MEMORANDUM OF UNDERSTANDING ("MOU") FOR PARTNERSHIP AND COLLABORATION BETWEEN:

TORONTO AND REGION CONSERVATION AUTHORITY ("TRCA")

and

TORONTO BOTANICAL GARDEN

("TBG")

BACKGROUND

- **A.** TRCA is a body corporate under the Conservation Authorities Act 1990, dedicated to the conservation and management of natural resources including, community action on environmental matters.
- **B.** TBG is a non-profit charitable organization provincially incorporated in 1963. It operates as a living museum, maintaining documented plant collections for the purposes of education, conservation, research and display.
- **C.** The "Edwards Gardens and Toronto Botanical Garden 2018 Master Plan and Management Plan" is a City of Toronto and TBG Board-approved plan to expand TBG from its present four acres to 35 acres in order to create a globally acclaimed botanical garden. The master plan identifies Potential Areas of Development and Types of Partners.
- **D.** TRCA has extensive knowledge and experience delivering projects and programs in the areas of riparian planting, ravine restoration, native and invasive species management, biodiversity and habitat conservation, flood management, resilience and green engineering.
- **E**. TBG has a reputation for its horticultural excellence and public programs, including adult and children's education programs, symposia, community events and public outreach.
- **F.** TRCA can provide knowledge and support through design development, fundraising, construction and public education and awareness.
- **G.** TRCA and Toronto Botanical Garden recognize that there are opportunities for cooperation and collaboration and agree to establish a framework for an ongoing collaborative relationship.
- **H.** TRCA and Toronto Botanical Garden are entering into this non-binding MOU to agree upon the general principles which will guide cooperation and collaboration between the two organizations.

1. Commencement and Term

1.1. Each of TRCA and the Toronto Botanical Garden is a "Party" under this MOU and together are the "Parties."

- 1.2. This MOU shall commence upon the date it is signed by both Parties and it will expire on 2025-02-28, unless the term is extended.
- 1.3. Prior to its expiry, this MOU shall be reviewed by the Parties to determine whether a new MOU should be executed by the Parties.

2. Areas of Cooperation and Collaboration

- 2.1. The Parties agree to the following underlying general principles as the basis for their relationship:
- 2.1.1. It is important for the two organizations to have open lines of communication at all levels and, as such, they will strive to facilitate open and timely communication with each other.
- 2.1.2. To the extent that one Party bring forward a project or projects to the other Party seeking support and/or approval, such other Party will commit to exploring the projects(s).
- 2.2. Areas of collaboration and cooperation between the Parties may include:
 - Design Development
 - Construction
 - Strategic Planning`
 - Public Engagement and Awareness
 - Education and Outreach
 - Sharing Best Practices
- 2.3. TRCA may be engaged by Toronto Botanical Garden to undertake work on behalf of TBG on a cost recovery basis, as detailed in Schedule A.
 - 1. Erosion Hazard Mitigation
 - 2. Forest Management and Arboricultural Services
 - 3. Review of TRCA Permit Applications under 0. Reg. 166/06
 - 4. Coordination with City of Toronto Urban Forestry- Ravine and Natural Feature
 - 5. Protection By-law staff
 - 6. Terrestrial and aquatic restoration
 - 7. Invasive Species Management Plans and Implementation
 - 8. Restoration Opportunities Planning & Prioritization
 - 9. Wildlife and Ecosystem Management Services
 - 10. Trails and Facilities, Design, Permitting, Construction

3. Implementation and Project Delivery

3.1. Responsibility for implementing this MOU is shared equally by the Parties.

Attachment 1: Draft Memorandum of Understanding with Toronto Botanical Gardens

3.2. The Parties shall meet regularly to identify and explore opportunities for the implementation of the

commitments in this MOU.

3.3. Where TRCA undertakes cost recovery work on behalf of Toronto Botanical Garden, the form of

Service Level Agreement and Letter Agreement included as Schedule "B" shall be used as the agreement

for that work.

4. General

4.1. The Parties acknowledge that as this MOU does not create any binding obligation. The parties

intend to enter into separate Letter Agreements to cover specific commitments and responsibilities for

delivery of specific projects.

4.2. Amendments to this MOU can only be made by the written agreement of the Parties.

4.3. The Parties are independent parties and nothing in this MOU shall create the relationship of

principal and agent, employer and employee, partnership or joint venture between the Parties.

4.4. This MOU will not restrict either Party from entering into supplemental or other agreements with

each other, or other participating organizations, sponsors, media or other third parties. Nothing in this

MOU shall preclude the Parties from conducting their business affairs in the usual manner.

4.5. This Agreement may be executed in counterparts. Either Party may send a copy of its executed

counterpart to the other party by email instead of delivering a signed original of that counterpart. Each

executed counterpart (including each copy sent by email) will be deemed to be an original; all executed

counterparts taken together will constitute one agreement.

This MOU is entered into by the following representatives of the Parties:

Toronto and Region Conservation Authority

Date:

John MacKenzie

Chief Executive Officer

Jennifer Innis

Chair, Board of Directors

Toronto Botanical Garden

Date:

David McIsaac,

Chief Executive Officer

Gino Scapillati, President and Board Chair

Schedule "A" to MOU between TRCA and Toronto Botanical Garden DESCRIPTION OF AREAS FOR SERVICE AGREEMENTS

1. Erosion Hazard Mitigation

TRCA's Engineering Projects (EP) group has a longstanding Erosion Risk Management Program (ERMP) that focuses on the identification, long-term monitoring, and remediation of erosion hazards throughout TRCA's jurisdiction. TRCA's EP group is a full service team of environmental, engineering, and construction professionals that are able to see projects through the entire life cycle including: hazard identification, detailed design development, project management (obtain all permits & approvals for construction), topographic surveying, and construction. This expertise relates predominantly to the implementation of remedial erosion control works. EP staff are also able to oversee a variety of other activities related to construction in sensitive areas.

Toronto and Region Conservation Authority's (TRCA) Erosion Risk Management team has been monitoring 22 erosion control structures within Edwards Gardens since 2012. The structures are composed of a variety of different materials to minimize further watercourse-based erosion in this area. TRCA doesn't have record of any other erosion hazards in this area.

2. Forest Management and Arboricultural Services

TRCA's forestry expertise allows it to offer comprehensive and integrated forest management, reforestation, restoration, hazard management, and arboricultural services. Active management of forests greatly improves forest health, biodiversity, resilience to insects, disease and climate change, and provides direct risk management to ensure public safety.

Specifically, TRCA's expertise allows us to offer arboricultural, hazard tree management, and forestry services. TRCA's complement of ISA certified arborists, hazard tree technician, and Registered Professional Forester (RPF) are able to provide a complete suite of arboricultural and forestry management activities and services, such as;

- Butternut health assessments,
- Individual tree health assessments and prescriptions,
- Tree inventories,
- Arborist reports,
- Forest management plans,
- Tree removals and mitigation
- Tree retainment and injury mitigation
- Development and certification of City of Toronto's Ravine and Natural Features
 Protection (RNFP) permit applications
- Development of Tree Protection and Plan Review (TPPR) to obtain permits and approvals for trees situated on public and private lands within the City of Toronto

• Complete coordination of the application and approval process of all City of Toronto tree protection, and permitting processes

TRCA also operates and supplies native trees and shrubs from its own native plant nursery. Locally collected seed is used to grow highly desirable hardy native plant materials that is well adapted to our local growing conditions.

3. Review of TRCA Permit Applications under 0. Reg. 166/06

Review of TRCA Permit Applications under 0. Reg. 166/06, including water resource engineering, geotechnical engineering and ecology.

4. Coordination with City of Toronto Urban Forestry· Ravine and Natural Feature Protection By-law staff

Permits are required for tree removal or injury under the by-law. If TRCA staff are completing a project for the gardens on behalf of the gardens, TRCA could coordinate the ravine permit approvals. When TRCA is reviewing a permit application submitted by the gardens, we will coordinate our approval with that of the ravine by-law, which is helpful and streamlines the process.

5. Terrestrial and aquatic restoration

TRCA is a global leader in ecological restoration, with more than 50 years of experience protecting, enhancing, restoring and monitoring impaired natural habitats. TRCA strives to protect, enhance and regenerate natural resources within the TRCA jurisdiction through various restoration projects. These projects focus on: improving natural cover; improving riparian areas; restoring wetlands; stream restoration using natural channel design principles; and enhancing essential wildlife habitat. Through a detailed understanding of ecology and the interconnected roles of hydrology, natural habitats, and flora and fauna, the Restoration and Resource Management group is able to identify the ecological needs at a site and set appropriate restoration targets to enhance and restore natural areas. Our ecological restoration programs are essential to maintaining a robust and resilient natural system that can benefit human health and well-being -especially as the Greater Toronto Area continues to experience environmental pressures of urbanization and climate change.

6. Invasive Species Management Plans and Implementation

Closely connected to ecological restoration is invasive species management, in particular invasive plant management. TRCA's focus on invasive species management targets prevention, early detection and rapid response; eradication, containment and control; protection of high priority areas; and coordination, knowledge transfer and awareness. Using best management practices, TRCA develops site specific invasive plant species management plans that typically include the objectives of reducing invasive infestation and restoring the site to native natural cover to provide optimal ecological function. Invasive species management plans generally include 3-5 years of staff-led control, followed by restoration and a long-term monitoring program to identify and manage new infestations. Depending on the site and the species, long-term management can often include community involvement.

7. Restoration Opportunities Planning & Prioritization

Ecosystem restoration planning requires an integrated approach considering many components of the natural system when prioritizing where and what to restore. TRCA and our partners have developed a multi-discipline and multi-benefit approach to restoration planning that facilitates effective restoration works, while realizing regional watershed objectives and providing development compensation options. Through various long-term monitoring and modelling initiatives TRCA has amassed a wealth of knowledge on terrestrial biodiversity, aquatic ecosystems, hydrology, and headwater conditions. The aim of Integrated Restoration Prioritization (IRP) is to identify impairments and threats to ecosystem function to improve the delivery of ecological goods and services. Consolidating data and comparing discrete areas based on different parameters and thresholds has helped direct decision making for future restoration initiatives. Using IRP and TRCA's Restoration Opportunities Database as planning tools, priority habitats and corridor linkages, that could contribute most to improving the natural system, can be protected, enhanced or rehabilitated.

8. Wildlife and Ecosystem Management Services

Urban areas can often create conditions that result in human-wildlife conflict. Examples of this range from the fouling of manicured areas by Canada Geese, to beaver dams that impound water, to road ecology issues. As experts in wildlife habitat, TRCA has the knowledge and experience to undertake site specific management and reduce conflict. In most cases, human/wildlife conflict can be mitigated by undertaking appropriate ecosystem management measures, as well as education, rather than managing the wildlife itself. For example, vegetation impacts caused by white-tailed deer herbivory can usually be addressed through exclusion techniques that prevent deer access to vegetation. Wildlife mortality (i.e., small mammals and reptiles) due to vehicles can be mitigated through the proper design and installation of eco-passages and associated fencing. Wildlife management also includes a significant educational component to improve understanding, awareness and tolerance of urban wildlife, as well as to ensure the public understands actions, they can take to improve their safety (i.e., coyote encounters).

9. Trails and Facilities, Design, Permitting and Construction

As one of the largest landowners in the Greater Toronto Area, TRCA is a leader in the planning, design, implementation and management of trails and associated infrastructure that provide safe, enjoyable recreational trail experiences for area residents and visitors. These offerings are developed such that the natural and cultural heritage resources are protected. TRCA's trail management activities also complement TRCA's aim to provide nature-based recreation experiences for a growing population while protecting and restoring the form and function of existing ecological systems. This experience which includes designing, construction and permitting related to infrastructure and facilities could be utilized by the Garden in work on new facilities.

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Schedule "B" to MOU between TRCA and Toronto Botanical Garden

LETTER OF AGREEMENT TEMPLATE