



**Regional Watershed Alliance
Agenda**

#1/18

May 23, 2018

6:00 P.M.

Black Creek Pioneer Village, Weston Theatres, 1000 Murrays Ross Parkway, Downsview

Members

Chair: Jack Heath

Pages

1. **CALL TO ORDER**
2. **WELCOME AND INTRODUCTIONS**
3. **APPROVAL OF MINUTES OF MEETING #2/17, HELD ON FEBRUARY 21, 2018**
Minutes [Link](#)
4. **DISCLOSURE OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF**
5. **PRESENTATIONS**
 - 5.1 **TRCA's Flood Risk Management Program - Overview and Community Engagement**
Sameer Dhalla, Associate Director, Restoration and Infrastructure
 - 5.2 **Carruthers Creek Watershed Plan: Phase 2**
Maryam Nassar, Senior Project Manager, Duffins, Carruthers, Petticoat, Rouge
 - 5.3 **The Meadoway: An Update**
Arlen Leeming, Manager, Flagship Projects and Partnerships

6. CORRESPONDENCE

- 6.1 A letter from Jennifer McKelvie in regard to a Leave of Absence from the Authority and Associated Advisory Boards.** 3

7. ITEMS FOR ALLIANCE ACTION

- 7.1 REGIONAL WATERSHED ALLIANCE COLLECTIVE PRIORITIES AND OPPORTUNITIES FOR ACTION (2018 – 2019) FOR ACTION** 4
Ryan Ness, Humber Watershed Specialist
- 7.2 TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) FLOOD RISK MANAGEMENT PROGRAM AND COMMUNITY ENGAGEMENT** 13
Sameer Dhalla, Associate Director, Restoration and Infrastructure
- 7.3 THE CARRUTHERS CREEK WATERSHED PLAN: PHASE 2** 19
Maryam Nassar, Senior Project Manager, Duffins, Carruthers, Petticoat, Rouge
- 7.4 THE MEADOWAY: AN OVERVIEW** 22
Arlen Leeming, Manager, Flagship Projects and Partnerships

8. PROJECT TEAMS AND SUBCOMMITTEE VERBAL UPDATES

9. ITEMS FOR ALLIANCE INFORMATION

- 9.1 ELECTION OF OFFICERS** 24
Process Overview
Chandra Sharma, Director, Watershed Strategies

10. NEW BUSINESS AND GOOD NEWS STORIES

11. ADJOURNMENT

NEXT MEETING OF THE REGIONAL WATERSHED ALLIANCE #2/18, TO BE HELD ON SEPTEMBER 12, 2018 AT 6:30 P.M. AT BLACK CREEK PIONEER VILLAGE, TORONTO, ON.

Chandra Sharma, Director, Watershed Strategies

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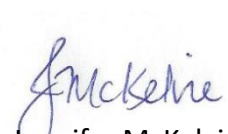
To: Kathy Stranks, Toronto and Region Conservation Authority

From: Jennifer McKelvie

Re: Leave of Absence

Dear Kathy Stranks,

I will be taking a leave of absence from the TRCA Board, effective May 4, 2018. I will provide an update on my status October 23, 2018. I will not be resigning at this time.

A handwritten signature in blue ink that reads "J. McKelvie".

Jennifer McKelvie, Ph.D., P.Geo.

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Section I – Items for Regional Watershed Alliance Action

TO: Chair and Members of the Regional Watershed Alliance
Meeting #2/18, Wednesday, May 23, 2018

FROM: Ryan Ness, Humber Watershed Specialist and Corporate Strategy Lead

RE: **REGIONAL WATERSHED ALLIANCE COLLECTIVE PRIORITIES (2018 – 2019) AND ESTABLISHMENT OF WORKING GROUPS**

KEY ISSUE

Approve collective priorities and associated opportunities for action for the Regional Watershed Alliance (2018 – 2019) and establishment of working groups.

RECOMMENDATION

WHEREAS The Regional Watershed Alliance (RWA) members participated in a facilitated discussion with staff during the last meeting of the RWA on February 21, 2018, to identify collective priorities and opportunities for action as presented and developed from initial member input at the inaugural meeting on November 15, 2017;

THEREFORE IT IS RECOMMENDED THAT the RWA members receive the final summary prepared by staff of the facilitated discussion;

THAT the collective priorities and associated opportunities for action contained therein be approved and accepted as the key priorities for the work of the RWA in 2018-2019;

THAT the following three Working Groups, comprised of interested RWA members and other interested parties, be formed around the collective priorities of:

- a) Greenspace and Ecosystem Services;
- b) Flooding and Extreme Weather Outreach; and
- c) Integrated Community/Watershed Planning and Civic Engagement;

THAT membership on these groups be solicited via RWA online platform;

AND FURTHER THAT these working groups will meet on a as needed basis, no more than monthly, to develop a work plan and identify activities that will address these priorities through consultation with TRCA staff.

BACKGROUND

At the inaugural meeting of the RWA, members were asked: “If you could select one regional sustainability related theme that the Regional Watershed Alliance would focus on, what would it be and why?” RWA members provided their responses and staff recorded detailed notes to capture the breadth and nuance of their ideas and through subsequent analysis identified three common themes or “collective priorities”. These three themes are as follows: 1) Increasing the understanding and influencing the perceived monetary and intrinsic value of nature and greenspace, both regionally and locally, 2) Increasing the preparedness and protection of communities from existing and future flooding and extreme weather events, and 3) Improving the integration of environmental protection and community well-being in land use planning and design

Item 7.1

and growth management decisions. These themes were also assessed for their alignment in the TRCA Strategic Plan Building the Living City.

During the last meeting of the RWA on February 21, 2018, members participated in a facilitated discussion with staff to review the collective priorities and to identify opportunities for action by the RWA. During this facilitated discussion, each of the three themes was the subject of further conversation and development, facilitated by staff. RWA members were asked to review each priority, refine the scope of the theme, and identify needs and gaps of possible ideas for action. To ensure all interests were captured, members were also invited to provide any additional ideas and potential priorities which were not connected to the three themes. Staff analyzed and synthesized the input received and developed a summary of each of the four discussions, which were posted on the online collaborative platform Basecamp for further feedback from RWA members.

It should be noted that collective priorities and opportunities actions are a starting point for 2018-2019 RWA work planning, and do not limit the scope of work or possible interests of RWA members and working groups. Staff will maintain a continual list of RWA members' interests and priorities will be maintained to incorporate ongoing suggestions for future work planning.

RATIONALE

As per the RWA Terms of Reference, members have the opportunity to help TRCA advance its strategic goals and priorities, as well as to voice their interests and undertake activities that align with those broader goals. Section 6.0 of the Terms of Reference of the Regional Watershed Alliance states:

The watershed/waterfront working groups will be subcommittees of the RWA and formed as deemed appropriate by the Regional Watershed Alliance. These committees may solicit local community representatives or experts to participate as needed. Mandate of these subcommittees can be watershed-wide or specifically focused around projects such as watershed plans. The Watershed/Waterfront Working Groups will report to the Regional Watershed Alliance. The supporting TRCA staff will coordinate regular reports to the Regional Watershed Alliance on the activities of these groups.

Items pertaining to the working groups will be a standing item on the agenda of Regional Watershed Alliance meetings.

The collective priorities and opportunities for action identified by the members and summarized by staff in Attachment 1, appended to this report, represent the basis from which the RWA can undertake its work in 2018-2019 through the formation of working groups and the development of work plans for each group.

DETAILS OF WORK TO BE DONE

- Following approval of the facilitated discussion summary of 2018-2019 collective priorities and opportunities for action, the RWA membership shall establish working groups which, with assistance from TRCA staff, will be responsible for developing and implementing 2018-2019 work plans
- Members will be invited to volunteer to participate in these working groups. Those members who elect to participate in a working group will be responsible for providing the RWA with updates regarding accomplishments of working groups.

Item 7.1

- Working groups will meet on an as needed, but no more than monthly, basis. Meetings can be held at TRCA facilities, RWA members will work with TRCA staff to book those facilities.
- TRCA staff will support working groups through attendance at meetings, booking facilities, and through program support as identified by the working group. The working group will be responsible for the development of meeting agendas, and work priorities through consultation with TRCA staff.

Report prepared by: Matthew Volpintesta, extension 5209; Kate Goodale

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For Information contact: Arlen Leeming; Ryan Ness

Emails: aleeming@trca.on.ca; rness@trca.on.ca

Date: May 1, 2018

Attachments: 1

ATTACHMENT 1

FACILITATED DISCUSSION SUMMARY – COLLECTIVE PRIORITIES AND OPPORTUNITIES FOR ACTION (2018-2019)

I. “increasing the understanding and influencing the perceived monetary and intrinsic value of nature and greenspace, both regionally and locally.”

Key discussion points from the facilitated discussion:

Scope of the problem

There is a need to maintain or improve trail, and park access:

- Accessibility can be manifested in diverse ways including perceptions of safety, mobility.

Improve personal connection to nature:

- Through diverse methods, appealing to a broader audience promoting ownership of space, community stewardship, (e.g., introducing community gardens).
- Improving connection to nature will have a direct impact on the improvement of human health.
- Utilize Indigenous knowledge.
- Promote volunteer opportunities to facilitate a personal connection to nature, and ownership of greenspace (e.g., trail maintenance).
- Encourage greening on private property.

Use valuation methods to calculate monetary value of natural assets as a method to improve people’s understanding of the high value of nature (e.g., value of ecosystem services, not just replacement value).

Ideas for RWA action

Reach out to existing groups and utilize existing knowledge and/or programs.

- Talk to other Conservation Authorities
- Platform and experience sharing with other organizations.

Work with Welcome Centres.

- Improve relationships with New Canadians

Identify multiple entry points to engage with nature, for example:

- Cooking
- Tree planting
- “Black-out” no screen events

Election year

- Opportunity to push greenspace into key issues.

Staff Recommendations

Much of the discussion about greenspace and fostering sustainable citizenship echoed themes that were initially identified by TRCA staff in the collective priorities scoping exercise. Themes included; increasing personal connections to nature, fostering a sense of ownership of greenspace, reducing barriers to greenspace access, the connection of health to nature, and communicating the value of ecosystem services, as well as the more intrinsic value of nature. Actions focussed on utilizing connections to existing programs, advocacy, and the identification of diverse methods to foster individual connection to nature.

Connecting to existing groups and programs across the jurisdiction could provide new insight to improve or supplement existing TRCA programs, and inform the direction of new programs. Utilizing member's existing networks, the working group could seek to expand the stewardship network. The alignment of those external programs with existing TRCA programming, will help to improve TRCA stewardship programs, and may also identify programming gaps.

There are extensive TRCA programs that target many of the areas of interest identified by RWA members (for example, Outreach and Education's Cultural Connections program specifically targets international groups, with tailored activities/lesson plans to suit an international ESL audience). It would be beneficial for RWA members interested in the topic of fostering sustainable citizenship to become more familiar with the breadth of existing TRCA programming. This could be one of the first items on the working group's work plan.

II. "Increasing the preparedness and protection of communities from existing and future flooding and extreme weather events"

Key discussion points from the facilitated discussion:

Scope of the problem

- Many residents and communities are not aware of their vulnerability to flooding from either river flow or from urban drainage backups.
- Communities and neighbourhoods at risk of flooding need to be educated about the risks and what they can do to reduce them.
- Land use planning and development decisions being made in the upstream parts of TRCA watersheds are taking place without enough regard for the increase they create on flood risk in existing downstream communities.
- Programs that could help communities and neighbourhoods address flood risk are not integrated across government departments or between municipalities.
- Low-income communities are particularly vulnerable because they are often located in areas where flood risk and aging urban infrastructure keeps property values low, and they also have less access to information and lack a strong voice to get political attention.
- The true costs of flooding are not being taken into account in municipal budgeting and decision-making; if municipalities calculated the costs of flood damage it would completely justify large investments in improved infrastructure and flood protection.

Ideas for RWA action

- Review of best practices around the world in engaging communities in understanding addressing urban flood risk.
- Communications campaign, leveraging members' networks and communication channels including online presences, to help vulnerable communities understand their risks and how they can reduce them.
- Compile and communicate a list of all of the federal, provincial, municipal and other programs that are available to residents of TRCA watersheds to assess and reduce flood risk.
- Community-led risk and resilience programs, training community members to assess and communicate flood risk in their neighbourhoods, and advocate for improvement and investment.
- Pilot project in a flood-vulnerable neighbourhood to demonstrate how flood risks can be assessed, communicated, and addressed. Neighbourhoods possibly to be selected based on a competition and the program approach to perhaps follow the existing TRCA SNAP (Sustainable Neighbourhood Retrofit Program) model to bring resources and investment.
- Make flood resilience the theme of the 2018 or 2019 Watershed Forum, building capacity by including residents from vulnerable communities and calling attention to the need for action on the issue.
- Ensure that any RWA actions give priority to low-income communities.

Staff Recommendations

The interest of the RWA members that participated in the discussion appeared to focus on the need to understand and reduce flood risk in vulnerable neighbourhoods and communities. The actions suggested by members to address this challenge related primarily to general communication with and education of the public, and engaging vulnerable communities to help them understand and reduce their flood risk. Given these suggested actions, and the scope of work that a RWA working group could reasonably undertake, members who are interested in participating in a working group could potentially undertake one of the following:

- A public education campaign to raise the level of understanding about flood risk, risk reduction, and supports and programs that are available to residents and communities in TRCA watersheds.
- A one-neighbourhood pilot for a community-based resilience program that trains residents to understand and reduce risks and advocate for their community.

The suggestion of a neighbourhood scale, SNAP-type pilot for flood risk reduction is also an excellent idea but may require more time and resources than a RWA working group can reasonably be expected to contribute. However, we would be pleased to connect working group members with staff from the TRCA SNAP team so that the members can present their idea. Making flood resilience the theme of the Watershed Forum is another valuable suggestion and we will ensure that it is considered by the RWA working group that will lead the development of the Forum. Should it be selected as the topic for the 2018 or 2019 Forum the two working groups may choose to work together on the Forum programming.

III. “Improve the integration of environmental protection and community well-being in land use planning and design, growth management decisions and consideration of future climate change impacts”

Key discussion points from the facilitated discussion:

Scope of the problem

- The proposed issue of improving “Integrated Planning” is currently too narrow and should be expanded to include local economic prosperity that incorporate principles of a Circular Economy (see definition below).
- Many residents are unfamiliar with the terminology of “Integrated Planning” and need to be better educated on the policies and public process that govern land use and growth management decision making, specifically including the opportunities for public input. This problem extends to the younger generation and potentially in-coming/new municipal councillors.
- There is currently no forum to have an ‘honest conversation’ about determining what watershed condition is actually desired by the collective stakeholders, which includes citizens, public/government sector, private sector, special interest groups, etc. Further, integrated planning decisions should be guided by this collective vision with acknowledgment that how ‘we’ currently build-out our watersheds needs to change.
- There is a gap in citizen knowledge around what “developable” land is actually available in our region and lack of awareness of the complex issues around urban build-out, for example, what are the suite of potential trade-offs between the environment, economy and social well-being in relation to the next wave of GTA urbanization?
- There is a lack of media presence about this issue and the need for community involvement.

Circular Economy definition: Looking beyond the current take-make-dispose extractive industrial model, a circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles: Design out waste and pollution; Keep products and materials in use; and Regenerate natural systems.

<https://www.ellenmacarthurfoundation.org/circular-economy/overview/concept>

Additional issues identified

- There is piecemeal communication about TRCA community events or opportunities for public participation in providing comments or input programs or processes affecting watershed health decisions, where appropriate.
- The services and “points of contact” for subject-specific inquiries at TRCA are difficult to understand or navigate by general public and watershed resident.

Ideas for RWA action

- Communications campaign, leveraging members' networks and communication channels including online presence, to help educate communities, advertise upcoming opportunities to participate in the public process and encourage/support citizen input.
- Leverage member's networks to convene and engage in meaningful dialogue with industry and business leaders around land use planning and wicked problem of achieving 'sustainable development'
- Member-led workshops or outreach events to specifically educate students (grades 5 and 6) and new municipal councils following 2018 election.
- Member participation in writing events to translate and simplify current TRCA or other technical policy documents and produce outreach material to ensure accessible language for public audiences.

Staff Recommendations

The interest of the RWA members that participated in the discussion appeared to focus on two aspects:

- 1) the need to expand the land use planning issue by integrating environmental, social and economic considerations into a way forward; and
- 2) the need for citizens, students and community leaders to understand and increase meaningful participation in the public process that governs land use decision making in the region.

The actions suggested by members to address this challenge related primarily to clear, accessible communication with and education of the public, engaging industry, business sector, professional associations to improve the dialogue on this issue, and reach out to other community organizations who have greater success in this space to share lessons learned. Given these suggested actions, and the scope of work that a RWA working group could reasonably undertake, members who are interested in participating in a working group could potentially undertake one of the following:

- Development of plain language communications describing the collective priorities we are addressing for use for all RWA members in their various engagement and outreach activities.
- Targeted neighbourhood workshops to raise the level of understanding about the land use planning process, issues and opportunities across the social-economic- environmental spectrum and enable greater participation in the public process.
- An invitation-based series of round table discussions with industry, business associations and other appropriate groups to find more common ground and understanding of what it means to have a healthy watershed in light of significant growth, existing land use impacts and future risks associated with or exacerbated by climate change.

IV. New Ideas for RWA action

Key discussion points from the facilitated discussion:

- Existing programs and partnerships be enhanced and supported by RWA, including community engagement. RWA needs to hear about the activities TRCA is already doing.
- Cultural Heritage recognition; Bolton now designated a heritage village on a designated Heritage River.
- There was an additional and helpful suggestion to create an “Ask TRCA Portal” on the Basecamp platform to give RWA members a tool to determine correct responses to questions they may receive from people in their networks about TRCA programs, policies, projects and more generally, issues pertaining to our watersheds.

Section I – Items for Regional Watershed Alliance Action

TO: Chair and Members of the Regional Watershed Alliance
Meeting #1/18, Wednesday, May 23, 2018

FROM: Sameer Dhalla, Associate Director, Restoration and Infrastructure

RE: **TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) FLOOD RISK MANAGEMENT PROGRAM AND COMMUNITY ENGAGEMENT**

KEY ISSUE

To update the Regional Watershed Alliance (RWA) on TRCA's Flood Risk Management Program and discuss opportunities for community outreach and engagement.

RECOMMENDATION

THAT staff report and presentation on TRCA Flood Risk Management Program be received;

THAT RWA consider implementing key community engagement and outreach priorities highlighted in this report;

AND FURTHER THAT the proposed working group of RWA on *Flooding and Extreme Weather Events Outreach* consider integrating these priorities in their work plan.

BACKGROUND

Toronto and Region Conservation Authority (TRCA) Engineering Services section plays a keystone role in fulfilling TRCA's mandate to manage our regional water resources for current and future generations. Specifically, Engineering Services leads the strategic plan objectives to reduce or eliminate existing flood risks within the TRCA jurisdiction, and to minimize or eliminate the impact of new development and urban intensification on water quality, erosion and flood risk. Regulatory policy, planning, and site design are key components of achieving flood management and resilience solutions.

To meet these objectives, TRCA's Engineering Services is comprised of four teams, Water Resources Engineering, Capital Projects, Flood Infrastructure and Flood Risk Management. The Water Resources team works together with Planning and Development to reduce risk by ensuring that development and infrastructure projects are built in harmony with the hazard management principles of the Living City Policies. The Capital Projects team works to reduce flood risk through remedial mitigation projects, and also ensures the continued delivery of high-quality floodplain mapping, along with the hydrologic and hydraulic modelling that support it.

Another cornerstone of flood management is the suite of dams, channels and berms that make up TRCA's flood control infrastructure. The Flood Infrastructure and Hydrometrics team manages this infrastructure, and also ensures the operation of the rainfall and stream gauge network that provides critical real-time and historical information to enable data-driven decision making.

Finally, the Flood Risk Management team works to reduce existing flood risk to people and property by undertaking initiatives throughout the cycle of emergency management – from risk assessment to support preventative measures, to preparedness planning and outreach with municipal partners, through Flood Forecasting and Warning during flood events, to flood event documentation and analysis after the storm. The following report highlights the Flood Risk

Item 7.2

Management key accomplishments of 2017 and current initiatives for 2018.

Objectives of Flood Risk Management:

1. Reduce or eliminate existing flood risks within the TRCA jurisdiction;
2. Strive to minimize the impact to communities and protect people and property from riverine flood risks, to the extent possible;
3. Fulfil TRCA's legislated mandate and delegated responsibilities; and
4. Build awareness of what Flood Risk Management does.

Strategies to achieve those objectives:

- A. Advance knowledge of flood risk;
- B. Disseminate/document flood risk;
- C. Facilitate the implementation of flood mitigation projects;
- D. Operate a state-of-the-art Flood Forecasting and Warning program;
- E. Work with municipalities to enhance flood emergency response capacity; and
- F. Teach people how to prepare/respond to flooding.

The above strategies are grouped into thematic areas, described together with their highlights for 2017 and 2018 below.

Flood Risk Assessment

Understanding what is at stake when a flood occurs is critical. Leveraging matching funds through successful applications to the National Disaster Mitigation Program (NDMP), TRCA is currently updating the database of structures and roads (Flood Vulnerable Areas, or FVAs) with the help of GIS. This database is a key component of the Flood Risk Assessment process, which layers hazard information (TRCA's floodplain mapping) with exposure and vulnerability information, to help quantify and communicate flood risk spatially. National best practices are incorporated in flood damage estimation and will provide valuable data for further analysis to allow remediation and mitigation efforts. The updated Risk Assessments will be used to re-prioritize Flood Vulnerable Area clusters identified in the Remedial Capital Works and Flood Protection Strategy. This study hopes to wrap up in the Fall of 2018.

TRCA is also undertaking a study to characterize the flood and to understand what is at risk on the Toronto Island following the record high water levels experienced in 2017. Inundation maps are to be prepared with the help from GIS department, as well as a response plan for any future flooding. While conservation authority hazard regulation and shoreline protection projects have limited exposure to flood and erosion risk along the shoreline, the levels experienced in 2017 exceed the previous 100-year lake level. The Lake Ontario flooding is described further below; however this study hopes to provide high level recommendations for permanent mitigation and detail next study steps. Engineering Services will provide the technical expertise and provide information compiled on flooding experienced in the spring and summer of last year.

Education and Outreach

Pro-actively educating the public about flood risk now helps ensure that TRCA communications in times of crisis are better understood. In the spirit of providing access to data, and in light of the evolving landscape of flood insurance, the NDMP Flood Risk Outreach Program project will build on the results from TRCA's Intake 1 Flood Risk Assessment project by supporting public awareness of potential flood emergencies. With this program, TRCA will develop and

Item 7.2

implement public information sessions within neighbourhoods in the Greater Toronto Area known to be at risk of riverine flooding, as identified through previous and ongoing flood risk assessment work. The communities (neighbourhoods) will be those that are already identified as having a high concentration of structures within the regulatory floodplain, which are known to TRCA as Flood Vulnerable Clusters. This outreach program will:

- Increase awareness of flood risks to neighbourhoods that are within the floodplain, which in turn provides residents with the information they need to better prepare against flooding.
- Encourage neighbourhoods to work together to build local resiliency, which in turn supports overall municipal resilience.
- Prime flood-prone residents to be receptive to flood forecasting and warning messages, this increasing the effectiveness of such programs.

As part of this initiative, there may be an opportunity for the Regional Watershed Alliance get involved in this project by forming a working group to help with the engagement of the public, communications and with the promotion of the public information sessions.

In addition to the recently initiated NDMP Flood Risk Outreach Program, TRCA staff have created web tools that make it easier for the general public to understand about flooding and the floodplain, prepare themselves, and stay informed. TRCA continues to raise awareness about flood risks and personal preparedness by partnering in Emergency Preparedness Week outreach events, Water Festivals and through social media campaigns. The @TRCA Flood Twitter account earned 234,500 impressions in 2016, 533,400 in 2017 and 329,500 for the first four months of 2018. In addition, the number of sessions to www.trcagauging.ca increased by 64%.

A priority project for 2018 is to enhance collaboration with TRCA's Education section with the creation of a curriculum around flood safety and emergency preparedness. Recognizing the need from municipal partners to foster a resilient population through education, TRCA is leveraging our education delivery capacity to create a course, with input from partners, in line with the Ontario Specialist High Skills Major program, the delivery of which can be a source of revenue to TRCA.

Preparedness through Strong Partnerships

Ultimately, TRCA serves partner municipalities and the people that live within them. Flood Risk Management continued to build ever stronger relationships with partners and the communities TRCA serves, through workshops, conference presentations and convening working groups to facilitate cross-training. In 2017 and 2018, Flood Risk Management:

- Further cemented relationships with the emergency management and operational staff of partner municipalities:
 - Presented at the City of Brampton Exercise of 2018;
 - Attended City of Toronto Office of Emergency Management's first annual Private Sector Partners in Preparedness Engagement Workshop and worked on the development of a Risk Specific Plan for flooding;
 - Continued our participation in the Toronto Emergency Management Working Group; revised the Risk Specific Plan for Flooding and updated the flood risk ranking for their Hazard Identification and Risk Assessment program;
- Advanced the state of practice among conservation authorities through presentations

Item 7.2

at the Provincial Flood Forecasting and Warning Committee fall conference and at the Ministry of Natural Resources and Forestry (MNRF) Technical Transfer workshop.

- Reconvened the Lower Don Transportation Working Group to present the final report outlining operational roles and responsibilities, and to present the results of the Lower Don 1D-2D Floodplain mapping update, which better illustrates flooding mechanisms in this critical area and provides a baseline to test remediation options against.
- Continued representation at the GTA Flood Forecasting and Warning group to share advancements and lessons learned.
- Continued TRCA engagement with academic, research and industry partners also working in flood risk reduction (FloodNet, Insurance Bureau of Canada, Partners for Action, Canada Hazus User Group).
- Delivered guest lectures at Ryerson University, York University, Bayview Rotary Club, the Ontario Science Centre, among others.
- Garnered excellent media coverage, beyond our crisis communications during flooding events, which highlighted TRCA's work: Breakfast Television; The Weather Network and CTV news.

Flood Forecasting, Warning and Contingency Planning

In order to fulfill TRCA's delegated responsibility from the Province of Ontario and to further achieve the goals of the Natural Hazards Policies of the Provincial Policy Statement, Section 3.1 of the *Planning Act*, TRCA operates a robust Flood Forecasting and Warning program. The program is operated in accordance with the requirements presented in the "Provincial Flood Forecasting and Warning Implementation Guidelines", Ministry of Natural Resources, August 2008. An experienced team of Flood Duty Officers (FDOs) are on-call 24 hours a day, seven days a week, and 365 days a year. FDOs monitor weather and watershed information, use computer models and hydrology expertise to determine whether to issue or escalate flood warning messages. They provide advice to municipal partners, other levels of government, and infrastructure operators regarding expected impacts, and provide public messaging. When warranted, they will direct the operation of TRCA's flood control infrastructure.

Staff continue to update the Flood Duty Officer manual, and have made updates to the RiverWatch operations manual and the Flood Contingency Plan on an annual basis. These improvements help to ensure clarity, consistency and knowledge transfer even in the case of staff turnover. TRCA has undertaken a study and selected Delft-FEWS as the preferred flood forecasting system moving forward for the new Decision Support System, and now moves into the next stages of the project.

TRCA roles, responsibilities and resources with respect to flood preparedness and response are documented in the Flood Contingency Plan, which is updated annually and distributed to TRCA municipal partners. While municipalities undertake the operational response to emergencies, including flooding, conservation authorities support the municipal response by providing technical advice, information and watershed expertise. In order to optimize TRCA's function for partners during flood events, TRCA maintains an Emergency Operations Centre, and employs Incident Management System (IMS) principles to ensure inter-operability with other agencies in times of crisis. A key accomplishment in has been the roll-out of the updated Incident Management System structure for flood emergencies. This system outlines the various roles and responsibilities and support functions that staff across TRCA would fulfill to support response to a flood event.

Item 7.2

A high priority project for 2017 was the updating of Emergency Preparedness Plans (EPPs) for the major dams that TRCA owns and operates, ensuring that TRCA meets industry best practices outlined in the Canadian Dam Association guidelines. The update for G. Ross Lord Dam began in 2016, in collaboration with the City of Toronto, and awaiting final approval from the Board. This EPP was presented at a public information session in early 2018 and was well received.

Data Management, Technology, and Flood Event Documentation

The current redevelopment of TRCA's Flood Monitoring website is a key priority in improving the delivery of critical flood related information from TRCA's real-time gauging network. The new website for trcagauging.ca is in the final stages of internal testing and will be released to the public in the very near future. The team is now undertaking to review the database and improve the "back-end" of the website responsible for the real-time data collection.

In addition a newly implemented improvement of how TRCA collects field information during flood events by leveraging mobile technology tools such as Survey123 for ArcGIS has helped increase TRCA's situational awareness and streamline work. TRCA used this tool with huge success during the weeklong event of February 19th – 24th of this year with delivery of real-time photos and situation awareness of localized flooding due to ice jams.

2017 and 2018 Weather Highlights

In 2017, the Flood Forecasting and Warning program issued a record thirty-five flood messages including nineteen Water Safety Watershed Conditions Statements, ten Flood Outlook Watershed Conditions Statements, five Flood Watch Statements and one Flood Warning with a cancellation.

In addition to having much of the winter precipitation within TRCA's jurisdiction fall as rain in 2017, the months of April and May were exceptionally rainy, particularly for the Lake Ontario – St. Lawrence basin at large. This exacerbated spring freshet conditions resulted in severe flooding along the Ottawa River and St. Lawrence River. Concurrently, water levels on Lake Ontario rose, reaching record levels in early May. Lake Ontario water levels remain slightly above average, however are below the 2017 thresholds, and are not anticipated to achieve the record high levels of last year.

2018 so far has been drier than 2017, however still with a few events to note. The first event occurred January 10th through to January 12th which included confirmation of flooding on the DVP south of Dundas from a very large ice jam resulting in a Flood Warning message. The second large event of 2018 was the February 19th to 24th spring melt event resulting in localized ice jam flooding. This event received a lot of media coverage for the TRCA, however the GTA fared much better than the Grand River area which experienced severe flooding. TRCA did not exceed a Flood Outlook message. April 12th – 16th was also another long event which also garnered a lot of media attention as it was also referred to as "Ice Storm 2018". There was a lot of lead time for this event, which including a large ice storm, followed by melt and rain with possibility of thunderstorms as well. TRCA river systems managed this system well, and although a Flood Watch message was issued with many reports of urban flooding, there was no riverine flooding from this event.

Summary

The Flood Risk Management group, together with Engineering Services, fulfil one of TRCA's foundational roles. This is accomplished by working to reduce or eliminate existing flood risks

Item 7.2

within the TRCA jurisdiction, and to minimize or eliminate the impact of new development and urban intensification on water quality, erosion and flood risk. TRCA will continue to bolster the resilience of the region in the face of flood risks, a hazard whose potential is expected to increase with the changing climate, by leveraging advancements in technology and opportunities for partnership.

DETAILS OF WORK TO BE DONE

TRCA staff to work RWA to develop and implementing key community engagement and outreach priorities highlighted in this report

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Date: May 16, 2018

Attachments: n/a

Section I – Items for Regional Watershed Alliance Action

TO: Chair and Members of the Regional Watershed Alliance
Meeting #1/18, Wednesday, May 23, 2018

FROM: Chandra Sharma, Director, Watershed Strategies

RE: **THE CARRUTHERS CREEK WATERSHED PLAN: PHASE 2**

KEY ISSUE

The purpose of this report is to update the Regional Watershed Alliance on the Work Plan and the Communications and Consultation Strategy to be implemented as part of Phase 2 of the Carruthers Creek Watershed Plan and to direct members to the project website to find background information and provide feedback on the Vision and Management Philosophy for the Watershed Plan.

RECOMMENDATION

IT IS RECOMMENDED THAT the report and staff presentation be received for information.

AND FURTHER THAT members be encouraged to provide input during this stage of consultation via the project website.

BACKGROUND

On April 1, 2015, Durham Region Council authorised Regional staff to engage the Toronto and Region Conservation Authority (TRCA) in a consulting capacity to update the Carruthers Creek Watershed Plan on the Region's behalf.

The Carruthers Creek Watershed Plan is being completed in two Phases over a four-year period. Phase 1 of the project involved data gathering in the field and desktop analyses, and culminated in the completion of seven peer-reviewed technical reports characterising the watershed's existing conditions in late 2017. As outlined in the presentation, staff are now in Phase 2 of the Watershed Plan development process, which includes public and stakeholder consultation. The current stage of consultation focuses on reviewing the Vision and Management Philosophy.

In early 2018, a project website was launched (<https://yoursay.ca/carruthers-creek>) to provide background information on the watershed and the Watershed Plan to the public and stakeholders, including the technical reports from Phase 1, and a project time line. The website is also set up to share information and gather feedback at key stages throughout the plan development process through the use of a project email list, an online survey, and an email address for staff to receive comments for the duration of the project.

RATIONALE

The Regional Watershed Alliance is an advisory committee to TRCA and will be consulted throughout the Watershed Plan development process, including the final draft Watershed Plan. Further, Dr. Neil Burnett who is a citizen representative on the Alliance from the Town of Ajax was the Chair of the Carruthers Creek Task Force during the process to develop the 2003 Watershed Plan for Duffins Creek and Carruthers Creek. As such, he brings a unique perspective and is a

Item 7.3

resource for Alliance members and staff regarding our previous Watershed Planning exercise, and the history of the Carruthers Creek watershed.

DETAILS OF WORK TO BE DONE

In accordance with the approved work plan, Phase 2 of the Watershed Plan consists of seven major components of work over a two-year period, scheduled to be completed by late 2019. Similar to Phase 1, the work completed in Phase 2 will be subject to a peer review process.

A detailed description of the tasks comprising these components is provided in the presentation. The technical studies will be iterative and non-linear, summarised as follows:

- Establish updated Goals and Objectives for the watershed.
- Based on the conditions observed through Phase 1 and other watershed health assessments, develop Targets for the watershed and identify the Management Actions required to achieve the Goals and Objectives.
- Establish watershed response methodologies / assessments to measure how the watershed could be expected to respond to changes in land use and other factors, such as climate change.
- Develop, model, and evaluate five scenarios for the watershed, consisting of historic conditions, existing conditions, approved development per current Official Plans, approved development and an enhanced Natural Heritage System, and a scenario with prospective development post-2013 and an enhanced Natural Heritage System.
- Formulate and evaluate candidate Management Actions to achieve the desired state of watershed health.
- Develop Management Recommendations and an Implementation Strategy.
- Deliver the final Watershed Plan.

In support of the Phase 2 technical work, TRCA will undertake extensive stakeholder and public consultation. A Communications and Consultation Strategy has been prepared outlining the proposed consultation activities, which include the following:

- Maintain and update a project website dedicated to the Carruthers Creek Watershed Plan containing information on the project scope, timeline, and key milestones.
- Utilise a project specific email address to receive and respond to inquiries and maintain a mailing list for project updates.
- Conduct online survey(s) to gather input related to the Watershed Plan.

Item 7.3

- Utilise media and social media communications to provide updates on the project and study deliverables.
- Create and distribute outreach and communication tools at public locations/events.
- Conduct in-person outreach through the use of pop-up displays, and potentially Public Information Centres.
- Conduct stakeholder outreach through small group meetings, including presentations to various advisory committees.
- Continue to report to the Region of Durham Council at key milestones. Update the Authority Board annually, or more frequently as necessary.
- Conduct staff to staff meetings with representatives from the Region of Durham, the Town of Ajax, and the City of Pickering.

Consultation will occur in stages throughout Phase 2. The first stage of consultation will engage stakeholders and the public on the Vision and Management Philosophy, the next stage of consultation will solicit feedback on the draft management recommendations, and the final stage of consultation will focus on the draft final Watershed Plan. Staff will continue to update the Regional Watershed Alliance during the next two stages of consultation, and feedback from Alliance members is welcome at any time.

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Date: May 2, 2018

Section I – Items for Regional Watershed Alliance Action

TO: Chair and Members of the Authority
Meeting #1/18, Wednesday, May 23, 2018

FROM: Arlen Leeming, Manager, Flagship Projects and Partnerships, Watershed Strategies

RE: THE MEADOWAY: AN OVERVIEW

KEY ISSUE

An overview of The Meadoway for the Regional Watershed Alliance Members.

RECOMMENDATION

THAT the background report on The Meadoway be received;

AND FURTHER THAT members of the RWA be engaged in the Meadoway project as opportunities emerge.

BACKGROUND

The Meadoway is a transformative, city-building initiative taking place in Toronto. Led by Toronto and Region Conservation Authority (TRCA) in partnership with the City of Toronto and The W. Garfield Weston Foundation, The Meadoway is transforming 16 kilometres of transmission corridor in Scarborough into one of the largest urban linear greenspaces in Canada.

Formerly known as the Gatineau Hydro Corridor Revitalization, The Meadoway will provide a green, active, east-west link between downtown Toronto and Rouge National Urban Park, while creating urban agriculture opportunities and connecting greenspaces across Scarborough. The creation of a system that includes high-functioning meadow habitat on a scale never before seen in Toronto, combined with the development of active transportation connections, will help reduce greenhouse gases in our atmosphere and promote low carbon alternatives for the thousands of Torontonians who commute daily in Scarborough.

Toronto is home to some of Canada's most incredible urban parks, from High Park to Morningside. While these natural areas have well-established north-south connections, they lack the east-west connections that are required to effectively establish a connected natural system that is vital to the future of sustainable city building in the Toronto region. At over 500 acres, The Meadoway will provide a vital east-west linkage between the Don River ravine and Rouge National Urban Park to redefine how greenspaces can be connected in Toronto.

The Meadoway will also become a key segment of Toronto's cycling network, supporting overall cycling infrastructure and building a connected link between the East Don Trail and Rouge National Urban Park. It is an opportunity to transform the relationship between the built structure of an urban area and the natural spaces that are vital to the overall health of the system.

To assess the viability of a transformational idea like The Meadoway, two revitalization pilot projects completed by the TRCA with funding support from The W. Garfield Weston Foundation

Item 7.3

were implemented between 2012 and 2017. The first of these pilot projects, the Scarborough Centre Butterfly Trail, has been widely recognized as one of the most successful revitalization projects in Toronto. By transforming a 3.5 kilometre section of the corridor into a naturalized habitat for biodiversity, an active transportation route, and a beautiful wildflower meadow planted by community members, the Scarborough Centre Butterfly Trail showcases the immense potential of The Meadoway.

FUNDING

On April 11th 2018, Mayor John Tory along with the directors of The W. Garfield Weston Foundation, and representatives from TRCA and The Living City Foundation jointly announced The Meadoway at ceremony in Scarborough. As part of this announcement The W. Garfield Weston Foundation announced a pledge up to \$25 million to support the project as it evolves over the coming months, with a firm commitment of \$10 million available immediately. The City of Toronto has committed \$6.3 million in its capital budget and plan for infrastructure investments that will help to realize the shared vision for The Meadoway by supporting the trail and cycling infrastructure, and will continue its responsibilities for ongoing operations and maintenance in the corridor.

The project has a total proposed budget of \$85 million; nearly 40% of the budget has been pledged to date.

FUTURE OPPORTUNITY

With over 500 kilometers and 4000 acres of transmission corridors in the Toronto region, The Meadoway represents the first phase of what can become a world-class example of linear corridor revitalization. The expansion of The Meadoway concept throughout the Toronto region would not only assist TRCA and its municipal partners achieve the Regional Trails Strategy and associated Living City Strategic Plan objectives, it would also create one of the largest urban linear parks systems anywhere in the world.

Through the development of new partnerships, innovative management structures, as well as a unique funding model, The Meadoway will showcase a new reality for environmental collaboration and will redefine the meaning of a community connected through conservation.

WORK TO BE DONE

With the goal to break ground immediately after the announcement, implementation of The Meadoway has already begun. In 2018 work will focus on community engagement and communications, trail development, landscape designs and the initiation of a feasibility study (in partnership with the Ontario's Ministry of Transportation) to construct a bridge over Highway 401.

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Date: May 15, 2018

Section III – Items for the Information of the Alliance

TO: Chair and Members of the Authority
Meeting #1/18, Monday, April 23, 2018

FROM: Kathy Stranks, Clerk and Senior Manager, Corporate Records

RE: **ELECTION OF OFFICERS**
Process Overview

KEY ISSUE

Receipt of staff report on process for Election of Officers for the Regional Watershed Alliance.

RECOMMENDATION

IT IS RECOMMENDED THAT the process for Election of Officers outlined in Attachment 1 be received.

BACKGROUND

At Authority Meeting #8/17, held on October 27, 2017, the Terms of Reference (ToR) for the Regional Watershed Alliance (RWA) was approved. The ToR includes the term of appointment for RWA Members to be a revolving term of up to four years, and the provision for election of the Chair and Vice Chair for the term of the Alliance.

Jack Heath was requested by Toronto and Region Conservation Authority (TRCA) staff to act as interim Chair until the Alliance Members became more familiar with each other and the roles of the Alliance, at which time an Election of Officers would take place.

The ToR further outlines that the voting procedures used will be that outlined in TRCA's Rules of Conduct, as followed by the Authority. As part of the *Conservation Authorities Act* Amendments TRCA is undergoing a review of the Rules of Conduct and staff is anticipating bringing a revised Administrative By-Law to the Authority at its meeting scheduled to be held on July 20, 2018. As the rules of procedures for elections were updated by the Authority on January 29, 2016 and are still in keeping with best practices, staff anticipates that the procedures will be unchanged. The procedures for the RWA elections are outlined in Attachment 1.

RATIONALE

TRCA staff is recommending that the election of the Chair and Vice Chair occur at the November 14, 2017 RWA meeting. The positions would be elected for the remaining three years of the RWA term.

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Date: April 17, 2018

Attachments: 1

Attachment 1

Procedure for Election of Officers

1. *Voting*

All votes shall be conducted in public session by open vote, and shall be recorded. No Member may vote by proxy.

2. *Acting Chair*

The TRCA Clerk or designate shall be Acting Chair or Returning Officer, for the purpose of Election of Officers.

3. *Scrutineer(s)*

The appointment of two scrutineers, along with the Acting Chair, is required by motion for the purpose of counting the show of hands, should an election be required. The Acting Chair shall call a motion for the appointment of two persons, who are not Members of the Regional Watershed Alliance (RWA), to act as scrutineers. A Member, who will not stand for election, may be appointed as an additional scrutineer if requested. Due to the open voting, a TRCA staff member may be appointed as scrutineer(s).

4. *Election Procedures*

The Acting Clerk shall advise the Members that the election will be conducted in accordance with the Act and TRCA's Administrative By-law as follows:

- a) The elections shall be conducted in the following order:
 - i. Election of the Chair, who shall be a Member of the Regional Watershed Alliance (RWA)
 - ii. Election of the Vice Chair, who shall be a Member of the RWA
- b) The Acting Chair shall ask for nominations to each position;
- c) Only current Members of the RWA who are present may vote;
- d) Nominations shall be called three times and will only require a mover;
- e) The closing of nominations shall require both a mover and a seconder;
- f) Each Member nominated shall be asked to accept the nomination. The Member must be present to accept the nomination unless the Member has advised the TRCA Secretary-Treasurer in writing in advance of the election of their willingness to accept the nomination.
- g) Once voting commences, the only motion permitted will be a motion to recess.

If one Nominee:

- h) If only one Nominee the individual shall be declared into the position by acclamation.

Two Nominees only:

- i) In the event of an election, each Nominee shall be permitted not more than three minutes to speak for the office, in the order of the alphabetical listing by surnames.

Item 7.2

- j) Upon the acceptance by Nominees to stand for election to the position of office, the Acting Chair will list the names of all Nominees in alphabetical order of surnames and will conduct voting in that order. The Acting Chair will call for a vote on the first name and Members will stand if they wish to vote for the Nominee. The Acting Chair will state the names of those standing and the scrutineers will record the results.
- k) There shall be one Nominee vote per Member of the RWA per round of voting. A Member's first vote is deemed to be the Member's vote. If a Member votes a second time in the same round of voting, the Acting Chair shall advise the Member and the Member's vote shall not count.
- l) The Nominee who receives a majority of votes is appointed by resolution to the position.
- m) If there is a tie vote, the Acting Chair shall declare a 10 minute recess to allow the RWA time to consider the matter, after which the vote shall be retaken. If the vote is again tied, the Acting Chair shall decide by lot the successful Nominee. The person whose name is drawn is appointed by resolution to the position.

Three or more Nominees:

- n) First and successive votes:
 - i. The Nominee who receives a majority of votes is appointed by resolution to the position.
 - ii. If no Nominee receives a majority of votes, the Nominee with the least number of votes shall be excluded from subsequent voting and the RWA shall proceed with the next round of voting.
 - iii. If there is a tie vote with respect to the Nominees receiving the least number of votes, the Acting Chair shall recess the meeting for a period of 10 minutes, after which the Acting Chair shall conduct another vote, and if there is still an equality of votes, then a lot shall be conducted until there is one name not drawn, and the name (or names) drawn shall go forward to the next round of voting, and the name not drawn shall be excluded from subsequent rounds of voting.
 - iv. When there are only two Nominees remaining, the procedure for Two Nominees only [procedures (i) – (m)] shall apply.

The Acting Chair shall announce the results of the voting, naming the candidates and the number of votes cast for each candidate.