



**TOWARDS
SUSTAINABLE
MINING**

Table of Contents

- 1 Introduction..... 1**
 - 1.1 About TSM 1
 - 1.2 TSM Assurance Framework 1
 - 1.3 How to Use this Guide 3
- 2 Who Can Conduct a TSM External Verification? 4**
 - 2.1 Verifier Requirements 4
 - 2.2 TSM Training..... 4
 - 2.3 Maintaining the Verifier Designation 4
 - 2.4 Annual Update Webinar for Verifiers 5
 - 2.5 Responsibilities of the Client..... 5
- 3 TSM External Verification Process 6**
 - 3.1 Planning 6
 - 3.1.1 Verification Scope 6
 - 3.1.2 Site Visits..... 7
 - 3.1.3 Interviewing COI Representatives..... 8
 - 3.1.4 Verification Plan..... 10
 - 3.1.5 Verification Checklist 10
 - 3.2 Execution 10
 - 3.3 Reporting..... 11
 - 3.3.1 Public Verification Report..... 11
 - 3.3.2 Confirmation of Verified Ratings..... 12
 - 3.4 Feedback 12
- 4 Using the TSM Responsible Sourcing Alignment Supplement..... 13**
- 5 Dispute Resolution Process..... 14**
- 6 Continual Improvement 15**
 - 6.1 Verifier Oversight Process 15
- Appendices 16**
 - A. Terms of Reference for Verifiers..... 16
 - B. Verification Oversight Policy..... 16
 - C. TSM External Verification Plan Template 22
 - D. Verification Report Template 26
 - E. Definitions 26

List of Figures

- Figure 1: TSM Assurance Framework.....2

1 Introduction

1.1 About TSM

The *Towards Sustainable Mining* (TSM) standard is a globally recognized sustainability program that supports mining companies in managing key environmental and social risks. TSM was the first mining sustainability standard in the world to require site-level assessments and is mandatory for all companies that are members of implementing associations. Through TSM, critical aspects of social and environmental performance are evaluated, independently verified, and publicly reported against distinct performance indicators.

Increasingly, other mining associations, governments, investors, and manufacturers are looking to TSM as global best practice in sustainable and responsible mining. In recent years, mining associations have adopted the program across six continents.

The program's core strengths include:

- **Accountability:** Participation in TSM is mandatory for all members of associations implementing TSM. Assessments are conducted at the facility level where the mining activity takes place – the first mining sector standard in the world to do so. This provides local communities with a meaningful view of how a nearby mine is faring.
- **Transparency:** Members commit to a set of *TSM Guiding Principles*, defined by each association that implements TSM, and reports their performance publicly against the program's indicators annually. Each facility's results are publicly available and externally verified every three years.
- **Credibility:** TSM includes ongoing consultation with a national Community of Interest Advisory Panel (COI Panel). This independent, multi-interest group helps members and COI foster dialogue, improve the industry's performance, and shape the program for continual advancement. Each national panel is comprised of about 12 to 15 individuals from Indigenous groups, communities where the industry is active, environmental and social non-governmental organizations, and labour and financial organizations, among others. Select members of each implementing association's board participate in their national panels to provide a mining industry perspective in discussions.

1.2 TSM Assurance Framework

The TSM Assurance Framework is designed to ensure that facilities report their TSM performance results accurately, consistently and with credibility.

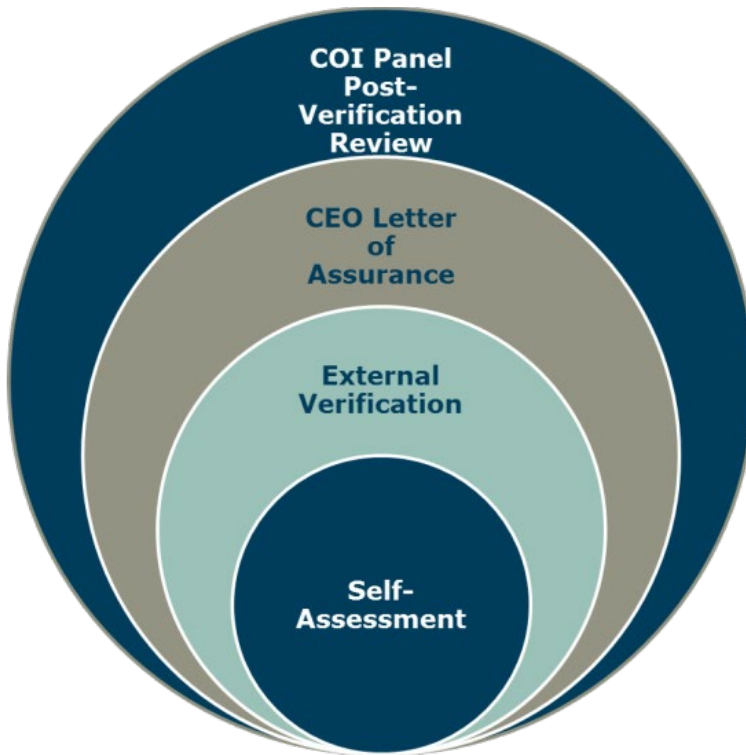


Figure 1: TSM Assurance Framework

As shown in Figure 1, the assurance framework includes four components:

1. **TSM Self-Assessment:** Facilities annually conduct a self-assessment of their performance against all TSM protocols. This self-assessment forms the foundation of the program. Member companies are expected to undertake high-quality, evidence-based, rigorous self-assessments. Facilities must document the results and supporting evidence and publish their performance ratings on the TSM website each year.
2. **External Verification:** Every three years, a qualified Verifier reviews a facility's self-assessment to determine if there is adequate evidence to support the performance ratings reported. This *TSM Verification Guide* is intended to support the Verifier in interpreting and applying requirements related to this component of the assurance framework.
3. **CEO Letter of Assurance:** In the year of external verification, the company's CEO or equivalent is required to publish a letter alongside its TSM performance results on the TSM website, confirming that the external verification has been conducted in accordance with the *Terms of Reference for Verifiers* and is an accurate reflection of performance.
4. **COI Panel Post-Verification Review:** Each year, the COI Panel selects a sample of companies to present and discuss their TSM results. Through these discussions, the panel tests whether and how facility systems are leading to performance improvements. The panel also explores the facility's challenges and any efforts to address performance gaps.

The *Terms of Reference for Verifiers* (see Appendix A) establishes minimum requirements for Verifiers conducting TSM external verifications and defines the verification process to be followed in these engagements. It also identifies the requirements and expectations for facilities to ensure they follow a clear and consistent process for hiring qualified Verifiers. This *TSM Verification Guide* provides detailed information on the external verification process and related requirements to support facilities and Verifiers in meeting the requirements of the *Terms of Reference for Verifiers*.

1.3 How to Use this Guide

This guide provides Clients and Verifiers with additional information and guidance required to conduct high quality TSM external verifications. Verifiers must adhere to the requirements of this guide to conduct TSM external verifications in accordance with the *Terms of Reference for Verifiers*.

Section 2	Explains the qualifications and competencies necessary to obtain and maintain the Verifier designation, as well as the responsibilities of Clients when engaging a Verifier.
Section 3	Provides important information and requirements related to planning, executing, and reporting on a TSM external verification, as well as how Verifiers can provide feedback to associations implementing TSM.
Section 4	Introduces and explains how to use the <i>TSM Responsible Sourcing Alignment Supplement</i> , a voluntary tool to support Clients in using their TSM performance to demonstrate conformance with other standards.
Section 5	Provides an overview of the TSM dispute resolution process, which Clients and Verifiers can use as required.
Section 6	Explains the process to ensure and continually improve the quality of the TSM program and external verifications, including an overview of the verification oversight process and the annual webinar for Verifiers.
Appendices	The appendices provide useful documents and tools for Verifiers and Clients, including the <i>Terms of Reference for Verifiers</i> , templates, and definitions.

2 Who Can Conduct a TSM External Verification?

2.1 Verifier Requirements

It is important to the credibility of TSM that only well-qualified and independent Verifiers perform TSM External Verifications. The Terms of Reference for Verifiers (see Appendix A) establish minimum requirements that Verifiers must meet to conduct a TSM external verification. Of note:

- These requirements must be met by any individual who acts as a Verifier for a TSM external verification. That is, individuals are qualified as Verifiers, rather than companies or organizations.
- These requirements are specific to TSM external verifications. If a Client chooses to engage a third party to conduct a TSM gap assessment, self-assessment, or other consulting work related to TSM, it is at the discretion of the Client to establish requirements related to qualifications and competency.
- It is the responsibility of the Client to ensure the Verifier meets these minimum requirements. The CEO Letter of Assurance must attest to this.

The *Terms of Reference for Verifiers* outline the minimum requirements for audit experience and credentials, subject matter experience, TSM training, and independence. Upon successful completion of TSM training (see Section 2.2 below), new Verifiers are added to the list of Verifiers on the TSM website. When engaging a Verifier, the Client should ensure the individual under consideration is included in this list.

Note that there is no set requirement for the size of the verification team or the associated level of effort. Many factors can influence these decisions, including the complexity of the site, the maturity of management systems, and the experience of the Verifier.

2.2 TSM Training

The TSM training program is offered through facilitated workshops (virtual or in-person) and a self-directed online training program. The training includes:

- An introduction of the TSM program
- An overview of the requirements and expectations of TSM verifiers
- Information on recent or upcoming changes to the TSM program
- Presentations and case study exercises to support understanding of each TSM protocol
- Opportunities to seek clarification from a qualified TSM facilitator

2.3 Maintaining the Verifier Designation

Verifiers must meet the following requirements to ensure that they maintain current knowledge of TSM protocols and verification requirements:

1. Participate in a TSM training workshop at least once every three years (see Section 2.2 above). See the *Terms of Reference for Verifiers* for exceptions.

2. Attend an annual TSM update webinar to learn about any changes to the program (see Section 2.4 for details).

2.4 Annual Update Webinar for Verifiers

An annual update webinar is held each year to ensure that Verifiers have the latest information on TSM as the program evolves. The webinar is used to:

- Communicate changes to TSM frameworks, protocols, guidance documents, external verification, and reporting systems
- Share updates on international adoption of TSM and efforts to align with other standards
- Discuss protocol interpretation questions
- Share findings and recommendations from the annual verifier oversight process

Verifiers are encouraged to submit any TSM-related questions in advance of the webinar so that these can be addressed in the presentation.

While it is preferable to attend the webinar in real-time, a recording is provided for those unable to attend at the scheduled time. Evidence of participation in the annual webinar (whether in real-time or asynchronously) is required to maintain accreditation.

2.5 Responsibilities of the Client

To ensure the quality and credibility of the external verification program, Clients must:

- Use the list of Verifiers published on the MAC website to identify qualified candidates to perform a TSM external verification
- Ensure that all requirements of the *Terms of Reference for Verifiers* are met before entering a contractual arrangement for external verification services
- Issue a CEO Letter of Assurance in the year of external verification that confirms the verification was performance in conformance with the *Terms of Reference for Verifiers*

3 TSM External Verification Process

The purpose of the external verification process is to have an independent, third-party Verifier determine whether there is sufficient evidence to support the Client's self-assessed ratings for each TSM indicator. The Verifier applies standard verification practices to collect and assess the evidence, including document and record review, interviews with company personnel, interviews with select community of interest (COI) representatives and observations (where possible).

The verification process includes three phases of work – planning, execution, and reporting – each of which is described below.

3.1 Planning

During the verification planning phase, the Verifier engages with the Client and reviews background documentation to inform decisions regarding the verification scope, approach, and execution plan. This includes decisions related to site visits, COI interviews, and reliance on external audits. The output of this step will be a verification plan for submission to and approval by the Client. In preparing the verification plan, Verifiers should consider the length of time required to review documents, conduct interviews, and analyze evidence for each protocol to verify self-assessment results.

3.1.1 Verification Scope

Step 1: The first step is to confirm the scope of the verification. The Verifier should engage with the Client to confirm:

1. the facilities included in the scope of the verification
2. whether any of the protocols are deemed to be Not Applicable (NA) at any of the facilities
(At most facilities, all protocols are applicable. However, the TSM Tailings Management Protocol would be considered NA at a site without tailings facilities.)

According to the *Terms of Reference for Verifiers*, the Verifier must verify each TSM protocol at each facility for which they have been contracted to conduct an external verification. However, the Verifier has the independence to conduct sampling among a given protocol's requirements based on standard auditing practice and professional judgment. Any sampling strategy used must be disclosed in the verification report published alongside the externally verified results. All criteria must be verified during a facility's first external verification.

Step 2: The second step is to confirm if a recently completed external audit will be used to meet the external verification requirement for a protocol. This is most common when a facility is achieving high levels of performance and seeks to meet the external audit criterion for Level AA or AAA. The facility may wish to use the results of this external audit to meet the external verification requirement for that protocol, streamlining its assurance processes and reducing duplication. An external audit can be used to meet the requirements of an external verification only when the following conditions are met:

1. The external audit covers all criteria in the protocol (even if not all indicators include external audit requirements).

2. The external audit has been conducted within the last three years.¹
3. The audit report provides a verified rating for each indicator in the protocol.
4. The company's CEO Letter of Assurance references that an external audit was used to meet the requirement for TSM external verification for that protocol.

The external audit must be completed by a qualified auditor with relevant subject matter expertise, but the external auditor does not need to be a TSM Verifier or have taken TSM training for the audit to be used in the process described above. If a facility decides to use the external audit to meet the external verification requirement for a particular protocol, then the Verifier must review the audit report to ensure it meets items 1-3. It is the Client's responsibility to ensure item 4 is addressed in the CEO Letter of Assurance. If items 1-3 are met, the verification plan and verification report should:

1. Specify that the protocol in question was excluded from the scope of the verification because it was verified as part of the external audit conducted consistent with Level AA or AAA criteria for that protocol
2. Identify the verified TSM ratings for that protocol as presented in the external audit report
3. Provide the reference for the external audit report (title, author, date)

Step 3: The third step is to confirm whether the TSM external verification is being conducted as a stand-alone verification, or if the Client would like to use the verification to demonstrate conformance with one or more other standards (such as the International Council on Mining and Metals' Performance Expectations, the World Gold Council's Responsible Gold Mining Principles, the Copper Mark, or ResponsibleSteel). If so, Verifiers are encouraged to contact the relevant association implementing TSM and any other relevant standard owners to ensure that any unique requirements that need to be incorporated into the verification process for full recognition are understood. In these instances, the Verifier will use the *TSM Responsible Sourcing Alignment Supplement* (see Section 4 for more detail) or will contact the relevant national association implementing TSM regarding use of the draft *Integrated Audit Protocol*.

3.1.2 Site Visits

As outlined in the *Terms of Reference for Verifiers* (see Appendix A), site visits are a requirement of the TSM external verification process. Site visits provide an opportunity for a Verifier to hold interviews or brief discussions with a broader range of employees and other communities of interest (COI) and to conduct direct observation over the course of the verification. As such, they can add value to a verification.

If security or other risks prevent a site visit from taking place, the Verifier and client should discuss this issue, and their plan to conduct a remote verification, with the relevant mining association before proceeding.

¹ If the verification occurs during a transition period to a new version of a protocol and the external audit was conducted using the older version of the protocol, the Client or Verifier should contact the relevant association implementing TSM for guidance.

In preparing the Verification Plan, the Verifier and the Client should agree on the approach to site visits, including timing and duration.

3.1.3 Interviewing COI Representatives

According to MAC's *TSM Indigenous and Community Relationships Protocol* (p. 18):

COI include all individuals and groups who have an interest in, or believe they may be affected by, decisions respecting the management of operations. Facility COI may include, but are not restricted to:

- *Indigenous peoples*
- *Community members*
- *Under-represented groups*
- *Employees*
- *Contractors/suppliers*
- *Neighbours*
- *Local environmental organizations and other non-governmental organizations (NGO)*
- *Local governments and institutions*

Other COI may include:

- *Suppliers*
- *Customers*
- *Regional or national environmental organizations and other non-governmental organizations (NGO)*
- *Governments*
- *The financial community*
- *Shareholders*

According to the *Terms of Reference for Verifiers*:

The Verifier must interview a selection of COI representatives to confirm evidence to support Level A or higher results submitted by the company. The selection of COI should be based on discussions between the Verifier and the Client, during which the Client will advise the Verifier of any sensitivities. The Verifier will then exercise their judgement with respect to which and how many interviews to conduct with the objective that the Verifier is confident in their verification of the Client's TSM performance ratings. The Verifier's level of engagement with COI must increase in relation to the level of performance reported by the Client.

The Client will use existing communications mechanisms to provide advance notice of the verification to relevant COI regarding activities at the facility being verified. This advance notice will include an invitation for COI to engage with the Verifier and to provide information relevant to the verification, as well as contact information for the Verifier. Each facility will likely have their own definition of what constitutes suitable advance notice for communications with communities. As a rule of thumb, the notification should likely take place at least 30 days prior to the verification, to allow time for COI consideration and response.

During the planning phase, the Verifier and Client should discuss inclusion of COI interviews and agree on the number of and approach to these interviews. The Client can support this process by providing a list of key COI to the Verifier for consideration. Key COI are those that are likely to have relevant information to help the Verifier assess the accuracy of self-assessment. Many of the protocols include criteria to engage with relevant COI on topic-specific requirements, such that a selection of COI should be engaged to help gather evidence to verify that the facility has addressed such criteria. For example:

- In the *TSM Biodiversity Conservation Management Protocol*, Indicator 2 Level A Criterion #1.f. indicates that the facility has consulted with and/or engaged key COI regarding biodiversity conservation management. COI engaged on biodiversity conservation management are therefore likely a good source of evidence to confirm this criterion.
- Some criteria include employees as an example of a key COI. In the *TSM Safety and Health Protocol*, Indicator 1 Level A Criterion #3 requires that accountabilities and responsibilities are understood at all levels. Employee interviews would therefore be a useful source of evidence to verify this type of criteria.

The Verifier should cross-reference any list of COI provided by the Client, using basic research (e.g., media scan, map of nearby communities) to identify COI of relevance to the facility and to ensure that those groups are subject to consideration. Referring to the full list of COI types in the text box above, the Verifier should be sure to interview a selection of both external COI (e.g., community members, local organizations) and internal COI (e.g., employees, contractors).

In identifying COI to interview, the Verifier should consider the following:

- Are there existing sources of data and information that will provide insight into COI perspectives on facility engagement and transparency? This could include, for example, perception surveys, feedback on engagement recorded during COI meetings, or other surveys. These sources should be reviewed and used to inform selection of COI. For example, if one or more categories of COI are well-represented in these data, then the Verifier's sample may focus on other categories of COI.
- Which categories of COI are most relevant for the indicators under review? Relevance is based on whether a COI can confirm evidence. For example, where a criterion requires engagement with COI, a Verifier can confirm with identified COI whether the engagement indicated by the Client has in fact taken place.
- What questions should be asked to verify specific criteria and evidence in the self-assessment?

Note that a Verifier does not need to confirm every relevant criterion with COI, but should engage sufficiently to have confidence, on a sampling basis, that the results are consistent.

Verifier independence and transparency are important to the credibility of the TSM external verification process. The Verifier should share their proposed COI engagement plan with the Client in advance of contacting any COI. The Client should:

- Make the Verifier aware of any sensitivities with a particular COI to provide relevant context. In rare cases (e.g., active legal disputes or negotiations), the Client may decide

that a particular COI should not be interviewed given current circumstances. The rationale for this decision must be communicated to the Verifier. If the Verifier does not agree with this rationale, they are directed to contact the relevant association implementing TSM to discuss or to use the verification dispute resolution process.

- Conduct outreach to the COI to be interviewed in advance of the interview to set the context and explain the purpose of the verification interview.

The COI to be interviewed, and the aspects on which they are to be interviewed, should be recorded in the Verification Plan (see 3.1.4).

3.1.4 Verification Plan

The Verifier is required to prepare a Verification Plan for submission and approval by the Client. At a minimum, this plan must include the following information:

- Name of Lead Verifier, members of the Verification Team (where applicable), and Company Name
- Scope of verification:
 - Facility or facilities to be verified
 - Protocols to be verified, with document rationale for exclusion of any protocols
- Approach to execution
 - Confirm how documents and records will be shared, and ensure the Client understands what information to collect and make available
 - If a site visit is included, include dates of the site visit and any orientation requirements
- COI representatives to be interviewed, and on which topics
- Verification schedule

A Verification Plan Template (see Appendix C) has been developed to encourage consistency in practice and ensure all requirements are reflected within the plan. Use of this template is at the discretion of the Verifier.

3.1.5 Verification Checklist

Each TSM protocol includes a self-assessment checklist (labelled as Appendix 2). The Client will provide completed self-assessments to the Verifier as the basis for the external verification.

Verifiers can also use these checklists to guide and document the verification, or to formulate their own verification questions and checklists. Completed verification checklists are to be maintained by the Verifier and serve as verification working papers.

3.2 Execution

The objective of this phase is to determine whether there is adequate evidence to support the Client's self-assessment ratings for each indicator. During the execution phase, the Verifier will collect and analyse evidence through:

- Review of documents and records
- Interviews with company personnel (managerial and non-managerial) and select COI
- Observations (if a site visit or virtual walkthrough is included in the Verification Plan)

Evidence and observations should be noted in the verification working papers or the Verifier's own verification management tools. The Verifier can conduct sampling among a given protocol's requirements based on standard auditing practice and professional judgment.

The verification provides a snapshot of performance at the time of audit execution. However, if the Verifier identifies a minor issue in meeting a criterion and (in the opinion of the Verifier and the Client) it would require limited effort to address this issue, the Verifier may grant the Client a reasonable period to address the issue before finalizing the verification results. In this circumstance, the Client is required to provide the Verifier with evidence that the issue has been fully addressed within ten days. The Verifier will review and consider this evidence when determining the final performance rating assigned for that indicator.

Verifiers are encouraged to hold a closing meeting at the end of the execution phase to present preliminary verification findings in advance of report preparation.

3.3 Reporting

The Verifier will prepare a verification report for the Client that clearly presents the verified ratings for each indicator included in the scope of the verification. Ratings are only assigned at the indicator level; there is no overall rating at the protocol level nor is there an overall score for TSM performance.

At a minimum, the verification report must include:

- The components included in the Verification Report Template (see Section 3.3.1 for more details, as well as Appendix D for the full template), including the summary of findings and statement of verification.
- Any additional components agreed in discussion with the Client.

Where the verified performance level differs from the level assigned by the Client in their self-assessment, the verification report should clearly identify which criteria were not adequately supported by the evidence provided.

Where a criterion has been met, but the Verifier believes there are opportunities to enhance effectiveness or efficiency, the Verifier can identify these as opportunities for improvement within the report or in a separate letter to the Client; however, this should not affect the verified rating.

In addition to the verification report, the Verifier is required to maintain working papers that include completed verification checklists.

3.3.1 Public Verification Report

The Verifier is also responsible for producing a Verification Report (see template in Appendix D) for publication alongside the Client's verified TSM results on the website of the association implementing TSM. The Verification Report allows for standardized confirmation of TSM results by Verifiers and includes the following sections:

- **Facility Information:** This section requests basic information about the facility, including location and the type of operations and infrastructure included in the scope of verification.
- **Verifier and Verification Information:** This section requests information on the Verifier(s), including their firm, the verification period and dates of verification activities, and a summary of the verification methodology and activities.
- **Examples of Evidence Consulted:** This section requires the Verifier to summarize ratings for all TSM indicators and provide examples of evidence consulted. Comments could summarize key elements contributing to the facility's score on a given indicator (e.g., "*A comprehensive management system is in place that includes...*"). Examples of evidence might include reference to documents reviewed, workers interviewed, or the types of communities of interest engaged to confirm certain criteria.
- **Criteria Missing to Achieve Level A:** In the same section as Examples of Evidence Consulted (see above), Verifiers are required to clearly disclose any Level A criteria that the facility does not yet meet. Note that facilities will also be reporting annually in their company profiles on the actions they plan to take to address those gaps.
- **Statement of Verification:** This section is to be completed and signed by each Verifier involved in an external verification. It asks each Verifier to confirm that the verification was conducted in accordance with the *Terms of Reference for Verifiers* and that the scores included in the report are verified as accurate. There are also sections for the Verifier to list any limitations or additional comments (e.g., "*I would have preferred to travel to site for this verification but was unable to do so given current public health restrictions. Instead, I engaged with facility personnel and community of interest representatives via videoconference.*").

3.3.2 Confirmation of Verified Ratings

Once the Client receives the final verification report, the Client is responsible for entering the verified ratings into the TSM online reporting system. Once the results are entered, the reporting system will send an e-mail notification to the Verifier requesting review and confirmation of the results. The Verifier is expected to review and confirm that the reported results are consistent with the verified ratings contained in the verification report within two weeks of receiving the notice.

3.4 Feedback

To support the continual improvement of TSM processes, Verifiers are invited to provide feedback on any areas of the TSM protocols or related documents they find to be unclear or inconsistent during the verification process. Please share observations and suggestions at tsm@mining.ca.

4 Using the TSM Responsible Sourcing Alignment Supplement

The *TSM Responsible Sourcing Alignment Supplement* is a voluntary supplement that a Client can choose to apply when seeking to demonstrate conformance with multiple standards. The Supplement can be used to demonstrate conformance with:

- The International Council on Mining and Metal's Performance Expectations
- The World Gold Council's Responsible Gold Mining Principles
- The International Copper Alliance's Copper Mark
- The Responsible Minerals Initiative's Risk Readiness Assessment
- ResponsibleSteel

Additional standards may be integrated into the Supplement in the future.

During the planning phase, the Client and Verifier should confirm if the TSM external verification will be used to demonstrate conformance with any other standards. If so, Verifiers are encouraged to reach out to the relevant association implementing TSM and any other relevant standard owners to ensure they understand any requirements for additional training, or any other requirements related to the verification process to achieve full recognition by the relevant standards. For example, some of the included standards require site visits.

When using the Supplement, the Verifier will verify:

1. The accuracy of the TSM self-assessment for all protocols
2. The accuracy of the facility's self-assessment for all the additional indicators identified for the other standard(s) in the Supplement

The results of the verification must be documented and shared with the Client, who will share them with the relevant standard owners.

An *Integrated Audit Protocol* has also been drafted and is currently being piloted by some TSM Implementing Companies. If a Client would like to use this new tool, the Client and Verifier should reach out to the relevant TSM implementing association for more information.

5 Dispute Resolution Process

Should the Verifier and Client disagree on the interpretation of one or more criterion, they should jointly contact the relevant association to discuss this disagreement. The association will provide interpretation guidance based on experience in protocol application, where possible.

In the Canadian context, the Mining Association of Canada (MAC) has a process for resolving disagreements in interpretation. MAC engages a third party and a sub-committee of its TSM Governance Team to resolve the issue. The process for resolving these issues is as follows:

1. MAC receives a written request from the Client or Verifier to provide additional guidance on TSM protocol implementation.
2. MAC refers the request to a third party with substantial experience in TSM implementation and verification.
3. The third party interviews both the Verifier and the Client to understand the issue, the facility-specific context, and the differences in interpretation.
4. The third party prepares a short briefing document outlining the details of the dispute, identifying potential options and their implications, and recommending interpretation guidance.
5. MAC circulates this briefing document to a sub-committee of the TSM Governance Team.
6. The sub-committee reviews the briefing document and provides its decision to MAC within 48 hours.
7. If required, the guidance is reflected in the next iteration of the protocol or policy document in question.

6 Continual Improvement

6.1 Verifier Oversight Process

Verifiers should be aware that their verification activities will be subject to periodic review by a third party. In the Canadian context, MAC's *Verifier Oversight Policy* (see Appendix B) aims to ensure that active verifiers are conforming with the *Terms of Reference for Verifiers* and that verifiers are demonstrating sound interpretation and application of TSM protocol requirements. The process includes direct oversight of verifiers, a general evaluation of effectiveness of certain elements of TSM verification, and an annual report to share findings and recommendations.

Appendices

A. Terms of Reference for Verifiers

Preamble

The Mining Association of Canada (MAC) has established a process of external verification to ensure that MAC Members' reporting on *Towards Sustainable Mining* (TSM) performance indicators is consistent, accurate and transparent. These Terms of Reference for Verifiers have been developed to ensure that:

- MAC Members follow a clear and consistent process for hiring Verifiers.
- Verifiers meet minimum standards and conform to defined procedures to perform an external verification that can be relied upon by MAC Members and their Communities of Interest (COI).

Additional guidance to support Verifiers in adhering to these *Terms of Reference for Verifiers* is available in the *TSM Verification Guide* on the MAC website.

Definitions

Client: The MAC Member that engages a Verifier to perform a TSM external verification.

Communities of Interest (COI): Individuals and groups that have an interest in, or believe they may be affected by, decisions regarding the management of a MAC Member's mining or metallurgical operations.

Community of Interest Advisory Panel (COI Panel): A formal, multi-interest group comprised of representatives of civil society, Indigenous communities, mining communities, organized labour, and the financial sector, among others. The COI Panel plays an advisory and oversight role with respect to TSM.

Facility: A distinct operating unit of a company at which the TSM performance indicators can be applied. Companies may categorize their facilities differently.

Mining Association of Canada (MAC) Member: A company that is a member of MAC.

Verifier: An individual that, meeting all the requirements of these *Terms of Reference for Verifiers*, is engaged by a Client to perform an external verification of TSM performance.

Application

These standards and procedural requirements apply to all individuals that provide TSM external verification services for a Client.

These requirements do not apply to individuals asked to assess a MAC Member's TSM systems or performance outside of the formal external verification process.

A MAC Member, with the support of the Verifier, will ensure that all requirements of these *Terms of Reference for Verifiers* are met before entering a contractual arrangement for external verification services.

A MAC Member is not required to engage a single Verifier to externally verify performance against all TSM protocols. One or more Verifiers can be contracted depending on areas of technical expertise or other factors deemed relevant to the MAC Member.

Verifier Qualifications

A Verifier must, at a minimum, meet the following requirements:

1. Represent a legal business entity.
2. If part of a larger organization, clearly describe their relationships within the organizational structure.
3. Be independent, meaning that the legal business entity does not have ownership ties to a MAC Member. A Verifier can be employed by an Associate MAC Member.
4. Not in any way convey the impression that the use of other services offered by the Verifier or their company would result in preferential treatment during the external verification.
5. Clearly identify to the Client any technical or management work that their company has been retained by the Client to perform on any of the subject areas covered by the TSM external verification. Verifiers can be engaged to verify technical or management work conducted by others employed by their company, if they can demonstrate that they were not involved in the work being verified.
6. Not perform any activities related to the external verification of TSM indicators if they have performed technical or management work on those indicator areas at the facility in question in the past three years. Technical or management work does not include external audits or verification activities conducted under other reporting frameworks for those indicator areas.

A Verifier must participate in an initial TSM training workshop convened by MAC, either in person or online, and repeat this training workshop at least once every three years. A Verifier may be exempt from repeating the training workshop after three years if the *Verification Oversight Process* does not identify any issues with the quality of the Verifier's external verifications (see 'Verification Process' below for more information) and if the Verifier completes the online training modules for any new or revised protocols. A Verifier must also participate in an annual update webinar for Verifiers convened by MAC. Evidence of participation in the annual webinar (whether in real-time or asynchronously) is required to maintain accreditation.

A Verifier must demonstrate a minimum of five years of experience in auditing and in environmental and social subject matters relevant to the verification or have been involved in a minimum of 10 completed audits of environmental and social subject matter relevant to the verification. At a minimum, the Verifier should hold one or more of the following audit designations:

- 5-day Management Systems Lead Auditor
- Environmental Auditor or Environmental Professional (ECO Canada)
- Certified Environmental Auditor (Quebec Association of Environmental Auditing)
- ISO 14001 Auditor (Environmental Management Systems)

- ISO 45001 Auditor (Occupational Health and Safety)
- Cyanide Code Verification Auditors
- Green Marine Verifier
- SA8000 5-day Auditor Training Course
- Responsible Business Alliance Labour & Ethics Lead Auditor
- Worldwide Responsible Accredited Production Lead Auditor
- Association of Professional Social Compliance Auditors (APSCA) Certified Social Compliance Auditor
- AA1000 Certified Sustainability Assurance Practitioner

Qualified professionals must be registered with appropriate professional organizations, adhere to those organizations' codes of ethics, and be subject to any disciplinary mechanisms. MAC may consider, at its discretion and at the request of a Verifier, additional audit designations. Any additional approved designations will be added to the above list.

It is the responsibility of the Client to ensure the Verifier meets these minimum requirements. The CEO Letter of Assurance must attest to this.

Verification Process

The aim of TSM is to drive performance improvement and, through demonstration of this improvement, build trust with COI. To do so, TSM includes several steps to ensure that reported TSM performance results present an accurate picture of each facility's management systems and performance. The steps of the verification process include:

1. *Self-Assessment*: Each year, facilities self-assess their performance against all TSM protocol indicators and publish these results on the MAC website.
2. *External Verification*: Every three years, a Verifier reviews a facility's self-assessment to determine if there is adequate evidence to support the performance ratings reported.
3. *CEO Letter of Assurance*: In the year of external verification, the company's CEO or equivalent submits a letter to MAC to confirm that the external verification has been conducted in accordance with these *Terms of Reference for Verifiers* and is an accurate reflection of performance. The letter is published on the MAC website alongside the company's TSM performance results.
4. *COI Panel Post-Verification Review*: Each year, the COI Panel selects a sample of companies to present and discuss TSM performance results with the COI Panel. Through these discussions, the Panel tests whether and how facility systems are leading to performance improvements. The Panel also explores the facility's challenges and any efforts to address performance gaps.

The Verifier is also subject to a verification oversight process whereby a third-party is contracted by MAC to ensure that active Verifiers are conforming with these *Terms of Reference for Verifiers* and demonstrating sound interpretation and application of TSM protocol requirements. This

oversight process includes provisions for the direct oversight and review of Verifiers, a general evaluation of effectiveness of certain elements of TSM verification, and an annual report to share findings and recommendations. The complete process is outlined in the *TSM Verification Oversight Process* available on the MAC website.

Scope of Work

The scope of work prepared by the Verifier for the external verification should consider the following elements:

Planning for the verification

- The Verifier engages with the Client prior to external verification to ensure that all required materials have been collected and made available for external verification.
- The Verifier discusses with the Client any proposed sampling strategy for the external verification and confirms whether a site visit will be required (see advice on sampling strategies and site visits below).
- The Verifier discusses length of time and cost implications with the Client.

Conducting the verification

- The core role of the Verifier is to externally verify whether the TSM performance results reported by the Client are consistent with the Verifier's determination, based on standard auditing tools, including interviews with company personnel and inspection of documentation.
- The Verifier may, at their discretion, expand the scope of an external verification based on the consistency of the findings.
- The Client will use existing communications mechanisms to provide advance notice of the verification to relevant COI regarding activities at the facility being verified. This advance notice will include an invitation for COI to engage with the Verifier and to provide information relevant to the verification, as well as contact information for the Verifier.
- The Verifier must interview a selection of COI representatives to confirm evidence to support Level A or higher results submitted by a facility. The selection of COI should be based on discussions between the Verifier and the Client, during which the Client will advise the Verifier of any sensitivities. The Verifier will then exercise their judgement with respect to which and how many interviews to conduct, with the objective that the Verifier is confident in their verification of the Client's TSM performance results. The Verifier's level of engagement with COI should increase in relation to the level of performance reported by the Client.
- The external verification should be completed using the TSM protocols provided by MAC. These will serve as the verification working papers.
- The Verifier should indicate in the appropriate comment box of the working papers why a level has been assigned, particularly if the verified level differs from the level assigned by the Client in the self-assessment.

- If, in the opinion of the Verifier and the Client, a minor issue in meeting a criterion is identified and would require limited effort to address, the Verifier can grant the Client a period of ten working days to address the issue. The Client must then provide the Verifier with evidence that the issue has been fully addressed. The Verifier will review this evidence to inform the final verified performance results for the facility.

Reporting of the verification results

- The Verifier, in consultation with the Client, must complete the *Verification Report Template* for publication alongside the Client's externally verified results on the MAC website. This report allows the Verifier to provide brief commentary about the types of evidence consulted to inform the external verification and any key findings.
- Should the Verifier and Client disagree on the interpretation of one or more criterion, they should jointly contact MAC to discuss this disagreement. In cases where a disagreement in interpretation requires the development of new interpretation advice, MAC will engage a sub-committee of its TSM Governance Team and a third party to resolve the issue. Details on this dispute resolution process are provided in the *TSM Verification Guide*.
- Once the Client has entered the verified TSM performance results in MAC's online reporting system, the Verifier will receive a request to confirm the reported results. The Verifier must review and respond to these notifications in a timely manner.

Additional Guidance

External audits

The external verification at a facility may be conducted at the same time as other audits or assessments, provided the TSM protocols are followed.

In addition to the external verification process, many TSM protocols include requirements for external audits at certain levels of performance. Such external audits differ from an external verification in that the audit is not only verifying evidence of a facility's self-assessed performance but conducting a full evaluation of the facility's performance against TSM requirements. An external audit can therefore be used to meet external verification requirements if the following conditions are met:

1. The external audit must cover all criteria in the protocol(s).
2. The external audit has been conducted within the last three years.²
3. The external auditor must prepare an annex to the external audit report that summarizes TSM performance.
4. The company's CEO Letter of Assurance must reference that an external audit was used to meet the requirement for TSM external verification.

The external audit must be completed by a qualified auditor with relevant subject matter expertise, but the external auditor does not need to be a TSM Verifier or have taken TSM training for the audit to be used in the process described above. If a facility decides to use the external audit to

² If the verification occurs during a transition period to a new version of a protocol and the external audit was conducted using the older version of the protocol, the Client or Verifier should contact the relevant association implementing TSM for guidance.

meet the external verification requirement for a particular protocol, then the Verifier must review the audit report to ensure it meets items 1-3. It is the Client's responsibility to ensure item 4 is addressed in the CEO Letter of Assurance.

Use of sampling strategies

The Verifier must verify each TSM protocol at each of the Client's facilities for which they have been contracted to conduct an external verification. However, the Verifier has the independence to conduct sampling among a given protocol's requirements based on standard auditing practice and professional judgment. Any sampling strategy used must be disclosed in the *Verification Report* template published alongside the externally verified results. All criteria must be verified during a facility's first external verification.

Site visits

Site visits are a requirement of the TSM external verification process. Site visits provide an opportunity for a Verifier to hold interviews or brief discussions with a broader range of employees and other communities of interest (COI) and to conduct direct observation over the course of the verification. As such, they can add value to a verification.

If security or other risks prevent a site visit from taking place, the Verifier and client should discuss this issue, and their plan to conduct a remote verification, with the relevant mining association before proceeding.

In preparing the Verification Plan, the Verifier and the Client should agree on the approach to site visits, including timing and duration.

Feedback

To support the continual improvement of TSM processes, Verifiers are invited to provide feedback to MAC on any areas of the TSM protocols or related documents, including noting any inconsistencies or needs for clarification.

B. Verification Oversight Policy

TSM Verification Oversight Policy

The aim of the verification oversight process is to ensure that active verifiers are conforming with the *Terms of Reference for Verifiers* and that verifiers are demonstrating sound interpretation and application of TSM protocol requirements. The process includes direct oversight of verifiers, a general evaluation of effectiveness of certain elements of TSM verification, and an annual report to share findings and recommendations.

Direct oversight and review process

Direct oversight to ensure conformance with the *Terms of Reference for Verifiers* involves an assessment of verifier competency and a review of interpretation consistency of the TSM protocols across verifiers, allowing both verifiers and MAC an opportunity for continual learning and improvement. The oversight process is structured to ensure that each active verifier is reviewed every three to five years. This involves document review and a discussion with each verifier to ask questions, collect additional information, and provide feedback. A third party reviews auditor credentials, the verification plan, and sampling strategy to assure conformance with the requirements of the *Terms of Reference for Verifiers*.

The third party also reviews the verifier's final verification report(s) and copies of documents used to conduct the verification (e.g., completed checklists) for a sub-set of protocols. If anomalies are detected in sampling a verifier's protocols, the sample size may be expanded to include additional protocols. Note that, if necessary, the third party may request a copy of a client document for confidential review to support verification oversight activities. Such documents are not to be provided to the third party by the verifier without a client's consent.

Any feedback or recommendations resulting from the direct oversight and review process are shared with both the verifier and their client(s). If concerns are raised about a verifier's approach, this will not result in changes to a client's ratings, but relevant findings should be considered by the client in subsequent self-assessments. Concerns can also be escalated and addressed through a formal dispute resolution process as outlined in the *TSM Verification Guide*.

General oversight process

A general oversight process allows the third party to assess the effectiveness of different elements of TSM verification on an annual basis, in tandem with the direct oversight and review process. For example, the third party may choose to review a particular protocol to assess verifier consistency in interpretation or to examine how verifiers meet the competence requirements in the *Terms of Reference for Verifiers*. This process is conducted through a survey or short telephone interviews with verifiers. Findings may inform MAC's ongoing policy work to meet evolving expectations of customers and investors, address changes in best practice for standards, and consider issues that emerge through TSM application.

Annual oversight report

The third party ensures the transparency of the oversight process by preparing an annual report that summarizes both the direct oversight and general oversight processes. The report includes information on the types of reviews conducted and a summary of results and findings. It also includes observations or recommendations to improve the effectiveness of the verification process or to highlight areas where additional guidance may be required for verifiers or their clients. These recommendations may also be informed by a survey of verifiers conducted by MAC each year to log any questions or issues related to TSM. The report includes consolidated information so as not to identify individual verifiers or clients. TSM Initiative Leaders discuss the report each year and MAC shares the report with the Community of Interest Advisory Panel for discussion or awareness. The report will also be posted on the MAC website and discussed with verifiers during the annual verifier update webinar. The report's recommendations will inform revisions to the *Terms of Reference for Verifiers*, the *TSM Verification Guide*, or other TSM policies or protocols if warranted.

C. TSM External Verification Plan Template

Date Submitted:

Client Contact:

Verification Team

Lead Verifier:

Verification Team Members:

Scope of TSM Verification

Facility:

Protocols to be Verified	In Scope? (Y/N)	Reliance on external audit?	Comments / Rationale
Biodiversity Management			
Crisis Management			
Climate Change			
Indigenous and Community Relationships			
Prevention of Child and Forced Labour			
Safety and Health			
Tailings Management			
Water Stewardship			

Are any other standards included in scope?³

**Document and file sharing
arrangements:**

Date of site visit (if applicable):

³ If yes, specify which ones and if the *TSM Responsible Sourcing Alignment Supplement* will be used.

**Community of interest representatives
to be interviewed:**

Site orientation requirements:

PPE requirements:

Verification Schedule

(detailed schedule to be included in plan)

D. Verification Report Template

TSM Verification Report

Facility Information

Name of company	
Name of facility	
Address	
Country of operation	
Products/metals produced on site	
Types of operations included in scope:	
Mining	<input type="checkbox"/>
Milling	<input type="checkbox"/>
Smelting	<input type="checkbox"/>
Hydrometallurgical	<input type="checkbox"/>
Refining	<input type="checkbox"/>
Other (<i>please explain</i>)	
Types of infrastructure included in scope:	
Roads	<input type="checkbox"/>
Rails	<input type="checkbox"/>
Ports	<input type="checkbox"/>
Other (<i>please explain</i>)	

Verifier and Verification Information

Verification firm	
Confirmation that all verifiers involved in the verification are accredited TSM verifiers	(Yes or No)
Date(s) of verification activities (dd/mm/yyyy – dd/mm/yyyy)	
Verification period	
Summary of the verification methodology	<i>Please also use this section to disclose any sampling methodology employed.</i>
Summary of the verification activities	
Was a site visit conducted?	(Yes or No)

Summary of Findings

Criterion	Rating C, B, A, AA or AAA (unless otherwise indicated)	Examples of Evidence Consulted and Criteria Missing to Achieve Level A
Biodiversity Conservation Management		
1. Corporate biodiversity conservation commitment, accountability, and communications		
2. Biodiversity conservation planning and implementation		
3. Biodiversity conservation reporting		<i>include link to public disclosure or reference the form of public reporting if no web link available</i>
Climate Change		
1. Corporate climate change management		
2. Facility climate change management		
3. Facility performance targets and reporting		<i>include link to public disclosure or reference the form of public reporting if no web link available</i>
Crisis Management and Communications Planning - CORPORATE (YES or NO)		
1. Crisis Management and Communications Preparedness		
2. Review		
3. Training		
Crisis Management and Communications Planning - FACILITY (YES or NO)		
1. Crisis Management and Communications Preparedness		
2. Review		
3. Training		
Indigenous and Community Relationships		
1. Community of Interest (COI) Identification		
2. Effective COI Engagement and Dialogue		

3. Effective Indigenous Engagement and Dialogue		
4. Community Impact and Benefit Management		
5. COI Response Mechanism		
Preventing of Child and Forced Labour (Indicate YES or NO)		
1. Preventing Forced Labour		
2. Preventing Child Labour		
Safety and Health		
1. Commitments and Accountability		
2. Planning and Implementation		
3. Training, Behaviour and Culture		
4. Monitoring and Reporting		<i>include link to public disclosure or reference the form of public reporting if no web link available</i>
5. Performance		
Tailings Management		
1. Tailings management policy and commitment		
2. Assigned accountability and responsibility for tailings management		
3. Tailings management system and emergency preparedness		
4. Operation, maintenance, and surveillance		
5. Annual tailings management review		
Water Stewardship		
1. Water Governance		
2. Operational Water Management		
3. Watershed-scale Planning		
4. Water Reporting and Performance		<i>include link to public disclosure or reference the form of public reporting if no web link available</i>

Statement of Verification

Statement of Verification	
The external verification was conducted in accordance with the <i>Terms of Reference for Verifiers</i> and, accordingly, consisted primarily of interviews, data analysis, and examination (on a sample basis) of other evidence relevant to management's assertion of conformance to the requirements of the TSM performance indicators.	<input type="checkbox"/> The external verification was conducted in accordance with the <i>TSM Verifier Terms of Reference</i> .
The scores indicated in this report are verified as being accurate based on the evidence reviewed during the external verification of this facility.	<input type="checkbox"/> The scores in this report are considered accurate based on this verification.
Limitations	
Additional comments	
Has an additional assurance statement been provided by the verifier?	<i>yes/no</i>
Name of lead verifier	
Date of statement of verification	
Signature of lead verifier	

Appendix 1 – TSM Responsible Sourcing Alignment Supplement

Use where applicable for verifications that incorporate other relevant standards

Check relevant boxes	Name of Standard
	International Council on Mining and Metals Mining Principles
	World Gold Council Responsible Gold Mining Principles
	Copper Mark
	Responsible Minerals Initiative Risk Readiness Assessment
	Responsible Jewelry Council
	ResponsibleSteel
	Initiative for Responsible Mining Assurance

Summary of Findings

Criterion	Rating YES/NO	Comments
Corporate Governance and Ethical Conduct		
1. Legal Compliance		
2. Code of Conduct		
3. Combating Bribery and Corruption		
4. Political Contributions		
5. Transparency of Taxes, Ownership and Transfer Pricing		
6. Accountabilities and Reporting		
7. Engagement with Corporate Communities of Interest		
Integration of Sustainable Development into Corporate Strategy and Decision Making		
8. Corporate Sustainable Development Strategy		
9. Supply Chain		
Respect for Human Rights and Labour Rights		
10. UN Guiding Principles on Business and Human Rights		
11. Conflict-Affected and High-Risk Area Due Diligence		
12. Resettlement		

13. Security and Human Rights		
14. Labour Rights		
15. Compensation for Work Related Injury, Illness & Fatality		
16. Employee Remuneration		
17. Diversity and Women in Mining		
Environmental Stewardship		
18. Environmental Risk Management		
19. Closure		
20. Pollution Prevention and Waste Management		
21. Noise and Vibration		
22. Emissions to Air		
23. Spills and Leakage		
24. Hazardous Substances		
25. Land Use and Deforestation		
26. Circular Economy		
Economic Development, Cultural Heritage and Artisanal and Small-Scale Mining		
27. Local Procurement		
28. Cultural Heritage		
29. Artisanal and Small-Scale Mining		

Appendix 2 – Finnish Mining Association TSM Mine Closure Protocol

Use when the facility is seeking ResponsibleSteel recognition

Criterion	Rating <i>C, B, A, AA or AAA</i>	Comments
Mine Closure		
1. Mine Closure Policy and Operational Guidelines		
2. Mine Closure Planning and Management System		

E. Definitions

While TSM does not require conformance with any specific audit standard, *ISO 19011:2018 Guidelines for Auditing Management Systems* includes several generally accepted audit-related definitions. This section includes or adapts several definitions from *ISO 19011:2018*.

Audit: An audit is a formal, systematic, and documented examination of conformance with explicit, agreed-upon, prescribed criteria. Audits evaluate and report on the degree of conformance with stipulated criteria, based on the systematic collection and documentation of relevant evidence. Audits involve some degree of judgment but are not designed to determine the root cause of deficiencies or to evaluate management system effectiveness. Audits can be conducted by internal or external professionals.

- An internal audit is conducted by employees of the company with appropriate knowledge and competencies. These employees must be independent, impartial, and objective with respect to the management of the facility being audited. For example, they could work at another facility or at the corporate level.
- An external audit is conducted by auditors that are external to the company being audited. These auditors maintain an objective viewpoint throughout the audit process to ensure that findings and conclusions are based only on the evidence.

(Adapted from ISO 19011:2018)

Client: The MAC Member that implements TSM, that engages a Verifier to perform a TSM external verification.

Communities of interest (COI): Individuals and groups that have an interest in, or believe they may be affected by, decisions regarding the management of a MAC Member's mining or metallurgical operations.

Community of Interest Advisory Panel (COI Panel): A formal, multi-interest group comprised of representatives of civil society, Indigenous communities, mining communities, organized labour, and the financial sector, among others. The COI Panel plays an advisory and oversight role with respect to TSM.

Criteria: A set of requirements used as a reference against which objective evidence is compared. *(Drawn from ISO 19011:2018)*

Facility: A distinct operating unit of a company at which the TSM performance indicators can be applied. Companies may categorize their facilities differently.

Objective evidence: Data supporting the existence or verity of something. Objective evidence can be obtained through observation, measurement, test or by other means. Objective evidence for the purpose of the verification generally consists of records, statements of fact, or other information which are relevant to the criteria and verifiable. *(drawn from ISO 19011:2018)*

Verification plan: Description of the activities and arrangements for a verification *(drawn from ISO 19011:2018, substituting verification instead of audit).*

Verifier: An individual that, meeting all the requirements of the *Terms of Reference for Verifiers*, is engaged by a Client to perform an external verification of TSM performance.