TSM Performance Credential Governance Framework (Primary Document)

1. Primary Document

1.1. Introduction

Established in 2004, the Towards Sustainable Mining™ (TSM) is a globally recognized program developed by the Mining Association of Canada (MAC) to provide mining operations a standardized way to evaluate and manage their environmental and social responsibilities. The TSM program outlines a set of nine (9) protocols that include indicators designed to assist mining operators in building, measuring, and publicly reporting on the quality of their management systems and performance in key areas of mining activity.

Acknowledgements The development of this documentation follows the governance framework created by the Trust over IP Foundation (ToIP) Governance Metamodel Specification created by the Governance Stack Working Group (GSWG).

The TSM Performance Credential is provided "as is", and MAC disclaims all representations, warranties, conditions, obligations, and liabilities of any kind, whether express or implied, in relation to the TSM Performance Credential digital credential, including without limitation implied warranties with respect to merchantability, satisfactory quality, fitness for a particular purpose and non-infringement.

MAC does not guarantee that the digital certificate will operate, will operate error-free, or that the digital certificate will be available at all times or be available in a timely manner. Use of the digital certificate is at your own risk and may require third-party applications or services.

Use of the digital certificate means that you understand and agree that MAC will not be liable in any event for any loss or damage, including (i) consequential losses or damages; (ii) loss of actual or anticipated profits or income (whether direct or indirect); (iii) loss of contract or business or other losses or damages arising from your use of the digital certificate; and (iv) special, indirect, incidental or punitive losses or damages.

1.2. Terminology and Notation

Please reference Glossary - General Trust Over IP Terms.

Requirements include any combination of Machine-Testable Requirements and Human-Auditable Requirements. Unless otherwise stated, all Requirements MUST be expressed as defined in RFC 2119.

- Mandates are Requirements that use a MUST, MUST NOT, SHALL, SHALL NOT or REQUIRED keyword.

- Recommendations are Requirements that use a SHOULD, SHOULD NOT, or RECOMMENDED keyword.

- Options are Requirements that use a MAY or OPTIONAL keyword.

Machine-Testable Requirements are those with which compliance can be verified using an automated test suite and appropriate scripting or testing software.

Rules are Machine-Testable Requirements that are written in a Machine-Readable language and can be processed by a Rules Engine. They are expressed in a structured rules language as specified by the Governance Framework.

Human-Auditable Requirements are those with which compliance can only be verified by an audit of people, processes, and procedures.

Policies are Human-Auditable Requirements written using standard conformance terminology. The Policies used in the Governance Framework will use the standard terminology detailed in RFC 2119 keywords. Note that all RFC 2119 keywords have weight from an auditing perspective. An implementer MUST explain why a SHOULD or RECOMMENDED requirement was not implemented and SHOULD explain why a MAY requirement was implemented.

Specifications are documents containing any combination of Machine-Testable Requirements and Human-Auditable Requirements needed to produce technical interoperability.

1.3. Localization

The standard language for this governing framework (GF) is English.

1.4. Governing Authority

The Mining Association of Canada (MAC) is the governing authority that leads the development, maintenance, and implementation of the Governance Framework (GF) for TSM. The governance and decision-making process for the TSM program includes the following groups and committees:

- The **TSM Governance Team** is a subcommittee of the MAC Board of Directors. This group is responsible for providing strategic direction on all matters related to TSM and making recommendations to the Board on proposed changes to the program.

- The **MAC Board of Directors** sets the overall objective and recommends changes. In practice, the MAC Board will only consider a decision if the Community of Interest Advisory Panel (COI Panel) is comfortable with the direction proposed.

- The **Community of Interest Advisory Panel (COI Panel)** is an independent advisory body comprised of individuals from Indigenous groups, mining communities, non-governmental organizations, and organized labour, among others. Industry representatives participate in the panel on an ex officio basis.

Reference **TSM 101: A Primer**
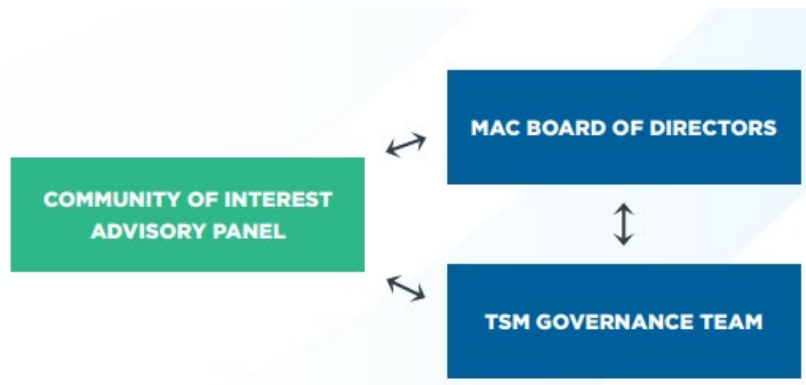
The contact information for The Mining Association of Canada (MAC) is:

- **Name:** Katherine Gosselin
- **Title:** Director of Towards Sustainable Mining
- **Organization:** The Mining Association of Canada
- **Email:** kgosselin@mining.ca

1.5. Administering Authority

The contact information for The Mining Association of Canada (MAC) is:

- **Name:** Katherine Gosselin
- **Title:** Director of Towards Sustainable Mining
- **Organization:** The Mining Association of Canada
- **Email:** kgosselin@mining.ca

1.6. Purpose

The purpose of this Governance Framework (GF) is to define what a TSM Performance Credential is and who is responsible for the authority and administration of its use.

1.7. Scope

A TSM Performance Credential issued according to this GF, provides summary information for each protocol as required.

1.8. Objectives

To allow the credential holder proof of summary data for each protocol in a variable credential format that is both secure and tamperproof: TSM Protocols & Frameworks):

The TSM program outlines the following objectives in its Theory of Change

1. Multi-Stakeholder Engagement

2. Continual Improvement

3. Driving Change Across the Mining Industry

4. Credible Performance Reporting

The TSM summary credential includes a combination of pass/fail scores and letter grades ranging from Level C to Level AAA based on the below rating scale:

AAA	Excellence and leadership.
AA	Systems and process are integrated into management decisions and business functions.
A	Good practice. Systems and processes are developed and implemented.
B	Procedures exist but are not fully consistent or documented. Systems and processes are planned and being developed.
C	No systems are in place. Activities tend to be reactive. Procedures may exist but are not integrated into policies and management systems.

1.9. Principles

TSM has a set of Guiding Principles, which all participating members must commit to. These Guiding Principles, address the expectation of its members towards adopting social, economic, and environmental practices that align with the priorities and values of their communities of interest.

1.10. General Requirements

Verification Process

Each year, facilities self-assess and publicly report on their TSM performance. Every three years, TSM self-assessed scores are validated by a TSM Verifier. More information about the verification process can be found in the TSM Verification Guide

1.11. Revisions

Version 1.0. MAC as the secretariat of TSM approves all revisions and changes.

1.12. Extensions

There are no extensions to this Governance Framework.

1.13. Schedule of Controlled Documents

The TSM Guiding Principles are backed by a suite of protocols against which mining companies measure and publicly report their performance in the annual TSM Progress Reports.

1. Biodiversity Conservation Management Protocol

2. Climate Change Protocol

3. Crisis Management Protocol

4. Equitable, Diverse, and Inclusive Workplace Protocol

5. Indigenous and Community Relationships Protocol

6. Prevention of Child and Forced Labour Protocol

7. Safe, Healthy and Respectful Workplaces Protocol

8. Tailings Management Protocol

9. Water Stewardship Protocol

2. Controlled Documents

2.1. Glossary

- **Verifier**: Independent third-party verifiers act as auditors that validate self-assessed TSM scores. Every three years, a trusted verifier critically reviews a company's self-assessments to determine if there is adequate evidence to support the performance ratings reported.

- **Community of Interest (COI) Advisory Panel**: Independent multi-interest advisory body comprised of individuals from Indigenous groups, mining communities, non-governmental organizations, and organized labour, among others. The MAC Board also selects a few representatives from the TSM Governance Team to participate in the panel on an ex-officio basis.

- **MAC Board of Directors**: The Mining Association of Canada (MAC) is governed by a team of industry leaders from our membership who were selected for their breadth and depth of mining experience. Through their

strategic guidance and oversight, these professionals collectively play a vital role in advancing the work of MAC and the industry at large.

2.2. Risk Assessment

[The Mining Association of Canada (MAC) Board of Directors (Board)](#) is the primary authority for the risk assessment process of the TSM Program.

2.3. Trust Assurance and Certification

Trust Assurance and Certification is determined primarily by the [MAC Board of Directors](#).

MAC utilizes the [TSM Mutual Cooperation Agreement Template](#) as a trust assurance framework for international adoption. MAC has identified the following minimum categories of requirements for Licensees:

1. Guiding Principles

2. Performance Indicators

3. Facility-level Reporting

4. Independent Verification

5. Public Reporting of Facility Level Reporting

6. Community of Interest Advisory Body

7. Condition of Membership

2.4. Governance Requirements

The TSM Performance Credential is governed by the **[TSM Program Governance](#)**

2.5. Business Requirements

The primary use of the TSM Performance Credential is the verification of company performance for each of the TSM protocols.

2.6. Technical Requirements (Credential)

The Verifiable Credential format for this credential is AnonCreds specification (https://hyperledger.github.io/anoncreds-spec/)

2.6.1 Schema Definition

Schema Name: tsm.performance.2023

Schema Version: 1.0

This schema definition follows the AnonCreds specification (https://anoncreds-wg.github.io/anoncreds-spec/)

tsm.performance.2023	Schema Version 1	https://mining.ca/download/47054/?tmstv=1703097053
tsm.performance.2022	Schema Version 1	To be added

2.6.2. Credential Implementation

Ledger	SCHEMA DEF	CRED DEF	Notes
BCovrin Test	TBD	---	---

2.7. Information Trust Requirements

[MAC Privacy of Information](#)

2.8. Inclusion, Equitability, and Accessibility Requirements

[MAC Advancing Diversity and Inclusion](#)

2.9. Legal Agreements

MAC is the intellectual property owner of the TSM program. MAC licenses TSM to industry associations that choose to adopt TSM based on the following agreement template: [TSM Mutual Cooperation Agreement](#)

Industry adopters of TSM are also bound to agree and abide by the [TSM Claims and Labels Policy](#). Claims and labels are the messages, logos and imagery used to communicate that an entity meets a certain level of Towards Sustainable Mining (TSM) performance. Claims and labels may be used in marketing and communications materials, annual reports, and other media by companies and facilities that are members of associations implementing TSM.

End of Document