



Natural Capital in the City of Mississauga

A Roadmap for Disclosing Nature

June 23, 2023

KPMG LLP

June 2023

This report contains 61 pages

KPMG-City of Mississauga Report

City of Mississauga

Restrictions on Use

This document has been prepared by KPMG LLP (“KPMG”) for The City of Mississauga (“The City” or the “Client”) pursuant to the terms of our contract issued under Procurement # PRC003555 (the “Engagement Agreement”).

KPMG neither warrants nor represents that the information contained in this document is accurate, complete, sufficient or appropriate for use by any person or entity other than the Client or for any purpose other than set out in the Engagement Agreement. This document may not be relied upon by any person or entity other than the Client, and KPMG hereby expressly disclaims any and all responsibility or liability to any person or entity other than the Client in connection with its use of this document.

The procedures we performed do not constitute an audit, examination, or review in accordance with standards established by the Chartered Professional Accountants of Canada, and we have not otherwise verified the information we obtained or presented in this document. We express no opinion or any form of assurance on the information presented in this document, and make no representations concerning its accuracy or completeness.

Our report is intended for the internal use of The City as outlined in our Engagement Agreement and it is not intended for general circulation or publication. We do not assume any responsibility or liability for losses occasioned to The City, its directors and shareholder, or to any other parties as a result of the circulation, publication, reproduction, or use of this report contrary to the provisions of this paragraph.

This report is based on information and documentation that was made available to KPMG at the date of this report. KPMG has not audited nor otherwise attempted to independently verify the information provided unless otherwise indicated. Should additional information be provided to KPMG after the issuance of this report, KPMG reserves the right (but will be under no obligation) to review this information and adjust its comments accordingly.

City of Mississauga

Contents

1	Executive Summary	5
2	Introduction	7
2.1	Objective of this Report	7
2.2	Methodology	7
2.2.1	Discussions with City Staff	7
2.2.2	Industry Knowledge of Leading Practices	7
2.2.3	Informal Benchmarking	8
2.2.4	Engagement with Framework Developers	8
2.3	Natural Asset Accounting	8
2.4	Limitations of Natural Asset Accounting	8
2.5	Natural Assets and the Public Sector Accounting Standards Board	9
2.6	Natural Assets and Assurance Standards	9
3	Background – Mississauga’s Blended ESG Reporting Approach	12
3.1	Highlights from the 2021 Financial/ESG Report	12
3.2	Integrated Reporting	12
3.3	Global Reporting Initiative	12
3.4	United Nations Sustainable Development Goals	13
3.5	Natural Capital	13
3.6	Taskforce on Climate-related Financial Disclosures	13
4	Overview of Natural Asset Reporting	15
4.1	History of Natural Asset Reporting in Canada	15
4.2	Outline of Current State of Reporting	16
4.3	Taskforce on Nature-Related Financial Disclosures	19
4.4	United Nations System of Environmental-Economic Accounting (UN-SEEA)	22
4.5	IFRS Foundation (International Sustainability Standards Board)	24
4.6	NAI-ECCC-Standards Council of Canada Natural Capital Inventory Standard	26
4.7	International Public Sector Accounting Standards Board	28
4.8	British Standards Institution	31
4.9	Capitals Coalition – Corporate National Capital Accounting	33
5	Implementation Plan	35
5.1	Outline of the Plan	35

City of Mississauga

5.2	2023-2025 – Setting the Stage	36
5.2.1	Goal Setting	36
5.2.2	Reporting Capacity Assessment	36
5.2.3	Conduct Viability Assessment of the Taskforce on Nature-Related Financial Disclosure Framework	37
5.2.4	Monitor IPSASB Natural Resources and Advancing Public Sector Sustainability Reporting Projects	38
5.2.5	Conduct Viability Assessment of Natural Asset Inventory Standard	38
5.2.6	Draft Report	38
5.2.7	Participate in the NAI-ICC-KPMG Working Group	38
5.3	2025-2026 – Expanding Efforts	39
5.3.1	Conduct Inventory of Natural Assets Using CSA Standard	39
5.3.2	Assess Viability of Piloting NAI-ICC-KPMG Working Group Guidance	39
5.3.3	Consider an Initial Attempt at TNFD Reporting	39
5.4	2026-2027 – Formalizing Efforts and Leading by Example	40
5.4.1	Expand TNFD	40
5.4.2	Conduct Condition Assessments of Natural Assets	40
6	Sample of Initial Reporting Options (Leaders)	41
6.1	Practical Implementation of Frameworks and Best Practices	41
6.1.1	Local – Gibsons, British Columbia	41
6.1.2	Sub National – Ecosystem Services from Forests in Victoria (Australia)	41
6.1.3	National – Canada	42
6.2	Sample Metrics	42
7	Assessment of Auditability of City’s ESG Reporting	43
7.1	Management and Auditor Responsibilities	43
7.2	Pre-Conditions for Assurance	44
7.3	Suitable Criteria	44
8	Appendixes	46
8.1	Appendix A – Accounting Standard Setting Environment	46
8.1.1	Canadian Standards Setting	46
8.1.2	International Standards Setting	48
8.2	Appendix B – SDG Targets	50
8.3	Appendix C – Sample Metrics	54



City of Mississauga

9 References and Notes

58

1 Executive Summary

This report was prepared by KPMG to support the City of Mississauga's sustainability reporting initiatives, and to advance its financial reporting capacity. As Public Sector Accounting Standards evolve to include sustainability outcomes and indicators, the City must prepare to include these outcomes within their annual reporting cycle.

The recommendations herein aim to support the City's ambition to expand its sustainability reporting. It contains an overview of natural assets/services, a summary of natural asset reporting and accounting guidance, and examples where guidance has been successfully implemented. The report also contains an implementation plan the City should consider as it advances its efforts.

During the study, KPMG considered the following guidance frameworks:

- Taskforce on Nature-related Financial Disclosures.
- United Nations System for Environmental-Economic Accounting.
- IFRS Foundation (International Sustainability Standards Board) General Requirements and Climate-related Disclosure documents.
- Natural Asset Initiative-Environment and Climate Change Canada/Standards Council of Canada Natural Capital Inventory Standard.
- International Public Sector Accounting Standards Board consultation papers on public sector sustainability reporting and natural resources.
- British Standards Institution's Natural Capital Accounting for Organizations.
- Capitals Coalition – Corporate Natural Capital Accounting guidance.

These frameworks are summarized in Section 4. The guidance documents published by NAI-ECCC, TNFD, and IPSASB are most aligned with the City's reporting objectives and should inform its roadmap for natural asset reporting. The following implementation plan, if pursued, would support the City's reporting ambition:

- **2023-2025 – Getting Started:** This period is meant to be an exploratory phase, where the City looks inward, with the goal of clarifying its aims, and then outward, to determine its desired path forward. It includes viability assessments of existing guidance, including Taskforce on Nature-related Financial Disclosure and the Natural Asset Inventory Standard. This period is greater than 1-year as to allow the City to conduct the necessary internal reviews and alignment exercises necessary to expand and formalize its efforts in subsequent years.
- **2025-2026 – Expanding:** This period will see the City expand its natural asset accounting/reporting efforts. This period will be dependent on the previous feasibility assessments of the Taskforce on Nature-related Financial Disclosure guidance and the Natural Asset Inventory Standard and goal setting exercises, as well as the status of the guidance being developed by NAI, ICC, and KPMG.

- **2026-2027 – Formalizing:** This period will see the City formalize its efforts. This period will be dependent on the decisions the City makes in 2023-2024 and 2024-2025. Depending on the City's ambition, investment, and desire to be a leader, the roadmap formalization may need to evolve to match the City's reporting capacity.

It should be noted that some of the items in the proposed implementation plan will likely shift as the City's priorities and stakeholders evolve¹. The City is encouraged to consider the presented items and implement them at its discretion, under timelines that match its capacity, capabilities, and ambition.

¹ In May 2023, the Ontario government introduced the *Hazel McCallion Act*. The proposed legislation would dissolve the Regional Municipality of Peel, making the City of Mississauga an independent municipality. The impacts of this dissolution, in the context of the findings and recommendations herein, were unknown when this report was submitted.

2 Introduction

2.1 Objective of this Report

The purpose of this report is to provide the City of Mississauga (the City) with a foundational document upon which it can build out its ESG reporting capacity. This report contains a summary of natural asset reporting and accounting and examples of practical implementation. It also proposes a series of options the City should consider to achieve its ambition of becoming one of the leading ESG reporting municipalities in Canada. Lastly, this report provides a summary assessment of the auditability of the City's ESG Reporting practices.

2.2 Methodology

KPMG developed this report through discussions with the City and its existing knowledge of leading practices. KPMG also conducted informal benchmarking and held discussions with framework developers.

2.2.1 Discussions with City Staff

KPMG and the City met several times throughout the engagement to discuss the path and approach. These working sessions were essential in defining the City's aims and the structure of the study.

2.2.2 Industry Knowledge of Leading Practices

In developing this report KPMG relied heavily on existing industry knowledge and leading practices.

Moreover, KPMG is a key member of a natural asset working group. Along with the Natural Asset Initiative and the Intact Centre on Climate Adaptation, KPMG Canada has formed a multi-sector, multi-disciplinary working group of interested parties to create a coherent, voluntary framework, in the next 12-18 months, for public sector entities to account for and report on natural assets, which will complement the ongoing standard-setting process. Specific working group objectives are to:

- 1 Develop voluntary, non-authoritative guidanceⁱ related to the inclusion/representation of natural assets for local government reporting
- 2 Develop and provide substantive inputs into relevant processes of IPSASB, PSAB, and others to inform/enhance existing or planned guidance and standards.

2.2.3 Informal Benchmarking

During the study, KPMG staff also assessed how other jurisdictions were incorporating natural asset reporting into their operations through informal benchmarking. The benchmarking process involved desktop research, informal discussions with staff at other municipalities and the Natural Asset Initiative. The aim of this effort was to understand who the leading municipalities are, what the leading practices are, and if the City could adopt any of said practices.

2.2.4 Engagement with Framework Developers

KPMG has existing relationships with the Natural Asset Initiative and the Taskforce on Nature-related Financial Disclosures. The Natural Asset Initiative and KPMG discussed the Natural Capital Inventory Standard set to be published in summer 2023. KPMG and TNFD staff discussed the possibility of tailoring the soon-to-be finalized TNFD guidance for public sector entities, like municipalities.

2.3 Natural Asset Accounting

Natural asset accounting (or natural capital accounting/reporting) is a method of measuring the value of natural resources and ecosystems, such as forests, rivers, and oceans. This differs from traditional tangible capital asset accounting. This method considers the economic value of these resources, as well as their environmental and social benefits. Natural asset accounting is an important tool for understanding the relationship between the economy and the environment, and for making informed decisions about the use and management of natural resources.

2.4 Limitations of Natural Asset Accounting

The City has stated its desire to expand its natural asset reporting/accounting capacity. However, in Canada, there remain clearly defined structural challenges that make formalizing natural capital reporting/accounting difficult. The standards issued by the Public Sector Accounting Standards Board, or PSAB, Canada's major accounting standards setter, explicitly prohibit non-purchased natural assets from being recognized as an asset in public-sector financial statements at present. As a result, public sector entities do not have an avenue under existing standards to reflect natural assets which impact their provision of services.

2.5 Natural Assets and the Public Sector Accounting Standards Board

Non-purchased natural assets are currently excluded from recognition as an asset by public-sector entities in Canada. Chapter 2 of PSAB's Conceptual Framework notes that non-purchased resources, including Crown lands and related natural resources (recognizing that some entities might also hold purchased natural resources) are part of the non-financial resources public sector entities are stewards of. However, PS1201, financial statement presentation, only permits the recognition of purchased natural resources. PS1201.068 indicates that:

“Natural resources, intangibles 2 and Crown lands that have been purchased are recognized in government financial statements when they meet the asset definition and the recognition criteria. However, when natural resources, intangibles and Crown lands have not been purchased, they are not given accounting recognition as assets in government financial statements.”

The rationale is that purchased assets are acquired through an exchange transaction where a negotiated price is paid, so measurement is possible and appropriate where they meet the definition of an asset, whereas the services and value natural assets provide cannot be reasonably and verifiably quantified using existing methods. As documented in Eyquem et al. (2022), this accounting policy limitation impacts the presentation of a public sector entity's stewardship accountabilities, including creating undocumented liabilities, misrepresenting costs, disadvantaging borrowing ability, and creating difficulties in securing investments in nature-based solutions.

Advancements in public sector accounting standards enabling the recognition of the role and value of natural assets within a timeframe that supports accelerated investment in natural-climate solutions – due to rapid climate change, ecosystem degradation, and biodiversity loss – is a priority if nature-based solutions are to evolve to a level commensurate with Canada's biodiversity priorities.

Changes to public sector accounting standards are subject to the Public Sector Accounting Standards Board's (PSAB) due process, which is formalized and prescribed to ensure full transparency and engagement. While the development of a new accounting standard relating to natural assets could take several years, PSAB is already consulting on and considering a range of options relative to guidance on natural assets.

2.6 Natural Assets and Assurance Standards

Assurance standards, which will ultimately impact sustainability reporting and natural assets, remain in development. At present, the primary sources of reference for assurance on natural assets in Canada include:

- Canadian Standard on Assurance Engagements (CSAE) 3000, attestation engagements other than audits or reviews of historical financial information. CSAE 3000 details the requirements and application and other explanatory material specific to reasonable and limited assurance attestation engagements. The AASB's Guidance on sustainability and other extended external reporting (EER) assurance engagements in Canada. In this context, other EER includes environment, social and governance (ESG) reporting or corporate social responsibility, integrated reporting, and greenhouse gas statements.
- Where natural assets are recognized or disclosed in a public sector entity's financial statements, they are subject to verification in accordance with Canadian Auditing Standards.
- Guidance also exists outside of the Canadian Auditing Standards with respect to the verification of Greenhouse Gas Emissions. ISO 14064, Greenhouse Gas Accounting and Verification provides tools for governments to implement programs to measure and verify GHG emissions. Part 3 of the ISO standard details requirements and guidance for GHG information validation and verification

The AASB has recently launched a Sustainability Assurance Committee to compliment an ongoing project by the International Auditing and Assurance Standards Board (IAASB) and develop an overarching standard for assurance on sustainability reporting. This is intended to be a principles-based assurance standard that will follow all phases of a sustainability engagement. The objective of the AASB Sustainability Assurance Committee is to provide input and feedback on the proposed international guidance to ensure its suitability for the Canadian market. The IAASB's proposed International Standard on Sustainability Assurance (ISSA) 5000, General Requirements for Sustainability Assurance Engagements is expected to be released for exposure in September 2023.

The IAASB is leveraging its existing assurance standards on non-financial information (International Standard on Assurance Engagements (ISAE) 3000 which is equivalent to CSAE 3000), extended external reporting (EER) non-authoritative guidance, and the ISAs.

The IAASB continues to deliberate on several matters that will impact the eventual scope of ISSA 5000, including the scope of the standard and how it fits within the structure of the IAASB's standards. The standard will be focused on six priority areas, including the definition of difference in work effort between limited and reasonable assurance; suitability of reporting criteria; the scope of the engagement; obtaining and evaluating evidence; the entity's system of internal control; and materiality.

ISSA 5000 will define a number of pre-conditions that must be present for a sustainability assurance engagement, including the appropriateness of the underlying subject matter and whether the underlying subject matter is identifiable and capable of consistent

measurement or evaluation against the defined criteria. These criteria are expected to be similar in nature to those for financial information under the Canadian Auditing Standards, and may include concepts such as relevance, completeness, reliability, neutrality, and understandability.

3 Background – Mississauga’s Blended ESG Reporting Approach

The City of Mississauga has a blended approach to ESG reporting, called the ‘Made-in-Mississauga Sustainability Reporting Framework’ (MIMSRF), comprising elements from the Integrated Reporting, the Taskforce on Climate-related Financial Disclosures, the Global Reporting Initiative, the United Nations Sustainable Development Goals, and natural capital reporting. The section below outlines some highlights and key components of the City’s approach.

3.1 Highlights from the 2021 Financial/ESG Report

The City of Mississauga's ESG report outlines its progress and initiatives toward sustainable practices in various ESG aspects. The report provides an overview of its sustainability strategy, including its goals, targets, and achievements, as well as its approach to ESG reporting. The report covers climate change, waste management, water conservation, community engagement, and diversity and inclusion. The City has also made strides in including various forms of natural capital with its Tree Inventory.

3.2 Integrated Reporting

The City leverages the Integrated Reporting Initiative Framework, which is a corporate reporting approach that brings together various aspects of a company's performance. The Integrated Reporting Framework encourages companies to report on six key elements of their operations: Human Capital, Financial Capital, Manufactured Capital, Intellectual Capital, Social and Relationship Capital, and Natural Capital. These elements make up the chapters within the report.

The City describes the various initiatives it is undertaking to help support the various capitals in each section.

3.3 Global Reporting Initiative

The City also leverages the Global Reporting Initiatives (GRI) in its Made-in-Mississauga Sustainability Report. The GRI is an independent organization that provides a framework for sustainability reporting; GRI's Sustainability Reporting Standards help organizations disclose their economic, environmental, and social impacts, as well as their governance practices. Elements of the GRI – Universal, Economic, Environmental, and Social – appear in the six chapters of the sustainability report.

Elements of the GRI appear in the Integrated Reporting Capital Chapters. Table 1 outlines the elements of the GRI in the report:

Table 1: GRI Topics Included in MIMSRF

GRI	Topics
GRI 300 - Environmental	Energy, Emissions, Water, Biodiversity, Waste, Environmental
GRI 400 - Social	Employment, Labour-Management Relationships, Occupational Health and Safety, Training and Education, Diversity and Equal Opportunity, Non-Discrimination, Rights of Indigenous, Public Policy, Customer Health and Safety

The GRI standards were recently updated and are now organized into three categories: Universal Standards, Sector Standards, and Topic Standards.

3.4 United Nations Sustainable Development Goals

The United Nations Sustainable Development Goals (SDGs) are a set of 17 goals that were adopted by the United Nations General Assembly in 2015 as part of the 2030 Agenda for Sustainable Development. Each goal has a series of associated targets.

Elements of the UN SDGs appear in each chapter of the MIMSRF. See Appendix A for a summary of the various targets the City has committed to tracking.

3.5 Natural Capital

The City has conducted an initial natural capital assessment of its urban tree canopy. This includes a thorough tree inventory and a valuation exercise using a replacement cost assessment methodology. The city also valued the tree canopy's stormwater drainage, property value, energy savings, air quality, and carbon removal benefits.

3.6 Taskforce on Climate-related Financial Disclosures

The City leverages Task Force on Climate-related Financial Disclosures (TCFD), a global initiative established by the Financial Stability Board in 2015 to develop a set of recommendations for companies and financial institutions to disclose the risks and opportunities related to climate change in their financial reporting. The TCFD's recommendations are designed to help investors, lenders, insurers, and other stakeholders (including citizens) understand how companies/entities manage climate-related risks and opportunities, and to make more informed decisions based on this information.

The City publishes TCFD-based disclosures related to governance, strategy, risk management, and metrics. Examples are summarized in Table 2 below:

Table 2: TCFD Disclosure Summary from MIMSRF

Theme	Disclosure
Governance	<p>The City describes the mayor/council's oversight of climate-related risks and opportunities.</p> <p>The City describes managements' role in assessing and managing climate-related risks and opportunities.</p>
Strategy	<p>The City outlines its short-, medium-, and long-term climate-related risks and opportunities, assessing its existing infrastructure, operations (including asset management), and changing climate.</p>
Risk Management	<p>The City describes the processes it uses to identity, assess, and manage climate-related risks.</p>
Metrics	<p>The City discloses Scope 1, 2, and 3 GHG emissions and has developed a GHG quantification tool to help modernize the tracking and reporting of emissions. The City also publishes emissions reduction targets.</p>

4 Overview of Natural Asset Reporting

4.1 History of Natural Asset Reporting in Canada

Though municipal natural asset reporting is still in its infancy in Canada, there have been early movers.

In 2013, Gibsons, a small coastal community in British Columbia, became a pioneer in integrating natural assets into asset management and financial planning. Using *PSAB 3150 Tangible Capital Assets* requirements, the Town determined the state and value of its assets. Staff discovered that the list of tangible capital assets, as formally defined, did not include their foreshore, which protects the business area from storm surges, the Gibsons aquifer, which provides potable water to the community, or its urban forest, which provides coverage and absorbs stormwater. Town officials noted the community would need to fund and implement engineered solutions were any of these assets to fail, which meant there were significant, undocumented risks to the community.

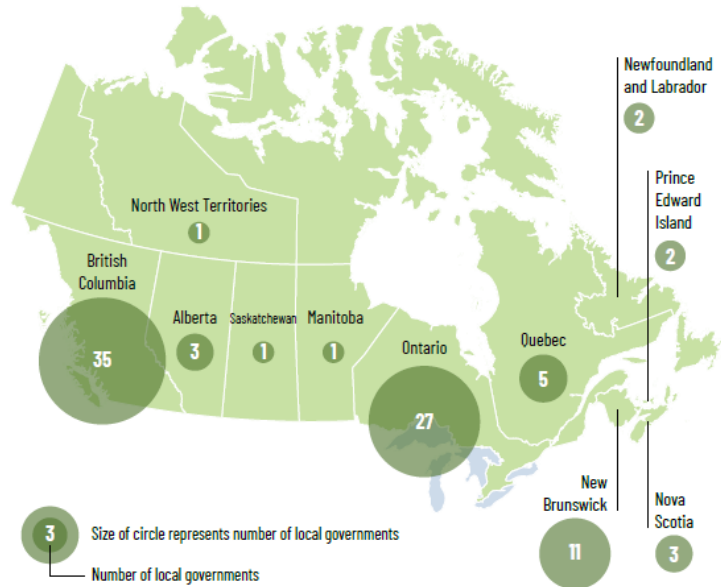
The Town responded by developing a suite of approaches – including its natural capital management policy – to address the newly identified risk of natural asset failure or loss. In 2014, the Town of Gibsons became the first municipality in North America to explicitly deem nature to be a municipal asset, giving it the same consideration as traditional engineered assetsⁱⁱ.

Based on Gibsons' leadership, Vancity and Tides Canada launched a workshop in 2015 to determine if Gibsons' approach could be replicated by other municipalities. Participants noted that while municipalities use natural assets to varying degrees, the assets are typically over-used and the municipalities' dependence on the asset is unrecorded. Furthermore, they noted that while there were several well-cited examples of municipalities deliberately substituting natural assets for engineered assets, these were very hard to replicate in absence of a common methodology or platform across municipalities. Based on these insights, participants concluded that a combination of enabling activities and pilot projects should be developed to expand natural asset reporting.^{iiiiv}

The Natural Asset Initiative (NAI) emerged as a partnership between the Town of Gibsons, Smart Prosperity, Brooke and Associates, and the David Suzuki Foundation. The initial aim was to launch the pilot project phase recommended by workshop participants; NAI later became a separate not-for-profit entity.

Eleven initial pilot projects took place in Ontario, British Columbia, and New Brunswick between 2017-2020. The practice has grown to engage over 100 communities across Canada (see Figure 1).

Figure 1: Local governments across Canada where natural asset management efforts, including inventory, modeling, valuation, and management, have already been undertaken.



NAI continues to help local governments understand, measure, assess, and value natural assets in their asset management and financial planning processes. It has defined natural assets as:

The stock of natural resources or ecosystems that is relied upon, managed, or could be managed by a municipality, regional district, or other types of local government for the sustainable provision of one or more municipal services^v

4.2 Outline of Current State of Reporting

While the number of local governments practicing natural asset management has grown substantially, it is still an emerging practice in Canada. Overall, natural assets are not routinely inventoried and valued, and remain excluded in public-sector financial reporting. Since the value of intact natural assets is excluded from public-sector entity financial statements, the costs of damage to natural infrastructure or the benefits of restoration are not appropriately factored into public-sector decision-making.

A major limiting factor is the absence of guidance municipalities can implement. As part of this study, KPMG assessed several existing guidance protocols, which are summarized in Table 3. These reporting options range from accounting guidance to non-accounting guidance and are designed to be used by a range of different end-users.

Table 3: Reporting Guidance Reviewed in this Study

Lead Organization	Relevant Standards/Frameworks	Target End User
Accounting Guidance		
United Nations	System of Environmental-Economic Accounting (SEEA)	National Governments
International Sustainability Standards Board (ISSB)	IFRS Sustainability Disclosure Standards	Public Sector Entities
International Public Sector Accounting Standards Board (IPSASB)	Natural Resources	Private Sector Entities
British Standards Institute	BS 8632:2021 – Natural Capital Accounting for Organizations.	Not Explicit
Capitals Coalition	Corporate National Capital Accounting	Private Sector Entities
Other Relevant, Non-Accounting Guidance		
Taskforce on Nature-related Financial Disclosures (TNFD)	TNFD Framework	Private Sector Entities
European Financial Reporting Advisory Group (EFRAG)	European Sustainability Reporting Standards (2022)	Private Sector Entities
Canadian Standards Association (CSA)	Natural Asset Inventories Standard	Not Explicit

IPSASB, TNFD, and the CSA guidance align with the City’s reporting objectives.

The subsequent section outlines the natural capital accounting and non-accounting guidance. Each subsection contains:

- A description of the publishing organization
- A summary of the guidance
- A description of the outlook/path forward of the guidance. This was only applicable to guidance that was still under development.

- A fit-for-purpose² analysis to determine if the guidance is relevant for the City to consider

² Note, the fit for purpose analysis is a strengths/weaknesses assessment followed by a qualitative analysis determining if it is a good fit for the City to consider.

4.3 Taskforce on Nature-Related Financial Disclosures^{viii}

Overview – Taskforce on Nature-Related Financial Disclosures					
Organization	TNFD	Year Established	2021	Audience	Private Sector Companies
Overview of Organization: <ul style="list-style-type: none"> TNFD was established in 2021 in response to the need to factor in nature in financial and business decisions. TNFD is a global, market-led initiative whose aim is to develop a risk management and disclosure framework for organizations to report/act on evolving nature-related risks and opportunities, to promote nature-positive outcomes. 					
Relevant Sustainability Guidance Resources: <ul style="list-style-type: none"> TNFD Draft Framework (Version 4) 					
Summary of the Approach ³					
The goal of the TNFD is to provide a framework for organizations to report on risks from biodiversity loss and ecosystem degradation. In turn, improving the availability of data and information will enable organizations to integrate nature-related risks more accurately and reliably into decision-making.					
TNFD has been designed to build upon the approach taken by the Taskforce on Climate-related Financial disclosures, be aligned with the emerging baseline for sustainability standards currently under development by the International Sustainability Standards Board, and draws the Global Reporting Initiative. Like the TCFD, it is not a standard.					
The framework contains the following elements: <ul style="list-style-type: none"> Core concepts and definitions for understanding nature. <ul style="list-style-type: none"> Provides definitions for nature, natural capital, environmental assets, ecosystem assets, ecosystems, biodiversity, biomes, and other key terms relevant to the framework, providing corporates with the necessary context to understand the framework. TNFD's draft recommended disclosures. <ul style="list-style-type: none"> They are designed to provide information to support strategy/risk management decisions at the board level (and allocate capital), promote more informed investment/credit/insurance underwriting decisions by financial institutions, and enable a stronger understanding of the nature-related risk and opportunities relevant to a corporate. TNFD has <u>six general requirements</u> that cut across the four pillars of recommendations. TNFD's <u>four pillars</u> maximize consistency by leveraging the four TCFD Pillars: governance, strategy, risk management, and metrics & targets. TNFD has outlined <u>14 specific recommended disclosures</u> organizations can consider, falling under the four pillars mentioned above. They are aligned with the 11 TCFD recommended disclosures. There is also an emphasis on developing disclosures that can be integrated with financial reports based on location, materiality, timing, and communication. Risk Management and Disclosure Guidance (i.e., the LEAP approach for nature-related risk & opportunity assessment). <ul style="list-style-type: none"> LEAP – Locate, Evaluate, Assess, and Prepare – is a four-phase internal risk and opportunity assessment framework for corporate actors developed by TNFD. It helps organizations understand how they interface with nature, their dependencies, and their impacts on nature. <ul style="list-style-type: none"> Locate – measuring the integrity/importance of ecosystems at each location the business interfaces with nature. 					

³ The content below is based on TNFD Beta Version 4.0 (released March 2023)

- Evaluate – measure dependencies and impacts on nature at each priority location where a business interfaces with nature.
 - Assess – measuring the nature-related risks and opportunities of a company.
 - Prepare 1 (Internal) – Making decisions on strategy and resource allocation responses.
 - Prepare 2 (External) – Making decisions about information for disclosure in line with the TNFD disclosure recommendations.
 - LEAP-FI is a preceding set of scoping questions designed to help financial institutions prioritize and focuses effort as they assess their financial portfolios. (i.e., it helps financial institutions move through the locate/evaluate phases of the LEAP)
- TNFD’s Draft Approach to Metrics and Targets
 - TNFD encourages organizations to publish qualitative and quantitative metrics that support decision-making and are comparable across and within sectors. Metrics, according to TNFD, should:
 - Be science-based and easy to prepare an annual corporate reporting cycle
 - Recognize that nature-related issues are sector, location, and biome specific
 - Reflect that nature-related issues take place along the value chain and in financed activities
 - Reflect both negative and positive impacts and both risks and opportunities to the organisation
 - Align with global policy goals, including the Global Biodiversity Framework, while providing flexibility for the different materiality approaches of report preparers, capital providers, and market regulators globally.
 - The guidance proposes disclosure metrics for all nature-related issues – dependencies, impacts, risks, and opportunities – and an organisation’s responses to these, dividing these metrics into a small set of ‘core metrics’ covering dependencies and impacts and risks and opportunities. These are divided into core global metrics and core sector metrics.
 - Consistent with the recognition in climate reporting of the need to account for impacts across value chains, the Taskforce has also considered how best to reflect value chains in nature-related assessment and reporting. Given the climate-specific notion of ‘Scope 2’ reporting, the Taskforce has adapted the notion of ‘scopes’ to:
 - Direct operations;
 - Upstream;
 - Downstream; and
 - Financed activities (for financial institutions).TNFD also provides additional guidance:
 - The guidance also provides additional guidance:
 - Sector-specific – guidance tailored to organizations from specific economic sectors.
 - Biome specific – guidance related to nature realms defined by TNFD, such as oceans, freshwater bodies, land, and atmosphere (possibly biome too).
 - Scenario specific – guidance for companies or financial institutions
 - Stakeholder guidance
 - Metrics and signpost data – including suggested data sets and sources

Outlook/Path Forward

- Pilot testing for the current version of the framework will run from July 2022 to June 2023.
- Beta Version V.04 was released in March 2023. The 60-day consultation period will close on June 1, 2023.
- The final version of the framework will be published in September 2023.

Analysis

<p>Strengths:</p>	<p>Weaknesses:</p> <ul style="list-style-type: none"> • Maturity – the final TNFD is due September 2023.
-------------------	--

<ul style="list-style-type: none"> • Open Innovation – TNFD is taking an iterative approach to developing its framework. It relies on feedback and pilot testing with market participants and other stakeholders. • Foundational Material –TNFD incorporates elements of frameworks and disclosure standards (such as the TCFD) that already have received industry buy-in. 	<ul style="list-style-type: none"> • Robustness – this is a simple, voluntary framework in its current form. • Fit for Purpose – this framework is suited for corporations and financial institutions, not public sector entities.
<p>The City of Mississauga – Fit for Purpose:</p>	
<p>This guidance has not been targeted to municipalities or other public sector entities. It is also still under development, though its final version is set to be released in September 2023 and the draft guidance has taken on a robust shape compared to the first draft. Noting the TCFD has been successfully implemented by several municipalities, including the City, even though it was designed for for-profit entities, TNFD appears to be a viable candidate for exploration, and potentially piloting.</p> <p>KPMG and TNFD connected during the study. TNFD noted that several municipalities have expressed interest in conducting pilots, but no specific guidance has yet been developed.</p>	

4.4 United Nations System of Environmental-Economic Accounting (UN-SEEA)^{ixx}

Overview – 5.4 United Nations System of Environmental-Economic Accounting (UN-SEEA)					
Organization Name	United Nations Statistical Commission	Year Guidance Established	2012 (SEEA CF) 2021 (SEEA EA)	Target Audience	National Governments
Overview of Organization:					
<ul style="list-style-type: none"> The United Nations Statistical Commission (StatCom) is a Commission of the United Nations Economic and Social Council (est. 1947). The Statistical Commission oversees the work of the United Nations Statistics Division (UNSD). 					
Relevant Resources:					
<ul style="list-style-type: none"> SEEA Ecosystem Accounting: Policymaker's Summary <ul style="list-style-type: none"> Summary of key concepts and policy applications SEEA Ecosystem Accounting White Cover <ul style="list-style-type: none"> SEEA EA is an accounting framework used by the national statistics office to account for ecosystems Complements the SEEA Central Framework, an international statistical standard for measuring: <ul style="list-style-type: none"> Environmental flows. The flows of natural inputs, products, and residuals between the environment and the economy, and within the economy, both in physical and monetary terms. Stocks of environmental assets. The stocks of individual assets, such as water or energy assets, and how they change over an accounting period due to economic activity and natural processes, both in physical and monetary terms. Economic activity related to the environment. Monetary flows associated with economic activities related to the environment, including spending on environmental protection and resource management, and the production of 'environmental goods and services'. SEEA integrates with the System of National Accounts. <ul style="list-style-type: none"> The System of National Accounts (SNA) is the internationally agreed standard set of recommendations on how to compile measures of economic activity. The SNA describes a coherent, consistent, and integrated set of macroeconomic accounts in the context of a set of internationally agreed concepts, definitions, classifications, and accounting rules. Key contributors to the SEEA include the London Group of Experts on Environmental-Economic Accounting (largely comprising technical experts from national and international statistical offices), the Waves initiatives (Wealth Accounting and the Valuation of Ecosystem Services), the Integrated Natural Capital Accounting (INCA) initiative, and ARIES for SEEA. 					
Summary of the Approach					
<ul style="list-style-type: none"> The SEEA Central Framework (SEEA CF) was adopted by the UN Statistical Commission as the first international standard for environmental-economic accounting in 2012. It takes the viewpoint of the economy and examines how natural resources like fish, timber, and water are used in production and consumption, along with resulting pollution in the form of waste, water, and air emissions. The SEEA Ecosystem accounting (SEEA EA) is a spatially based, integrated statistical framework for organizing biophysical information about ecosystems, measuring ecosystem services, tracking changes in ecosystem extent and condition, valuing ecosystem services and assets, and linking this information to measures of economic and human activity. It applies the accounting principles of the 2008 SNA. SEEA EA covers terrestrial, freshwater, marine, and subterranean ecosystems and takes a deliberate focus on ecosystem services. SEEA EA applies the concept of exchange values in line with standard economic accounting principles, but this does not capture the wider social value ecosystems provide (e.g., 					

<p>cultural value). Measuring the wider value will require data on the biophysical characteristics of ecosystems and data on the characteristics of the people, businesses, and communities that rely on them.</p> <ul style="list-style-type: none"> • The SEEA EA is primarily intended to support national-level policy decision-making with a focus on connecting information about multiple ecosystem types and multiple ecosystem services to macro-level economic information. Sub-national governments can also leverage it for decision-making. • Conceptual Approach • Foundational documents to the SEEA EA include work by the World Bank and United Nations Environment Programme. • Five main ecosystem accounts that make up the framework are listed below: <ul style="list-style-type: none"> • The ecosystem extent • The ecosystem condition • The ecosystem services flow (in physical terms) • The ecosystem services flow (in monetary terms) • The monetary ecosystem asset account • There is also a range of related accounts, complementary presentations, and applications, including thematic accounts and indicators • Measurement, implementation, and application <ul style="list-style-type: none"> • Ecosystem accounts need to be incorporated into regular socio-economic data analysis and reporting. • Compiling ecosystem accounts falls on a spectrum: from 'spatially-explicit' (detailed) – to minimum spatial (broader, trend-based). The level of detail will depend on the policy focus, the availability of data, and the resources available for compilation. The first step will be the compilation of the ecosystem extent account followed by ecosystem condition and ecosystem services flows. 	
<p>Outlook/Path Ahead</p>	
<ul style="list-style-type: none"> • According to the 2021 global assessment on the SEEA implementation, approximately 90 countries compile the SEEA with 35 countries compiling ecosystem accounts. Scaling up the implementation in countries is an important goal of the statistical community, which adopted the SEEA implementation strategy in 2022. 	
<p>Analysis</p>	
<p>Strengths:</p> <ul style="list-style-type: none"> • Detailed – robust, well-developed framework that leverages significant background research. 	<p>Weaknesses/Gaps:</p> <ul style="list-style-type: none"> • Municipal Fit for Purpose - this is a national framework and applies less to individual local governments. The intended use is more for national policymaking • Barriers to Entry – there is a high level of baseline data required to measure the accounts identified in this framework.
<p>The City of Mississauga – Fit for Purpose</p>	
<p>This guidance is not fit for the City's needs as it is too high-level. It was designed for national governments and does not offer guidance that can be tailored to a municipality's needs. That said, the methodology and accounting approach – measuring ecosystem extent, condition, services flow (in physical and monetary terms), and the ecosystem asset's value – does provide a baseline for guidance that could be more specific and tailored to lower levels of government.</p> <p>Thought it is not entirely relevant to the City's current position, as municipalities collect increasing amounts of data on natural assets, they may be an opportunity for local governments to feed into national government's reporting efforts.</p>	

4.5 IFRS Foundation (International Sustainability Standards Board)^{xixii}

Overview – IFRS Foundation					
Organization Name	IFRS Foundation	Year Guidance Established	2022	Target Audience	Private Sector (Investors)
Overview of Organization: <ul style="list-style-type: none"> The IFRS Foundation is a not-for-profit, public interest organization established to develop accounting and sustainability disclosure standards. Standards are developed by its two standard-setting boards, the International Accounting Standards Board (IASB) and International Sustainability Standards Board (ISSB). 					
Relevant Sustainability Reporting Resources: <ul style="list-style-type: none"> IFRS 1 General Requirements for Disclosure of Sustainability-related Financial Information Exposure Draft <ul style="list-style-type: none"> Draft released March 2022 IFRS S2 Climate-Related Disclosures <ul style="list-style-type: none"> Draft released March 2022 					
Summary of Framework/Standards: <ul style="list-style-type: none"> IFRS Foundation is working with stakeholders to develop a consolidated framework and set of sustainability-related standards. The organization aims to deliver a global baseline of performance that will provide investors and other capital market participants with information about companies' relative sustainability/climate risks and opportunities, to help them make informed decisions. The IFRS Foundation has developed two prototype standards: IFRS S1 – General Requirements for Sustainability-Related Disclosures <ul style="list-style-type: none"> It sets out the general requirements for disclosing material sustainability-related financial information⁴ to investors, lenders, and other creditors. Scope: entities should apply this standard in preparing any sustainability-related financial information that is material to its enterprise value. S1 defines material information as information necessary for users of general-purpose financial reporting to assess enterprise value. It also sets out how an entity can disclose this information. S1 guidance leverages the four main pillars from the TCFD in its general sustainability reporting guidance: <ul style="list-style-type: none"> Governance – provides guidance on how entities can disclose information about the processes, controls, and procedures they use to monitor and manage sustainability-related risks. This typically comes in the form of information about governing bodies (board of directors or committees) with oversight of sustainability risk/opportunities and management's role in those processes. Strategy – provides guidance on how entities can depict the sustainability-related risks that affect their business model, strategy, value chain, decision-making, financial position, financial performance, and cash flows, and how they will address them over the short, medium, and long term. Risk Management – provides guidance on how entities can disclose their risk management practices (i.e., identification, assessment, and mitigation processes for sustainability-related risks processes). Metrics and Targets – provides guidance on how entities can disclose the metrics and targets they use to measure, monitor, and manage sustainability-related risks. These disclosures can help communicate how an entity is assessing its performance and progress toward targets. Entities will be responsible for identifying metrics that apply to their activities. In summary, the standard outlines how to disclose metrics a company uses to manage its sustainability-related risks and opportunities. 					

⁴ Defined by ISSB as an entity's governance of sustainability-related risks and opportunities and its strategies to address them, decisions made by the entity that could result in cashflow variability that do not meet the requirement to appear in financial statements, an entity's reputation (e.g., relationship to people, planet, and the economy), and the entity's development of knowledge-based assets (IP).

<ul style="list-style-type: none"> • IFRS S2 – Climate-Related Disclosures <ul style="list-style-type: none"> ○ S2 provides guidance on the disclosure of climate-related risks. ○ Scope: S2 disclosures include the following: <ul style="list-style-type: none"> ▪ Greenhouse gas emissions. ▪ Transition Risk – the amount and percentage of assets or business activities vulnerable to transition risks. ▪ Physical Risks – the amount and percentage of assets or business activities vulnerable to physical risks. ▪ Climate-related opportunities – the amount and percentage of assets or business activities aligned with climate-related opportunities. ▪ Capital Deployment – the amount of capital expenditure, financing, or investment deployed towards climate-related risks and opportunities. ▪ Internal carbon pricing. ▪ Remuneration – the percentage of executive management remuneration linked to climate considerations. ○ S2 leverages the same TCFD pillars as S1 (governance, strategy, risk management, and metrics & targets), but provides more specific examples of types of metrics. ○ A company applying S2 would be required to provide material information about its climate-related risks and opportunities and proposes requiring a company to disclose information that would enable an investor to assess the effect of climate-related risks and opportunities on its enterprise value. 	
<p>Outlook:</p> <ul style="list-style-type: none"> • The consultation periods for S1 and S2 closed in July 2022. • The final versions of both S1 and S2 will be published in June 2023. • The ISSB tentatively decided in February 2023 to require that IFRS S1 be effective for annual reporting periods beginning on or after 1 January 2024. 	
<p>Analysis</p>	
<p>Strengths:</p> <ul style="list-style-type: none"> • Foundational Material – the IFRS Foundation incorporates elements of frameworks and disclosure standards (such as the TCFD) that already have received industry buy-in. • Robustness – list of sample disclosures organizations can adopt to increase sustainability/climate transparency. 	<p>Weaknesses:</p> <ul style="list-style-type: none"> • Maturity – the guidance is still under development. • Municipal Fit for Purpose – the guidance is being developed for the private sector and is not intended for local government financial statements in its current iteration
<p>The City of Mississauga Fit for Purpose</p>	
<p>S1 and S2 are standards developed for private sector entities. The standards aim to improve the transparency of general sustainability and climate risks to the market (i.e., investors). While they are not a fit for the City, the principles are aligned with the TCFD and thus partially aligned with the City’s own framework.</p>	

4.6 NAI-ECCC-Standards Council of Canada Natural Capital Inventory Standard

Overview – NAI-ECCC Natural Capital Inventory Standard					
Organization Name	Standards Council of Canada	Year Guidance Established	2023 (estimated)	Target Audience	Not explicit
<p>Overview of Organization:</p> <ul style="list-style-type: none"> The Standards Council of Canada is a Crown corporation. Its mandate is to promote efficient and effective voluntary standards in Canada. Standards are developed and maintained to: <ul style="list-style-type: none"> promote the participation of Canadians in voluntary standards activities promote public-private sector cooperation in relation to voluntary standardization in Canada coordinate and oversee the efforts of the persons and organizations involved in the National Standards System foster quality, performance and technological innovation in Canadian goods and services through standards-related activities develop standards-related strategies and long-term objectives, The organization's ultimate aims are to advance the national economy, support sustainable development, benefit the health, safety, and welfare of workers, assist and protect consumers, facilitate domestic and international trade, and further international cooperation in relation to standardization. In February 2022, the Natural Asset Initiative and Environment and Climate Change Canada signed an agreement with the Canadian Standards Association Group signed an agreement to develop a new standard for natural asset inventories CSA W218, titled Methodology for Completing Natural Asset Inventories. 					
<p>Relevant Sustainability Reporting Resources:</p> <ul style="list-style-type: none"> N/A 					
<p>Summary of Guidance</p> <ul style="list-style-type: none"> The aim of this Standard is to provide a minimum requirement for the development and reporting of a natural asset inventory. A natural asset inventory is The Standard is designed to be flexible, such that it can be applied in any jurisdictional context. It is also designed to include natural assets within and adjacent to jurisdictions (i.e., the Great Lakes). The Standard includes: <ul style="list-style-type: none"> Definitions for terms routinely used in the development of natural asset inventories Minimum requirements for natural asset inventories, including <ul style="list-style-type: none"> Inventory structure requirements Documentation requirements Requirements for maintaining and continually improving a natural asset inventory. The Standard encourages users to publish condition assessments along with the inventories, though it is non-mandatory The Standard is aligned with the asset management approach for the built environment (including ISO 55001, Asset Management – Management System – Requirements). 					
<p>Outlook/Path Forward</p> <ul style="list-style-type: none"> The Standard was published for public comment August 2022. The comment period closed October 2022. 					

<ul style="list-style-type: none"> The Standard was approved by the Canadian Standards Association technical committee in mid-April 2023. The Standard will likely be released by late-June 2023. 	
Analysis	
Strengths:	Weaknesses:
<ul style="list-style-type: none"> Fit for purpose – the Standard was developed with public sector entities in mind. 	<ul style="list-style-type: none"> Maturity – the Standard is still in development. Coverage – the Standard only provides guidance for developing an inventory, rather than full accounting guidance, though it does recommend users also include condition assessments of the assets inventoried.
City of Mississauga – Fit for Purpose:	
<p>Adopting the Standard, though not published at the time of writing, would be a prudent move by the City. Although the details of the Standard are not publicly known, KPMG has connected with the Natural Asset Initiative – a co-developer of the Standard – who have noted adopting it would be considered a strong first step towards developing a robust natural asset account.</p>	

4.7 International Public Sector Accounting Standards Board^{xiiiiv}

Overview – International Public Sector Accounting Standards Board (IPSASB)					
Organization Name	IPSASB	Year Guidance Established	TBD	Target Audience	Public Sector
Overview of Organization:					
<ul style="list-style-type: none"> • IPSASB develops accounting standards and guidance for use by public sector entities. It has two functions^{xv}: <ul style="list-style-type: none"> ○ Developing and maintaining the International Public Sector Accounting Standards (IPSAS) and other financial reporting guidance for the public sector; and ○ Raising awareness of IPSAS and the benefits of accrual adoption. 					
Relevant Sustainability Guidance Resources:					
<ul style="list-style-type: none"> • Consultation Paper, Advancing Public Sector Sustainability Reporting • Consultation Paper, Natural Resources <ul style="list-style-type: none"> ○ Guidance on the recognition, presentation, and disclosure of natural resources⁵. ○ Consultation paper released May 2022. 					
Summary of the Approach					
Summary of Framework/Standards:					
<ul style="list-style-type: none"> • IPSASB was tasked by the World Bank to develop sustainability standards for public sector entities (2019). Through a consultative process, IPSASB is working with its network to develop a framework that takes into consideration all relevant stakeholders' needs. • With its guidance documents, IPSASB aimed to provide initial guidance on general disclosure requirements (sustainability-focused and climate change-focused). • Overview of APSSR: <ul style="list-style-type: none"> ○ IPSASB maintains its public sector sustainability disclosure guidance is still in development. ○ IPSASB has proposed leveraging the ISSB's two initial IFRS Sustainability Standards – <i>General Requirements for Disclosure and Climate-related Disclosures</i> – to develop the first public sector-specific sustainability reporting guidance. Its envisioned approach is as follows: <ul style="list-style-type: none"> ▪ General sustainability Disclosure Requirements and financial sustainability-related guidance (source: ISSB). ▪ Broader public sector specific sustainability-related guidance (source: ISSB, GRI, and the European Commission). ▪ Function-specific metrics (source: ISSB). ○ The goal would be for the framework to be consistent with the four TCFD pillars (see above), by enabling the reporting entity to disclose governance, strategy, and risks management arrangements it implements to mitigate/monitor the delivery of its defined targets/outcomes. ○ IPSASB's guidance will be the result of a major consolidation and consultation effort. • In <i>Natural Resources</i>, IPSASB proposes a 'test' for natural resources (natural assets) to be included on general purpose financial statements or financial reports. To be included in financial statements, natural resources must meet the following conditions: <ul style="list-style-type: none"> ○ The definition of natural resources according to IPSASB is "a resource described in the IPSASB Conceptual Framework"⁶ ○ Can generate economic benefit, be controlled by the entity, and pass the existence and measurability tests. The resource must also be naturally occurring and be in its natural state (i.e., without any human intervention). 					

⁵ Naturally occurring items existing without human intervention, such as sunlight, air, land, minerals, vegetation, and animal.

⁶ The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities (Conceptual Framework), paragraph 5.7, states that a resource is an item with service potential or the ability to generate economic benefits.

- Where a resource fits the definitions above, *Natural Resources* provides specific tests and measurements for testing and accounting for subsurface resources (minerals, metals, and fossil fuels), water (seas, rivers, streams, lakes, groundwater, and water impounded in reservoirs and canals), and living resources (plant and animal life).
- Where a natural resource does not meet the above test, IPSASB provides recommended practice guidelines for how they can be disclosed in financial reports in more general ways.
- Asset Recognition Criteria (to determine if an ecosystem can appear on a financial report or a financial statement). To appear on a financial statement:
 - An item must meet the definition of an asset:
 - be a resource (as defined above), be presently controlled, and be controlled as the result of a past event.
 - An item must be measurable in a way that:
 - Achieves qualitative characteristics and takes account of constraints on information in financial statements.
- See
- Figure 2 for flowchart on asset inclusion in financial statements or reports.
- IPSASB is developing an Exposure Draft to propose accounting requirements for natural resources.

Outlook/Path Forward

- The IPSASB public sector guidance is still under development and is currently in a consultation phase (period closes Sept 9, 2022). It is due for final publication in 2023.
 - IPSASB will initially focus on general requirements for sustainability-related information and climate-related disclosures. Subsequent priority topics are being identified through consultation and will be determined through the organization’s 2024-2028 Strategy.
- The IPSASB natural resources document is also undergoing consultative review (period closes Oct 2022). It is also due for final publication in 2023.
- PSAB Responded to the Natural Resources Consultation Paper on October 17, 2022. The following is a summary of the response:
 - General agreement with the approach but believe there is more to explore.
 - The perspectives of Indigenous Peoples are lacking given their proximity, reliance, and relationship to nature
 - The definition of human intervention is a concern; maintenance, conservation, and restoration of natural resources/assets counts as human intervention, thereby disqualifying said assets from the scope.
 - Green infrastructure investments –guidance on accounting for investments in enhanced or engineered assets requires clarifications. Conversations with IPSASB staff have indicated these investments belong in IPSAS 17, *Property, Plant, and Equipment*.
 - Disclosures many consulted believe natural resources belong on financial/sustainability reports.
 - Measuring the value of natural resources needs to be considered in practical terms (whether/how certain natural resources can be recognized in financial statements). IPSASB should also consider how modeling techniques change and develop over time, leaving room for modification.
- IPSASB committed to establishing a Sustainability Task Force to lead research into the following areas::
 - General Requirements for Disclosure of Sustainability-related Financial Information
 - Climate-Related Disclosures
 - Natural Resources – Non-Financial Disclosures (in parallel with the development of financial reporting guidance proposed in its Consultation Paper, *Natural Resources*)

Analysis

Strengths:

- **Coverage** – The sustainability, climate change, and natural resources (natural capital) disclosures are complementary.

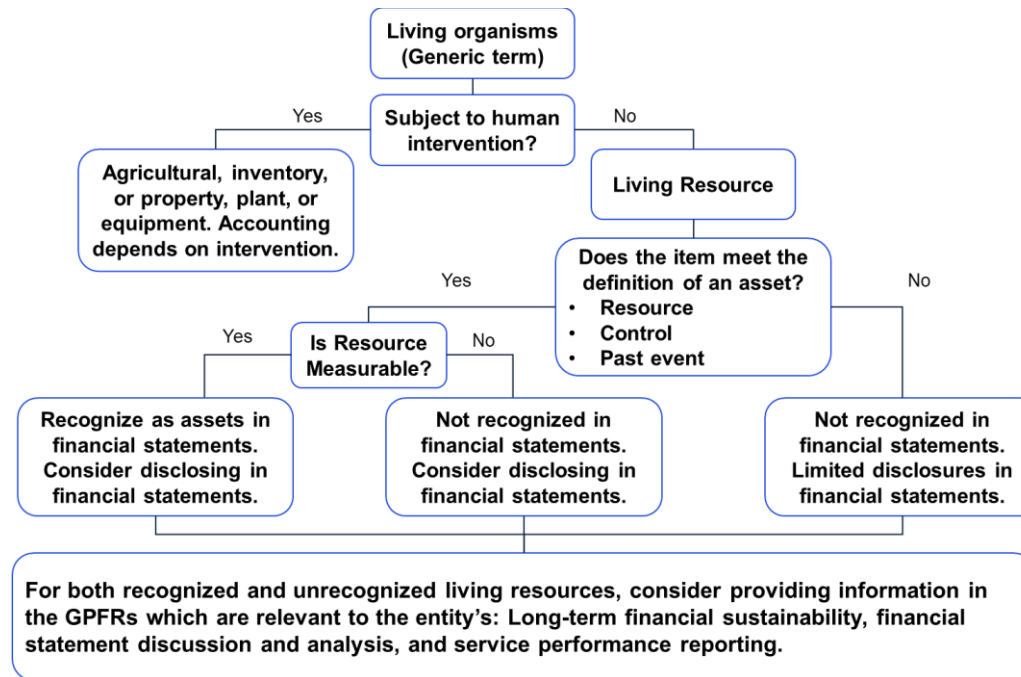
Weaknesses:

- **Maturity** – the guidance is still under development and won’t be published until 2023 (according to IPSASB). More specific guidance will be released post-

<ul style="list-style-type: none"> • Fit for purpose – APSSR and <i>Natural Resources</i> provide guidance to public sector organizations. • Foundational material – IPSASB stated it will incorporate elements from several existing solutions, including guidance from the ISSB, GRI, TCFD, and the European Commission. 	<p>2023. IPSASB is still gathering feedback on its approach to developing the public sector sustainability standards.</p> <ul style="list-style-type: none"> • Dependent on ISSB – the efforts by IPSASB appear to be heavily reliant on the IFRS Foundation's (ISSB) work.
--	---

City of Mississauga – Fit for Purpose:
 IPSASB’s guidance, once published, may make for a possible addition to the Made in Mississauga Sustainability Reporting Framework. More specifically, the *Natural Resources* work appears to be aligned with the city’s ambition to incorporate further natural asset disclosures. The City should monitor IPSASB and the developments related to these guidance documents.
 Should PSAB formally adopt the IPSASB guidance under its international strategy, the standards would be directly applicable to the City.

Figure 2. Flowchart Summarizing IPSASB’s View on Scope of Natural Resources



4.8 British Standards Institution^{xvi}

Overview – British Standards Institution					
Organization Name	British Standards Institution	Year Guidance Established	2021	Target Audience	Not Explicit
Overview of Organization:					
<ul style="list-style-type: none"> The British Standards Institution is the national standards body of the United Kingdom. BSI produces technical standards on a wide range of products and services and also supplies certification and standards-related services to businesses. 					
Relevant Resources:					
<ul style="list-style-type: none"> BS 8632:2021 Natural Capital Accounting for Organizations. 					
Summary of the Guidance					
<ul style="list-style-type: none"> This standard provides guidance for the process of developing natural capital accounts, including the minimum requirements for defining the scope of an account and the material impacts and dependencies. It also outlines how to document the data and processes used to prepare the account. It produces outputs that can help an organization to: Identify its impacts, dependencies, and value chain in respect of natural capital assets, and the associated risks and opportunities <ul style="list-style-type: none"> Communicate information and implications within the organization and with external stakeholders Adopt more informed strategic and operational decisions by integrating natural capital accounts with the assessment of other capitals Monitor and evaluate the impacts and effectiveness of such decisions and changes due to external factors BS 8632 prescribes two key accounting outputs of natural capital accounts – each with supporting schedules: <ul style="list-style-type: none"> A natural capital balance sheet (showing the organization’s dependency on the natural capital assets) <ul style="list-style-type: none"> The standard provides guidance on scope 1 natural assets (which includes the natural capital assets the organization owns or has legal or voluntary responsibility for) and Scope 2 natural assets (which includes other natural capital assets). Assets that are not owned by anyone might be included in Scope 1 or Scope 2 depending on the organization and materiality of its impacts and dependencies. A natural capital income statement (showing the positive and negative impacts of the organization) <ul style="list-style-type: none"> Scope 1 natural assets include the impacts from the organization’s own direct operations and Scope 2 natural assets include the impacts attributed to the organization through its indirect operations (i.e., of its value chain). The standard proposes an accounting process for natural capital: <ul style="list-style-type: none"> Identify the purpose of the natural capital account. Identify and plan involvement of stakeholders. Undertake materiality assessment. Select the natural capital accounting output. Collect data and conduct data quality assessment. Prepare the natural capital account and supporting schedules. This standard is applicable to all types of organizations (public, private, large, medium, small, etc.). Groups of organizations dependent on the same natural capital can produce joint accounts. The standard is applicable internationally. The standard can be used by those preparing the natural capital accounts (environmental and sustainability professionals, accountants, economists and others working in collaboration). This British Standard does not apply to national or sector-wide natural capital accounts (like the UN SEEA). 					
Outlook/Path Forward					

<ul style="list-style-type: none"> N/A 	
Analysis	
<p>Strengths:</p> <ul style="list-style-type: none"> Versatility – this standard can be applied to several different types of organization. 	<p>Weaknesses/Gaps:</p> <ul style="list-style-type: none"> Cost – the standard must be purchased to use. Fit for Purpose – although it is designed for individual organizations, public sector entities are not specifically listed as potential end-users.
City of Mississauga – Fit for Purpose ⁷	
<p>The City could consider this standard as it looks to expand its natural asset accounting efforts, but it would require some effort to fit it to its operations. The standard was designed for investors, such as fund/asset managers, and banks.</p>	

⁷ Note: KPMG did not purchase the standard during the study and relied on publicly-available information in developing this subsection.

4.9 Capitals Coalition – Corporate National Capital Accounting^{xvii}

Overview – Capitals Coalition					
Organization Name	Capitals Coalition	Year Framework Established	2015	Target Audience	Private Sector
Overview of Organization: <ul style="list-style-type: none"> The Capitals Coalition, together with the World Business Council for Sustainable Development (WBCSD) and the Value Balancing Alliance (VBA) are collaborating to develop standardized natural capital accounting practices to be applied in the European Union (EU) and globally. 					
Relevant Resources: <ul style="list-style-type: none"> The Align Project - The Align project 'Aligning Accounting Approaches for Nature' will assist the European Commission's efforts to support businesses, financial institutions and other stakeholders in developing standardized natural capital accounting practices by establishing a standardized approach to biodiversity measurement and valuation. 					
Summary of Framework/Standards: <ul style="list-style-type: none"> CNCA provides a systematic process to identify, measure, record, summarize and report on the periodic and accumulated net changes to (a) the biophysical state of natural capital assets and (b) the associated values of natural capital to business and wider society. The standard requires: <ul style="list-style-type: none"> An asset inventory recognizing the biophysical properties and dynamics of each asset category Measurement techniques that use spatially explicit data and apply the principle of ecological equivalency (like-for-like) Recording rules based on double-entry bookkeeping from financial accounting Asset-specific biophysical statements of performance and position A defined scope according to organization and value chain boundaries The Standard requires following 7 sequential steps in a prescribed order: <ul style="list-style-type: none"> Defining the natural capital stock as an asset Developing "natural capital asset registers of stocks" using classification systems Measuring changes in the state of natural capital using appropriate methods specific to each category Employing recording rules for accounting events and linked journal entries Summarizing the biophysical state of natural capital with a statement of natural capital position Summarizing net periodic biophysical changes in natural capital with a statement of natural capital performance Using valuation or other analytical methods to link the stock-based accounts and integrated datasets with complementary value framing perspectives Combined, the above steps ensure the measurement of natural capital assets recognizes biophysical properties and dynamics of each asset category, is spatially explicit, applies the ecological equivalency principle, uses double-entry booking recording rules, compiles asset-specific biophysical statements of performance and position and distinguishes accounts according to value chain boundaries 					
Outlook: <ul style="list-style-type: none"> Largely being used by companies for awareness building at this time Currently working on a project – 'Transparent' – with the aim to evolve the accounting system 					
Analysis					
Strengths: <ul style="list-style-type: none"> Detailed – robust, well-developed framework that leverages significant background research. 			Weaknesses/Gaps: <ul style="list-style-type: none"> Maturity – the guidance is still under development and should include a deeper review of implicit accounting rules to support standardization efforts and prioritize relevance for decision-making 		

City of Mississauga – Fit for Purpose:

This guidance was developed for businesses and financial institutions. The City could modify it for its own reporting, but this could come at significant time and cost.

5 Implementation Plan

The following section provides a proposed set of steps the City of Mississauga can consider when building out its natural asset reporting capacity. These actions are not meant to be prescriptive in terms of execution, rather, they are meant to inform the City's consideration of priorities. This is in large part due to the fact that much of the guidance listed above is not yet tailored to municipalities or the public sector, with the exception of the NAI-ECC Natural Capital Inventory Standard. As a result, the City's implementation plan is intended to advance its maturity for natural asset reporting, while formal frameworks and standards develop.

5.1 Outline of the Plan

The proposed implementation plan to realize the City's reporting ambition is delineated into three periods:

- **2023-2025 – Getting Started:** This period is meant to be an exploratory phase, where the City looks inward, with the goal of clarifying its aims, and then outward, to determine its desired path forward. It includes viability assessments of existing guidance, including Taskforce on Nature-related Financial Disclosure and the natural asset inventory standard. This period is greater than 1-year as to allow the City to conduct the necessary internal reviews and alignment exercises necessary to expand and formalize its efforts in subsequent years.
- **2025-2026 – Expanding:** This period will see the City expand its natural asset accounting/reporting efforts. This period will be dependent on the previous feasibility assessments of the Taskforce on Nature-related Financial Disclosure guidance and the natural asset inventory standard and goal setting exercises, as well as the status of the guidance being developed by NAI, ICC, and KPMG.
- **2026-2027 – Formalizing:** This period will see the City formalize its efforts. This period will be pathway dependent on the decisions the City makes in 2023-2024 and 2024-2025. Depending on the City's ambition, investment, and desire to be a leader, it could have a comparatively robust natural asset account at this time.

Note: The following items are presented as a potential path forward; the timing and nature of the recommendations are not intended to be overly prescriptive. The City is encouraged to consider the steps below and implement them at its discretion, under timelines that match its capacity, capabilities, and ambition. It is likely that some of the steps outlined hereafter will shift as the City clarifies and expands its efforts. It is possible that the dissolution of Peel Region could impact these timelines as well.

5.2 2023-2025 – Setting the Stage

5.2.1 Goal Setting

The City will make clear its intention and desires in relation to natural capital accounting/reporting. This will require a holistic approach, requiring several City departments and local organizations to collaborate to define what is possible, what is desirable, and what is achievable in the short and medium term. Reporting capacity – what exists, what is realistic, and what is possible – will be a major defining factor of this goal setting exercise.

5.2.2 Reporting Capacity Assessment

Based on the Financial and Sustainability Report, the City appears to have strong, in-house reporting capacity. Strong capacity of the Finance function is essential to the execution of this roadmap, as data, controls and processes around natural asset reporting will need to be built and matured to the same level as those for other financial information.

5.2.2.1 *Forestry/City Trees and Natural Asset Vulnerability*

As noted above, the City has developed a strong baseline for its urban canopy (~300,000 trees). The City has valued the trees in each of its wards, and has determined the total value of its urban canopy to be ~\$687M⁸. The figure was determined using a replacement cost methodology. The City also valued the ecosystem services the trees provide – stormwater benefits, property value improvements, energy savings, air quality benefits, and carbon removal – and determined its urban forest provides over \$30M in services.

The City also committed to conducting a climate change vulnerability assessment in 2022.

5.2.2.2 *Emitting Business Units: Facilities & Fleets*

The City current reports on Scope 1, 2, and 3 emissions using the TCFD framework.

⁸ The City used the ISA Guide for Plan Appraisal to determine the replacement value of its urban canopy.

Table 4: The City of Mississauga's Emissions

Scope	Emissions
Scope 1	Natural gas from municipal buildings: 18,140 tCO ₂ e Gasoline (corporate, transit, fire fleets): 2,677 tCO ₂ e Diesel, Biodiesel (corporate, transit, fire fleets): 56,666 tCO ₂ e
Scope 2	Electricity (municipal buildings, street lights): 2,680 tCO ₂ e
Scope 3	Solid waste disposal: 1,142 tCO ₂ e Incineration: 162 tCO ₂ e Biological Treatment: 17 tCO ₂ e

Going forward, and after determining its goals, the City will need to conduct a gap analysis to determine if it has the information and skills to adequately realize its reporting goals. Where capacity or capability gaps are discovered, the City should look to continue to add to its in-house climate change and ESG reporting expertise by recruiting staff who specialize in reporting.

5.2.3 Conduct Viability Assessment of the Taskforce on Nature-Related Financial Disclosure Framework

The Taskforce on Nature-Related Financial Disclosure (TNFD) is currently in the pilot stage. The City should consider conducting a pilot using the published draft guidance (released March 2023). Much like the TCFD framework, TNFD is not designed for municipalities. However, public sector entities have adopted TCFD, with appropriate modifications for their local government environment. TNFD is expected to be very similar. A municipal government pilot of the TNFD framework is essential to identify the modifications necessary to support more widespread adoption by municipalities. The City has demonstrated the ambition, ability, and willingness to be on the leading edge of ESG framework adoption and would be well positioned to be a leader for TNFD.

5.2.4 Monitor IPSASB Natural Resources and Advancing Public Sector Sustainability Reporting Projects

Both the Natural Resources and Advancing Public Sector Sustainability Reporting consultation papers are closed for comment. IPSASB is expected to publish exposure drafts for these two efforts later this year. The City should monitor the progress of these efforts, and participate in the public comment phase.

5.2.5 Conduct Viability Assessment of Natural Asset Inventory Standard

In mid-2023, the Natural Asset Inventory Standard will likely be published by the Canadian Standards Association. This Standard will provide a minimum requirement for the development and reporting of a natural asset inventory. The Standard is designed to be flexible, such that it can be applied to any jurisdiction. The City should consider applying the Standard as a significant initial step in developing a robust account of the City's natural assets. The standard also encourages reporters to append their inventories with condition assessments; the City could also assess its capacity to conduct said assessments.

5.2.6 Draft Report

Based on the goal-setting exercise and feasibility assessments, the City will publish an updated finance and sustainability report. This report will potentially include new elements that will complement the City's Made-in-Mississauga Sustainability Reporting Framework.

5.2.7 Participate in the NAI-ICC-KPMG Working Group

NAI, KPMG-Canada, and the Intact Center on Climate Change have convened a multi-stakeholder effort to develop and pilot voluntary guidance for financial reporting on natural asset management; and inform national and international accounting standards. The intent of this document is to provide voluntary practice guidance, to assist municipalities in applying the requirements of TNFD and other frameworks. The collaboration has resulted in:

- Multi-stakeholder discussions to begin consensus building around elements of a framework and specific guidance for financial reporting; and identification of local governments willing to pilot the guidance
- Development of the outline of an eventual guidance document, "Natural Assets Accounting Voluntary Standard / Guidance: Draft Outline"

Going forward, the Working Group will be developing voluntary guidance material with the hope of piloting it with local Canadian governments. The City of Mississauga is considered a partner in this process and a strong candidate for piloting the guidance. The City should

pursue involvement in the multi-stakeholder discussions to inform the framework development.

5.3 2025-2026 – Expanding Efforts

The steps in this phase are dependent on the City's goals and decisions. As noted, some of the items that appear in this period may shift/be delayed as a result of capacity and capability constraints or other factors. The City may decide to delay some of the proposed steps from the previous phase to this one. During this period, the City's Made in Mississauga framework will benefit from additional frameworks and guidance, with natural assets receiving increased attention.

5.3.1 Conduct Inventory of Natural Assets Using CSA Standard

If the City determines the Natural Asset Inventory Standard is in line with its goals, it should consider implementing it in this phase. The City could consider implementing it sooner if it has the capacity and desire to do so. The City may consider a phased in adoption of the standard, through the inventorying of different categories of natural assets over time.

5.3.2 Assess Viability of Piloting NAI-ICC-KPMG Working Group Guidance

By 2024/2025 the NAI-ICC-KPMG Working Group will have completed and published its draft voluntary guidance on public sector natural asset accounting. The City is already considered a stakeholder in the Working Group and a candidate municipality for the piloting phase. Implementing the guidance will likely be an interim measure for municipalities interested in formally recognizing the value of natural assets, as PSAB is currently in the process of examining if and how these can be included in financial statements.

5.3.3 Consider an Initial Attempt at TNFD Reporting

Given the TNFD guidance is designed for private sector entities, the collaboration of municipal sector leaders like the City of Mississauga is essential to enable broader public sector adoption. If the City chooses to adapt the TNFD for its Made in Mississauga Framework, it may consider a phased approach, where reports are only partially completed in the first year. This item requires commitment and resources and could shift to the following year.

5.4 2026-2027 – Formalizing Efforts and Leading by Example

The steps in this phase are pathway dependent on what the City choose to pursue in prior years. The City may also decide to delay some of the proposed steps from the previous year to this year, should there be challenges implementing any of the proposed frameworks/guidance/standards. At this stage, should the City adopt some of the proposed pieces of guidance, it will likely be a leader in the ESG/natural asset reporting space in Canada, and perhaps even internationally.

5.4.1 Expand TNFD

If the City implements parts of the TNFD in prior years, 2025-2026 would likely be its second 'official' year reporting using the framework. Having been an early adopter of the guidance, the City would be equipped to expand and/or focus its efforts based on what it has learned. There is also potentially an opportunity to become a leader and advocate, with other cities looking to Mississauga for learnings as they look to implement the guidance. This more formal attempt at reporting using TNFD could shift to later years.

5.4.2 Conduct Condition Assessments of Natural Assets

If the City determines the Natural Asset Inventory Standard is in line with its goals and decides to conduct an initial assessment of its inventory, it should consider conducting condition assessments of select assets. Condition assessments can be costly, time consuming, and difficult to maintain. However, using generally accepted principles – the City can consult peer municipalities or the Natural Asset Initiative – a reasonable condition report on select assets could likely be included in the City's reports. Condition assessments could be further used to assess the value of the assets as well.

6 Sample of Initial Reporting Options (Leaders)

6.1 Practical Implementation of Frameworks and Best Practices

This section outlines three natural asset use-cases – one at the local level, one at the regional level, and one at the national level.

6.1.1 Local – Gibsons, British Columbia^{xviiiixxx}

Standard/Framework Used	N/A	Year Adopted	2013
Relevant Resources:			
<ul style="list-style-type: none"> • Whitetower Park ponds, Gibsons, BC Valuation Study • Gibsons Eco Asset Strategy • Gibsons Natural Asset Management 			
Adoption Process:			
<ul style="list-style-type: none"> • The Town realized its 'natural assets' had significant, uncaptured value. • The cornerstone of the Town's approach is a natural capital management policy (est. 2014). • In 2018 the Town conducted a study on the value of the Whitetower Park ponds and found that the ponds have a value of between \$3.5M and \$4M 			
Takeaways:			
<ul style="list-style-type: none"> • The Town notes it estimates could be refined by using a more sophisticated model, or by taking a different economic valuation approach, such as assessing avoided costs related to flood damage. 			

6.1.2 Sub National – Ecosystem Services from Forests in Victoria (Australia)^{xxi}

Standard/Framework Used	UN SEEA	Year Adopted	2019
Relevant Resources:			
<ul style="list-style-type: none"> • Department of Environment, Land, Water, and Planning applied the SEEA framework to assess the impacts of the 2019-20 bushfires in eastern Victoria. 			
Adoption Process:			
<ul style="list-style-type: none"> • The Department of Environment, Land, Water, and Planning applied the SEEA framework to assess the impacts of the 2019-20 bushfires in eastern Victoria. • The Ecosystem Services from Forests in Victoria – Impact of the 2019-20 Bushfires Report calculates the estimated economic impact the bushfires had on the services provided by forests in East Gippsland, Gippsland and Northeast Regional Forest Agreement (RFA) regions. 			

Takeaways:

- This study identifies and, where possible, quantifies and values the impact of the bushfires on forest ecosystem services. Overall, the bushfires are expected to reduce the capacity of forests to provide ecosystem services that communities and industries benefit from.
- Once again, cultural services of ecosystems were identified as an item that is difficult to quantify and no dollar value was assigned in the study.

6.1.3 National – Canada^{xxii}

Standard/Framework Used	UN SEEA-EA	Year Adopted	2021
Relevant Resources:			
<ul style="list-style-type: none"> • Statistics Canada 			
Adoption Process:			
<ul style="list-style-type: none"> • The Canadian System of Environmental-Economic Accounts provides a conceptually integrated framework of statistics (in physical and monetary terms) and analysis for studying the relationship between the environment and human and economic activity. • External producers of datasets used by the program may include Natural Resources Canada, Environment and Climate Change Canada, Fisheries and Oceans Canada, Canadian Space Agency, Agriculture and Agri-Food Canada, Parks Canada, provincial governments, academia and non-governmental organizations. 			
Takeaways:			
<ul style="list-style-type: none"> • The government of Canada has been measuring using the SEEA framework for 2 years and is looking to expand reporting. 			

6.2 Sample Metrics

During the study, KPMG developed an initial list of potential metrics the City could consider going forward. The level of effort to gather, process and report these metrics was not assessed. They can be reviewed in Appendix B – Sample Metrics.

7 Assessment of Auditability of City's ESG Reporting

The auditability of the City's ESG reporting will be determined by the requirements of the Canadian Auditing Standards, as described in the CPA Canada Handbook. As noted above, the specific requirements for sustainability assurance are still being defined and will ultimately influence the baseline for auditability.

The requirements for auditability will also be influenced by whether the natural assets information is reported in the City's financial statements (and hence subject to the same audit requirements as other financial information), or in a separate sustainability report (and considered to be other information subject to limited scope assurance).

7.1 Management and Auditor Responsibilities

Ultimately, Canadian Auditing Standards place the responsibility on City management for:

- The preparation and fair presentation of sustainability information such as natural assets in accordance with a defined reporting framework (such as TNFD);
- Referring to, or describing in the sustainability information, the reporting framework and who developed it; and
- Designing, implementing, and maintaining internal control relevant to the preparation of the sustainability information to enable the preparation of such information that is free from material misstatement, whether due to fraud or error.

The City will need to ensure that it has reporting processes and internal controls in place to fulfill these responsibilities in support of auditability.

The Auditor's responsibilities are dependent on whether a limited assurance or reasonable assurance engagement is performed. Canadian Auditing Standards distinguish these levels of assurance as follows:

- Reasonable assurance engagement - An assurance engagement in which the Auditor reduces engagement risk to an acceptably low level in the circumstances of the engagement as the basis for the Auditor's conclusion. The Auditor's conclusion is expressed in a form that conveys the Auditor's opinion on the outcome of the measurement or evaluation, including presentation and disclosure, of the underlying subject matter, against applicable criteria.
- Limited assurance engagement - An assurance engagement in which the Auditor reduces engagement risk to a level that is acceptable in the circumstances of the engagement but where that risk is greater than for a reasonable assurance engagement as the basis for expressing a conclusion in a form that conveys whether, based on the procedures performed and evidence obtained, a matter(s) has come to the Auditor's attention to cause the Auditor to believe the sustainability

information is materially misstated. The nature, timing and extent of procedures performed in a limited assurance engagement is limited compared with that necessary in a reasonable assurance engagement but is planned to obtain a level of assurance that is, in the Auditor's professional judgment, meaningful. To be meaningful, the level of assurance obtained by the Auditor is likely to enhance the intended users' confidence about the sustainability information to a degree that is clearly more than inconsequential.

Typically, the responsibilities include a focus on designing and performing audit procedures to identify and assess the risks of material misstatement of the Sustainability Information, whether due to fraud or error. The Auditor's ability to obtain sufficient, appropriate audit evidence to support assertions over the sustainability information is critical to the audit process.

7.2 Pre-Conditions for Assurance

The City will be required to demonstrate to the Auditor that it is able to meet defined pre-conditions for Assurance over the sustainability information. These include concepts such as:

- The roles and responsibilities of management and those charged with governance are suitable;
- The underlying subject matter reported by the City is appropriate;
- The criteria that the Auditor expects to be applied in the preparation of the sustainability information are suitable for the engagement circumstances, and will be available to the intended users;
- The Auditor expects to be able to obtain the evidence needed to support their conclusion;
- The Auditor's conclusion, in the form appropriate to either a reasonable assurance engagement or a limited assurance engagement, is to be contained in a written report;
- A rational purpose, including, in the case of a limited assurance engagement, that the Auditor expects to be able to obtain a meaningful level of assurance; and
- The scope of the sustainability information expected to be reported and scope of the assurance engagement are appropriate.

7.3 Suitable Criteria

In evaluating whether the criteria are suitable and will be available to the intended users, the Auditor would typically consider concepts defined in CSAE 3000 such as:

- **Relevance:** Relevant criteria result in subject matter information that assists decision-making by the intended users.
- **Completeness:** Criteria are complete when subject matter information prepared in accordance with them does not omit relevant factors that could reasonably be expected to affect decisions of the intended users made on the basis of that subject matter information. Complete criteria include, where relevant, benchmarks for presentation and disclosure.
- **Reliability:** Reliable criteria allow reasonably consistent measurement or evaluation of the underlying subject matter including, where relevant, presentation and disclosure, when used in similar circumstances by different auditors.
- **Neutrality:** Neutral criteria result in subject matter information that is free from bias as appropriate in the engagement circumstances.
- **Understandability:** Understandable criteria result in subject matter information that can be understood by the intended users.

It has not yet been defined how these criteria will be applied in the ISSA 5000 standard which remains in development.

8 Appendixes

8.1 Appendix A – Accounting Standard Setting Environment

The following section is an overview of the accounting standard setting environment that influences financial reporting for public sector entities in Canada.

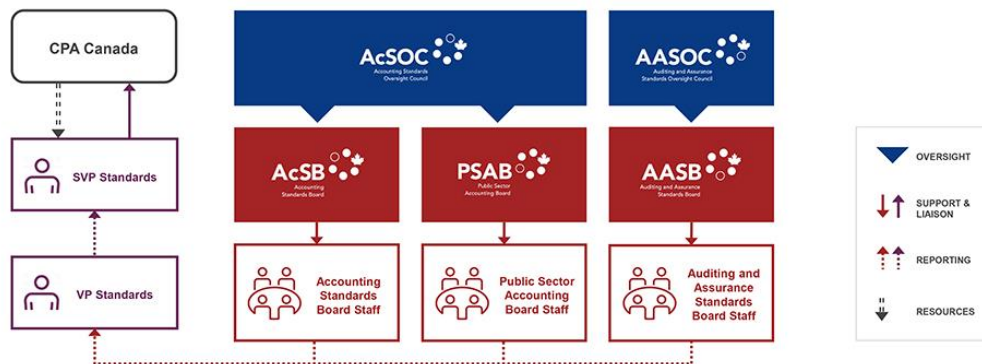
8.1.1 Canadian Standards Setting

8.1.1.1 Actors – Financial Reporting & Assurance Standards Canada^{xxiii}

Canada’s Standard-setting Boards and Oversight Councils comprise the following institutions:

- [Accounting Standards Oversight Council \(AcSOC\)](#)
- [Accounting Standards Board \(AcSB\)](#)
- [Public Sector Accounting Board \(PSAB\)](#)
- [Auditing and Assurance Standards Oversight Council \(AASOC\)](#)
- [Auditing and Assurance Standards Board \(AASB\)](#).

Figure 3: Stakeholder Overview FRAS Canada



The AcSB is responsible for:

- Contributing to the development, and approving the adoption, of International Financial Reporting Standards (IFRSs) in Canada;
- Developing standards for private enterprises;
- Developing standards for private sector not-for-profit organizations; and

- Developing standards for private sector pension plans.

PSAB is responsible for:

- Developing standards for public sector entities (including public sector not-for-profit organizations); and
- Contributing to the development of international public sector accounting standards.

The AASB is responsible for:

- Contributing to the development of International Standards on Auditing (ISAs) that it adopts as Canadian Auditing Standards (CASs); and
- Developing assurance and related services standards.

8.1.1.2 *Processes – How Standards are Developed in Canada*^{xxivxxvxxvi}

AcSB and PSAB are governed by the AcSOC. The AcSOC monitors and evaluates the performance of the Accounting Standards Board and the Public Sector Accounting Board (PSAB). It also oversees and reports on PSAB's activities/performance and ensures it follows due process. AcSOC appoints PSAB's members and provides input on strategy and priorities.

In Canada, accounting standards for all entities outside the public sector are issued by the AcSB. The AcSB adopted International Financial Reporting Standards (IFRS) as the accounting standard used by publicly accountable enterprises. These are discussed in more detail below. Private enterprises and not-for-profit organizations can choose to use separately developed standards for those entities or IFRS Standards. Accounting standards adopted by the AcSB (including IFRS Standards) are published in the CPA Canada Handbook – Accounting.

PSAB is an independent body created to serve the public interest by developing accounting standards for the public sector. They also guide financial and other performance information reported by the public sector.

The boards frequently establish volunteer member committees to explore specific topics. Committees might be established as discussion groups to provide a public forum, as task forces with a specific objective, and/or as advisory groups that provide guidance and advice to the boards. Whatever the type, they all provide input and diverse perspectives to their respective boards on proposed standards or on how to improve existing standards.

PSAB's due process for setting public sector financial reporting standards, including guidelines and statements of recommended practice, is as follows^{xxvii}:

- 1 Strategic Plan – standard-setting begins with PSAB’s strategic plan, which sets out its multi-year policy objectives and is established after stakeholder consultation and public comment.
- 2 Level of due process – the level of review varies depending on the significance of the proposed changes, the extent of consultations required to build acceptance, and the different regional practices associated with the proposed changes.
- 3 Developing a proposal
- 4 Publishing a consultation paper (non-mandatory but often occurs when a new standard is issued) to define the scope and identify research materials to review.
- 5 Publishing an exposure draft (mandatory), PSAB’s main mechanism for consulting stakeholders, and soliciting comments on a proposed standard.
- 6 Finalizing a standard.
- 7 Before publishing, PSAB considers a second exposure period (depending on the complexity of the standard).
- 8 Determination of effective date and transition requirements.
- 9 Publication.

In 2020, PSAB adopted an international strategy which references to International Public Sector Accounting Standards (IPSAS) principles as a baseline for new standards development.

8.1.2 International Standards Setting

8.1.2.1 Actors – International Standards Setters

IFRS Foundation

International standards are set by the IFRS Foundation. The IFRS Foundation is a not-for-profit, public interest organization that develops accounting and sustainability disclosure standards—IFRS Standards—and promotes and facilitates the adoption of the standards.^{xxviii}

Standards are developed by two standard-setting boards, the International Accounting Standards Board (IASB) and the International Sustainability Standards Board (ISSB). The IASB sets IFRS Accounting Standards and the ISSB sets IFRS Sustainability Disclosure Standards.

Figure 4: The IFRS Foundation's Three-tier Structure



IFRS Accounting Standards set out how a company prepares its financial statements. IFRS Sustainability Disclosure Standards set out how a company discloses information about sustainability-related factors that may help or hinder a company in creating value.

International Federation of Accountants

The International Federation of Accountants (IFAC) supports the development, adoption, and implementation of high-quality international standards. Four standards-setting boards – The International Auditing and Assurance Standards Board (IAASB), The International Accounting Education Standards Board (AESB), The International Ethics Standards Board (IESB), and the International Public Sector Accounting Standards Board (IPSASB) – are part of IFAC’s sphere of influence^{xxix}.

IPSASB, the most relevant of the four boards for this Background Paper, develops accounting standards and guidance for the public sector. PSAB is a founding member of IPSASB. IPSASB’s goal is to strengthen public financial management by increasing the adoption of accrual-based International Public Sector Standards (IPSAS).

8.1.2.2 Processes – How Standards are Developed Internationally

IFRS Foundation

The IFRS Foundation has a well-documented approach to developing standards. Through the IASB, standards are set through the following steps^{xxx}:

- 1 Agenda Consultation – every five years the IASB conducts a review and consultation to define new priorities and develop a project work plan.
- 2 Research Programme – research and the development of a consultation paper to share with the public.
- 3 Standard-Setting Programme – IASB decides to amend a standard or issue a new one.
- 4 Maintenance Programme – review of the implementation of existing or new standards to improve them.

International Federation of Accountants

IPSASB follows a due process^{xxxii} to ensure IPSAS are appropriately developed and disseminated. This process allows all those interested to make their views known and ensures all views are considered and is comprised of the following steps:

- 1 Project Brief
- 2 Development of Proposed International Standard
- 3 Public Exposure
- 4 Consideration of Respondents’ Comments on an Exposure Draft
- 5 Interaction with the IPSASB Consultative Advisory Group
- 6 Matters of Due Process (decision)
- 7 Approval of an International Standard, and Consideration of the Need for Re-Exposure

PSAB responds to documents for comment published by IPSASB and encourages Canadian stakeholders to monitor IPSASB projects and respond to these documents as well.

8.2 Appendix B – SDG Targets

This Appendix outlines the City’s specific SDG targets.

SDG	Target
SDG 3 – Good Health and Well-Being	<p>Target 3.4. Promote mental health and well-being.</p> <p>Target 3.9. Reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.</p>

SDG 4 – Quality Education	<p>Target 4.4. Substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.</p> <p>Target 4.7. Ensure that all learners acquire the knowledge and skills needed to promote sustainable development.</p>
SDG 5 – Gender Equality	<p>Target 5.1. End all forms of discrimination against all women and girls everywhere.</p> <p>Target 5.5. Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.</p>
SDG 6 – Clean Water and Sanitation	<p>Target 6.6. Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.</p>
SDG 7 – Affordable and Clean Energy	<p>Target 7.2. Increase substantially the share of renewable energy in the (global) energy mix.</p>
SDG 8 – Decent Work and Economic Growth	<p>Target 8.1. Sustain per capita economic growth in accordance with national circumstances.</p> <p>Target 8.2. Achieve higher levels of economic productivity through diversification, technological upgrading and innovation</p> <p>Target 8.3. Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises.</p> <p>Target 8.5. By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.</p> <p>Target 8.8. Protect labour rights and promote safe and secure working environments for all workers.</p> <p>Target 8.9. By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.</p>

SDG 9 – Industry, Innovation, and Infrastructure	<p>Target 9.1. Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.</p> <p>Target 9.4. Upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.</p>
SDG 10 – Reduced Inequalities	<p>Target 10.2. Empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.</p> <p>Target 10.3. Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard</p>
SDT 11 – Sustainable Cities and Communities	<p>Target 11.1. Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.</p> <p>Target 11.2. Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.</p> <p>Target 11.4. Strengthen efforts to protect and safeguard the world's cultural and natural heritage.</p> <p>Target 11.7. Provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities</p>
SDG 12 – Responsible Consumption and Production	<p>Target 12.2. Achieve the sustainable management and efficient use of natural resources.</p> <p>Target 12.7. Promote public procurement practices that are sustainable, in accordance with national policies and priorities.</p> <p>Target 12.8. Ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.</p>
SDG 13 – Climate Action	<p>Target 13.3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.</p>
SDG 14 – Life Below Water	<p>Target 14.1. Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.</p>

SDG 15 – Life on Land	<p>Target 15.1. Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands.</p> <p>Target 15.2. Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.</p>
SDG 16 – Peace, Justice and Strong Institutions	<p>Target 16.7. Ensure responsive, inclusive, participatory and representative decision-making at all levels.</p>
SDG 17 – Partnerships for the Goals	<p>Target 17.3. Mobilize additional financial resources.</p> <p>Target 17.7. Promote the development, transfer, dissemination and diffusion of environmentally sound technologies</p> <p>Target 17.14. Enhance policy coherence for sustainable development.</p> <p>Target 17.17. Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.</p>

8.3 Appendix C – Sample Metrics

This Appendix some of the metrics KPMG and the City discussed during the engagement.

Name	Type	Description of Metric(s)	Source	Alignment to City of Mississauga Priorities
Extent of land used for business activity	Nature-Related Disclosure	Area of natural terrestrial ecosystems owned, leased and/or operated in by ecosystem type and business activity (km ²)	TNFD – Impact Drivers Metric (CDSB Biodiversity)	Natural Capital – <i>Intensification, and Sustainable and Accessible Development</i>
Non-GHG air pollutants	Nature-Related Disclosure	Volume of non-GHG pollutants (tonnes/year) released to air. Examples include: <ul style="list-style-type: none"> • Particulate Matter • Sulphur Oxide • Nitrogen Oxide 	CMA HFIR – Transport, SFDR PAI, WBA-B8	Natural Capital – <i>Sustainability Initiatives (Corporate zero waste strategy/emissions inventory)</i>
Pollutants released to soil	Nature-Related Disclosure	Total pollutants (tonnes/year) released to soil split into types (e.g. pesticides).	CDSB Biodiversity	Natural Capital – <i>Sustainability Initiatives (Corporate zero waste strategy)</i>
Solid waste disposal	Nature-Related Disclosure	Total amount (tonnes/year) of hazardous and non-hazardous waste by type disposed of by type of disposal (incineration with energy recovery, incineration without energy recovery, landfilling, other)	CDSB Biodiversity ; ESRS-5	Natural Capital – <i>Sustainability Initiatives (Corporate zero waste strategy)</i>

Use of natural resources sourced from land	Nature-Related Disclosure	Extent of area that the organisation controls and/or manages that is used for the production of natural commodities sourced from land, split into types of resources extracted (tonnes/year; e.g., timber)	CDP	Natural Capital – <i>Protecting and growing natural areas / Sustainability Initiatives (Living Green Strategic Pillar)</i>
Level of invasive species in area	Nature-Related Disclosure	Presence/absence (qualitative, species description) of invasive species in area.	N/A	Natural Capital – <i>Protecting and growing natural areas/ Invasive species management plan</i>
Level of noise pollution	Nature-Related Disclosure	Decibels of noise above normal level in area	CDP	Natural Capital – <i>Sustainability Initiatives (Corporate zero waste strategy)</i>
Ecosystem extent (area of coverage of an ecosystem)	Nature-Related Disclosure	Habitat/land cover – the extent of a particular ecosystem type without factoring in the condition of the ecosystem Direct: Habitat surveys Secondary: Change in extent of tree cover • Proxy: Certification status where scheme addresses avoidance of habitat loss.	TNFD – State of Nature (EFRAG, The Align Project, and Hansen et al)	Natural Capital – <i>Protecting and growing natural areas/ Sustainability Initiatives (Living Green Strategic Pillar)</i>

Ecosystem condition (compositional state)	Nature-Related Disclosure	Measures multiple (i.e., number of unique) species within an ecosystem, giving a proxy of condition. Direct Measure: Coral reef and other ecosystem surveys	The Align Project EFRAG	Natural Capital – <i>Protecting and growing natural areas/ Sustainability Initiatives (Living Green Strategic Pillar)</i>
Ecosystem condition (landscape and seascapes)	Nature-Related Disclosure	Measures 'intactness, fragmentation and connectivity' – the average change in local species richness in an area from a reference intact state. <ul style="list-style-type: none"> Secondary: Terrestrial Biodiversity Intactness Index 	The Align Project EFRAG UNEPWC MC Natural History Museum	Natural Capital – <i>Protecting and growing natural areas/ Sustainability Initiatives (Living Green Strategic Pillar)</i>
Regulating and maintenance services – global climate regulation services	Nature-Related Disclosure	Amount of carbon (tonnes/year) absorbed by vegetation (tons of CO2e)	TNFD – Ecosystem Services (CDSB Biodiversity)	Natural Capital –Sustainability Initiatives (Climate Change Action Plan; Green Infrastructure)
Water flow regulation services (baseline flow maintenance; peak flow mitigation)	Nature-Related Disclosure	Capacity of reservoirs or alternative forms of storage (m3) otherwise needed to provide same service	UN SEEA – EA	Natural Capital –Sustainability Initiatives (Green Infrastructure)
Coastal protection services	Nature-Related Disclosure	Coastal protection capacity (km)	Maes (2016)	Natural Capital –Sustainability Initiatives (Green Infrastructure)

Amount of properties with cultural benefits	Nature-Related Disclosure	Number of properties with views of natural landscapes/located near green/blue areas	UN SEEA – EA	Natural Capital –Sustainability Initiatives (Green Development Strategy)
Coastal erosion – shoreline value	Natural Asset Accounting	For erosion, damages can be calculated based on the value of a section of beach (\$/m2)	Natural Asset Initiative	Natural Capital – Sustainability Initiatives (Stewardship/ Naturalization Programs)
Waterway value	Natural Asset Accounting	For a stream that provides natural stormwater equivalent services, engineering and replacement costs (i.e., \$/m2 and flowrate) can be used as a proxy to value an existing natural waterway. (See Town of Oakville pilot study) .	Natural Asset Initiative	Natural Capital – Sustainability Initiatives (Green Infrastructure)

9 References and Notes

- ⁱ Any guidance developed by the Working Group must necessarily be voluntary and non-authoritative as it would otherwise need to be part of Generally Accepted Accounting Principles (GAAP), applicable to all public sector entities, and thus under the authority of PSAB.
- ⁱⁱ Town of Gibsons, 2014, Towards an Eco-Asset Strategy, Available at <http://www.gibsons.ca/eco-assets>.
- ⁱⁱⁱ Brooke, R., Cairns, S., Machado, E., Molnar, M. (2015a). Municipal Natural Capital Project Background Paper Stakeholder workshop - November 09, 2015.
- ^{iv} Brooke, R., Cairns, S., Machado, E., Molnar, Summary of Key Points Municipal Natural Capital Workshop Creekside Community Center, Vancouver November 09, 2015.
- ^v Brooke, R., Cairns, S., Machado, E., Molnar, M. (2017). Defining and Scoping Municipal Natural Assets. Available at: <https://NAI.ca/media/2018/02/finaldesignedsept18NAI.pdf>.
- ^{vi} TNFD, 2022, Version 2 Executive Summary, Available at: <https://framework.tnfd.global/executive-summary/v02-beta-release/>
- ^{vii} TNFD, 2022, Version 2 Framework, Available at: <https://framework.tnfd.global/wp-content/uploads/2022/07/TNFD-Framework-Document-Beta-v0-2-v2.pdf>
- ^{viii} TNFD, 2022, Version 3 Framework, Available at: <https://framework.tnfd.global/>
- ^{ix} United Nations, 2022, SEEA, Available at: https://seea.un.org/sites/seea.un.org/files/seea_longbro-final-small.pdf
- ^x United Nations, 2022, SEEA, Available at: https://seea.un.org/sites/seea.un.org/files/documents/EA/seea_ea_white_cover_final.pdf
- ^{xi} IFRS Foundation, 2022, General Requirements for Sustainability, Available at: <https://www.ifrs.org/content/dam/ifrs/project/general-sustainability-related-disclosures/exposure-draft-ifrs-s1-general-requirements-for-disclosure-of-sustainability-related-financial-information.pdf>
- ^{xii} IFRS Foundation, 2022, Climate Change Disclosures, Available at: <https://www.ifrs.org/content/dam/ifrs/project/climate-related-disclosures/issb-exposure-draft-2022-2-climate-related-disclosures.pdf>
- ^{xiii} IPSASB, 2022, Sustainability Reporting Consultation Paper, Available at: <https://www.ifac.org/system/files/publications/files/IPSASB-Sustainability-Reporting-CP.pdf>
- ^{xiv} IPSASB, 2022, Natural Resources Consultation Paper, Available at: <https://www.ipsasb.org/consultations-projects/natural-resources>
- ^{xv} IPSASB, 2022, About IPSASBS, Available at: <https://www.ipsasb.org/about-ipsasb>
- ^{xvi} British Standards Institution, 2022, Natural Capital Standard, Available at: <https://www.bsigroup.com/en-GB/standards/bs-86322021/>
- ^{xvii} Capitals Coalition, 2022, The Align Project, Available at: <https://capitalscoalition.org/project/align/>
- ^{xviii} Town of Gibsons, 2018, Case Study, Available at: https://NAI.ca/media/2018/01/TownofGibsons_CaseStudy.pdf
- ^{xix} Town of Gibsons, 2018, Eco Asset Strategy, Available at: https://NAI.ca/media/2018/01/EcoAsset_Strategy.pdf
- ^{xx} Town of Gibsons, 2022, Natural Asset Policy, Available at: <https://gibsons.ca/sustainability/natural-assets/#:~:text=GIBSONS'%20NATURAL%20ASSETS&text=The%20Gibsons%20Aquifer%2C%20for%20example,acts%20as%20a%20natural%20seawall.>
- ^{xxi} Province of Victoria Department of Environment, Land, Water, and Planning, 2019, Economic Value Impacts on Ecosystem Services of Regional Forest Fires, Available at: <https://www.environment.vic.gov.au/accounting-for-the-environment>

-
- xxii Statistics Canada, 2022, Canadian System of Environmental-Economic Accounts - Ecosystem Accounts, Available at: [Surveys and statistical programs - Canadian System of Environmental-Economic Accounts - Ecosystem Accounts \(statcan.gc.ca\)](https://www150.statcan.gc.ca/n1/pub/59-628-x/2022001/article/00001-eng.htm)
- xxiii FRAS Canada, 2022, Frequently Asked Questions, Available at: [Frequently Asked Questions: Standard Setting in Canada \(frascanada.ca\)](https://www.frascanada.ca/en/about-us/frequently-asked-questions)
- xxiv FRAS Canada, 2022, About AcSOC, Available at: [About AcSOC \(frascanada.ca\)](https://www.frascanada.ca/en/about-us/about-acsoc)
- xxv FRAS Canada, 2022, About AcSB, Available at: [About the AcSB \(frascanada.ca\)](https://www.frascanada.ca/en/about-us/about-acsb)
- xxvi FRAS Canada, 2022, About PSAB, Available at: [About \(frascanada.ca\)](https://www.frascanada.ca/en/about-us/about-psab)
- xxvii FRAS Canada, 2022, PSAB Due Process, Available at: [PSABs StandardSetting Due Process Manual Final EN.pdf](https://www.frascanada.ca/en/about-us/psab-due-process)
- xxviii IFRS Foundation, 2022, Our Structure, Available at: <https://www.ifrs.org/about-us/our-structure/>
- xxix International Federation of Accountants, 2022, What we do, Available at: <https://www.ifac.org/what-we-do>
- xxx IFRS Foundation, 2022, How we set IFRS Standards. Available at: <https://www.ifrs.org/about-us/how-we-set-ifrs-standards/>
- xxxi IPSASB, 2016, Due Process and Working Procedures, Available at: <https://www.ifac.org/system/files/uploads/IPSASB/IPSASB-Due-Process-and-Working-Procedures-June-2016.pdf>

Contact us

Bailey Church
KPMG Accounting Advisory
T +613 212 3698
E bchurch@kpmg.ca

www.kpmg.com

© 2023 KPMG LLP, an Ontario limited liability partnership and member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. KPMG Canada provides services to KPMG LLP.

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.