

Section III – Items for the Information of the Board

TO: Chair and Members of the Executive Committee
Friday, February 11, 2022 Meeting

FROM: Anil Wijesooriya, Director, Restoration and Infrastructure

RE: **2021 ECOSYSTEM COMPENSATION PROGRAM SUMMARY REPORT**

KEY ISSUE

Annual report to the Executive Committee on TRCA's Ecosystem Compensation Program using summary statistics from TRCA's ecosystem compensation database. The report contains a summary of outcomes and performance of the program with recommendations for improvement where needed.

RECOMMENDATION

IT IS RECOMMENDED THAT the 2021 Compensation Summary Report (January 2022) Appendix 1 to this report be received.

BACKGROUND

At Authority Meeting #5/18, held on June 22, 2018, Resolution #A85/18 was approved as follows:

THAT staff be directed to track compensation where TRCA is implementing the compensation actions and report to the Authority on project outcomes, financial accounting and overall program successes;

Ecosystem compensation has been used as a tool to help address unavoidable natural feature and natural heritage land base losses due to land use changes under the Planning Act, Conservation Authorities Act, and Environmental Assessment process for public infrastructure projects. TRCA formalized the use of compensation within the 2014 TRCA Living City Policies (RES.#A186/14), and in June 2018 adopted TRCA's Guideline for Determining Ecosystem Compensation (RES.#A85/18) (referred to as the "Guideline"), and the Ecosystem Compensation Management Framework in 2019 (referred to as the "Framework").

TRCA works with public agencies and our municipal partners to find opportunities to replace lost natural features and add lands back to the natural heritage system. TRCA has managed compensation as an effective tool resulting in positive outcomes when compensation is required as a last resort and where TRCA has received cash-in-lieu for implementing offsets. TRCA's compensation program is recognized as a leading model that can be applied by municipalities, Conservation Authorities, and other partner agencies.

As a part of the governance structure outlined in the Framework, regular annual reporting is to be brought to the TRCA Executive Committee and Board of Directors summarizing the status of compensation projects implemented by TRCA, providing an update on the program successes and challenges, and outlining recommendations for future program improvements.

2021 Compensation Program Summary

Since 2017, TRCA has received \$11,789,000 in compensation funds for natural feature restoration (\$10,841,000) and land acquisition (\$948,000) of which \$10,814,000 is projected to be spent by the end of 2021, including \$638,700 used to acquire lands. Remaining funds received to date are allocated to specific projects for planning, implementation, monitoring, maintenance, and future lands acquisitions.

Highlights of the Compensation Program in 2021 include:

- TRCA received \$2,608,000 as compensation funds from 16 compensation projects including \$94,000 for land base compensation
- TRCA allocated \$3,777,000 in compensation funds received to date, which includes funds from previous years, to plan and implement 109 restoration projects. Of the funds expended this year, \$495,000 will be allocated to acquire one new property
- TRCA completed and commenced implementation on 50 restoration projects, totaling 18.4 ha of terrestrial habitat and 2,183 linear metres of aquatic/riparian habitat costing.
- 100% of the projects were in the same municipality as the impact and 92% were in the same watershed

TRCA's Guideline adopted the objective of "no net loss" and this principal remains a critical test of the success of the program. Natural feature losses and gains for compensation projects where funds were received by TRCA over the last four years are summarized in Table 1 below. Since 2018, there is a projected net gain for terrestrial habitat of 22.7 hectares and aquatic habitat of 145.3 metres. This gain is a result of reinvesting surplus funds from implemented projects where efficiencies were realized, which is detailed further in the full summary report. There is however a projected net loss in the meadow category, where insufficient funds were received to offset losses. This issue has been corrected for future meadow compensation by updating the true cost for meadow restoration.

Table 1 – Natural feature losses and gains for compensation projects where funds were received between 2018-2021

Compensation Type	Stream (m)	Forest (ha)	Wetland (ha)	Riparian (ha)	Meadow (ha)	Total Terrestrial (ha)
Restoration Required	14.7	21.8	20.5	0.6	12.6	55.6
Total Restoration Secured with Project and Surplus Funds (Completed + Future)	160.0	34.9	31.6	6.2	5.5	78.3
Restoration Balance	145.3	13.1	11.1	5.6	-7.1	22.7

In addition to restoring the structure of the lost habitat, it is also critical to ensure the overall land base of the protected natural system is not reduced over time. Some of the restoration outlined above is occurring on lands TRCA owned prior to the impact. Therefore, although there is a net gain in habitat, there remains a net loss in the overall land base of the natural system. Securing new lands for habitat restoration through the compensation process remains a challenge. Despite these challenges there have been some successful land base outcomes. Between 2020 and 2021 compensation funds were applied to two parcels to compensate for a

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0.7 hectare natural heritage land base loss which occurred between 2018 and 2021. These compensation funds were leveraged to secure a total of 62.6 ha of new land in TRCA ownership, of which 35.5 ha will be restored and added into the natural heritage system.

The assessment of TRCA restoration implementation turn-around timelines and time lags shows that TRCA has met the targets set out in the Framework of 2019. Some delays in 2021 were experienced in project implementation, however these are almost entirely attributed to projects associated with the Seaton Lands in Pickering due to delays coordinating access to these lands.

2021 Compensation Program Updates

Typical costs for all restoration types were reviewed and updated in 2021 by the Ecosystem Compensation Management Program Review Team and by TRCA Senior Leadership. Updates to costs include increases to equipment Vendor of Record (VOR) rates, salary rates, as well as improvements to restoration techniques based on actual field based implementation and monitoring results. The typical costs were analyzed against actual implementation costs for projects implemented over the last 5 years. Cost increases averaged 35%, and can be primarily attributed to inflation since 2017, administrative updates, and technical improvements informed by new science and best management practices. Typical designs, and components have been updated in the Guideline and costs are constantly reviewed as they are subject to change with market forces and supply chain concerns.

Standard compensation agreement templates have been developed and adopted which clearly identifies the loss to the natural system and requirement for compensation as per the Guideline. The agreement clearly identifies the compensation to be received as cash-in-lieu and how it is to be used, including the ability to reinvest unused funds towards further restoration in the area constant with the Framework.

A comprehensive Guideline review was initiated in 2021 to identify successes and challenges of its application, and to make recommendations for future improvements. To date, an internal review of the Guideline and an external expert review of the basal area approach to determining compensation ratios have been completed. The results of the review to date support the success of the Guideline in improving compensation outcomes including the continued use of basal area as a surrogate for ecosystem structure and function. The Guideline review will be completed in 2022 including seeking feedback from BILD and TRCAs municipal partners and engaging additional experts in the fields of wetland ecology and ecosystem offsetting. A report will be brought to the TRCA Board with the results of the review including recommendations for improving the Guideline.

The Guideline Review, the Framework document, and 2020 Annual Summary Report were presented to BILD in 2021. The Framework and Summary report were provided for comment. This external review will continue into 2022 with stakeholders such as BILD, TRCA partner municipalities, and industry experts. The results of the full Guideline review will be finalized in a report that is scheduled for completion in 2022.

RATIONALE

TRCA's Living City Policies and the Guideline firmly entrench the concept of compensation in the mitigation hierarchy, recommending feature removal with compensation only as a last resort, after all options for protection have been exhausted. The purpose of the Guideline is to provide guidance on how to determine the total amount of compensation required to replace lost or

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altered ecosystems. The guideline aims to streamline compensation decisions, as a last resort, through the planning process.

To ensure a coordinated, effective, transparent, accountable, and adaptive approach to this aspect of managing TRCA's Compensation Program, TRCA staff developed a governance document (the Framework). The Framework outlines the tools and processes used to apply funds that have come to TRCA through ecosystem compensation agreements. The Framework is to be applied in all cases where compensation funds are directed to TRCA (typically when off-site compensation is required), via an approved agreement, for ecological restoration projects and/or conservation land securement.

The Framework recognizes the collaborative nature of the compensation process, the varying roles of the parties involved, and the need for coordination, particularly with TRCA's municipal partners. Although the Framework focuses on TRCA's role in the process, the tools and approaches outlined can also be adapted and used by others to manage compensation decisions and actions.

The implementation of ecosystem compensation is complex and can vary from case to case. As such, it can be a challenge to achieve a consistent approach between the proponent and/or regulatory agency. The Guideline outlines a repeatable process for determining compensation requirements when an unavoidable natural feature loss is identified. A robust governance structure (Framework) is critical to ensure that compensation decisions and practices are applied fairly, consistently, accurately, openly, and efficiently.

Using performance measures is intended to highlight successes and challenges associated with implementing compensation, as well as the Ecosystem Compensation Program as a whole. The performance review also outlines clear recommendations that guide future actions and improve compensation practices.

The following table outlines the Framework goals, with measures that reflect those goals, and products that can be used to rate overall program performance. These measures have been used as the basis for the Compensation Program performance review.

Goal	Measure	Product
No Net Loss	<ul style="list-style-type: none">• Natural features and area losses compared to areas restored with compensation funds• The difference between the compensation area as determined by the Guideline compared to what is agreed to by all parties involved	<ul style="list-style-type: none">• Calculations of losses vs. restored• Projects and Compensation Databases• GIS layers• Agreement Template
Accountability	<ul style="list-style-type: none">• The degree to which the Framework is followed• Tracking decision making and accounting processes• Overall cost accounting to determine efficiencies in program execution	<ul style="list-style-type: none">• Financial reporting• Program reporting• Project briefs• Variance reporting for individual projects Rapid Restoration Assessments and monitoring

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Transparency	<ul style="list-style-type: none"> • The degree to which decisions, outcomes, processes, and results of program assessments are available to interested parties 	<ul style="list-style-type: none"> • Reporting to TRCA Executive and Board of Directors • Financial reporting • Rapid Restoration Assessments and monitoring
Consistency	<ul style="list-style-type: none"> • The difference between the compensation area as determined by the Guideline compared to what is agreed to by all parties involved 	<ul style="list-style-type: none"> • Adherence to standardized processes for determining compensation ratios and costing • Program reporting
Efficiency and Timeliness	<ul style="list-style-type: none"> • The overall length of time the compensation process is implemented • Overall timing from when funds are received for compensation to when feature restoration and land securement begins, is implemented and is complete following monitoring achieved 	<ul style="list-style-type: none"> • Adherence to clearly stated timeline • Variance reporting • Project status tracking
Adaptability	<ul style="list-style-type: none"> • Whether a comprehensive and critical review of the compensation program is undertaken and opportunities for improvements are acted on. 	<ul style="list-style-type: none"> • Compensation program review and execution of recommendations • Reporting to TRCA Board of Directors • Workshops and stakeholder working groups

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 2 – Manage our regional water resources for current and future generations

Strategy 3 – Rethink greenspace to maximize its value

Strategy 4 – Create complete communities that integrate nature and the built environment

Strategy 9 – Measure performance

FINANCIAL DETAILS

Funds are acquired for compensation on a file-by-file basis as special project through cash-in lieu. Once an agreement is made between the proponent and TRCA, funds are invoiced and deposited in 119-99. Following the transfer, funds are typically deposited into a new or existing project account. If no project account has been initialized by year end, funds are transferred into a holding account for future project implementation (940-22) or land acquisition (940-26).

DETAILS OF WORK TO BE DONE

Informed by this summary report, there are several recommendations outlined below which will form the focus for program improvements over the course of 2022.

- Continue updating the Compensation database to improve reporting and incorporate more business units, including Property, Assets, and Risk management to track and map land base compensation decisions.
- Review the need for an internal playbook on how to track compensation due to TRCA led projects.

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- Review restoration typical costs to determine if a minimum cost per hectare can be developed to assist with negotiations for smaller natural feature impacts.
- Continue to provide support and engage with other levels of government, including our municipal partners and other conservation authorities, to help ensure that compensation across southern Ontario is undertaken in a consistent manner while recognizing regional differences in land-use changes.
- Engage and request comment from BILD, partner municipalities, and ecological experts on the application of the Compensation Guideline since the adoption in 2018.
- Investigate improvements to tracking land base losses that occur without compensation to represent natural heritage system losses more accurately.

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Attachments 1: 2021 Ecosystem Compensation Program Summary Report