport and disposal. In each case, flexible local solutions have been used in lieu of a formal corporate wide solution.

E-waste is collected and managed via formal and informal means at a number of TRCA facilities. At our offices, staff has the opportunity to bring in old electronic waste from home and combine it with the corporate e-waste generated from the Information Technology department. This waste stream is primarily composed of old or non-functioning electronic equipment from business operations. This includes desktop computers, telephones and computer peripherals. Last year over 1,600 kg of waste was collected. We receive payment for each kilogram of e-waste collected. Informal agreements with municipalities exist at other sites to provide on-going e-waste collection. Informal collection occurs at our campgrounds and conservation areas with material being deposited beside waste collection bins, this is however rare. When this happens at our sites in Peel Region, we arrange for it be recycled with the other hazardous waste. Where it happens elsewhere, it can be collected by staff for eventual recycling.

Manure is collected and stored onsite at Black Creek Pioneer Village until the amount becomes economically viable to manage. In the past low/no cost options have been utilized to remove the waste for eventual composting. No pick up of waste occurred in 2014, but the pile was sent to be composted in 2015.

Data for program waste managed with roll on bins was sourced from bills provided by haulers. In some cases we could identify when the roll on bins were wood waste, but for the majority of the bills all that was indicated was that it was dumped at a landfill. Where the composition of the bin was wood, this was destined for recycling and where the waste was contaminated soils this material was remediated to become clean fill for future use.

2.3 WASTE DIVERSION

Waste diversion is the prevention through source reduction, recycling, reuse, recovery or composting of waste destined for landfill. Overall, TRCA achieved a respectable diversion rate of 56% in 2014. In addition, significant diversion rates were achieved with woody debris, contaminated soil, electronic waste and hazardous waste by either remediation or recycling. However, diversion was lowest with construction waste (9%) and organic waste (16%). Diversion of plastic, metal, glass achieved a rate of 30% and paper fibre reached a diversion rate of 36%.

To develop the diversion rates, the composition of each stream was determined through audits and contamination within each stream was estimated and deducted from the weights to provide an accurate actual diversion rate. Unfortunately this procedure was not completed for the construction and renovation waste stream, but will be included as a recommendation for future work.

In 2014, Restoration Services Centre engaged a waste hauler who specializes in recycling construction waste in roll on bins. RSC was able to collect 6.25 tonnes of wood, plastic culvert material, Geotextile, sediment filter cloth, and paper/plastic reforestation bags to be sent for recycling rather than landfilling. In the bill provided by to waste contractor, it was shown that 10% of the material was residual and 90% was divertible. Not all waste generated from our operations in roll-on bins will have similar characteristics to the waste collected at RSC, however the example suggests that there is a significant opportunity to recycle a large portion of each bin.

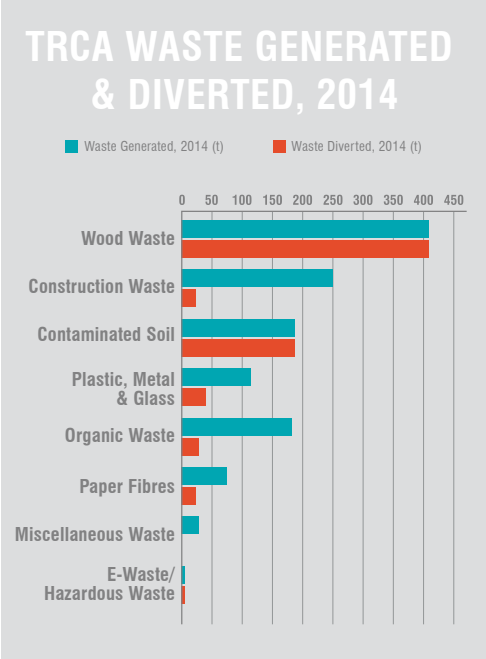


Figure 4: Waste generated and diverted/recycled/composted in 2014. Manure is not included in the graph as it was stockpiled in 2014. In 2015 the accumulated manure was hauled away by a compost operator.

2.3.1 WASTE DIVERSION POTENTIAL

Looking at the total waste generated, approximately 62 tonnes or 5% of the waste stream consists of materials that cannot be diverted. This includes all of the miscellaneous waste such as diapers, rubber rafts, camping tents and other items thrown away by the public that visit our facilities that cannot be captured, therefore achieving 100% diversion is an aspirational goal. However to achieve the current corporate target of 80% diversion by 2020, TRCA must divert an additional 300 tonnes or 24% of its solid waste streams. As it stands now, the greatest opportunities for this diversion lies in the diversion of construction and renovation waste. Aiming to achieve a 60% diversion rate for construction waste would divert 150 tonnes, bringing us half-way to our goal.

TRCA can divert the additional 150 tonnes needed by adopting a challenging but achievable subset of goals in additional streams. This can be done by increasing the collection of mixed recyclables to 50%, resulting in diversion of 58 tonnes, increasing organic waste diversion to 30%, resulting in diversion of 55 tonnes, and increasing paper fibre to 50% resulting in an additional 38 tonnes diverted. Staff believe this 300 tonnes of additional diversion can be achieved through a few changes in the management approach.

Figure 5: Example of a black garbage bag found in the recycling stream that was actually filled with recycling. The presence of the black bag prevented the recycling bin from being picked up.

Contamination

Our ability to divert our waste to the recycling stream is dependent on our ability to provide to the recyclers a product that is low in contamination. A visually perceived level of contamination (i.e. a black garbage bag withinthe clear bagged recycling stream) can lead to the hauler arbitrarily rejecting the entire recycling load, which ends up as garbage. Our highest contamination rates are at our public use sites, especially where picnics are held. Often convenience takes precedent over sorting when it comes to clean up time and often results organic waste being included in the recycling stream, especially with soiled paper or polystyrene plates. In 2014 the contamination rate at our conservation areas was >30%. Where we have staff or students as the primary waste generators contamination is acceptable, generally <10%.

3. OVERALL CORPORATE STRATEGY

The journey toward zero waste begins with a focus on putting the appropriate management approach in place that supports implementing the recommendations in the Corporate Strategy and the individual facility plans. The analysis of solid waste and our management approach has illustrated that one size rarely "fits all" for TRCA's diverse facilities and programs. An adaptive management approach will be required in order to achieve the corporate target of 80% diversion by 2020 and zero waste in the long term.

Adaptive management provides us with an approach to foster a culture of continuous improvement. Supporting the adaptive management approach should be a more inclusive and formal governance structure. A pragmatically oriented steering committee encompassing staff from various facilities should be convened on an annual basis with the goal of sharing which actions and strategies that are working (or not) at sites, provide feedback on the waste service to ensure the tendering process is tailored to their needs and present new ideas on sustainable waste management based on site observations and experiences. Providing a formal and regular touch point with site staff ensures that the strategies can be adapted as new actions get tested.

Short to long term issues and opportunities to move us towards zero waste have been identified by audit results, conversations with staff and with the help of a sustainable waste consultant. These initiatives can be implemented at various sites and developed into new operating procedures across the entire TRCA. More site specific initiatives have been captured in the individual facility plans. Outlined in the sections that follow are strategies which can be implemented across the organisation. Included with each are initiatives for achieving the opportunity, a time frame for implementation and a listing of who would be required to help bring the desired change.

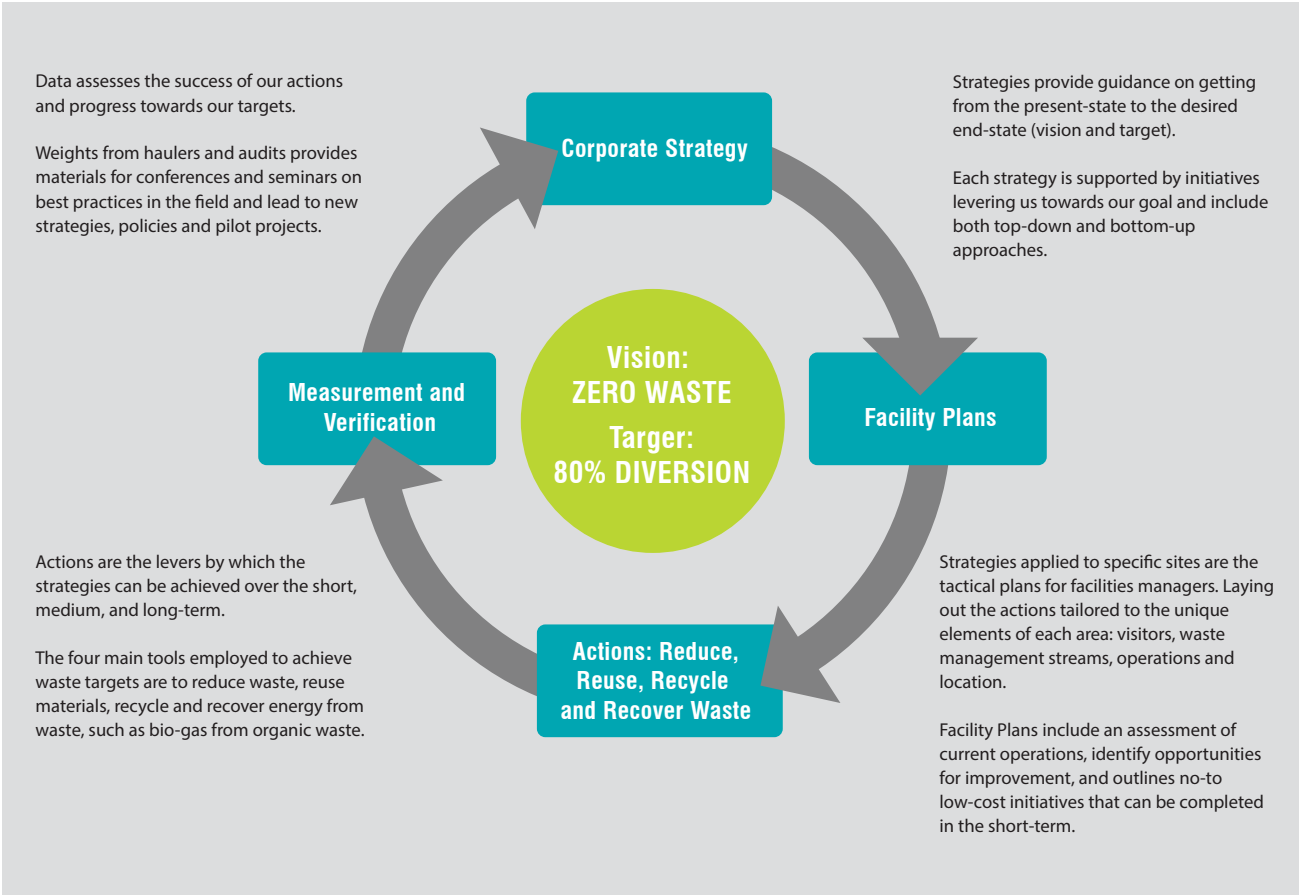


Figure 6: The strategic framework outlines a broad approach to achieving the aspirational vision of "Towards Zero Waste". The framework is intended to apply TRCA wide and provide long-term direction and guidance across the organization

3.1 REDUCTION/AVOIDANCE OF WASTE

The first step in the sustainable waste hierarchy is to reduce. Using 2014 as a baseline year, efforts should be made to lower the overall total waste generated annually, while also increasing the diversion rate. There will always be material that cannot be reduced, but small steps can be made in our operations and our facilities to avoid waste.

Where We Are Now

Currently there are only ad hoc efforts to consider waste reduction or avoidance at sites. These are not formalized and are not driven by any guidelines or policies.

Where We Want to Go

Measure annual waste generated against the baseline year to determine if annual waste materials at facilities are being reduced. Waste from projects may not be avoidable in the same way as waste from facilities. Develop ways to eliminate purchasing of unnecessary goods through procurement policies, guidelines and tools and a formal inventory of potentially shared resources between departments.

How We're Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Monitor paper use and develop a paper reduction target for the corporate level and at department levels.		✓		Sustainability Coordinator, Site Managers
Reduce bottled water consumption at TRCA facilities and events. Provide and maintain access to drinking water through taps, refilling stations and fountains at TRCA sites.		✓		Sustainability Coordinator, Site Managers
Develop guidelines and tools to consolidate and track shared material in an inventory so that duplicate purchasing does not occur between departments.		✓		Corporate Resources, Sustainability Coordinator

3.2 STAFF ENGAGEMENT

At our facilities, employees represent our front line for educating their peers and the public on our vision for zero waste. Aligning zero waste with the staff culture at TRCA would help to embed it into ongoing action and help establish it as a social norm – or as the standard way of doing business. Engaging staff in TRCA's commitment and policies with respect to solid waste and educating them on our various waste streams allow for our staff to become waste ambassadors within the organization.

Where We Are Now

Staff members currently play a significant role in the success of the waste management programs at their facilities since they engage in day-to-day activities that contribute to waste generation and have control over the amount of waste produced. They are often the go-to people when it comes to visitors questions about waste. However, multiple audits have revealed that at areas where only staff has access to waste bins, mistakes are being made and recycling is being tossed into the garbage bin.

Where We Want to Go

All staff should be encouraged to engage in the waste management programs at each facility and to understand corporate objectives and their own roles in helping to achieve them. They should be provided with clear instructions on what the streams of each site are and what is acceptable within them. Building on a culture of conservation already strong within the TRCA, staff can help to foster a culture of towards zero waste where waste avoidance and proper waste management techniques are the norm. A waste committee should be established with representation from various TRCA divisions including propert, parks & culture and corporate services, and with outside members including the waste hauler and/or consultants. This group would meet to discuss issues related to the sustainable waste management plan.

How We're Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Develop a steering committee convened on an annual basis with the objective of sharing which actions and strategies are working (or not) at sites, provide feedback on the waste service and present new ideas on sustainable waste management.	✓			Sustainability Coordinator
Develop engagement and education programs for office staff, integrating waste management into onboarding packages and new staff orientation. Elements could include: • Awareness pieces about the zero waste initiative • Specifics on what goes where and what staff can do • Integration of recognition or awards for outstanding work		✓		Sustainability Coordinator
Educate seasonal and temporary staff at conservation areas to ensure that they are aware and supportive of TRCA waste diversion efforts and what is acceptable within the streams. Prepare education materials and reach out to managers so that waste and recycling education is part of the orientation process.		✓		Sustainability Coordinator, Human Resources staff
Conduct training for EcoTeam members on waste diversion initiatives and tools and integrate training into new staff orientation. Include EcoTeam members in MRF tours to educate them on what happens with waste materials and build confidence that their leadership is helping to deliver results.		✓		Sustainability Coordinator, EcoTeam Members
Engage staff from the Project Management Office early on so that sustainable waste management is considered in the project planning phase of any restoration, demolition or construction operation.		✓		Sustainability Coordinator, PMO staff, Properties staff

3.3 PUBLIC SPACE VISITOR ENGAGEMENT

The public represents some of the biggest challenges in terms of the material that they bring to our sites. However, they are also our greatest opportunity to achieve our diversion targets at TRCA parks and other public facilities. Visitors range from school children, golfers, mountain bikers, campers, skiers and picnickers, each group creates different waste, has different recycling habits and many come from outside the TRCA jurisdiction. Our opportunity to engage them can range from a few minutes to a whole camping season. Getting them onboard with our sustainable waste practices is critical to our success.

Where We Are Now

A large proportion of waste managed at facilities originates from visitors. Our public use areas account for 76% of the waste generated at our facilities when compared with our offices and field centres. The facility assessments indicate that there is a good opportunity to improve visitor awareness and behaviours related to sorting of materials into the proper waste streams.

Where We Want to Go

Visitors should have equal and easy access to all available waste streams at the same location so that they can make the best decision and place the waste in the correct location. Passive and active engagement using education programs and signage will help to convey the “toward zero waste” culture to visitors.

How We’re Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Develop education materials that are tailored to the site and type of visitor. Helping to clarify what goes where when sorting.		✓		Site staff and Sustainability Coordinator
Engage and educate visitors to help foster sustainable behaviours through awareness, reducing barriers to proper sorting, and encouraging social norms. Include message “towards zero waste” vision clear to visitors through signage/communication.		✓		Site staff and Sustainability Coordinator
Pilot periodic educational blitz to engage visitors face-to-face with personalized education.		✓		Site staff and Sustainability Coordinator
Engage with seasonal residents and long-term visitors at our campgrounds using informational brochures that outline the acceptable material in each waste stream, similar to the outreach municipalities do with households.		✓		Site staff and Sustainability Coordinator

3.4 COMMUNICATION AND BRANDING

Having a clear and consistent message across the Authority can help to create a unified brand that visitors and staff can recognise and relate to. Using the messaging of "Towards Zero Waste" helps TRCA to establish a direct link to our overall waste targets as an organization.

Where We Are Now

Across all facilities assessed, it is apparent that there is a need for consistent communication, messaging and signage relating to TRCA's waste objectives and the waste management programs in place at each facility. In Summer 2014, new waste and recycling signs were rolled out across the facilities. This has allowed waste signage to be consistent and recognizable across all areas.

Where We Want to Go

Ensure clear and concise messaging and signage for staff and visitors at all TRCA facilities. Gain recognition of TRCA's goal for solid waste and its relationship to our strategic direction. The 3R program could provide comprehensive analysis of the entire lifecycle of waste management – from procurement to final disposal. The program would formalize measures to ensure continued auditing and weighing is practiced and commits TRCA to continuous waste improvement.

How We're Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Adopt the term "Toward Zero Waste" and develop recognizable branding and messages. Integrate the term into CSR strategy.	✓			Marketing staff and Sustainability Coordinator
Develop a corporation-wide communication strategy supporting zero waste efforts with consistent messaging, terminology, visuals, and tools to be applied to all facilities to support the corporate Living City objectives, and CSR objectives and the 80% waste diversion goal.	✓			Marketing staff and Sustainability Coordinator
Develop and install clear and consistent signage in all waste areas to help address knowledge barriers at the point of staff members and visitors making a decision on how materials should be sorted. Communicate the zero waste messages, such as branding TRCA as toward zero waste and facilities as toward zero waste.		✓		Marketing staff and Sustainability Coordinator, Site Managers
Explore the 3R program to see if it would provide comprehensive analysis of the entire lifecycle of waste management – from procurement to final disposal.		✓		Sustainability Coordinator
Leverage the journey to zero waste experience by showcasing best practices and lessons learned at conferences and seminars			✓	Sustainability Coordinator

3.5 ORGANICS

Organics represent a chance for TRCA to reuse a waste and promote recovery at the same time as diverting material from landfill. Choosing anaerobic digestion of organic material allows for the production of renewable energy to support societal goals and can provide valuable fertilizer for reuse.

Where We Are Now

Informal collection programs exist at offices and some facilities and formal contracted collection exists throughout the Interim Head Office, and in the kitchens of Black Creek Pioneer Village and Kortright Centre. Approximately 3% of all waste at our facilities is organic waste. TRCA produced 185 tonnes of organic waste in 2014.

Where We Want to Go

The collection and diversion of organic waste represents the biggest opportunity for TRCA to increase the diversion rate at our facilities, but it can also be one the trickiest to achieve low contamination. Expanding existing collection, which in some areas is limited to kitchens, as well as exploring opportunities to increase collection services at more sites will help greatly help us to reach our objectives. If we are able to divert 30% by 2020, 55 tonnes of organic waste would be diverted.

How We're Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Expand organic collection at sites where our staff is primarily responsible for organic waste generation as in commercial kitchens. Provide training and educational support material to staff on acceptable materials.	✓			Parks & Culture staff, Sustainability Coordinator
Conduct pilot project to expand organic collection to public use areas such as conservation areas.		✓		Sustainability Coordinator
Conduct pilot to expand organic collection to weddings, special events, and large picnics.		✓		Parks & Culture staff, Sustainability Coordinator
Wider launch of organic waste program at public use areas across the TRCA, with specific consideration for camp grounds.			✓	Parks & Culture staff, Sustainability Coordinator

3.6 CONSTRUCTION AND RENOVATION WASTE

Often overshadowed by the weekly waste collection program, the occasional and seasonal generation of construction and renovation waste[5] is a significant issue where TRCA could be doing better. Unfortunately, scale of construction waste and roll-on bin use was not understood at the start of this project and as such a key first step is to conduct audits on the type and quantity of waste being generated.

Where We Are Now

Many of our activities generate material that ends up in large roll-on bins that is taken to landfill. The composition of material can vary greatly from project to project. Opportunities exist to divert this material, if the proper system is in place.

In 2014, Restoration Services Centre engaged a waste hauler who specializes in recycling construction waste. RSC was able to collect 6.25 tonnes of wood, plastic culvert material, Geotextile, sediment filter cloth and paper/plastic reforestation bags to be sent for recycling rather than landfilling. In the bill provided by to waste contractor it was shown that 10% of the material was residual and 90% was diverted. Not all waste generated from our operations in roll-on bins will have similar characteristics to the waste collected at RSC, however there is the opportunity to recycle a large portion of each bin given the selection of a hauler who has the ability to process the material.

Some facilities rely on roll on bins to collect garbage overflow on particularly busy periods when the regular garbage becomes full. These bins also collect oversized garbage from site and construction and renovation materials that may accumulate over the season (i.e., old picnic benches).

Where We Want to Go

Construction waste represents one of our greatest challenges and opportunities in terms of increasing our waste diversion. As such, it is key to our long-term waste strategy vision and goals. In future, construction waste should be sent to appropriate Material Recovery Facilities in order to maximize diversion or managed without having to be sent to facility, such as reuse of wood, durable goods, local arrangements for reuse.

How We're Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Identify contractors that offer diversion services of construction and renovation waste. Visit material recovery facilities to verify operation and determine the categories of materials that are acceptable for diversion.		✓		Sustainability Coordinator
Look to expand existing regular garbage bin collection so that excess garbage created from conservation areas does not need to be deposited into roll on bins where appropriate.	✓			Site Staff and Parks & Culture Staff
Audit roll on bins to characterize the waste that is being collected.		✓		Sustainability Coordinator
Pilot project at a suitable location to evaluate the challenges and opportunities of roll-on bin waste diversion. This would include working with project manager to estimate expected waste materials generated in advance of the project and explore opportunities for reuse or recycle within each local context.			✓	Sustainability Coordinator, Properties Staff, and Parks & Culture Staff
Develop language within RFPs and RFQs to encourage vendors to propose sustainable waste solutions within proposals. Monitor and verify what strategies contractors use to divert material.		✓		PMO Staff, Sustainability Coordinator

[5] Includes drywall, lumber, concrete, brick, piping, wiring and carpeting from renovation projects and new construction; also includes operational waste from nursery and workshops.

3.7 HAZARDOUS WASTE

Waste generated at our sites, and through our operations as well as waste brought to our facilities by the public is at times hazardous, yet TRCA lacks a formal coordinated approach to dealing with hazardous waste. Hazardous waste can include solvents, propane canisters, fluorescent lightbulbs, e-waste, batteries, paints, motor oil and tires. Although hazardous waste is combined elsewhere in the report with e-waste these strategies primarily deal with hazardous waste, since the e-waste steam is not extensively available or necessary across most TRCA sites.

Where We Are Now

Local agreements exist at sites with some municipal partners, but for the most part the hazardous material accumulates at sites over the course of years. From discussions from facility managers a rough estimates of our annual hazardous waste is between 1 and 2 tonnes but no formal audit has been conducted. This is exclusive of our e-waste which is an additional 1.6 tonnes. Although the quantity of the hazardous waste generated is small compared to the annual total of TRCA's other waste streams due to the hazardous nature of the material it is critical to have mechanisms in place to track the material and be able to account for its safe disposal. A current initiative is underway in summer 2015 to contract and combine the pick-up of hazardous waste from sites at the same time as collecting medical waste and needles.

Where We Want to Go

A corporate wide coordinated approach to tracking and management hazardous and e-waste. Quantities and types of waste should be audited on a regular basis to support management decisions. Monitor which material was disposed, how much and who handled the disposal. Knowing this information will lead to better practices for the collection and disposal of the hazardous waste.

How We're Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Audit current issue of stock piled hazardous waste at sites. Reach out to facility staff to take inventory of what we have, how much of it and when we can get it removed. Develop a standardized template for site managers to complete, tracking hazardous waste at each facility.	✓			Health & Safety Staff, Sustainability Coordinator, Site Managers
Develop a plan for the future whereby hazardous waste collection is formalized and picked up on a regular basis.		✓		Health & Safety Staff, Sustainability Coordinator
Develop a plan whereby e-waste collection is formalized and picked up on regular basis and expand collection to additional sites if practical.		✓		Health & Safety Staff, Sustainability Coordinator
Explore partnership opportunities to reuse old computer and electronic equipment for refurbishment and/or donation.		✓		Sustainability Coordinator, Information Technology Staff, Partners in Project Green Staff
Consider deploying "lab packs" or other hazardous containment barrels to collect and temporarily store waste prior to pick up. This would be a safe and traceable system prior to final disposal.		✓		Health & Safety Staff, Sustainability Coordinator

3.8 PROCUREMENT

Sustainable purchasing practices are used by organizations to buy goods and services by evaluating them on multiple criteria, not just price. This includes consideration for best value (quality, price, and/or service), impact on the environment and product life cycle and social and ethical impacts. Sustainable purchasing also assesses the need the product or service fulfills and then evaluates if the need can be met in another way and if the product or service is truly necessary. Sustainable procurement, as it relates to waste management, focuses on the ability for a product to be recycled, reused, repaired or recovered for energy and the procurement of services which promote these practices.

Where We Are Now

TRCA does have a "Mandatory Green Product and Service Procurement List" however it is has not been updated in almost two years and does not focus on sustainable waste considerations.

Where We Want to Go

A revised list of sustainable products that take into account evolving technology, socially responsible and local sources as it relates to sustainable solid waste management. Updating the sustainable products list should involve a coordinated approach on an ongoing basis and development of metrics to monitor and evaluate progress. Develop mechanisms to consider in the long-term the full life cycle of all purchases and assets through a comprehensive asset management program.

How We're Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Seek expert advice on developing and integrating a sustainable procurement strategy which includes provisions for sustainable waste management.			✓	CEO office, Sustainability Coordinator
Develop and implement a Zero Waste Event Policy and Guidelines/Toolkit for TRCA events.		✓		CEO office, Sustainability Coordinator, Site Managers
Adapt the sustainable procurement policy to consider reduction, recycling, reuse and recover of waste using guidelines for the following areas. Example areas include: · Catering and Food Service · Event Planning · Furniture and Office Supplies using EPEAT certified products · Paper and Printing · Product packaging		✓		CEO office, Sustainability Coordinator, Site Managers
Construction and renovation projects must include considerations for waste diversion by recycling, resuse and recovery when implemented internally or through the tendering process.			✓	Sustainability Coordinator
Develop a monitoring and verification process to ensure that sustainable procurement policies are being adopted and practiced.			✓	Sustainability Coordinator

3.9 WASTE HAULER TENDERING PROCESS

Contracts for waste hauling from TRCA sites are an ongoing issue and opportunity. The selection process allows for the TRCA to choose partners who share our vision of toward zero waste and who can help us to achieve our targets.

Where We Are Now

Several different waste management contractors are used at the various sites, offering different services and different procedures to collect and process materials. It is not completely known what happens to materials after they are collected from each site post pick up and has created confusion amongst staff, which can generate cynicism.

Where We Want to Go

A coordinated tendering approach for hiring waste management contractors would greatly assist in aligning the service with the corporate goals and objectives. Wider transparency of what happens when TRCA waste reaches a material recovery facility would also help to understand how waste is processed once it leaves our property.

In May 2014, TRCA hired a new contractor who specializes in waste tracking and diversion. An extension of the contract has been provided till December 2015. Thus far the contractor has been able to provide TRCA monthly weights of waste for facilities covered under the contract. Moving forward, these weights will be the primary source for our corporate total, providing us with valuable data concerning our waste performance.

How We're Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Create a waste tendering template to ensure that provisions for sustainable waste practices and data collection are included in the request for proposal.	✓			Sustainability Coordinator, Properties Staff, and Parks & Culture Staff
Considering grouping all waste streams into tendering contract by including construction and renovation, hazardous, electronic, yard, organic wastes with standard garbage and recycling contract.	✓			Sustainability Properties Staff, and Parks & Culture Staff Coordinator,
Ensure a transparent relationship with hauler to ensure waste is being properly disposed of, including informal auditing of material recovery facilities. Perform auditing of monthly waste values and site visits of where the waste is being processed. Invite waste contractors to steering committee to provide challenges, opportunities and clarity about the waste collection process.	✓			Sustainability Coordinator,
Implement coordinated and consistent tendering approach for hiring waste management contractors aimed at supporting and being consistent with the Long-Term Sustainable Solid Waste Strategy.		✓		CEO office, Sustainability Coordinator, Site Managers

3.10 REDUCE CONTAMINATION

Contamination can result in a whole dumpster of recycling being downgraded to garbage and result in service interruption from haulers who will refuse pick up. As the cost of disposal of garbage is twice the cost of recycling it is in TRCA's financial interest to lower the contamination rate at all of the sites to ensure that the material is being recycled, to lower our waste hauling costs, keep the best service providers and achieve our corporate goals.

Where We Are Now

Contamination continues to be a issue within both our recycling and garbage streams. Approximately 20% of the recycling collected from our facilities is composed of garbage and approximately 25% of the garbage stream is composed of recyclable material.

Contamination has become a problem at a number of sites throughout the most recent waste contracting period. Where recycling has been deemed to be too contaminated it is picked up as garbage. Discussions between sites, our waste contractor, and the driver has helped to find solutions to avoiding situations where recycling is not picked up.

Where We Want to Go

Decreasing the level of contamination in the waste streams helps TRCA to achieve the overall target of 80% diversion by 2020, while also ensuring that the waste at our facilities is collected on schedule and with no service interruptions. Lower contamination builds trust and fosters confidence with staff that their efforts are having a positive impact, helping to diminish any misconceptions about how the waste is managed. TRCA should aim to increase the diversion rate of recyclable mixed containers from 30% in 2014 to 50% in 2020 and paper fibre from 26% to 50% by 2020; collectively this would divert an additional 96 tonnes.

How We're Going to Get There

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Ensure that all large bins and wire mesh bins at public use sites are co-located and that users have the opportunity to choose between the best streams without inconvenience. Consider and prepare for expanded services at areas where organics collection will be piloted.	✓			Site managers
Work with staff and cleaners so that they are aware of what level of contamination is tolerable and ensure that they are taking the source separated garbage to the correct bins for hauler pick up.		✓		Site managers, Sustainability Coordinator
Ensure signage is visible, accurate and clear when new waste service providers are hired on large bins and for wire mesh bins. Large bins should include the message (after clear and tinted blue bags for waste and recycling are adopted) " Clear Garbage Bags Only" and "Blue Recycling Bags Only"		✓		Site managers, Sustainability Coordinator
Conduct observation of waste collection at start of new contract and periodically thereafter at sites to ensure the waste hauler is using the appropriate collection vehicle for each stream. Ensures that recycling is not being comingled with garbage on the same pick up run.		✓		Sustainability Coordinator

3.11 MONITORING AND EVALUATION

Data assesses the success of our actions and progress towards our targets. An integral part of adaptive management approach provides empirical data to help decision making as the program evolves. Data collected will help to determine the success of certain initiatives and provide a snapshot of where we are relative to the baseline.

Where We Are Now

An important part of managing the progress and outcomes of the sustainable waste management plan is through the implementation of a monitoring system. Data from audits carried out in 2014 has been captured in a master database. New data from five audits carried out in 2015 has been added to the database. Currently, our waste projections are the result of estimations made for sites based on observations, measurements and anecdotal discussions with staff our facilities; and the weigh bills from roll on bins from the accounting system.

Where We Want to Go

Additional data can be compiled with annual audits of select sites. Data collected will help inform the steering committee as to the future direction of the program.

How We're Going to Get There

Moving forward, our contracted waste provider will be able to provide us with accurate (or where necessary, estimates) of the weight of our waste stream via scales on the transfer trucks. It is expected this this level of detail will be included in future waste contracting considerations.

	TIMEFRAME (years)			
Initiative	>1	1-3	4-5	Responsibilities
Aim to conduct five audits of different facility types each year to ensure that all sites are audited once every four years.	✓	✓	✓	Site managers
Conduct annual review of all waste bills in the accounting system and weights from the waste haulers to calculate annual waste generation totals. Provide this to the steering committee. For areas serviced by municipal pick up, conduct estimates based on average weights, frequency of pick up and duration of season to determine annual totals.		✓		Site managers, Sustainability Coordinator
Complete an annual report on waste generation and diversion and share with all staff (as per communication strategies). Use the opportunity to demonstrate the successes, staff profiles, new initiatives, etc.		✓		Site managers, Sustainability Coordinator
Develop indicators to show environmental performance on waste diversion (i.e. trees and water saved, landfill space avoided) to demonstrate to a varied audience progress on waste management		✓		Sustainability Coordinator
Review and refresh strategy every 5 years. As initiatives are implemented, priorities may shift away from planed actions and may require expnasion of activities to new areas.			✓	Sustainability Coordinator, Steering Committee

Measurement Tools

For facilities under contract with our private waste haulers, we should continue to rely of the monthly pick-up weights provided by our waste service providers. Where limitations exist (i.e. scales on trucks not functioning) estimates will be provided from the waste hauler.

At facilities not covered under the contract but covered by the Municipality of Peel, we will need to rely on estimates acquired through the use of informal auditing. Additionally we can open up discussions with Peel region to see if we can be provided with scale data from the pick-up trucks at collection time.

For weights from our roll off bins we can continue to rely of the scale weight provided in the invoices from the waste hauler. This is available on an annual basis from Lotus Notes. All these measurements will be captured annually through exiting corporate sustainability reporting practices.

3.12 FACILITY PLANS

Supporting this corporate waste report are adjunct reports tailored to each of the facilities that TRCA operates. These 19 facility reports highlight the particulars unique to the operation, clientele and location of each site. Included in each report is specific audit data broken down into each waste stream and recommendations unique to the site. These reports have been complied with the involvement of staff from the sites, helping to ensure that the recommendations are viable and suited to the particularities of the facility.

These reports will be amended with new data as additional audits are carried out and with the support from the facility staff steering committee.

4. CONCLUSIONS

With a respectable diversion rate of 56% in 2014, the TRCA is aptly positioned to meet the target of 80% diversion by 2020 on our journey towards zero waste. Building on the culture of conservation that already exists, staff can be engaged and empowered to take on the strategies developed in this corporate report and the facility reports to deliver initiatives geared towards reaching our vision of Toward Zero Waste.

This report has laid out the challenges, opportunities and initiatives needed to drive the sustainable waste management program and fulfill the Board's mandate from the Authority Meeting #6/12, held on July 27, 2012, Resolution #A138/12 that states:

"...AND FURTHER THAT staff report back on what strategies TRCA is using to achieve zero waste and what TRCA is doing to change public awareness and engagement in waste reduction at all TRCA facilities".

Implementation of these strategies will require considerable internal coordination between groups within TRCA using, shared resources and effective working relationships, as much as it involves actively engaging our visitors and changing the way that they perceive of waste. By engaging both the staff and the public TRCA can meet or exceed the diversion targets of our funding partners and reach our own ambitious, yet achievable target in the near future.

Item 7.5

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #5/16, Friday, June 24, 2016

FROM: Darryl Gray, Director, Education, Training and Outreach

RE: **KORTRIGHT CENTRE FOR CONSERVATION MUNICIPAL WATER AND SANITARY SITE SERVICING PROJECT**
Tender Call #10001696

KEY ISSUE

Award of Contract #10001696 for the supply of all labour, equipment and materials necessary for the installation of municipal water and sanitary services within the Kortright Centre for Conservation, in the City of Vaughan, Regional Municipality of York.

RECOMMENDATION

THAT Contract #10001696 be awarded to TACC Construction Ltd. for installation of municipal site servicing within the Kortright Centre for Conservation, in the City of Vaughan, at a total cost not to exceed $1,315,500.00, plus HST, as they are the lowest bidder that best meets Toronto and Region Conservation Authority (TRCA) specifications;

THAT TRCA staff be authorized to approve additional expenditures to a maximum of 15% of the contract cost as a contingency allowance if deemed necessary;

THAT should staff be unable to execute an acceptable contract with the awarded contractor, staff be authorized to enter into and conclude contract negotiations with the other contractors that submitted tenders, beginning with the next lowest bidder meeting TRCA specifications;

AND FURTHER THAT authorized TRCA officials be directed to take any action necessary to implement the agreement including obtaining any required approvals and the signing and execution of documents.

BACKGROUND

Situated in the City of Vaughan on 325 hectares of pristine woodlands, the Kortright Centre for Conservation (KCC) combines a natural oasis with some of the most leading edge sustainable education programs and events in Canada. KCC hosts over 100,000 visitors annually and offers over 50 environmental education programs for schools and 30 sustainable technology workshops for the public, trades and industry or working professionals.

The Kortright Visitor Centre building is a 30,000 square foot, three level post and beam structure, with a 140 seat theatre, eight classrooms, a cafe and gift shop. The Visitor Centre is the main hub for all the recreational programs and activities featured in the building with access to trails that provide avenues for natural adventures such as hiking, skiing, orienteering, geocaching, birding and dogsledding, or lessons in the latest sustainable energy or green building demonstrations.

Originally constructed in 1979, and over 35 years old, the Kortright Visitors Centre's wastewater septic system is reaching the end of its functional lifespan. TRCA has been advised that obtaining approval permits from the Ministry of the Environment and Climate Change to replace the septic system would be difficult, costly and lead to a shutdown of the building for an unspecified period of time. Additionally, the property's potable water source is supplied by well water, which due to its aged infrastructure and hard water scaling, has resulted in costly maintenance and repairs that has led to disruptions to KCC programming and operations.

To support KCC's position as Ontario's premier environmental and renewable energy education and demonstration centre, water/wastewater services are also required to support the proposed TRCA partnership with the Building Research Establishment (BRE) in the United Kingdom to create an Innovation Park as part of The Living City Campus at Kortright. The objective of this project is to act as an industry resource for sustainable construction by showcasing several sustainable homes and technologies to local and international developers, manufacturers, designers and contractors. Through its partnership, TRCA aims to work with its municipal and corporate partners to expand its existing sustainable housing demonstrations, research and education projects.

As part of the overall plan, TRCA is proposing to upgrade its existing water/wastewater infrastructure to municipal services throughout the property. The approximately 1km of services will include fire hydrants and service connections to various buildings at KCC including the Visitors Centre, Archetype House, rental property, maintenance workshop, greenhouse and agricultural facilities, and the proposed Innovation Park development. The new infrastructure will improve the overall operations of the water and wastewaters systems, and allow for future growth in visitation at the Kortright Centre for Conservation.

RATIONALE

This project is aligned with leadership strategies number eight and ten in TRCA's strategic plan. Through gathering and sharing the best urban sustainability knowledge and accelerating innovation, this project will assist TRCA in its commitment to continuous innovation and creating new ways to coordinate the engagement of academics, researchers, the building industry and municipal experts to more effectively infuse new science, an understanding of complex systems, innovation and on-the-ground experience into urban planning, design and governance in the Toronto region.

Tender #10001696 was publicly advertised on the electronic procurement website *Biddingo* (http://www.biddingo.com/) on April 18, 2016 with a mandatory site information meeting held on April 27, 2016. Tender packages were sent to the following nine contractors:

- Blackstone Paving;
- Fermar Paving Limited;
- Harvie Construction Inc.;
- Mar-King Construction;
- Moretti Excavation;
- Sam Rabito Construction;
- Somerville;
- TACC Construction; and
- Trisan Construction.

The Procurement Opening Committee opened the Tenders on May 12, 2016 with the following results:

BIDDERS	TOTAL (plus HST)
TACC Construction Ltd.	$1,315,500.00
Somerville	$1,397,387.26
Moretti Excavating Ltd.	$1,880,000.00

Restoration and Infrastructure staff reviewed the bid received from TACC Construction Ltd. against its own cost estimate and has determined that the bid is of reasonable value and also meets the requirements as outlined in the contract documents. Further assessment by TRCA staff of TACC Construction Ltd.'s experience and ability to undertake similar projects was conducted through reference checks which resulted in positive feedback that TACC Construction Ltd. is capable of undertaking the scope of work.

Based on the bids received, staff recommends that TACC Construction Ltd. be awarded Contract #10001696 for municipal site servicing within Kortright Centre for Conservation for a total amount of $1,315,500.00, to be expended as authorized by TRCA staff, plus a 15% contingency, plus HST, it being the lowest bid that meets TRCA specifications**.**

FINANCIAL DETAILS
Funds required to complete this project are available from the Region of York, Region of Peel and City of Toronto through the Kortright Campus Development account #425-01.

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Date: May 27, 2016

Item 7.6

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #5/16, Friday, June 24, 2016

FROM: Nick Saccone, Senior Director, Restoration and Infrastructure

RE: **BLUFFERS PARK CHANNEL DREDGING**
Award of Contract #10002209 for Maintenance Dredging of the Bluffers Park Entrance Channel, City of Toronto.

KEY ISSUE

Award of Contract #10002209 to complete maintenance dredging of the navigation channel at Bluffers Park.

RECOMMENDATION

THAT Contract #10002209 be awarded to Catalina Excavating for the maintenance dredging of the navigation channel at Bluffers Park in the City of Toronto at a total cost not to exceed $159,940.00 plus HST, as they are the lowest bidder that best meets Toronto and Region Conservation Authority (TRCA) specifications;

THAT TRCA staff be authorized to approve additional expenditures to a maximum of $20,000.00 as a contingency allowance if deemed necessary;

THAT should staff be unable to execute an acceptable contract with the awarded contractors, staff be authorized to enter into and conclude contract negotiations with the other contractors that submitted tenders, beginning with the next lowest bidder meeting TRCA specifications;

AND FURTHER THAT authorized TRCA officials be directed to take any action necessary to implement the agreement including obtaining any required approvals and the signing and execution of documents.

BACKGROUND

In 1981 Bluffer's Park opened at the foot of Brimley Road as a waterfront park in the City of Toronto. Included within the Park is a commercial marina as well as four boating clubs which access Lake Ontario by way of the entrance channel.

Due to coastal and sediment transport processes, the navigation channel is susceptible to deposition of sand and other material. This deposition reduces the depth of water in the navigation channel and can severely impact the ability to safely navigate boats through the area and limits marine-based emergency access if left unaddressed. The channel is owned by Fisheries and Oceans Canada, however the City of Toronto is responsible for maintaining safe navigation depths, and TRCA assists the City as requested to maintain these depths given staff's expertise with dredging and marine contract management. Sedimentation rates are expected to decline substantially in the channel over the long-term following the armouring of the Meadowcliffe sector of the Scarborough Bluffs shoreline in 2011, which was identified as the primary source of material depositing in the channel; however periodic maintenance dredging can continue to be expected, albeit at a much reduced cost and frequency. A previous coastal review by Shoreplan Engineering to consider possible structural solutions to the sedimentation problem

concluded that a reconfiguration of the entrance channel will not alleviate all sedimentation issues and that routine maintenance dredging is the most effective solution at this site.

In early 2008, concerns of insufficient water depths in the entrance channel were brought to TRCA's attention by members of the boating clubs. TRCA notified the City of Toronto (Parks, Forestry & Recreation) of the hazard, who in turn retained TRCA to undertake maintenance dredging later that summer. Upon completion of the 2008 dredging project, approximately 1,700 cubic metres of sediment was removed from the entrance channel; a relatively minor amount compared to the more than 70,000 cubic metres of sediment which is estimated to have accumulated over the more than 30 years since the entrance channel was constructed. Recognizing that the maintenance work restored only the minimum depth required for safe passage through the channel, with no allowance provided for ongoing siltation, it was communicated by TRCA staff to the City of Toronto that future maintenance dredging would likely be required.

In 2010, insufficient water depths in the entrance channel were again brought to TRCA's attention. In response, TRCA completed a hydrographic survey of the entrance channel in April 2010 to provide updated information to the City of Toronto and determine the appropriate course of action. The survey showed that a large sand bar formed laterally across the entrance channel, reducing water depths to approximately 1.5 m and creating a risk to the members of the boating community who require a minimum draft of 1.8 m below chart datum for safe passage. As a result of shallow water in the entrance channel, a member of the Cathedral Bluffs Yacht Club got stranded on the sand bar on the evening of April 26, 2010, requiring rescue. Although no injuries were reported, it is noted that the draft on the stranded boat was 1.4 m.

Emergency dredging was completed within the entrance channel in June 2010, allowing for approximately 3,500 cubic metres of sediment to be removed. Unfortunately, a sounding completed by TRCA on May 9, 2011 revealed that more than 2/3 of the volume removed 11 months earlier had re-accumulated.

In 2014, TRCA removed approximately 9,000 cubic metres of material from the channel based on hydrographic surveys and the City's 2011 capital budget.

On May 19, 2016 two near-misses were reported to TRCA from a concerned boater after a vessel ran aground in an unmarked area of the channel. TRCA relayed this information to the City, who in turn requested TRCA's assistance with maintenance dredging. TRCA completed a hydrographic survey and determined that it was necessary to remove a minimum of 600 cubic metres of sediment to meet minimum navigation requirements. It was determined that the City's available budget will allow for the removal of approximately 3,100-3,500 cubic metres of sediment to provide additional capacity in the channel for ongoing deposition from the adjacent east beach and Scarborough Bluffs. TRCA has recommended to the City that they consider completing a major sediment removal exercise to restore the channel to its original design condition as it is costly to mobilize on site; however, the City has been unable to approve this larger budget request.

Sediment samples were collected from the channel and sent for laboratory analysis to determine disposal options for the dredgeate. Based on the results of these analyses, the sediment meets Ministry of the Environment and Climate Change's Table 1 background data meaning that the material meets unconfined disposal guidelines. Given that on-site disposal is the most cost-effective solution and site disturbance is expected to be minimal, permanent disposal of the dredgeate is to be placed in a location determined by the City near the work area.

RATIONALE
Request for Quotation (RFQ) #10002209 was publically advertised on Biddingo.com on May 27, 2016, and a mandatory site meeting was held on June 2, 2016. The following contractors attended this meeting:

- Catalina Excavating
- Galcon Marine
- Ontario Construction
- Town of Coburg

Bids were opened at the Procurement Opening Committee meeting held on June 9, 2016 by TRCA staff (James Dickie, Judith Reda and Jessica Pietrangelo). The table below summarizes the results of RFQ #10002209 assuming removal of 3,100 cubic metres of sediment.

RFQ # 10002209
Bluffer's Park Project – Channel Dredging Works

BIDDERS	MOBILIZATION/ DEMOBILIZATION	DREDGING ($/m³)	DISPOSAL (Bluffers West Area ($/m³)	TOTAL (plus HST)
Catalina Excavating	$13,000.00	$36.90	$10.50	$159,940.00
Galcon Marine	$30,300.00	$31.20	$15.60	$175,380.00
Ontario Construction	$88,800.00	$32.20	$16.70	$240,390.00

The main tender item that varied substantially between contractors was the proposed mobilization and demobilization costs. The large range in pricing is based on the location of the contractors' equipment relative to the work area and cost associated with transporting their machinery to the site. Catalina Excavating is already mobilized near the Lake in Coatsworth Cut, so they have the lowest cost to move the equipment to Bluffers Park. Galcon intends to mobilize from Keating Channel and has priced their mobilization accordingly. Ontario Construction has to mobilize their equipment by land from Niagara on the Lake and then has to crane their equipment into the water, explaining the high mobilization costs. The deviation on dredging and disposal costs per cubic metre is within the range that Restoration and Infrastructure staff anticipated for this contract.

Restoration and Infrastructure staff reviewed the bid received from Catalina Excavating against its own cost estimate and has determined that the bid is of reasonable value and also meets the requirements as outlined in the contract documents. Further assessment by TRCA staff of Catalina Excavating's experience and ability to undertake similar projects was conducted through reference checks which resulted in positive feedback that Catalina Excavating is capable of undertaking the scope of work.

As it is standard practice to include a contingency in project estimation in the event of unforeseen events, $20,000.00 has been set aside for this contract. However, as the City has directed TRCA to remove as much material as possible with the available budget, it is recommended that staff be allowed to utilize the contingency to remove additional material, if required. Staff will monitor the progress of the contractor and the budget before extending the scope of work.

Dredging is tentatively scheduled to commence in early July 2016, pending authorization to award Contract #10002209 and the receipt of all necessary approvals. Work is anticipated to take approximately four weeks to complete, weather permitting.

This project is aligned with leadership strategy number two “manage our regional water resources for current and future generations.” Dredging of the channel will improve shoreline access making the system more navigable for canoes and other boats. In addition, this project aligns with enabling strategy number seven “build partnerships and new business models.” TRCA has now completed this work on behalf of the City multiple times allowing us to demonstrate TRCA’s expertise and capability in performing this critical maintenance thereby increasing TRCA’s financial resilience.

FINANCIAL DETAILS

A budget of $210,000 has been identified to complete the 2016 maintenance dredging works, including Contract #10002209, the recommended $20,000 contingency allowance, and staff time to secure approvals and manage the contract. Funding for this project is 100% recoverable from the City of Toronto within account 186-10.

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Date: June 10, 2016

Item 7.7

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #5/16, Friday, June 24, 2016

FROM: Nick Saccone, Senior Director, Restoration and Infrastructure

RE: **PETTICOAT CREEK CHANNEL REALIGNMENT PROJECT**
Stream Restoration Partnership with Durham Region

KEY ISSUE

Durham Region and Toronto and Region Conservation Authority will be partnering to address erosion issues and restore 65 metres of Petticoat Creek along Altona Road in the City of Pickering.

RECOMMENDATION

THAT Toronto and Region Conservation Authority (TRCA) staff be authorized to work with the Region of Durham to implement the Petticoat Creek Channel Realignment Project.

BACKGROUND

The Petticoat Creek Channel Realignment Project is a stream restoration initiative led by the Region of Durham. TRCA's Restoration Projects group will assist the Region by providing project management and construction implementation expertise for this project.

Petticoat Creek is currently eroding the west shoulder of Altona Road adjacent to Sparrow Circle in the City of Pickering. A realignment of the creek in this area is proposed to correct the erosion and stabilize the shoulder of the road. Petticoat Creek falls under the jurisdiction of TRCA and the Region of Durham has expressed interest in partnering with TRCA to construct the creek realignment. Specifically, the Region is looking for TRCA's construction support, logistics and guidance to restore the stream, and improve fish habitat in Petticoat Creek as part of this project.

RATIONALE

The Restoration Projects group has considerable expertise in administrating this type of specialized work. To assist Durham Region, staff will facilitate the implementation and logistics of this project in an efficient and expeditious manner, and reduce the risks associated with the restoration of this stream. This complex restoration project will be coordinated among several different agencies – namely Durham Region, the City of Pickering and Hydro One Networks Inc.. TRCA has secured all the regulatory approvals for the work.

FINANCIAL DETAILS

The Region of Durham has confirmed availability of the required budget, which is not to exceed $233,000.00, to allow for the construction of the Petticoat Creek Channel Realignment Project. Funding will be made available in account 109-49. In addition, TRCA will be contributing $20,000.00 of additional funds from TRCA's Durham capital budget account 109-10 to support further project enhancement.

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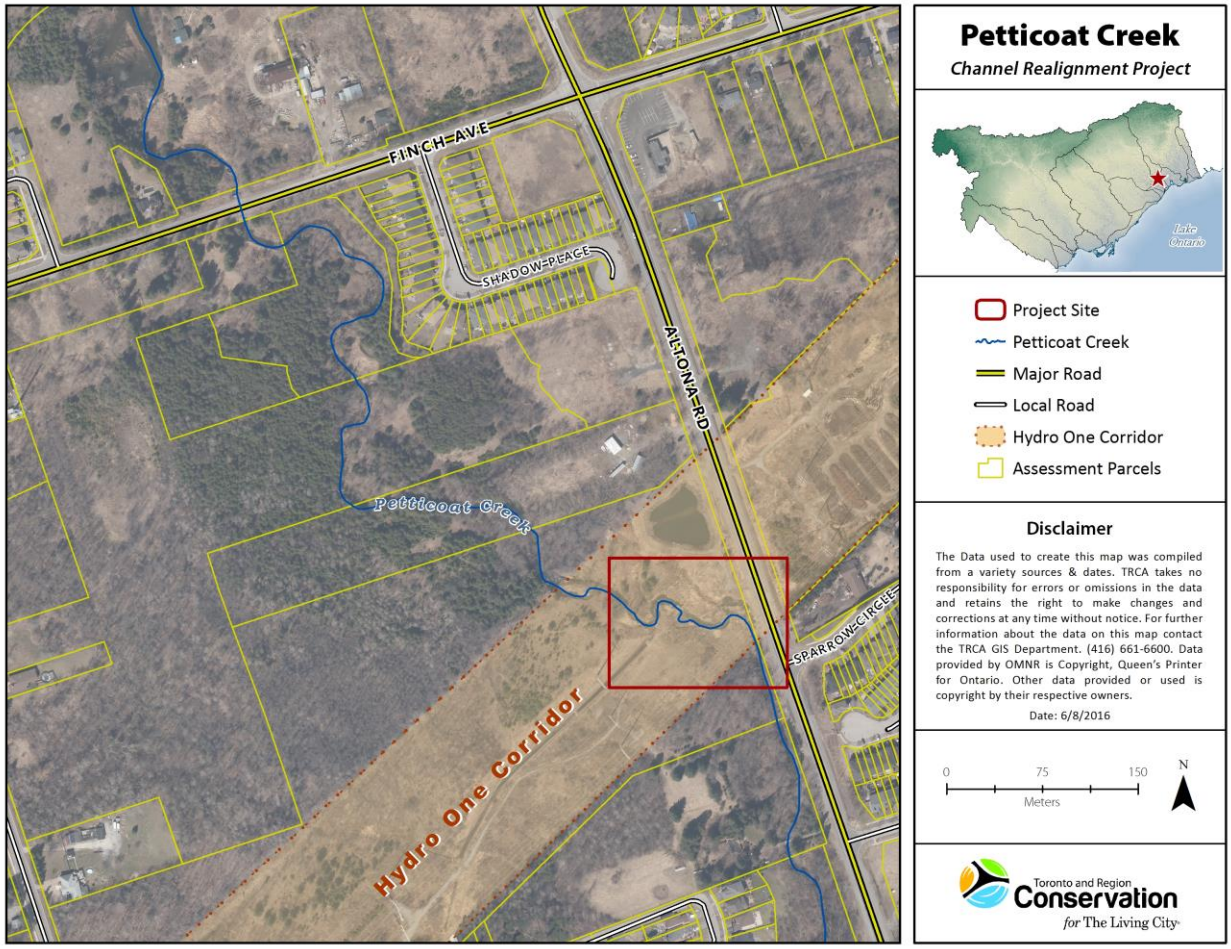
Date: June 7, 2016
Attachments: 1

Attachment 1



Item 7.8

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #5/16, Friday, June 24, 2016

FROM: Nick Saccone, Senior Director, Restoration and Infrastructure

RE: **ACQUISITION OF VEHICLES AND EQUIPMENT**
Award of Contract #10001643 - Acquisition of One (1) Large Tracked Skidsteer

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KEY ISSUE

Award of contract for the Acquisition of One (1) Large Tracked Skidsteer.

RECOMMENDATION

THAT Contract #10001643 for the Acquisition of One (1) Large Tracked Skidsteer be awarded to Chas Richards & Sons Ltd. Limited for a total cost not to exceed $110,290.00, plus HST, it being the lowest bid meeting Toronto and Region Conservation Authority (TRCA) specifications.

BACKGROUND

Staff within the Engineering Projects group in the Restoration and Infrastructure Division has identified the need for a large tracked skid steer to assist on an ongoing basis with the completion of various projects throughout TRCA's jurisdiction. The type of work ranges from trail construction to valley / stream / shoreline protection. The possibility of a long term rental / lease was explored but rejected due to the frequency at which this equipment would be utilized on project sites, making the option to purchase more favourable.

Engineering Projects currently uses a Case SR150 (P1004) which is a small rubber tire skidsteer front end loader with an operating weight of 2,505 kg and radial lift loader design. Due to the design of P1004 there are limitations to its use as the rubber tire drive system which restricts site access and the locations on project sites where the equipment can travel. Therefore staff is looking to diversify the equipment pool with a large tracked skidsteer which will allow for greater versatility and efficiency in the field.

Given TRCA already owns a large tracked skidsteer (Case TV380 [V1004]) with an operating weight of approximately 5,000 kg and a vertical lift loader design, and that staff is satisfied with its versatility, the decision was made to look for a machine with similar features. Further, this unit has proven to be safe to operate.

RATIONALE

Contract #10001643 was publicly advertised on the electronic procurement service www.biddingo.com on February 18, 2016 with a closing date of March 4, 2016. The documents were viewed by the following suppliers:

- B.E. Larkin Equipment Limited
- Battlefield Equipment Rentals
- BEC Equipment Ltd.
- Bob Mark New Holland Sales Limited
- Bobcat of Toronto
- Bradford Rental
- Chas. Richards Limited
- Connect Equipment Corporation
- Ed Stewarts Equipment
- Green Tractors Inc.
- Hutchins Farm Supply Inc.
- Kooy Brothers Lawn Equipment
- Moore JCB
- MultiBobcat Services Ltd.
- Nortrax Canada Inc.
- Stratford Farm Equipment
- Strongco Equipment
- Strongco LP
- Top Lift Enterprises Bolton
- Toromont Cat
- United Rentals
- Wajax Equipment

Submissions were opened on March 4, 2016 by Restoration and Infrastructure Division and CEO's Office staff (Aubrey Orr, Judith Reda, Lori Colussi) with the following results:

Supplier	Bid (plus HST)
United Rentals of Canada Inc.	No Bid
Kooy Brothers Lawn Equipment	$92,800.00
Kooy Brothers Lawn Equipment	$97,600.00
Moore JCB o/a Moore Equipment Ltd.	$97,700.00
Bobcat of Toronto	$98,617.40
Strongco Limited Partnership	$99,600.00
BPT Components & Parts o/a BEC Equipment Ltd	$105,340.00
Hutchinson Farm Supply	$106,031.00
Connect Equipment Corporation	$106,520.00
Nortrax Canada Inc.	$110,154.20
Chas. Richards & Sons Ltd.	$110,290.00
Bob Mark New Holland Sales Ltd.	$110.450.00
Strongco Limited Partnership	$110,900.00
Battlefield Equipment Industries a div. of Toromont Industries	$112,250.00
Battlefield Equipment Industries a div. of Toromont Industries	$132,970.00

TRCA requested vendors to replicate the specifications and features of Case TV380 (V1004). This replication would increase interdepartmental utilization of the machine, operator efficiency and ensure accessibility to multiple service locations throughout the jurisdiction.

To assist in the facilitation and completion of projects as efficiently as practical the following attachments were included in the tender:

- heavy duty bucket;
- pallet forks;
- smooth drum vibratory compactor roller;
- side discharge bucket.

Upon review of all submissions it was determined that the submission from Chas. Richards and Sons best met specifications and needs. The other submissions were less desirable for various reasons including:

- lower operating capacity;
- hydraulic flow rate;
- bucket breakout force;
- engine horsepower;
- maximum lift height;
- radial arm loader design;
- single lift arm loader design;
- engine emissions;
- overall dimensions.

Therefore staff recommends Contract #10001643 be awarded to Chas. Richards and Sons for the supply and delivery of One (1) Case TV380 skidsteer as specified.

FINANCIAL DETAILS
Funding is available through the TRCA vehicle and equipment acquisition fund. (701-11)

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Date: June 13, 2016

Item 7.9

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #5/16, Friday, June 24, 2016

FROM: Derek Edwards, Director, Parks and Culture

RE: **CONCUSSION PREVENTION AND MANAGEMENT GUIDELINES**
Adoption for TRCA Conservation Areas

KEY ISSUE

Board approval of the adoption of the Ontario Physical Education Safety Guidelines – Concussion Protocol and Tools at TRCA conservation areas to enhance the health and safety of visitors and staff and meet a stipulation of grant funding.

RECOMMENDATION

WHEREAS Toronto and Region Conservation Authority (TRCA) submitted an application for funding through The Living City Foundation (LCF) to the Ontario Sport and Recreation Communities Fund (OSRCF) for the Bruce's Mill Pass Program Project;

AND WHEREAS this application has been approved for funding on the condition that funding recipients have board-approved policies and procedures on concussion prevention and management;

AND WHEREAS TRCA's education facilities currently follow the Ontario Physical Education Safety Guidelines – Concussion Protocol and Tools;

THEREFORE LET IT BE RESOLVED THAT TRCA adopt, and amend as needed, the Ontario Physical Education Safety Guidelines – Concussion Protocol and Tools at TRCA conservation areas to meet the OSRCF's funding stipulation as well as enhance the health and safety of visitors and staff;

AND FURTHER THAT the OSRCF be so advised.

BACKGROUND

In January 2016, TRCA submitted an application through The Living City Foundation to the Ontario Sport and Recreation Communities Fund for the Bruce's Mill Pass Program project. The project proposes to pilot a series of collaborative sports and recreation programs at Bruce's Mill Conservation Area over the course of July and August 2016. These include zip-lining, aerial games, team-building exercises, cycling, soccer, Frisbee, baseball, and yoga. Each activity will be led by a qualified instructor. For a nominal fee (less than $25), individuals can purchase a pass to gain unlimited access to programs. Geared towards children and youth, the project aims to reduce financial barriers to participation while encouraging physical activity and the development of physical literacy. On May 20, 2016, TRCA was notified that the Bruce's Mill Pass Program project was approved for OSRCF funding.

As a stipulation of OSRCF funding, grant recipients must have in place board-approved policies and procedures on concussion prevention and management. Currently, TRCA education facilities follow the Ontario Physical Education Safety Guidelines – Concussion Protocol and Tools (which they have amended as needed to reflect the nature of their site operations and programming). These guidelines were developed by the not-for-profit organization Ophea, one of Ontario's Provincial Subject Associations for Health and Physical Education, in partnership with the Ontario School Board's Insurance Exchange, the Canadian Intramural Recreation Association – Ontario, the Ontario Federation of School Athletic Associations, and the Ontario Association for the Support of Physical and Health Education. The guidelines offer curricular, intramural and interschool policies and procedures on concussion prevention, identification and management. They are managed by Ophea and are funded by the Government of Ontario. The guidelines are available at http://safety.ophea.net/concussion-protocols.

The OSRCF has approved the use of the Ontario Physical Education Safety Guidelines – Concussion Protocol and Tools to meet the above-mentioned funding stipulation but requires that the Authority pass a resolution recognizing that these guidelines will be followed for the purpose and duration of the Bruce's Mill Pass Program project. The guidelines will be used as a comprehensive template for designing permanent policies and procedures on concussion prevention and management at TRCA conservation areas.

RATIONALE

Through the Bruce's Mill Pass Program project, TRCA will be encouraging learning, physical activity and engagement among approximately 500 children and youth. TRCA will also be enhancing the long-term sustainability of its conservation areas by pursuing new avenues of community engagement and collaborative program development. The learnings of this experience will be made accessible to peer organizations to support creativity and innovation in the broader sports and recreation sectors.

As TRCA's education facilities adopted/amended the Ontario Physical Education Safety Guidelines – Concussion Protocol and Tools in late 2013, and as the OSRCF has approved the use of these guidelines to meet the concussion policies and procedures stipulation of funding, then formally recognizing that these guidelines will be followed by TRCA's conservation areas will ensure that the Bruce's Mill Pass Program project can move forward. It will also facilitate the development of permanent policies and procedures on concussion prevention and management at TRCA conservation areas to promote increased health and safety among visitors and staff.

FINANCIAL DETAILS

The Ministry of Tourism, Culture and Sport is funding 60% of the Bruce's Mill Pass Program project costs (or $21,897) through the OSRCF. The remainder of the project costs is available through the Bruce's Mill Conservation Area operating budget, within account code 331-20.

DETAILS OF WORK TO BE DONE

With Authority approval, TRCA staff will:

- provide the OSRCF with a copy of the Authority resolution to assert that the Bruce's Mill Pass Program project meets the concussion policies and procedures stipulation of funding;
- provide concussion prevention and management training to all staff and volunteers involved in the Bruce's Mill Pass Program project; and

- Undertake an immediate review of the Ontario Physical Education Safety Guidelines – Concussion Protocol and Tools in order to develop permanent policies and procedures on concussion prevention and management that suit the diverse operations and activities of TRCA conservation areas.

Report prepared by: Stephanie Demetriou, extension 6424
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For Information contact: Derek Edwards, extension 5672
Emails: dedwards@trca.on.ca
Date: May 31, 2016

Item 7.10

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #7/16, June 24, 2016

FROM: Darryl Gray, Director, Education, Training and Outreach

RE: **AUDITED FINANCIAL STATEMENTS**
Professional Access and Integration Enhancement (PAIE) Program

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KEY ISSUE

The PAIE audited financial statement for the period April 1, 2015 to March 31, 2016 is presented for Authority approval.

RECOMMENDATION

THAT the Professional Access and Integration Enhancement (PAIE) Program audited financial statement as presented in Attachment 1, be approved and signed by the Chair in accordance with the Ministry of Citizenship, Immigration and International Trade's Audit and Accountability Guidelines for 2015-2016 Ontario Bridge Training Projects.

BACKGROUND

Funded by the Ministry of Citizenship, Immigration and International Trade (MCIIT), TRCA has been delivering the PAIE Ontario bridge training program since 2006 to assist internationally trained professionals to access training, licensing and employment opportunities in their field within the environmental sector. As part of its project audit guidelines, MCIIT requires Authority approval of PAIE financial statements, as attached, as verification that the financial information in the audit report is complete and accurate.

RATIONALE

Under funding from MCIIT, the Authority is responsible for financial reporting and is ultimately responsible for reviewing and approving the financial statements, including verification that:

- project funding has been solely applied to costs directly related to the project;
- funding and/or expenditures from other sources, not directed related to this project, have not been included in the report;
- the Ministry expects that tuition/program fees will be used to off-set program costs related to the delivery of the bridge training project;
- reported expenditure is net of HST rebates;
- shared costs have been properly apportioned to the project;
- the project bears full responsibility for absorbing any project deficits;
- project funds that were provided to the project prior to their immediate need were maintained in an interest-bearing account; and
- interest earned on project funding has been credited to the project.

Item 7.10

The accounting firm of Grant Thornton LLP has completed the audit. The audited financial statement is presented for approval as Attachment 1.

Report prepared by: Dash Paja, extension 5593,
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For information contact: Dash Paja, extension 5593; Rocco Sgambelluri, extension 5232
Email: dpaja@trca.on.ca; rsgambelluri@trca.on.ca
Date created: June 10th, 2016
Attachments: 1

Statement of Revenue and Expenditures

Professional Access and Integration Enhancement Program
(A Program of Toronto and Region Conservation Authority)

Year ended March 31, 2016

Contents

Independent Auditor's Report

Grant Thornton LLP
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To the Ministry of Citizenship, Immigration and International Trade

We have audited the statement of revenue and expenditures ("the Statement") for the Professional Access and Integration Enhancement Program of the Toronto and Region Conservation Authority ("TRCA") for the year ended March 31, 2016. The statement has been prepared by management in accordance with the Audit and Accountability Guidelines for Ontario Bridge Training Projects from the Ministry of Citizenship, Immigration and International Trade.

Management's Responsibility for the Statement

Management is responsible for the preparation of the Statement in accordance with the Audit and Accountability Guidelines for Ontario Bridge Training Projects from the Ministry of Citizenship, Immigration and International Trade and for such internal control as management determines is necessary to enable the preparation of the Statement that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on the Statement based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Statement is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Statement. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Statement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the Statement in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the Statement.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the statement of revenue and expenditures for the Professional Access and Integration Program of the Toronto and Region Conservation Authority for the year ended March 31, 2016 is prepared, in all material respects, in accordance with the Audit and Accountability Guidelines for Ontario Bridge Training Projects from the Ministry of Citizenship, Immigration and International Trade.

Basis of Accounting and Restriction on Distribution and Use

Without modifying our opinion, we draw attention to Note 2 to the Statement which describes the basis of accounting. The Statement is prepared to assist Toronto and Region Conservation Authority to meet the financial reporting requirements of the Ministry of Citizenship, Immigration and International Trade. As a result, the Statement may not be suitable for another purpose. Our report is intended solely for Toronto and Region Conservation Authority and the Ministry of Citizenship, Immigration and International Trade and should not be distributed to or used by parties other than Toronto and Region Conservation Authority and the Ministry of Citizenship, Immigration and International Trade.

Grant Thornton LLP

Markham, Canada
June 10, 2016

Chartered Professional Accountants
Licensed Public Accountants

Professional Access and Integration Enhancement Program

(A Project of the Toronto and Region Conservation Authority)

Statement of Revenue and Expenditures

Year ended March 31

		2016
Revenue		
Ministry of Citizenship, Immigration and International Trade grant	$	695,404
Interest		343
Program and application fees		21,455
		717,202
Program costs		
Salaries and benefits		610,384
Website development and online learning tools		6,009
Network events / meetings		1,571
Third-Party evaluation		3,365
Technical training and supplementary workshops		5,874
Other employee costs		36,751
		663,954
Administrative costs		
TRCA administrative recovery (Note 3)		34,152
Computer equipment		327
Communications		4,067
Travel, meetings and consultations		6,483
Facility rentals		1,957
Marketing		491
Audit		2,564
Other general administrative costs		3,207
		53,248
Total expenditures		717,202
Excess of revenue over expenditures	$	-

See accompanying notes to the statement of revenue and expenditures.

Professional Access and Integration Enhancement Program

(A Project of the Toronto and Region Conservation Authority)

Notes to the Statement of Revenue and Expenditures

Year ended March 31

1. Nature of operations

This Statement of Revenue and Expenditures ("the Statement") pertains to the Professional Access and Integration Enhancement Program ("PAIE" or "the Program") administered under the Funding Agreement issued by the Ministry of Citizenship, Immigration and International Trade, and Toronto and Region Conservation Authority ("TRCA"). Accordingly this statement does not include all the assets, liabilities, revenues and expenses of TRCA.

The TRCA is administering the Program on behalf of the Ministry of Citizenship, Immigration and International Trade.

2. Significant accounting policies and basis of presentation

This financial information has been issued under the name of TRCA.

The Statement reflects the operations of the PAIE, a project of TRCA, and has been prepared by management based on the Audit and Accountability Guidelines for Ontario Bridge Training Projects from the Ministry of Citizenship, Immigration and International Trade. Costs eligible for reimbursement by the Ministry of Citizenship, Immigration and International Trade under the Funding Agreement effective April 1, 2015 are eligible costs that are incurred after April 1, 2015 and before March 31, 2016.

The more significant accounting policies with respect to the Statement are as follows:

Accrual accounting

Items recognized in the Statement are accounted for in accordance with the accrual basis of accounting. The accrual basis of accounting recognizes the effect of transactions and events in the period in which the transactions and events occur, regardless of whether there has been a receipt or payment of cash or its equivalent. Accrual accounting recognizes a liability until the obligation or condition(s) underlying the liability is partly or wholly satisfied. Accrual accounting recognizes an asset until the future economic benefit underlying the asset is partly or wholly used or lost. Additionally, items of a capital nature have been reflected as expenditures and not through amortization of property, plant and equipment.

Revenue recognition

Government transfers received are recognized in the Statement as revenue when the transfers are authorized and all eligibility criteria have been met except when there is a stipulation that gives rise to an obligation that meets the definition of a liability. In that case, the transfer is recorded as deferred revenue and recognized as revenue as the stipulations are met.

User charges, including revenue from the program and application fees are recognized as revenue in the period in which the related services are performed. Amounts collected for which the related services have not been performed are recognized as deferred revenue and recognized as revenue when the related services are performed.

2. Significant accounting policies and basis of presentation (continued)

In-kind contributions

In accordance with the agreement for the funding with respect to this Program, no in-kind contributions have been included in this schedule.

3. Related party transactions

Under the terms of the Funding Agreement, TRCA charged $34,152 during the year ending March 31, 2016 for project overhead and administration costs with respect to the administration of the Program.

Appendix IV: Labour Market Integration Unit Statement of Revenue and Expenditure Template

FOR THE REPORTING PERIOD FROM 2015/04/01 TO 2016/03/31
(Please refer to your Schedule B for the Reporting Period)
Organization Name: Toronto and Region Conservation Authority Project Case Number: 2013-08-1-1528274
Organizational contact Name: Leigha Abergel, Supervisor Telephone #: (416) 661-6600 ext. 5343
Project Name: Professional Access and Integration Enhancement (PAIE)

PROJECT REVENUE	
Approved Carryover Funding from Previous Reporting Period(s)	$ 79,826
Ministry Funding for audit period as per *Schedule B* (2015/2016)	$ 775,000
Tuition/Program Fees	$ 21,455
Total	$ 876,281

PROJECT EXPENDITURE	
Total Expenditure	$ 717,202

DEFERRED REVENUE	
Deferred Revenue for audit period as per *Schedule B* (2015/2016)	$ 159,079

UNALLOCATED	
Unspent funding	$

INTEREST EARNED	
Interest Earned for audit period 2015/2016	$ 343

I verify that the above financial information is correct and that:

- Project funding has been solely applied to costs directly related to the Project;
- Funding and/or expenditures from other sources, not directed related to this project, have not been included in the Report;
- The Ministry expects that tuition/program fees will be used to off-set program costs related to the delivery of the bridge training project.
- Reported expenditure is net of HST rebates;
- Shared costs have been properly apportioned to the Project;
- The Project bears full responsibility for absorbing any project deficits;
- Project funds that were provided to the Project prior to their immediate need were maintained in an interest-bearing account; and
- Interest earned on Project funding has been credited to the Project.

I certify that the information is true and correct to the best of my knowledge and claimed in accordance to the Ontario Bridge Funding Agreement.

_____ _____
Signature of Organizational Sign Off Date

Maria Augimeri _____ Chair_____
Name Title

I have authority to bind the Recipient.

Item 7.11

Section I – Items for Authority Action

TO: Chair and Members of the Authority
Meeting #5/16, Friday, June 24, 2016

FROM: Nick Saccone, Senior Director, Restoration and Infrastructure

RE: **SUPPLY AND DELIVERY OF VARIOUS AGGREGATES WITHIN THE GREATER TORONTO AREA**
Vendors of Record

KEY ISSUE

Award of Vendors of Record contracts for the Supply and Delivery of Various Aggregates within the Greater Toronto Area (GTA) from July 1, 2016 to July 1, 2017.

RECOMMENDATION

WHEREAS Toronto and Region Conservation Authority (TRCA) is engaged in a variety of environmental initiatives that require numerous procurements for aggregate materials;

AND WHEREAS TRCA issued a Request for Tender for the supply and delivery of various aggregates to TRCA project sites that was evaluated on cost, corporate experience and resources, and reference checks;

THEREFORE LET IT BE RESOLVED THAT TRCA staff establish a Vendor of Record (VOR) arrangement with a primary and secondary supplier for each material contract, less than $100,000 per occurrence, for a one year period, being the two highest ranking suppliers meeting TRCA's requirements;

THAT should staff be unable to execute an acceptable contract with the awarded supplier, staff be authorized to enter into and conclude contract negotiations with the other suppliers that submitted tenders, beginning with the next highest ranked bidder meeting TRCA specifications;

AND FURTHER THAT authorized TRCA officials be directed to take such action as is necessary to implement the contract, including obtaining any required approvals and the signing and execution of documents.

BACKGROUND

TRCA implements numerous environmental projects of varying scale throughout the GTA. The projects highly depend on the utilization of aggregate materials for the site work to progress. These types of projects include the following:

- waterfront development and remedial shoreline protection, including lakefilling, placement of rip rap, armour stone headlands, groynes and breakwaters;
- habitat enhancement and regeneration projects, including wetlands, meadows, natural channels, trail development; and
- bank/slope/channel stabilization projects, including armour stone retaining walls, drainage channels, revetments and buttresses.

TRCA staff engage in multiple procurement processes to source and deliver materials in a timely manner to ensure construction delays are mitigated.

To improve efficiencies and assist staff during the peak construction season, TRCA staff is establishing a Vendor of Record for the supply and delivery of various types of aggregate materials for projects within the GTA. Due to the proximity of project sites to quarry locations from where the material is produced, the Vendor of Record will establish east and west jurisdictions with multiple primary and secondary suppliers for each type of aggregate material up to $100,000 per occurrence. The establishment of this Vendor of Record will help to ensure a capable vendor is able to deliver quality materials when needed at competitive pricing while reducing procurement costs. The VOR list will be subject to monthly reviews in order to confirm that the suppliers are providing an adequate level of service and to update applicable health and safety policies and certificates.

RATIONALE
Request for Tender documents were publicly advertised on the electronic procurement website *Biddingo* (http://www.biddingo.com/) on Tuesday, May 3, 2016.

Tender documents were received by the following 17 bidders:

- B Town Group;
- Blythe Dale Sand & Gravel;
- Bot Aggregates Ltd.;
- Brock Aggregates;
- CDR Young Aggregates Inc.;
- Cut Above Natural Stone Ltd.;
- Dufferin Aggregates;
- Glenn Windrem Trucking;
- J.C. Rock Ltd.;
- James Dick Construction Limited;
- Lafarge Aggregates;
- Nelson Aggregates;
- R.W. Tomlinson Limited;
- Redstone Quarries;
- Stonescape Ontario Inc.
- Strada Aggregates; and
- TBG Environmental Inc.

The tender provided specifications for the various types of aggregate materials TRCA requires for its project sites. The materials include various types of granular, armour stone, rip rap and round stone. Additional to providing the cost to supply these aggregate materials, the supplier is to specify the source of the aggregate and cost for delivery by tri-axle/flatbed trucking. With numerous project sites spread across TRCA's jurisdictions, a site location map was provided depicting Yonge Street as the divide between east and west jurisdictions as well as estimated quantities based on prior purchases within the last two years to assist bidders with their competitive pricing.

Tender submissions closed on May 20, 2016 at 12:00 pm and were opened by the Procurement Opening Committee on Friday May 20, 2016; the unit pricing submitted by each bidder is presented in Attachment 1.

Members of the Selection Committee, consisting of TRCA staff reviewed the tender submissions and were evaluated on a weighted scoring system consisting of 50% reasonableness of cost, 30% corporate experience and resources and the remaining 20% on the reference check. Along with unit rates for supply and delivery of aggregate material, bidders were to include company resources, relevant experience, references, quarry locations, and health and safety certificates to ensure TRCA is receiving good value for services. From the evaluation, the highest ranked vendor will be selected as the primary supplier to provide the aggregate materials as needed. If the primary supplier is unable to meet the specifications of the VOR for any reason, a secondary supplier with the second highest ranked evaluation will be called upon. The results of the evaluation is as follows:

East District Granular

BIDDERS	Weighted Score (out of 100)
Glenn Windrem Trucking	97.9
TBG Environmental Inc.	85.8
Dufferin Aggregates	84.7
James Dick Construction Limited	81.1
Brock Aggregates	80.8
Blythe Dale Sand & Gravel	76.3
Strada Aggregates	75.9
CDR Young Aggregates Inc.	72.5

Based on the evaluation of the received quotations it was determined that Glenn Windrem Trucking and TBG Environmental Inc. are the highest ranking vendors and most competitively priced overall. Therefore, staff recommends the award of the contract to Glenn Windrem Trucking as the primary supplier, and TBG Environmental Inc. as a secondary supplier, they being the two highest ranked suppliers that best meet TRCA's requirements.

West District Granular

BIDDERS	Weighted Score (out of 100)
Dufferin Aggregates	89.9
Glenn Windrem Trucking	85.9
TBG Environmental Inc.	85.8
James Dick Construction	82.6
Brock Aggregates	80.5
Strada Aggregates	78.8
Blythe Dale Sand & Gravel	76.3
Nelson Aggregates	72.6
CDR Young Aggregates Inc.	72.5

Based on the evaluation of the received quotations it was determined that Dufferin Aggregates and Glenn Windrem Trucking are the highest ranking vendors and most competitively priced overall. Therefore, staff recommends the award of the contract to Dufferin Aggregates as the primary supplier, and Glenn Windrem Trucking as a secondary supplier, they being the two highest ranked suppliers that best meet TRCA's requirements.

East District Armour Stone

BIDDERS	Weighted Score (out of 100)
Glenn Windrem Trucking	89.2
B Town Group	88.2
TBG Environmental Inc.	85.8
CDR Young Aggregates Inc.	82.5
Bot Aggregates Ltd.	81.9
Dufferin Aggregates	80.1
Cut Above Natural Stone Ltd.	76.9
J.C. Rock Ltd.	74.1

Based on the evaluation of the received quotations it was determined that Glenn Windrem Trucking and B Town Group are the highest ranking vendors and most competitively priced overall. Therefore, staff recommends the award of the contract to Glenn Windrem Trucking as the primary supplier, and B Town Group as a secondary supplier, they being the two highest ranked suppliers that best meet TRCA's requirements.

West District Armour Stone

BIDDERS	Weighted Score (out of 100)
B Town Group	87.5
Glenn Windrem Trucking	87.4
TBG Environmental Inc.	85.8
Bot Aggregates Ltd.	81.9
Dufferin Aggregates	81.8
CDR Young Aggregates Inc.	79.2
Cut Above Natural Stone Ltd.	76.9
J.C. Rock Ltd.	74.1

Based on the evaluation of the received quotations it was determined that B Town Group and Glenn Windrem Trucking are the highest ranking vendors and most competitively priced overall. Therefore, staff recommends the award of the contract to B Town Group as the primary supplier, and Glenn Windrem Trucking as a secondary supplier, they being the two highest ranked suppliers that best meet TRCA's requirements.

East District Rip-rap

BIDDERS	Weighted Score (out of 100)
Glenn Windrem Trucking	98.4
B Town Group	91.5
Bot Aggregates Ltd.	86.5
TBG Environmental Inc.	85.8
J.C. Rock Ltd.	84.2
Dufferin Aggregates	83.6
Brock Aggregates	79.9
CDR Young Aggregates Inc.	77.9

BIDDERS	Weighted Score (out of 100)
Blythe Dale Sand & Gravel	74.1
Cut Above Natural Stone Ltd.	62.3

Based on the evaluation of the received quotations it was determined that Glenn Windrem Trucking and B Town Group are the highest ranking vendors and most competitively priced overall. Therefore, staff recommends the award of the contract to Glenn Windrem Trucking as the primary supplier, and B Town Group as a secondary supplier, they being the two highest ranked suppliers that best meet TRCA's requirements.

West District Rip-rap

BIDDERS	Weighted Score (out of 100)
Glenn Windrem Trucking	95.4
B Town Group	89.3
TBG Environmental Inc.	85.8
Dufferin Aggregates	84.3
J.C. Rock Ltd.	81.1
Brock Aggregates	80.3
CDR Young Aggregates Inc.	77.9
Blythe Dale Sand & Gravel	71.8
Cut Above Natural Stone Ltd.	62.3

Based on the evaluation of the received quotations it was determined that Glenn Windrem Trucking and B Town Group are the highest ranking vendors and most competitively priced overall. Therefore, staff recommends the award of the contract to Glenn Windrem Trucking as the primary supplier, and B Town Group as a secondary supplier, they being the two highest ranked suppliers that best meet TRCA's requirements.

East District Round Stone

BIDDERS	Weighted Score (out of 100)
Glenn Windrem Trucking	100
Blythe Dale Sand & Gravel	86.5
TBG Environmental Inc.	78.2
Brock Aggregates	74.1

Based on the evaluation of the received quotations it was determined that Glenn Windrem Trucking and Blythe Dale Sand & Gravel are the highest ranking vendors and most competitively priced overall. Therefore, staff recommends the award of the contract to Glenn Windrem Trucking as the primary supplier, and Blythe Dale Sand & Gravel as a secondary supplier, they being the two highest ranked suppliers that best meet TRCA's requirements.

West District Round Stone

BIDDERS	Weighted Score (out of 100)
Glenn Windrem Trucking	87.1
TBG Environmental Inc.	85.8
Blythe Dale Sand & Gravel	76.1
Brock Aggregates	73.7

Based on the evaluation of the received quotations it was determined that Glenn Windrem Trucking and TBG Environmental Inc. are the highest ranking vendors and most competitively priced overall. Therefore, staff recommends the award of the contract to Glenn Windrem Trucking as the primary supplier, and TBG Environmental Inc. as a secondary supplier, they being the two highest ranked suppliers that best meet TRCA's requirements.

FINANCIAL DETAILS

Based upon a review of projects scheduled for implementation during this contract period, the approximate value of the materials is as follows; granular $1,200,000; armour stone $2,400,000; rip rap $1,900,000; and round stone $900,000. An increase and decrease in workload will have an impact on the value of this contract. All suppliers understand both the potential cost and resource implications associated with changes in workload. The aggregate will be supplied on an 'as required' basis with no minimum quantities guaranteed.

Funds for the contract are identified in TRCA's 2016 and 2017 capital budgets.

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Emails: jdickie@trca.on.ca
Date: June 13, 2016
Attachments: 1

Attachment 1

BIDDER	Granular East Area of GTA CONTRACT # 10002057						
	10-15mm Pea Gravel by Tri-axle Truck /Tonne	**Granular A by Tri-axle Truck**/Tonne	**Granular B by Tri-axle Truck**/Tonne	**6.25mm Limestone Screenings by Tri-axle Truck**/Tonne	**19mm Crusher Run Limestone by Tri-axle Truck**/Tonne	**50mm Crusher Run Limestone by Tri-axle Truck**/Tonne	**19mm Clear Stone Limestone by Tri-axle Truck**/Tonne
TBG Environmental Inc.	$22.00	$18.00	$13.50	$16.75	$18.50	$18.75	$27.25
Glen Windrem Trucking	$32.00	$19.70	$13.10	$18.48	$19.02	$19.02	$24.52
Blythe Dale Sand & Gravel	$30.00	$23.37	$21.87	$21.80	$26.00	$26.00	$32.00
Dufferin Aggregates	$37.35	$21.12	$17.12	$21.82	$22.82	$22.82	$28.82
James Dick Construction Limited	$35.43	$26.43	$24.13	$22.07	$22.07	$22.07	$29.82
C.D.R Young's Aggregates Inc.	$47.00	$25.22	$18.80	$30.45	$30.45	$30.45	$32.90
Brock Aggregates Inc.	$37.12	$25.90	$17.00	$23.35	$26.25	$26.25	$31.75
Strada Aggregates	$36.00	$27.00	$23.00	$25.50	$26.35	$26.35	$31.75

BIDDER	Granular West Area of GTA CONTRACT # 10002058						
	10-15mm Pea Gravel by Tri-axle Truck /Tonne	**Granular A by Tri-axle Truck** /Tonne	**Granular B by Tri-axle Truck** /Tonne	**6.25mm Limestone Screenings by Tri-axle Truck** /Tonne	**19mm Crusher Run Limestone by Tri-axle Truck** /Tonne	**50mm Crusher Run Limestone by Tri-axle Truck** /Tonne	**19mm Clear Stone Limestone by Tri-axle Truck** /Tonne
TBG Environmental Inc.	$22.00	$18.00	$13.50	$16.75	$18.50	$18.75	$27.25
Glen Windrem Trucking	$36.00	$23.85	$22.50	$25.22	$26.87	$26.87	$29.45
Blythe Dale Sand & Gravel	$30.00	$23.37	$21.87	$21.50	$26.00	$26.00	$32.00
Dufferin Aggregates	$30.70	$18.72	$16.62	$17.20	$19.22	$19.22	$29.22
James Dick Construction Limited	$22.77	$22.80	$20.50	$23.00	$23.00	$23.00	$33.10
C.D.R Young's Aggregates Inc.	$47.00	$25.22	$18.80	$30.45	$30.45	$30.45	$32.90
Brock Aggregates Inc.	$37.12	$25.90	$18.00	$23.35	$26.25	$26.25	$31.75
Strada Aggregates	$35.25	$23.40	$21.50	$23.15	$24.15	$24.15	$30.25
Nelson Aggregates	$43.20	$33.35	$30.60	$232.20	$32.95	$32.95	$44.60

BIDDER	Armour Stone East Area of GTA CONTRACT # 10002059		
	1-2 tonne Stackable Armour Stone by Flatbed Trailer, including wood blocks for off- loading with forks/Tonne	2-4 tonne Stackable Armour Stone by Flatbed Trailer, including wood blocks for off-loading with forks/Tonne	3-5 tonne Stackable Armour Stone by Flatbed Trailer, including wood blocks for off-loading with forks/Tonne
TBG Environmental Inc.	$52.50	$50.00	$47.50
Glen Windrem Trucking	$63.50	$63.50	$63.50
J.C.Rock Ltd.	$59.50	$64.50	$64.50
Dufferin Aggregates	$111.15	$62.15	$57.15
B-Town Group	$61.00	$59.05	$58.55
C.D.R Young's Aggregates Inc.	$58.50	$58.50	$58.50
Cut Above Natural Stone Ltd.	$67.30	$63.23	$63.23
Bot Aggregates Ltd.	$78.50	$73.50	$73.50

BIDDER	Armour Stone West Area of GTA CONTRACT # 10002060		
	1-2 tonne Stackable Armour Stone by Flatbed Trailer, including wood blocks for off-loading with forks/Tonne	2-4 tonne Stackable Armour Stone by Flatbed Trailer, including wood blocks for off-loading with forks/Tonne	3-5 tonne Stackable Armour Stone by Flatbed Trailer, including wood blocks for off-loading with forks/Tonne
TBG Environmental Inc.	$52.50	$50.00	$47.50
Glen Windrem Trucking	$66.50	$66.50	$66.50
J.C.Rock Ltd.	$59.50	$64.50	$64.50
Dufferin Aggregates	$108.00	$59.00	$54.00
B-Town Group	$62.00	$60.08	$59.50
C.D.R Young's Aggregates Inc.	$63.47	$63.47	$63.47
Cut Above Natural Stone Ltd.	$67.30	$63.23	$63.23
Bot Aggregates Ltd.	$78.50	$73.50	$73.50

BIDDER	Rip-Rap & Gabion East Area of GTA CONTRACT # 10002061			
	100-200mm Gabion by Tri-axle Truck/Tonne	150-300mm Gabion by Tri-axle Truck/Tonne	300-600mm Rip-rap by Tri-axle Truck/Tonne	400-800mm Rip-rap by Tri-axle Truck/Tonne
TBG Environmental Inc.	$25.50	$25.50	$33.50	$33.50
Glen Windrem Trucking	$29.75	$31.25	$30.75	$30.75
Blythe Dale Sand & Gravel	$36.00	$45.00	$45.00	$45.00
J.C.Rock Ltd.	$28.50	$28.50	$30.50	$30.50
Dufferin Aggregates	$35.07	$35.07	$39.37	$39.37
B-Town Group	$33.58	$33.58	$31.65	$31.65
C.D.R Young's Aggregates Inc.	$31.95	$31.95	$45.95	$45.95
Brock Aggregates Inc.	$41.75	$40.00	$40.00	$42.50
Cut Above Natural Stone Ltd.	$63.81	$63.81	$57.81	$57.81
Bot Aggregates Ltd.	$29.50	$31.50	$34.50	$73.50

BIDDER	Rip-Rap & Gabion West Area of GTA CONTRACT # 10002062			
	100-200mm Gabion by Tri-axle Truck/Tonne	150-300mm Gabion by Tri-axle Truck/Tonne	300-600mm Rip-rap by Tri-axle Truck/Tonne	400-800mm Rip-rap by Tri-axle Truck/Tonne
TBG Environmental Inc.	$25.50	$25.50	$33.50	$33.50
Glen Windrem Trucking	$31.80	$34.00	$32.50	$32.50
Blythe Dale Sand & Gravel	$34.00	$43.00	$53.00	$53.00
J.C.Rock Ltd.	$30.50	$30.50	$32.50	$32.50
Dufferin Aggregates	$35.17	$35.17	$37.97	$37.97
B-Town Group	$35.50	$35.50	$33.05	$33.05
C.D.R Young's Aggregates Inc.	$31.95	$31.95	$45.95	$45.95
Brock Aggregates Inc.	$38.00	$41.00	$42.00	$43.00
Cut Above Natural Stone Ltd.	$63.81	$63.81	$57.81	$57.81

BIDDER	Round Stone / Boulders East Area of GTA CONTRACT # 10002063			
	25-75mm Round Stone by Tri-axle Truck/Tonne	25-75mm Round Stone by Tri-axle Truck/Tonne	250-600mm Round Stone by Tri-axle Truck /Tonne	500-1000mm Boulders by Tri-axle Truck /Tonne
TBG Environmental Inc.	$34.00	$39.00	$44.00	$56.00
Glen Windrem Trucking	$35.00	$39.00	$40.00	$40.00
Blythe Dale Sand & Gravel	$32.00	$34.00	$46.00	$46.00
Brock Aggregates Inc.	$56.37	$56.37	$68.12	$71.62

BIDDER	Round Stone / Boulders West Area of GTA CONTRACT # 10002064			
	25-75mm Round Stone by Tri-axle Truck /Tonne	**25-75mm Round Stone by Tri-axle Truck/Tonne**	**250-600mm Round Stone by Tri-axle Truck /Tonne**	**500-1000mm Boulders by Tri-axle Truck /Tonne**
TBG Environmental Inc.	$25.50	$25.50	$33.50	$33.50
Glen Windrem Trucking	$38.75	$41.50	$43.50	$43.50
Blythe Dale Sand & Gravel	$32.00	$34.00	$46.00	$46.00
Brock Aggregates Inc.	$35.13	$37.00	$57.13	$62.63

Section III – Items for the Information of the Board

RES.#A/16 - TRCA DAMS AND FLOOD CONTROL INFRASTRUCTURE
Report on the Ecological Impact and Mitigation. To report on the ecological impact of TRCA-owned flood infrastructure on the surrounding environment and the existing strategies to mitigate these impacts. The potential for, and challenges to, environmental improvement measures are also identified.

Moved by:
Seconded by:

THAT the ecological condition report on TRCA Dams and Flood Control Infrastructure be received.

CARRIED

BACKGROUND
Toronto and Region Conservation Authority (TRCA) owns 25 flood control structures including dams, channels and dykes. These structures, many of which were built for flood control and/or recreational purposes, have altered significant areas of natural watercourses and riparian habitat. As TRCA's mandate includes providing both flood protection and protecting natural areas, TRCA must ensure that the infrastructure fulfills its function, while simultaneously continuing the significant effort to mitigate the negative impacts of existing flood infrastructure. This report will outline the major environmental upgrade projects conducted on/around TRCA's flood infrastructure and identify possible future projects.

At Authority Meeting #7/15, held on July 24, 2015, amended Resolution #A138/15 was approved, in part, as follows:

> *…AND FURTHER THAT staff report back on ecological health of the water control structures and reservoirs owned by TRCA.*

RATIONALE
TRCA currently owns 11 dams and 14 flood control structures throughout its jurisdiction. These structures were either constructed by TRCA for flood control purposes or they were obtained through various greenspace acquisitions.

Dams
Of the 11 dams owned by TRCA, three were constructed for flood control purposes. Claireville Dam, Stouffville Dam and G. Ross Lord Dam were built to protect downstream communities from flooding. The remaining dams were constructed for recreational purposes or were legacy dams built for powering mills and other industrial purposes. Because these structures were contained within land acquisition areas and greenspace dedications, TRCA has taken ownership of these historical dams. TRCA's Engineering Services section is currently assessing and upgrading the dams to meet current safety guidelines developed by the Canadian Dam Association and Ministry of Natural Resources and Forestry.

It is well documented that dams have a significant negative impact on the environment. Some adverse conditions created by dams include the following:

- Dams block the natural migratory route for fish that can interrupt spawning cycles and cause fish populations to decline. Daily movement patterns are also interrupted.

- Nutrients are prevented from being transported downstream which can starve the downstream watercourse of critical energy necessary for healthy ecosystems.
- Dams prevent sediment from moving downstream which can impact riparian zones and spawning beds. Increased erosion can occur downstream as sediment is no longer replenishing shoreline areas.
- Sediment in reservoirs, especially at urban dam sites, can be contaminated with toxic material such as heavy metals, hydrocarbons and other industrial by-products. Contaminant levels increase over time and can be harmful to organisms in and around the water.
- Dams create large, slow moving, unshaded bodies of water that can raise the temperature of the water and can become harmful to fish and other organisms. Thermal increases also can alter the chemistry of the water which can create algae blooms and decreased dissolved oxygen levels. Reservoirs can often become toxic to native species and promote increases in non-native/undesirable and invasive species.
- Submerged decomposing vegetation in reservoirs can release naturally occurring mercury into the water which can then be ingested by fish and other organisms.
- Upstream habitats are flooded by the reservoirs.

TRCA recognizes the adverse effects of dams on river ecosystems and has taken measures to mitigate them on structures where possible.

In some cases, the only method to restore the full ecological function of the riparian system would be to decommission the dam altogether, provided there is no increase to flood risk. The restoration of the newly reconnected rivers would have immediate positive ecological impacts while reducing TRCA's liability in terms of public safety as infrastructure ages. Attachment 1 lists TRCA's dams with corresponding existing mitigation strategies and potential future ecological improvements.

Flood Control Structures

In addition to dams, TRCA owns 14 flood control structures consisting of channels, dykes and flood walls. These structures were designed to prevent flooding under a previous engineering philosophy that favoured hardened infrastructure to control and convey floodwater. At that time neither the impacts to, nor the benefits of, the natural systems were considered.

During the 1960's and 1970's when these structures were built the prevailing engineering technique was to "hardscape" natural watercourses by lining them with concrete and stone. Flood control channels were designed to maximize flow by increasing the cross sectional area of the river and removing natural features that can impede flow. In some cases the watercourse was straightened. Unfortunately, the result was highly altered and highly constrained channels allow very few options for ecological improvements. All natural features including trees, vegetation and sediment within the channels must be removed to maintain flood capacity. One option to improve the ecological condition of a channel is to remove it and replace it with a natural channel. However, in order to maintain the same level of flood conveyance the natural channel would have to be substantially wider than the existing flood channel. In most locations the adjacent land is not available for widening. Replacing a flood control channel with a natural channel would also be very costly. Another option, which has been adopted by TRCA, is to leave a buffer zone at the top of the concrete channel where trees are allowed to remain. This buffer zone has a minimal effect on flood conveyance. The tree canopy can shade the water in the channel reducing thermal

impacts. Trees also provide habitat for other animals and plants thereby improving the environmental health of the riparian zone. Allowing trees to remain also improves the aesthetics of the flood control channel.

Dykes and flood walls are elevated engineered structures that prevent flood waters from entering areas prone to flooding. Dykes are engineered out of soil, and flood walls are constructed of masonry or concrete. Concrete flood walls are constructed in areas where there is limited space as concrete walls have a much smaller footprint than an earthen dyke. Flood walls have limited potential for ecological improvements but earthen dykes can become naturalized allowing ecosystems to establish themselves. Almost all of TRCA's earthen dykes have naturalized to some extent.

Attachment 2 identifies the current ecological impacts of flood control infrastructure, as well as current and potential opportunities for mitigation.

CONCLUSION

Current regulation of dams and flood infrastructure construction requires the designer to consider all negative ecological impacts and include mitigation techniques to reduce harm. Fish passage, sediment management, water quantity and quality are all considered when designing a new flood control structure. With the shift in paradigm from isolated site design towards large systems thinking, the construction of flood control infrastructure has evolved where comprehensive measures that simultaneously consider conveyance needs as well as habitat health and sustainability are considered. One example of this is the lake-connected wetland component of the Don Mouth Naturalization program where both environmental health and flood mitigation were considered in the design of this structure.

Unfortunately, the majority of TRCA's existing dam and flood control inventory were originally designed at a time where environmental impacts were not fully considered. TRCA will continue to identify opportunities to mitigate ecological impacts caused by these structures. However, ecological improvements must be engineered and installed in a manner that does not compromise the flood protection function of the structure.

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Date: April 4, 2016

Attachment 1

Dam (Year Built)	Ecological Improvements and Mitigation Strategies Implemented to Date	Potential Ecological Mitigation Projects
Peel Region		
Claireville Dam (1964)	Several shoreline improvements have been installed around the reservoir including riparian planting and fish habitat structures.	Fishway potential is low because of the large size of Claireville Dam. There are numerous in-stream barriers downstream that have not been mitigated and therefore providing fish passage at Claireville Dam would have limited benefit to fish migration.
Albion Hills Dam (1960's)	Dam control structure was modified to create a bottom draw intake to prevent thermal impacts downstream of the dam. Taylor Dam was removed upstream of Albion Hills Dam in 2003.	A naturalized channel in place of the dam would reconnect natural spawning areas for local and migratory fish populations.
Glen Haffy East Dam (1960's)	Reservoir is stocked annually to create recreational fishing opportunities.	Dredging may be required to improve fish habitat The potential to convert flow control structure to a bottom draw type intake to reduce thermal impacts downstream should be investigated. This would eliminate the need for future dredging operations.
Glen Haffy West Dam (1960's)	Reservoir was dredged in 2005 to improve fish habitat. Reservoir is stocked annually to create recreational fishing opportunities.	Converting the flow control structure to a bottom draw type intake would reduce thermal impacts downstream. This would eliminate the need for future dredging operations.
Palgrave Dam (Early 1900's – rebuilt 1983)	In 2001 a fishway was constructed to allow fish to bypass the dam. The reservoir was dredged in 2001 to improve fish habitat and recreational activities.	Water quality is poor. During summer months algae blooms are common. Agricultural runoff is a possible source of nutrient loading. Nutrient uptake/reduction technologies could be implemented to reduce impact on reservoir.
City of Toronto		
G. Ross Lord Dam (1974)	Reservoir has naturalized providing good riparian habitat.	Fishway potential is low as there are numerous in-stream barriers below the dam preventing the connection to native fish populations. The size of the dam would make construction of a fishway costly.
Black Creek Dam (1960)	Reservoir is mostly naturalized.	Fishway potential is low. There are numerous in-stream barriers downstream that would have to be mitigated before a fishway would be effective at this site.
Durham Region		
Secord Dam (1930'S)	TRCA has completed several improvement projects including removing two small water control structures from tributaries flowing into the reservoir.	Limited potential for ecological improvements. Poor condition of the structure would make MNRF approval for modifications difficult.
Osler Dam (1934)	Area surrounding the reservoir and embankment is mostly naturalized.	A fishway would have limited benefits because the dam is located very high in the headwaters of East Duffins Creek. The fishway would only facilitate access to a very small reach of the watercourse.

Dam (Year Built)	Ecological Improvements and Mitigation Strategies Implemented to Date	Potential Ecological Mitigation Projects
York Region		
Milne Dam (1969)	In 2003 a fishway was constructed to allow fish to bypass the dam. Winter drawdown of reservoir was eliminated to promote healthy year round fish populations. Reservoir has naturalized.	Limited potential for ecological improvements. Most impacts have been mitigated.
Stouffville Dam (1969)	Dam operations were modified in 1990 by eliminating winter drawdown of the reservoir to promote healthy year round fish populations. Extensive marshes/wetlands in reservoir provide excellent bird and fish habitat.	There is potential for a fishway to link the upper and lower reaches of the creek. Possibility of converting structure to bottom draw would reduce thermal impacts.

Attachment 2

Structure (Year Built)	Composition	Ecological Improvements/Conditions Implemented to Date	Potential Future Mitigation Projects
Peel Region			
Brampton Channel (1952)	Concrete trapezoidal channel	Areas above concrete channel have naturalized.	Channel improvements are proposed as part of channel upgrades. Conceptual design includes naturalized low flow channel, vegetated banks and restored riparian zones.
Bolton Channel (1983)	Earth embankment	Area around channel and berm is mostly naturalized. Weir in channel was notched to allows fish passage.	Channel area is mostly natural and fish barriers have been removed. There is little potential for additional habitat/environmental improvements.
Etobicoke Dyke (1967)	Earth embankment	The dyke's slopes are grass covered and mowed regularly. Some large trees have been planted along dyke.	There is little potential for naturalization as the dyke is adjacent to sport fields and is used by park visitors.
Tyndall Flood Wall (1980)	Gabion and masonry wall	Channel bank has naturalized.	Limited potential for additional ecological improvements.
Mimico/Malton Channel (1972)	Gabion trapezoidal channel	Area above channel has naturalized with mature tree cover. Channel bottom has naturalized.	Channel maintenance in 2016 will leave a naturalized buffer zone at the top of the channel.
Woodbridge Channel (1962)	Rip rap channel Concrete baffle chute	Channel bottom has naturalized providing fish and invertebrate habitat. Baffle chute prevents fish passage upstream into the East Humber watershed.	Potential for a fishway at the baffle chute.
City of Toronto			
Black Creek Channel (1963)	Concrete trapezoidal channel	Areas above the concrete channel have naturalized. Low level channel has not been dredged allowing substrate to provide habitat for fish and invertebrates.	Concrete channel limits possibility of ecological improvements or mitigation
Scarlett Channel (1967)	Concrete trapezoidal channel	Areas above the concrete channel are naturalized. Low level channel has not been dredged allowing substrate to provide habitat for fish and invertebrates.	Concrete channel limits possibility of ecological improvements or mitigation
Sheppard Channel (1969)	Concrete trapezoidal channel	Areas above the concrete channel are naturalized. Low level channel has not been dredged allowing substrate to provide habitat for fish and invertebrates.	Concrete channel limits possibility of ecological improvements or mitigation

Structure (Year Built)	Composition	Ecological Improvements/Conditions Implemented to Date	Potential Future Mitigation Projects
Malvern Channel (1972)	Gabion basket	Channel has mostly naturalized.	Some areas of the channel are heavily eroded. Repairs would improve riparian conditions.
Yonge/York Mills Channel (1959)	Concrete and gabion trapezoidal channel	Buffer zone maintained at top of channel to preserve tree canopy over river during channel maintenance.	Two large drop structures block passage of fish. Bypassing these drop structures with fishways would be very costly as they are part of existing bridge systems. There are also other barriers downstream that prevent fish from connecting to Lake Ontario. Potential for fish bypass is low.
Durham Region			
Ajax Dyke (1983)	Earth embankment	Dyke has naturalized.	Site is mostly natural forest and meadow. Limited potential for further improvements.
Pickering Dyke (1983)	Earth embankment	Dyke has naturalized.	Site is mostly natural forest and meadow. Limited potential for further improvements.
York Region			
Stouffville Channel (1969)	Gabion basket	Channel bottom has naturalized providing fish and invertebrate habitat.	Open space on either side of the channel offers potential for widening and restoration to a natural watercourse.

RES.#A/16 - SECTION III – ITEMS FOR THE INFORMATION OF THE BOARD

Moved by:
Seconded by:

THAT Section III item Summary of Procurements, contained in Executive Committee Minutes #2/16, held on April 8, 2016, be received.

CARRIED

Section IV – Ontario Regulation 166/06, As Amended

RES.#A/16 - SECTION IV – ONTARIO REGULATION 166/06, AS AMENDED

Moved by:
Seconded by:

THAT Ontario Regulation 166/06, as amended, item 10.4, contained in Executive Committee Minutes #2/16, held on April 8, 2016, be received.

CARRIED

TERMINATION

ON MOTION, the meeting terminated at ?? a.m., on Friday, April 22, 2016.

Maria Augimeri
Chair

Brian Denney
Secretary-Treasurer

/ks

Item 8.2

Section III – Items for the Information of the Board

TO: Chair and Members of the Authority
Meeting #5/16, Friday, June 24, 2016

FROM: Nick Saccone, Senior Director, Restoration and Infrastructure

RE: **PINE VALLEY DRIVE STORM HEADWALL AND SPILLWAY RESTORATION PROJECT**
TRCA Contracted by the City of Vaughan

KEY ISSUE:

Receipt of report on agreement between City of Vaughan and Toronto and Region Conservation Authority to address erosion issues caused by a City-owned stormwater outfall located just outside of Boyd Conservation Area on Pine Valley Drive.

RECOMMENDATION

IT IS RECOMMENDED that the agreement between City of Vaughan and Toronto and Region Conservation Authority (TRCA) for correction and restoration works at Boyd Conservation Area be received.

BACKGROUND

The Pine Valley Drive storm sewer system and outfall was constructed in the early to mid-1990's to service approximately 13 hectares of residential development. The outfall drains to a natural draw on a forested slope on the east side of TRCA's Boyd Conservation Area, and over the 15 to 20 years since its construction, has caused substantial down-cutting resulting in a large erosion scar, the loss of several mature trees as well as damage to the Humber Valley Heritage Trail. Further, deposition of sandy soil on roadways and parking areas has required constant maintenance from the staff at the Conservation Area. In January 2012, AMEC was retained by the City of Vaughan to complete the Pine Valley Drive Stormwater Management Enhancement Municipal Class Environmental Assessment, and to subsequently complete the detailed design for the Preferred Alternative.

In March 2016, Vaughan City Council approved that the City enter into an agreement with TRCA to undertake the delivery of the project for an upset amount of $475,000 plus HST.

RATIONALE

The project is being carried out in Boyd Conservation Area, which is owned and managed by TRCA. It is therefore beneficial for TRCA to facilitate the delivery of the remedial work in an efficient and expeditious manner. Among the reasons Vaughan City Council supported the delivery of this project by TRCA are:

- As good stewards of the environment, TRCA will have full control of the project and its implementation schedule considering the public usage of Boyd Conservation Area.
- TRCA will be responsible for all monitoring and warranty of the completed work.
- TRCA will implement the project in the manner it was developed and designed including all mitigating measures.

FINANCIAL DETAILS
City of Vaughan has confirmed availability of the required budget not to exceed $475,000.00 (plus HST) to allow for the remedial work necessary for the Pine Valley Drive Storm Headwall and Spillway Restoration Project. Funding will be made available in account 111-22.

DETAILS OF WORK TO BE DONE
TRCA will use the detailed designs prepared by AMEC for the implementation of erosion control measures needed to correct stormwater impacts at the Pine Valley Drive Storm Headwall and Spillway and in Boyd Conservation Area.

The scope of work for the project consists of two parts:

1. Management and implementation of the project - The implementation of the project consists of the installation of site appropriate sediment controls followed by earth works involving the use of heavy equipment. Aggregate and geotextiles to be utilized in the project will be delivered to the site (through Boyd Conservation Area) and will be purchased per TRCA's Purchasing Policy. The work will be implemented at four locations: headwall, plunge pool, spillway and the Humber Heritage Trail.

2. Restoration of the natural features of the site and tree planting - Following construction, all disturbed areas will be top-dressed with topsoil and seeded with site appropriate seed. Following construction, native trees and shrubs will be planted in the fall when they are supplied by TRCA's nursery. Existing fence and railing at the headwall will be returned in a state of good repair.

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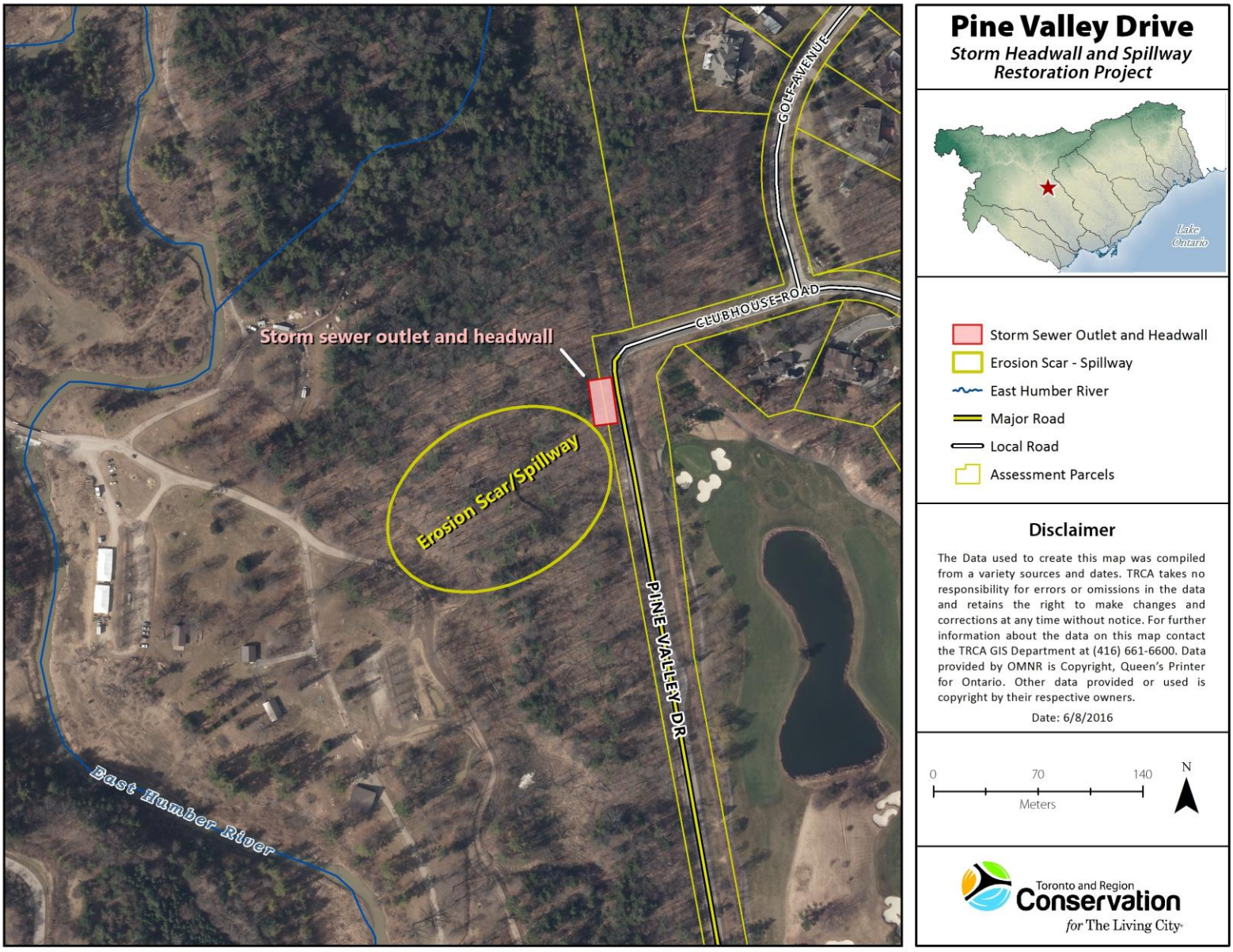
Date: Click here to enter a date
Attachments: 1

Attachment 1 - Pine Valley Drive Storm Headwall And Spillway Restoration Project, Overview



Item 8.3

Section III – Items for the Information of the Board

TO: Chair and Members of the Authority
Meeting #5/16, Friday, June 24, 2016

FROM: Kathy Stranks, Senior Manager, Corporate Secretariat

RE: **CONFIDENTIAL BOARD MATERIAL**
Handling of Confidential Board Material after the Matter has been Approved

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KEY ISSUE

Receipt of staff report outlining policies and procedures for handling of confidential board material, after it has been dealt with at a board meeting, and handling of freedom of information (FOI) requests under the *Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)*.

RECOMMENDATION

IT IS RECOMMENDED THAT the staff report dated June 10, 2016 on Confidential Board Material be received.

BACKGROUND

At Authority Meeting #4/16, held on May 27, 2016, the Authority directed staff to report back on the procedures for handling confidential board material after the matter has been dealt with by a TRCA board, including a request made by an outside party to review the material by a freedom of information request.

TRCA is able to deal with matters in camera by right of the *Conservation Authorities Act (CA Act)*, and TRCA's Administration Regulation and Rules of Conduct. Section 30(1)(a) of the *CA Act* prescribes that:

> *30. (1) Subject to the approval of the Minister, an authority shall make regulations,*
>
> *(a) providing for the calling of meetings of the authority and prescribing the procedure at those meetings;*

In this regard, the Minister of Natural Resources and Forestry approved TRCA's Administration Regulation in 1992 which includes provision for the following exemptions for holding meetings in absence of the public, which is in keeping with the exemptions for the same in the *Ontario Municipal Act*:

> *15. All matters arising out of Authority meetings, and supporting technical reports shall form part of the public record and shall be available for public review immediately upon request. Exceptions to the foregoing include the following matters:*
>
> *(a) personnel records;*
> *(b) on-going property negotiations;*
> *(c) court cases in which the Authority is involved;*
> *(d) discussions which could adversely affect the interests of a third party.*

In addition, TRCA's Executive Committee may convene a Hearing Board meeting to deal with permit applications under Ontario Regulation 166/06, as amended, where staff is not recommending approval of the application. Conservation authorities are given powers to conduct deliberations of the Hearing Board in camera under the *Statutory Powers Procedures Act* and the hearing guidelines approved by the Ministry of Natural Resources and Forestry.

In addition, the Authority maintains a Rules of Conduct which govern activities at TRCA board meetings and outlines the following procedures for dealing with confidential material:

> *33. Confidential minutes will be produced for all discussions which are held in private session ("in camera") where a resolution is approved. Public minutes will state the reason for confidentially as per the provisions of the Ontario Municipal Act. At such time as the items considered in camera can be made public, the relevant resolution(s) will be included as part of a regular Authority agenda for information.*

In keeping with these regulations, staff undertakes the following actions when dealing with confidential material at a TRCA board meeting:

1. Staff lists the confidential report on the agenda of a meeting and cites the reason for confidentiality from 15(a)-(d) of TRCA's Administration Regulation.
2. The staff report is circulated to Members separately from the regular agenda as the regular agenda is posted publically on TRCA's website.
3. Discussion may be held at the meeting in camera by motion.
4. The committee rises and reports from the in camera session, and if the resolution can be made public at the time it will be reflected as such in the minutes, but if not it will remain confidential and a resolution will be included in the public minutes to approve the staff report and direct staff to report back at such time as the item is complete and may be made public.
5. The background staff report remains confidential, but confidential minutes are developed by the clerk, maintained for TRCA records and are circulated to the Members.
6. If the resolution remained confidential under item #4, then staff will report back when the item can be made public with an information report that publically presents the previously confidential resolution to the Members for receipt as well as provides some general information on the status of the issue, as directed under above-noted section 33 of TRCA's Rules of Conduct.
7. There may be some items that remain confidential in perpetuity.

In addition to the above procedures, at Executive Committee Meeting #7/16, held on September 13, 2013, TRCA staff was directed by the Committee to report back with an information summary on the results of all future OMB hearings. As such, TRCA brings an annual combined summary report of OMB hearing results, as well as separately reports back on individual hearings if there is timely information of interest to the Members and the public.

<u>MFIPPA</u>

TRCA is subject to *MFIPPA* and implements a Records Management policy and Records Retention Schedule in complying with *MFIPPA*. Release of TRCA's confidential material is governed by this Act.

Under *MFIPPA* there are many reasons that a public agency shall release information when requested, as well as exemptions which may be applied to withhold release of records. One such exemption is Section 6(1)(b) – Draft by-laws, etc. which states:

6. (1) A head may refuse to disclose a record that,
(b) reveals the substance of deliberations of a meeting of a council, board, commission or other body or a committee of one of them if a statute authorizes holding that meeting in the absence of the public.

For this exemption to disclosure to apply, the institution must establish that:

1. a council, board, commission or other body, or a committee of one of them, held a meeting, and
2. a statute authorizes the holding of the meeting in the absence of the public, and
3. disclosure of the record would reveal the actual substance of the deliberations of the meeting.

Past orders (decisions) of the Information and Privacy Commission (IPC) have found that:

1. *"deliberations" refer to discussions conducted with a view towards making a decision;*
2. *"substance" generally means more than just the subject of the meeting.*

Pertaining to #3 above, IPC Order MO-1344 stated:

> *"…the third requirement would not be satisfied if the disclosure would merely reveal the* ***subject*** *of the deliberations and not their* ***substance*** *(see also Order M-703). "deliberations" in the context of section 6(1)(b) means discussions which have been conducted with a view to making a decision (Orders M-184, M-196 and M-385)"*
>
> *"It is clear from the wording of the statute and from previous orders that to qualify for exemption under section 6(1)(b) requires more than simply the authority to hold a meeting in the absence of the public. The Act specifically requires that the record at issue must reveal the substance of deliberations which took place at the meeting."*

Further, Section 4(2) of *MFIPPA* states the following which suggests the entire record may not be able to be exempted, but rather that which falls under an exemption:

> *Where an institution receives a request for access to a record that contains information that falls within one of the exemptions under sections 6 to 15, the head shall disclose as much of the record as can reasonably be severed without disclosing the information that falls under one of the exemptions.*

Requests under the Act are dealt with by the Senior Manager, Corporate Secretariat, who is designated as TRCA's Information and Privacy Officer (Head). If an FOI request is made for access to information from a board meeting that was dealt with in camera and has not been released publically, TRCA's Head of FOI must consider all of the above factors in determining if *MFIPPA* clause 6.(1)(b) may be applied to an in camera staff report and resolution. It is clear in orders of the IPC that staff may not be able to withhold release of an entire record strictly by means of the fact that it was listed on the agenda as an in camera item, but instead may redact the portions of the record which reveals the substance of the deliberations but not the subject, unless that is pertinent to the substance.

As with all records, the Head will also consider all other exemptions in *MFIPPA* to determine if any other exemptions may be applied to portions of the record. Examples of such exemptions that may be used, but are not limited to, are as follows:

7.(1) **Advice and Recommendations**: if the disclosure could reveal advice or recommendations of an officer or employee of an institution or a consultant retained by an institution. However, disclosure cannot be denied using 7(1) if the record contains: factual material; environmental impact statement or similar record; etc.

8.(1) **Law Enforcement**: if the disclosure would reasonably be expected to interfere with: a law enforcement matter; an investigation undertaken with a view to a law enforcement proceeding or from which a law enforcement proceeding is likely to result; etc.

9.(1) **Relations with Governments**: if the disclosure would reasonably be expected to reveal information the institution has received in confidence from the levels of government outlined in MFIPPA.

10.(1) **Third Party Information**: if the disclosure could reveal a trade secret or scientific, technical, commercial, financial or labour relations information, supplied in confidence implicitly or explicitly, from a third party.

11. **Economic and Other Interests**: related to the institution from whom the information is requested.

12. **Solicitor-client Privilege**

2015 FOI Activity Summary

Under *MFIPPA* TRCA received on average 42 FOI requests for information annually over the past five years. These requests are predominantly enquiries in regard to submissions to TRCA under Ontario Regulation 166/06, as amended. However, an FOI request can be made for any record that has been created or received by TRCA. TRCA's 2015 FOI Activity Summary is outlined in Attachment 1.

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Attachment: 1

Attachment 1

TRCA 2015 Freedom of Information Activity Summary

In 2015, TRCA received 30 Freedom of Information (FOI) requests for information under the *Municipal Freedom of Information and Protection of Privacy Act*. In addition, three FOI requests from 2014 were completed in 2015, so as a result this summary is in reference to all 33 requests.

All of the requests related to "general records" as opposed to "personal information". The latter refers to personal information TRCA has collected concerning the applicant. Of the 33 requests made, 15 requests were from individuals or their agents, and 18 were from business.

Of the 33 requests responded to in 2015, 29 were responded to within the 30 day limit required under the Act. Two requests took 31 - 60 days and two took 61 - 91 days. Extensions were needed in some cases because of the volume of records to be searched and prepared, and due to the information requested affecting a third party resulting in a duty to consult prior to release of records.

In response to these 33 requests, the following was disclosed:

1. all information was disclosed in four cases;
2. information was disclosed in part in 20 cases;
3. no responsive records existed in nine cases.

In 19 situations where general information was disclosed, personal information was removed for privacy purposes. Examples of the personal privacy exemption being applied include copies of cheques which may be on file and personal telephone numbers.

The Act requires that a $5 fee be included with each application. Also, the Act allows TRCA to charge for search, reproduction, preparation, shipping, computer costs, and invoice costs (and others permitted by regulation). In 2015, TRCA collected fees of $527.20, and $8.20 of fees were waived.