

### Section I – ITEMS FOR BOARD OF DIRECTORS ACTION

**TO:** Chair and Members of the Board of Directors  
Friday, September 23, 2022 Meeting

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

**RE:** **ENDORSEMENT OF MINIMUM ACCESS STANDARDS**  
Endorsement of Recommended Minimum Standards for Student Access to Out-of-Classroom Learning from the Natural Science and Education Committee

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#### KEY ISSUE

Endorsement of minimum standards for student access to out-of-classroom learning related to natural science, conservation and the environment, as recommended by the Natural Science and Education Committee (NSEC).

#### RECOMMENDATION:

**WHEREAS at Meeting #2/21 held on February 26, 2021, TRCA's Board of Directors endorsed the Final Report and Recommendations of the Outdoor Education Task Force, including Recommendation #1: Establishment of a Multi-stakeholder NSEC, as a sub-committee of TRCA's Board of Directors;**

**AND WHEREAS NSEC, as an advisory board of TRCA's Board of Directors, has been convened to make recommendations to TRCA related to the provision of out-of-classroom learning related to natural science, conservation and the environment;**

**AND WHEREAS the work of NSEC informs TRCA, school boards and government and agency partners on improvements and future needs as it pertains to the provision, planning or access for students to out-of-classroom learning related to natural science, conservation and the environment in the Greater Toronto Area;**

**AND WHEREAS at the NSEC meeting held on June 6, 2022 the Committee endorsed a series of proposed minimum standards for student access to out-of-classroom learning related to natural science, conservation and the environment to be considered by TRCA's Board of Directors;**

**THEREFORE LET IT BE RESOLVED THAT the enclosed minimum standards of student access, as recommended by NSEC, be endorsed;**

**THAT the NSEC report on Minimum Standards of Access be circulated to area School Boards, partner education-focused government ministries including the Provincial Ministers of Education and Environment Conservation and Parks, the federal Minister of Environment and Climate Change and crown agencies with an updated request for Provincial involvement in the next phase of Committee work.**

#### BACKGROUND

Since 1953, TRCA and area school boards have collaborated through formal partnerships on the delivery of out-of-classroom learning related to natural science, conservation, and the environment for students of the Greater Toronto Area. Over the last sixty (60) years, a robust system of learning centres has developed to support nature-based student learning in the out-

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of-doors, which currently consists of thirty (30) dedicated or purpose-built facilities operated by TRCA and area school boards. Of these thirty centres, eight are operated by TRCA and twenty-two (22) are operated by local school boards, of which sixteen (16) currently have some form of agreement with either a local conservation authority, regional municipality or the Government of Ontario for provision or access either to or of greenspace, or learning facilities, to support out-of-classroom learning for students.

Outdoor Education Centre	Operated By	Location	Type	Opened
School Board Operated Centre				
<i>Duffins Creek Environmental Education Centre</i>	DDSB	Claremont	Day	1989
Nonquon Environmental Education Centre	DDSB	Greenbank	Day	1977
Durham Forest Environmental Education Centre	DDSB	Goodwood	Overnight	1978
Old Britannia School House	PDSB	Mississauga	Day (Seasonal)	1982
Brittania Farm Field Centre	PDSB	Mississauga	Day (Seasonal)	1988
GW Finlayson Field Centre	PDSB	Orangeville	Day	1975
Jack Smythe Field Centre	PDSB	Terra Cotta	Day	1969
Silver Creek Outdoor Education Centre	DPCDSB	Belfountain	Day	1981
<i>Forest Valley Outdoor Education Centre</i>	TDSB	Toronto	Day	1967
<i>Hillside Outdoor Education School</i>	TDSB	Toronto	Day	1975
Toronto Urban Studies Centre	TDSB	Toronto	Day	1978
Warren Park Outdoor Education Centre	TDSB	Toronto	Day	1972
<i>Etobicoke Outdoor Education Centre</i>	TDSB	Caledon	Overnight	1982
Island Natural Science Centre	TDSB	Toronto	Overnight	1960
Mono Cliffs Outdoor Education Centre	TDSB	Orangeville	Overnight	1986
Scarborough Outdoor Education School	TDSB	Kearny	Overnight	1978
Sheldon Centre for Outdoor Education	TDSB	Alliston	Overnight	1982
<i>Swan Lake Outdoor Education Centre</i>	YRDSB	Richmond Hill	Day	2016
<i>Milne Outdoor Education Centre</i>	YRDSB	Markham	Day	1990
Sibbald Point Outdoor Education Centre	YRDSB	Sutton	Day	2004
<i>Burlington Outdoor Education Centre</i>	YRDSB	Kleinberg	Day	1968
Vivian Outdoor Education Centre	YRDSB	Ballantrae	Day	1972
Conservation Authority Operated Centre				
<i>Kortright Centre for Conservation</i>	TRCA	Vaughan	Day	1979
<i>Tommy Thompson Park Education Programs</i>	TRCA	Toronto	Day (Seasonal)	2004
<i>Bruce's Mill Maple Syrup Programs</i>	TRCA	Stouffville	Day (Seasonal)	1968
<i>Claremont Nature Centre</i>	TRCA	Claremont	Overnight	1970
<i>Albion Hills Field Centre/Conservation Area</i>	TRCA	Caledon	Overnight/Day	1963
<i>Lake St. George Field Centre</i>	TRCA	Richmond Hill	Overnight	1979

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<i>Black Creek Pioneer Village</i>	TRCA	Toronto	Day	1960
<i>Claireville Nature School</i>	TRCA	Brampton	Day	2021

\*School board centres denoted in *italics* located on or adjacent to TRCA greenspace

### Outdoor Education Task Force

At Meeting #6/18 on July 20, 2018, TRCA Board of Directors approved the establishment of an Outdoor Education Task Force (Task Force) with an eighteen (18) month mandate to study, develop, and recommend strategic future directions related to out-of-classroom learning related to natural science, conservation and the environment in the Greater Toronto Area (GTA), specifically including Peel, York and Durham Regions and the City of Toronto.

Comprised of School Board Trustees and TRCA Board Members, the Task Force recognized in its deliberations an inconsistency across school boards in the ability and capacity to deliver, or access, out-of-classroom learning related to natural science, conservation and the environment for students that meet curricular expectations. Through the work of the Task Force, it was also identified that principles of inclusion and equity of access were integral to the strengthening of the out-of-classroom learning system and programs. To this end, the Task Force recommended that standards be established that provide for a minimum base for out-of-classroom learning experiences related to natural science, conservation and the environment for students, and that these essential experiences be curriculum-linked via a scope and sequence and reflect the Task Force's expectations related to equitable inclusion and student-centred perspectives.

The system of out-of-classroom learning centres and facilities referenced above, specifically the thirty education centres owned and/or operated by TRCA and area school boards, represents a significant suite of publicly owned assets that meet the needs of students from area school boards on a daily basis in providing curriculum-linked experiential learning related to natural science, conservation and the environment. While this system is enabled through Section 197 of the Education Act, which makes provisions for a conservation authority and school board to establish a formal agreement for the provision of greenspace, facilities or instructional services related to out-of-classroom learning, as recognized by the Task Force, there is no specific standards for student access to out-of-classroom learning.

At Meeting #2/21 held on February 26, 2021, TRCA's Board of Directors endorsed the Final Report and Recommendations of the Outdoor Education Task Force,

*Recommendation #1: Establish Shared Governance Model – Natural Science and Education Committee as a Subcommittee of Toronto and Region Conservation Authority's Board of Directors*

*Recommendation #2: Establish Consistent Access and Curricular Standards Across TRCA and School Boards*

*Recommendation #3: Establish a Unified Performance Measurement System*

*Recommendation #4: Advance Shared-Ownership and Access Models That Enhance and Sustain an Overall Out-Of-Classroom Learning System*

*Recommendation #5: Develop a Long-Term Equitable Access Financial Plan*

Recommendation #2 related to the establishment of consistent standards focused on ensuring equitable access to out-of-classroom learning related to natural science, conservation and the

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environment for students from all school boards. It further sought to root these standards in a consistent and common curricular framework as well as grounding the learning in real-world applied conservation and environmental science, of which TRCA is the leading local agency. Additionally, the Task Force acknowledged the importance of harmonizing policy, funding, curriculum and risk management practices to both ensure the overall efficacy of learning for students accessing out-of-classroom learning related to natural science, conservation and the environment, as well as facilitating the ease of access for these experiences.

### Natural Science and Education Committee

Building on the outcomes and recommendations of the Outdoor Education Task Force, the Natural Science and Education Committee, as an advisory board of TRCA's Board of Directors, provides a multi-stakeholder governance framework to advance shared objectives pertaining to out-of-classroom learning related to natural-science, conservation and the environment in the Greater Toronto Area. There has historically been no formalized collaborative mechanism to foster, develop and strengthen partnerships between school boards and conservation authorities to support and enhance student learning in the out-of-doors. TRCA's Board of Directors, through the Natural Science and Education Committee, provides leadership in leveraging the value of the publicly built and operated system that supports out-of-classroom learning related to natural science, conservation and the environment more effectively, while also ensuring the current and future learning needs of GTA students are met.

The current Natural Science and Education Committee is comprised of the following members appointed by TRCA's Board of Directors:

#### School Board Trustees:

Mr. Stan Cameron, Peel District School Board  
Mr. Nadeem Mahmood, York District School Board  
Mr. Garry Tanuan, Toronto Catholic District School Board  
Mr. Thomas Thomas, Dufferin-Peel District School Board  
Ms. Jennifer Wigston, York Catholic District School Board  
Ms. Manna Wong, Toronto District School Board

#### Youth Representatives:

Ms. Alissa Gallizzi  
Mr. Sam Matrosov

#### TRCA Board Members:

Ms. Xiao Han  
Ms. Connie Tang

As an advisory board of TRCA's Board of Directors, NSEC has a mandate to:

*Study and make recommendations to the Board of Directors of TRCA regarding recommendations to TRCA and government and agency partners on improvements and future needs as it pertains to the provision, planning or access for students to out-of-classroom learning related to natural science, conservation and the environment in the Greater Toronto Area region.*

The objectives of NSEC are to advise TRCA and partner agencies on the effective implementation and advancement of the recommendations of the Outdoor Education Task Force. This report on Minimum Standards for Student Access to Out-of-Classroom Learning is

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the first of a series of reports and recommendations to TRCA's Board of Directors from the Natural Science and Education Committee intended to advance the shared goals of TRCA and area school board partners in achieving the above mandate.

### RATIONALE

#### School Board Policy Scan

To begin to address Recommendation #2 of the Task Force and inform the work of the Natural Science and Education Committee, TRCA staff completed a scan of school board policies and enabling instruments related to out-of-classroom learning. Through this scan it was identified that all area school boards have Excursion Policies, and all area school boards have some form of subsidy available for out-of-classroom learning. Furthermore, as outlined below in the following summary, five of the eight school boards have existing agreements with either TRCA or other government agencies or organizations for the provision of out-of-classroom learning related to natural science, conservation and the environment.

School Board	Excursion Policy Date	Target Grades	Subsidy Available	Owned Centres	Lease or Agreement with TRCA	Lease or Agreement with Other
DDSB	Yes (internal access only)	Yes	Yes	Yes	Yes	Yes
DCDSB	2019		Yes			
DPCDSB	2019		Yes			Yes
PDSB	2018		Yes	Yes		
TCDSB	2019	Yes	Yes		Yes	Yes
TDSB	2019	Yes	Yes	Yes	Yes	Yes
YCDSB	2020		Yes			
YRDSB	2021	Yes	Yes	Yes	Yes	Yes

Further to the above, staff completed a scan of area school boards objectives related to out-of-classroom learning to better understand target grades for these curriculum-linked experiences and inform the establishment of minimum standards for access. While all area boards have enabling excursion policies, as outlined below, there is no consistent approach to determining grades that receive out-of-classroom learning experiences related to natural science, conservation and the environment.

School Board	JK/SK	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Secondary
DDSB			Current focus is on grades 2-12. Previously grades 3, 6 (overnight) and secondary were targeted.							
DCDSB										
DPCDSB										
PDSB										
TCDSB	Every other year									
TDSB	Two (2) day visits between grades K-8, and one (1) overnight experience between grades 5-8.									
YCDSB										
YRDSB			X		X			X		

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As per the recommendations of the Task Force, a key activity of the Natural Science and Education Committee is to build on existing supportive school board policies and provide recommendations to TRCA's Board of Directors and area school boards on consistent standards for student access to out-of-classroom learning related to natural science, conservation and the environment in the Greater Toronto Area. As identified in the preceding chart, only three of the eight area school boards have formal expectations for access and only YRDSB specifically targets identified grades for access to excursions. Boards that do not specifically target grades generally provide opportunities for teachers and classes in all or various grades to access learning facilities. However, while opportunities for student learning experiences exist and are encouraged across all boards, including subsidies in various forms, there is no consistent rationale underpinning the system at large, which was a key gap identified by the Task Force and again outlined here.

### Proposed Minimum Standards Framework

Out-of-classroom learning related to natural science, conservation and the environment is foundational to broader learning objectives in the Elementary Science and Technology Curriculum as well as the Grade 9 and 10 Science Curriculum. As with other curricular areas, to be effective, natural science, conservation and environmental learning must be sequential, integrated and provide for repeated exposure. Furthermore, out-of-classroom learning experiences provide multiple benefits to student development by contextualizing curriculum in ways that cannot be done in the classroom – a highly trained teaching professional in a natural system, supported by real-world science practitioners, can accelerate student understanding of complex concepts and interactions through experiential learning.

Within their final report, the Task Force acknowledged the importance of harmonizing policies in support of student access to out-of-classroom learning related to natural science, conservation, and the environment. Consistent curricular and access standards across school boards will ensure students have equitable access and create a framework for assessing and developing the broader out-of-classroom learning system that supports student success in this area. In the absence of a coordinated framework or minimum standards for access to out-of-classroom learning related to natural science, conservation and the environment, continued inequity, or inconsistency amongst and between jurisdictions will persist. However, given that all school boards have excursion policies in place, as well as provide some form of subsidy, there is a strong foundation of shared principles and practices upon which to build.

To this end, the following is a recommended framework for minimum standards of access for students in area school boards:

Elementary Science and Technology Curriculum			
Grade	Type	Understanding Life Systems	Understanding Earth and Space Systems
Grade 2	Day	Growth and Changes in Animals	Air and Water in the Environment
Grade 4	Day	Habitats and Communities	
Grade 7	Overnight	Interactions in the Environment	
Secondary Science Curriculum			
Grade	Type	Biology	Earth and Space Science
Grade 9	Day	Sustainable Ecosystems	

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The above framework for minimum standards of access for students will achieve the following:

1. Aligns out-of-classroom learning experiences related to natural science, conservation and the environment with specific curricular expectations;
2. Cross-supports curriculum and learning in Grades 3, 5, 6, 8 and 10, creating opportunities for leveraged learning both in the classroom and in the schoolyard or community;
3. Creates a consistent and clear system that ensures equitable access for all students in the GTA while supporting improved system planning and resourcing GTA-wide.

It should be noted the establishment of minimum standards does not preclude school boards from scaling activities above and beyond the proposed framework and locally developed opportunities to enhance, augment and support student learning within the classroom, school, school yard and community are an essential element of future collaboration between and amongst the key stakeholders in this area of learning. The proposed minimum standards provide a starting point from which to ensure consistent access for all students while fostering improved partnerships between public sector agencies such as school boards and conservation authorities in meeting student learning needs in an efficient, effective manner.

### Supportive and Cross-Enable Learning

To further support, augment, enhance and cross-enable learning beyond the minimum standards as outlined above, the Natural Science and Education Committee also identified a need to integrate beyond the minimum standards to other elements of the broader education system. These areas will be considered during the next term of the Natural Science and Education Committee, commencing in 2023.

- Development of increased Professional Development and Professional Learning supports for in-service teachers to better enable instruction related to natural science, conservation and the environment, including the development of PD Day curriculum and an AQ course. Professional Development should be undertaken on an ongoing basis and integrated into any expanded partnership model and agreements with and between school boards and TRCA;
- Enhanced focus on engaging with Faculties of Education to ensure pre-service teacher candidates are afforded an appropriate level of instruction on teaching natural science, conservation and the environment curriculum both in the classroom and in the school yard or local community;
- Curating classroom and teaching resources and extension materials for teachers that leverage student experiences in nature while contextualizing learning related to natural science, conservation and the environment within the classroom or schoolyard setting;
- School boards and TRCA to continue to work with EcoSchools Canada and other organizations focused on advancing school group greening initiatives to improve the natural heritage and learning value of local school yards;
- Improved connectivity between schools and local greenspaces, including active transportation routes to local greenspaces that support teacher-led learning related to natural-science, conservation and the environment on a regular basis in the communities where students reside and learn. Supportive resources and training are necessary for this recommendation;
- Expansion of TRCA's Watershed on Wheels program, or other similar natural-science based in-class programs, to schools, classes and grades not covered by the proposed minimum-standards to allow for improved learning throughout a student's career;

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- For high school students, increasing awareness for educators and students on course opportunities offered by TRCA (e.g., Boyd Archaeological Field School) and volunteer activities (e.g., Regional Watershed Alliance Youth Council) in support of their learning and volunteer credit objectives;

### **Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan**

This report supports the following strategies set forth in the TRCA 2013-2022 Strategic Plan:

**Strategy 3 – Rethink greenspace to maximize its value**

**Strategy 5 – Foster sustainable citizenship**

**Strategy 7 – Build partnerships and new business models**

### **DETAILS OF WORK TO BE DONE**

With a consistent set of minimum standards for access to out-of-classroom learning, the broader system of school boards, conservation authorities and other government agencies can better coordinate resources and assets as well as identify and allocate long-term funding in support of these activities at the same time as realizing improved operational efficiencies and measuring overall performance. Furthermore, this set of minimum standards is forward-looking in recognizing a continued need for student learning experiences within nature or natural environments as the GTA continues to urbanize and grow and the pressing challenges of climate change remain.

Following endorsement of the above framework, TRCA staff will work with area school boards to undertake a detailed assessment of the out-of-classroom learning system including existing capacity for implementation of the minimum standards, gap analysis by grade level of the framework, as well as initial system-wide strategic recommendations related to meeting current and future student learning needs where gaps remain or exist. Ideally, each school board in TRCA's jurisdiction would endorse these standards and develop an implementation plan to achieve them supported by the Province.

In addition to Task Force Recommendation #2 related to consistent access and curricular standards for student learning in the out-of-doors, the Task Force and TRCA's Board of Directors endorsed the following recommendations:

*Recommendation #3: Establish a Unified Performance Measurement System*

*Recommendation #4: Advance Shared-Ownership and Access Models That Enhance and Sustain an Overall Out-Of-Classroom Learning System*

*Recommendation #5: Develop a Long-Term Equitable Access Financial Plan*

With endorsement of a minimum access and curricular standards, the Committee can begin work on Recommendations #4 and #5 with support from TRCA staff and the Natural Science and Education Staff Working Table, following which specific performance measures as per Recommendation #3 can be developed.

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