

## Item 8.2

### Item for the Information of the Regional Watershed Alliance

**TO:** Chair and Members of the Regional Watershed Alliance  
Wednesday, September 18, 2024 Meeting

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

**RE: INFORMATIONAL UPDATE ON THE WORK OF THE NATURAL SCIENCE AND EDUCATION COMMITTEE**

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#### **KEY ISSUE**

Update on the work of the Natural Science and Education Committee (NSEC), a multi-stakeholder advisory committee of Toronto and Region Conservation Authority's (TRCA) Board of Directors.

#### **RECOMMENDATION:**

**THAT the Regional Watershed Alliance (RWA) receive the informational report providing and update on the work of NSEC.**

#### **BACKGROUND**

##### TRCA's Role in Outdoor Education

TRCA has worked with local schools and school boards to provide outdoor education programs and services since 1953. Currently, TRCA is one of Ontario's largest providers of out-of-classroom experiential learning with over 155,000 students engaging in TRCA learning programs annually through a network of education centres, conservation areas and local greenspaces, in addition to in-school programs. TRCA educational offerings are curriculum-linked and enable student learning related to a wide range of subjects that meet curricular objectives while advancing TRCA strategic goals and supporting TRCA's core mandate.

Enabling TRCA's work with area school boards work, Section 197 of the Education Act (RSO 1990) provides for school boards to enter into agreements with conservation authorities for the purposes of providing out-of-classroom learning related to natural science, conservation, or other out-of-classroom programs, including the use of lands, buildings, and personnel for the purposes of providing natural science, conservation, or other out-of-classroom programs.

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The following is a full listing of out-of-classroom learning centres operated by Greater Toronto Area (GTA) School Boards and TRCA. TRCA owns and operates eight (8) out-of-classroom learning centres and an additional eight (8) of the twenty-two (22) school board owned or operated out-of-classroom learning centres are either on or adjacent to greenspace or natural lands owned by TRCA, with two additional centres on or adjacent to lands owned by Credit Valley Conservation (CVC).

<b>Outdoor Education Centre</b>	<b>Operated By</b>	<b>Location</b>	<b>Programme</b>	<b>Opened</b>
<b>School Board Operated Centre</b>				
<i>Duffins Creek Environmental Education Centre</i>	<i>DDSB</i>	<i>Claremont</i>	<i>Day</i>	<i>1989</i>
Nonquon Environmental Education Centre	DDSB	Greenbank	Day	1977
Durham Forest Environmental Education Centre	DDSB	Goodwood	Day	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
<i>Jack Smythe Field Centre</i>	<i>PDSB</i>	<i>Terra Cotta</i>	<i>Day</i>	<i>1969</i>
<i>Silver Creek Outdoor Education Centre</i>	<i>DPCDSB</i>	<i>Belfountain</i>	<i>Day</i>	<i>1981</i>
<i>Forest Valley Outdoor Education Centre</i>	<i>TDSB</i>	<i>Toronto</i>	<i>Day</i>	<i>1967</i>
<i>Hillside Outdoor Education School</i>	<i>TDSB</i>	<i>Toronto</i>	<i>Day</i>	<i>1975</i>
Toronto Urban Studies Centre	TDSB	Toronto	Day	1978
<i>Warren Park Outdoor Education Centre</i>	<i>TDSB</i>	<i>Toronto</i>	<i>Day</i>	<i>1972</i>
<i>Etobicoke Outdoor Education Centre</i>	<i>TDSB</i>	<i>Caledon</i>	<i>Overnight</i>	<i>1982</i>
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

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Outdoor Education Centre	Operated By	Location	Programme	Opened
School Board Operated Centre				
Sheldon Centre for Outdoor Education	TDSB	Alliston	Overnight	1982
<i>Swan Lake Outdoor Education Centre</i>	YRDSB	<i>Richmond Hill</i>	<i>Day</i>	2016
<i>Milne Outdoor Education Centre</i>	YRDSB	<i>Markham</i>	<i>Day</i>	1990
Sibbald Point Outdoor Education Centre	YRDSB	Sutton	Day	2004
<i>Burrington Outdoor Education Centre</i>	YRDSB	<i>Kleinburg</i>	<i>Day</i>	1968
Vivian Outdoor Education Centre	YRDSB	Ballantrae	Day	1972
TRCA Operated Centre				
Kortright Centre for Conservation	TRCA	Vaughan	Day	1979
Tommy Thompson Park Education Programs	TRCA	Toronto	Day	2004
Bruce's Mill Nature Centre	TRCA	Stouffville	Day	2023
Claremont Nature Centre	TRCA	Claremont	Overnight	1970
Albion Hills Field Centre/Conservation Area	TRCA	Caledon	Overnight/Day	1963
Lake St. George Field Centre	TRCA	Richmond Hill	Overnight	1979
Black Creek Pioneer Village	TRCA	Toronto	Day	1960
Claireville Outdoor Education Centre	TRCA	Brampton	Day	2021

*Italics identifies school board operated centres located either on or adjacent to TRCA or other conservation authority land.*

As noted above, it is through Section 197 of the Education Act that the current system of natural science schools, outdoor education centres, environmental education centres and conservation field centres that facilitate student out-of-classroom learning has developed, and from which future agreements for the continued and expanded delivery of out-of-classroom learning experiences will emanate. This legislation provides the framework for shared ownership and shared delivery models that leverage the value of public assets, including buildings, personnel, and greenspace.

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TRCA and local school boards have a strong history of utilizing Section 197 of the Education Act to facilitate shared use of facilities and greenspace for out-of-classroom learning experiences related to natural science, conservation, and the environment specifically, as well as community use of assets and resources, such as schools, facilities, and services, through multi-partite agreements. This shared history forms the foundation for a renewed approach to collaboration that optimizes use of public assets, including education centres, personnel, and local greenspace, in a way that is centred on the student experience.

Examples of TRCA/School Board agreements that enable out-of-classroom learning related to natural science, conservation and the environment include:

- Lake St. George Field Centre: Historically operated by TRCA under a multi-partite agreement with TDSB, TCDSB and YRDSB. Currently open to all school boards, with agreements with TCDSB, YRDSB and YCDSB. TRCA provides instruction and learning services. (Humber River Watershed, York Region);
- Burlington Outdoor Education Centre: Owned and operated by YRDSB, with an agreement for use of 68 acres of adjacent Nashville Conservation Reserve greenspace owned by TRCA. (Humber River Watershed, York Region);
- Etobicoke Outdoor Education Centre: Overnight centre owned and operated by TDSB, within TRCA's Albion Hills Conservation Area, adjacent to TRCA's Albion Hills Field Centre, under a land lease with TRCA. Under the agreement, TRCA also provides food service for visiting TDSB students. (Humber River Watershed, Peel Region);
- Swan Lake Outdoor Education Centre: Operated by YRDSB within TRCA's Dave Barrow Centre at Swan Lake. Purpose built by TRCA on behalf of YRDSB in 2012, the Swan Lake Outdoor Education Centre on the eastern edge of the Oak Ridges Moraine Corridor Park (Humber River Watershed, York Region); and
- Duffins Creek Outdoor Education Centre: Day Centre operated by DDSB within TRCA's Claremont Forest and Wildlife Area. Building owned by DDSB with property maintenance provided by TRCA. (Duffins Creek Watershed, Durham Region).

### Outdoor Education Task Force

At Meeting #6/18 on July 20, 2018, TRCA's Board of Directors approved the establishment of an Outdoor Education Task Force (OETF) comprised of Trustees from area school boards and representatives from TRCA's Board of

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Directors. OETF was convened with an eighteen (18) month term and mandate to study, develop, and recommend strategic future directions related to out-of-classroom learning as it pertains to natural science, conservation and the environment in the GTA, specifically including Peel, York and Durham Regions and the City of Toronto.

TRCA's Board of Directors convened OETF as a multi-stakeholder approach to identifying opportunities that will sustain the current system of publicly built and operated school board and conservation authority out-of-classroom learning centres and programs into the future.

OETF was comprised of the following School Board Trustees and TRCA Board members:

- Durham Catholic District School Board: Trustee Morgan Ste. Marie
- York Region District School Board: Trustee Cynthia Cordova
- York Catholic District School Board: Trustee Jennifer Wigston
- Peel District School Board: Trustee Will Davies
- Dufferin-Peel Catholic District School Board: Trustee Frank Di Cosola
- Toronto District School Board: Trustee Anu Sriskandarajah
- Toronto Catholic District School Board: Trustee Garry Tanuan
- Conseil scolaire catholique MonAvenir: Chair Melinda Chartrand
- TRCA (City of Brampton): Regional Councillor Rowena Santos
- TRCA (City of Toronto): Mr. Basu Mukherjee

On January 25, 2021, OETF completed its work and submitted a Vision Statement and Strategic Recommendations for review and endorsement by TRCA's Board of Directors (Attachment #1: Final Report: Vision Statement and Strategic Recommendations of Outdoor Education Task Force, and Attachment #2: Toronto and Region Conservation Authority Outdoor Education Task Force Vision Statement). OETF Vision Statement and Strategic Recommendations form the basis for strengthened collaboration amongst and between TRCA and area school boards as well as other learning organizations within the broader public sector.

A key goal of OETF was to build on Section 197 of the Education Act, which provides for partnerships between school boards and conservation authorities related to natural science and conservation education activities, and establish mechanisms to better leverage the public learning assets and natural resources of both school boards and conservation authorities while maximizing

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the use of finite financial public and private funding in delivering important nature-based out-of-classroom learning experiences for students of GTA watersheds and school boards.

TRCA's Board of Directors, at its meeting held on February 26, 2021, adopted Resolution #A17/21 endorsing the vision statement and the following five recommendations in order to strengthen and revitalize the out-of-classroom system:

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

### Natural Science and Education Committee

Central to OETF recommendations was the establishment of NSEC as a standing committee of TRCA's Board of Directors to provide a shared governance framework that advances the recommendations of OETF. TRCA has historically brought key stakeholders together as necessary for important discussions related to the segment of the formal education system that relates to natural science, conservation and the environment, most recently through OETF. The convening of NSEC was seen as an essential component of TRCA's work as a leader in this field by members of OETF. To this end, at TRCA's Board of Directors Meeting held on May 28, 2021, RES.#A107/21 was approved, in part, as follows:

...THAT the Natural Science and Education Committee be established;

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...THAT a formal request for representation on the Natural Science and Education Committee be made to member organizations.

At TRCA Board of Director's Annual Meeting held on January 13, 2023 appointments to NSEC were confirmed, with the following School Board and TRCA Board Members currently serving as Committee Members:

### School Board Trustees:

Thomas Thomas, Dufferin-Peel District School Board  
Stan Cameron, Peel District School Board  
Pamela McCarthy, York District School Board  
Garry Tanuan, Toronto Catholic District School Board  
Angela Grella, York Catholic District School Board  
Anu Sriskandarajah, Toronto District School Board  
Deborah Oldfield, Durham District School Board  
Monique Forester, Durham Catholic District School Board

### TRCA Board Members:

Mayor David West, Richmond Hill  
Councillor Jamaal Myers, City of Toronto  
Ms. Connie Tang, City of Toronto

Since being convened, NSEC has focused specifically on implementation of the recommendations of OETF.

At Meeting #3/22 held on June 6, 2022, in response to Recommendation #2 of OETF, NSEC endorsed a series of minimum standards for student access to out-of-classroom learning related to natural science, conservation and the environment. These standards focused on Grades 2, 4, 7 and 9 due to the strong curricular links.

<b>Elementary Science and Technology Curriculum</b>			
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	

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Secondary Science Curriculum			
Grade	Type	Biology	Earth and Space Science
Grade 9	Day	Sustainable Ecosystems	

As with other curricular areas, to be effective, natural science, conservation and environmental learning must be sequential, integrated and provide for repeated exposure. Based on this principle, the minimum standards for access to out-of-classroom learning related to natural science, conservation and the environment were developed to provide a consistent approach to ensuring equitable access to students from all eight area school boards. The minimum standards achieve the following key objectives:

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; and
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.

In order to sustain and ensure the future provision of out-of-classroom learning for students related to natural science, conservation and the environment, as well as support the implementation of minimum standards of access for students, OETF recognized the importance of stable, long-term funding. This was emphasized in the Final Report of the Task Force, specifically in Recommendation #5: Develop a Long-Term Equitable Access Financial Plan.

A key activity of the workplan for NSEC has been to develop a costing of the implementation of the Minimum Standards for Student Access, as endorsed at Meeting #3/22 held on June 6, 2022. The following is a budget framework for each grade covered under the Minimum Standards:



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	Grade 2	Grade 4	Grade 7	Grade 9	Totals
<b>Number of Students</b>	55,020	58,330	59,040	62,160	234,550
<b>Estimated Cost per Student w/ Busing</b>	\$ 50.00	\$ 50.00	\$ 325.00	\$ 65.00	\$490
<b>Cost per Grade</b>	\$ 2,751,000	\$ 2,916,500	\$ 19,188,000	\$ 4,040,400	\$ 28,895,900

The Ministry of Education currently provides outdoor education funding for school boards through the Grants for Student Needs (GSN) program. The GSN funding is calculated based on enrolment and other data provided by school boards. The Outdoor Education allocation is contained within the Experiential Learning Envelope, along with the Specialist High Skills Major allocation and the Experiential Learning allocation. For the 2023/2024 school year, the Experiential Learning (EL) Envelope provides \$85.8 million in funding for school boards, of which \$17.7 million is specifically identified for Outdoor Education, calculated and allocated at \$5,000 per school board + (\$8.51 x ADE<sup>1</sup>). Under this formula the eight GTA school boards that TRCA works with receive approximately \$7 million in direct Ministry of Education funding for outdoor education, resulting in a \$21 million funding gap in executing the minimum standards as endorsed by the Natural Science and Education Committee.

Given that the total cost of delivering on the endorsed minimum standards, NSEC has begun development of an advocacy campaign to raise awareness of the importance of out-of-classroom learning related to natural science, conservation and the environment, as well as the financial requirements of delivering on this for students of the GTA. This advocacy agenda also proposes to roll the minimum standards up to a Province-wide program that benefits all students in Ontario, which would result in 580,000 students a year receiving dedicated, supported learning experiences related to Ontario's rich

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<sup>1</sup> Average Daily Enrolment (ADE) is the calculation of the number of students enrolled in a school based on two count dates within the academic year – October 31st and March 31st. The ADE total is calculated by averaging enrolment at the school during these two time periods and is meant to capture the second semester decline in enrolment as a result of students who graduated at the end of the first semester and have left the system.

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natural resources and the complex ecosystems that they are comprised of the unique science-focused approach to managing them.

### **RATIONALE**

Building on the outcomes and recommendations of OETF, NSEC 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 GTA. There is currently no formalized collaborative mechanism to foster, develop and strengthen partnerships between school boards and conservation authorities to support and enhance student learning in out-of-doors. By bringing together key stakeholders, including TRCA, area school boards, the Ministry of Education and other key stakeholders, TRCA and school board partners are better able to leverage 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 are met.

### **Relationship to TRCA's 2023-2034 Strategic Plan**

This report supports the following Pillars and Outcomes set forth in TRCA's 2023-2034 Strategic Plan:

#### **Pillar 3 Community Prosperity:**

3.1 Connect communities to nature and greenspace

#### **Pillar 3 Community Prosperity:**

3.2 A culture of diversity, equity and inclusion contributing to community well-being

#### **Pillar 3 Community Prosperity:**

3.3 Informed citizens are conservation champions

#### **Pillar 3 Community Prosperity:**

3.4 Inspired communities take environmental action

### **FINANCIAL DETAILS**

There are no direct financial implications or costs associated with this report to the Regional Watershed Alliance.

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

TRCA staff will continue to update the Regional Watershed Alliance as appropriate on ongoing advocacy work and opportunities for RWA to support

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awareness building of the work of NSEC, TRCA and participating school boards, including the financial needs for meeting the minimum standards of student access.

**Report prepared by: Darryl Gray, Director, Education and Training**

**Email: [darryl.gray@trca.ca](mailto:darryl.gray@trca.ca)**

**For Information contact: Darryl Gray, (416) 791-0327**

**Email: [Darryl.Gray@trca.ca](mailto:Darryl.Gray@trca.ca)**

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