Towards Sustainable Mining: an Overview of an Emerging Global Standard for Responsible Mineral Production

Presented to the SVEMIN Environment Conference

October 7, 2020

The Mining Association of Canada

L'association minière du Canada

The Mining Association of Canada

- The national voice of the Canadian mining industry since 1935
- Promotes the industry nationally and internationally, working with governments and educating the public
- Members account for about 75% of Canada's minerals and metals production

Towards Sustainable Mining

- An award-winning performance system that helps mining companies evaluate and manage their environmental and social responsibilities
- A set of tools and indicators to drive performance and ensure that key mining risks are managed responsibly
- Mandatory for all mining companies that are members of associations that have adopted TSM
- Grounded in a commitment to accountability, transparency, credibility and continual improvement
- Increasing Global Reach:

Guiding Principles – Summarized

- Involving **communities of interest** and proactively seeking **dialogue**
- Fostering **leadership** to achieve sustainable resource **stewardship**
- Conducting business with **excellence**, transparency and **accountability**
- Protecting **health and safety** and respecting **worker rights**
- Seeking to minimize impact on the **environment** and **biodiversity**
- Respecting **human rights** and the unique role of **Indigenous peoples**
- Maintaining **ethical conduct** and complying with laws and regulations
- Supporting **community participation** in opportunities provided by mining
- Responding to community priorities and providing **lasting benefits**

Community of Interest Advisory Panel

An independent advisory body comprised of individuals from:

- Indigenous groups
- Communities where the mining industry is active
- Environmental and social NGOs
- Labour
- Financial organizations
- Select members of the Mining Association of Canada's Board of Directors

- Biannual meetings
- Annual reviews of company performance
- Critical perspectives on emerging issues

TSM Protocols

Environmental Stewardship	Communities & People	Energy Efficiency
Tailings Management Biodiversity Conservation Management Water Stewardship	Indigenous and Community Relationships Safety & Health Management Crisis Management & Communications Planning Preventing Child and Forced Labour	Energy Use & Greenhouse Gas Emissions Management

Developed in consultation with Community of Interest Advisory Panel

TSM Protocols

Communities and People

Indigenous and Community Relationships

- Community of interest (COI) identification
- Effective COI engagement and dialogue
- Effective Indigenous engagement and dialogue
- Community impact and benefit management
- COI response mechanism

Crisis Management and Communications Planning

- Crisis management & communications preparedness
- Review
- Training

Safety and Health

- Policy, commitment and accountability
- Planning, implementation and operation
- Training, behavior and culture
- Monitoring and reporting
- Performance

Prevention of Child and Forced Labour

- Preventing forced labour
- Preventing child labour

Environmental Stewardship

Tailings Management

- Tailings management policy and commitment
- Tailings management system
- Assigned accountability and responsibility for tailings management
- Annual tailings management review
- Operation, maintenance and surveillance (OMS) manual

Biodiversity Conservation Management

- Corporate biodiversity conservation commitment, accountability and communications
- Facility-level biodiversity conservation planning and implementation
- Biodiversity conservation reporting

Water Stewardship

- Water Governance
- Operational Water Management
- Watershed-Scale Planning
- Water Reporting and Performance

Energy Efficiency

Energy Use and GHG Emissions Management

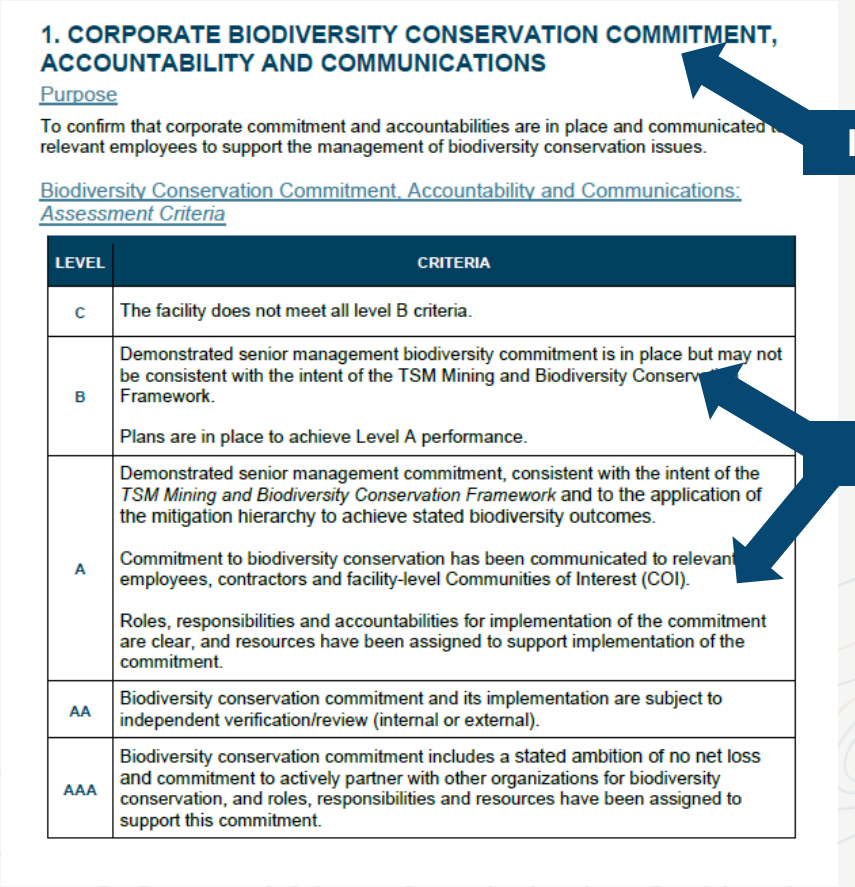
- Energy use and GHG emissions management systems
- Energy use and GHG emissions reporting systems
- Energy and GHG emissions performance targets

Rating System

AAA	Excellence and leadership.
AA	Systems and processes 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	Does not meet the requirements of Level B

Protocol Structure

- Comprised of individual performance indicators
- Supported by a series of criteria at each level of performance
- Accompanied by detailed guidance to support interpretation and implementation



1. CORPORATE BIODIVERSITY CONSERVATION COMMITMENT, ACCOUNTABILITY AND COMMUNICATIONS

Purpose

To confirm that corporate commitment and accountabilities are in place and communicated to relevant employees to support the management of biodiversity conservation issues.

Biodiversity Conservation Commitment, Accountability and Communications: *Assessment Criteria*

LEVEL	CRITERIA
C	The facility does not meet all level B criteria.
B	Demonstrated senior management biodiversity commitment is in place but may not be consistent with the intent of the TSM Mining and Biodiversity Conservation Framework. Plans are in place to achieve Level A performance.
A	Demonstrated senior management commitment, consistent with the intent of the *TSM Mining and Biodiversity Conservation Framework* and to the application of the mitigation hierarchy to achieve stated biodiversity outcomes. Commitment to biodiversity conservation has been communicated to relevant employees, contractors and facility-level Communities of Interest (COI). Roles, responsibilities and accountabilities for implementation of the commitment are clear, and resources have been assigned to support implementation of the commitment.
AA	Biodiversity conservation commitment and its implementation are subject to independent verification/review (internal or external).
AAA	Biodiversity conservation commitment includes a stated ambition of no net loss and commitment to actively partner with other organizations for biodiversity conservation, and roles, responsibilities and resources have been assigned to support this commitment.

Annual Public Reporting by Facilities

2018 TSM Results

IAMGOLD Corporation

Crisis Management and Communications Planning Assessment

FACILITY	CRISIS MANAGEMENT AND COMMUNICATIONS PREPAREDNESS	REVIEW	TRAINING
IAMGOLD Corporation - Corporate	✓	✓	✓
Essakane	✓	✗	✓
Rosebel Gold Mines	✓	✗	✗
Westwood	✓	✓	✓

Aboriginal and Community Outreach Assessment

Safety and Health Assessment

Tailings Management Assessment

Biodiversity Conservation Management Assessment

Energy and GHG Emissions Management Assessment

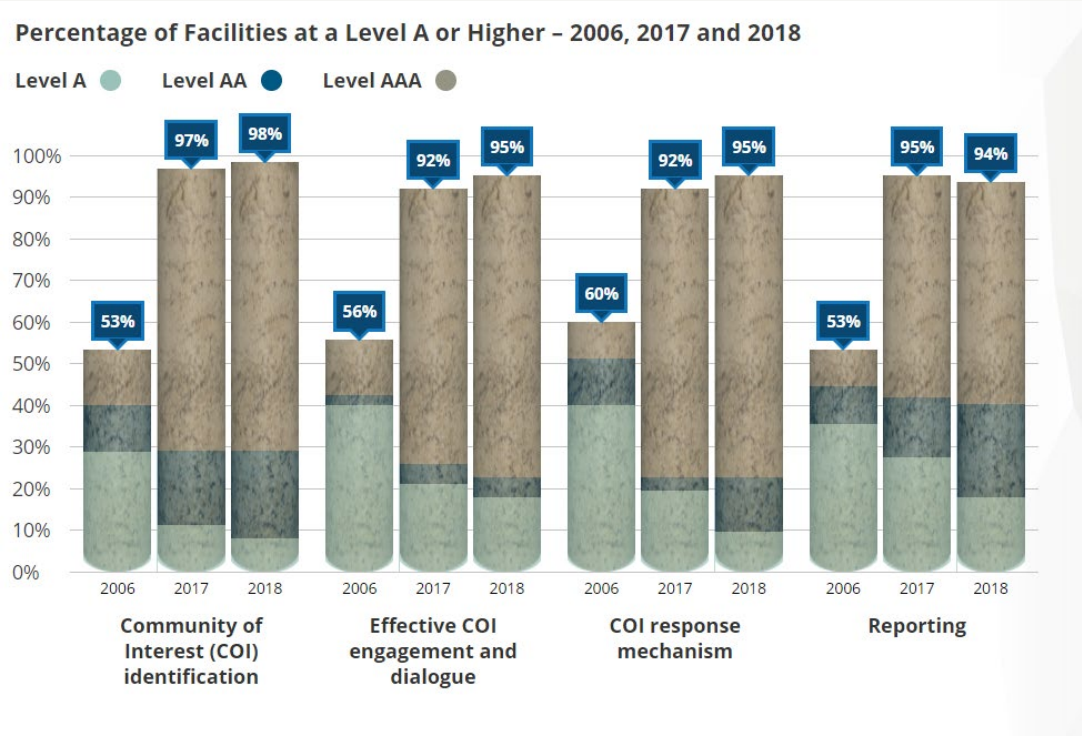
Energy Use & Greenhouse Gas (GHG) Emissions Data

FACILITY	TOTAL DIRECT EMISSIONS (TONNES CO2E)	TOTAL INDIRECT EMISSIONS (TONNES CO2E)	TOTAL EMISSIONS	TOTAL ENERGY USE (GJ)
Essakane	334419	170	334589	5530139
Rosebel Gold Mines	161212	0	161212	2963147
Westwood	11482	200	11683	852823

Continual Improvement

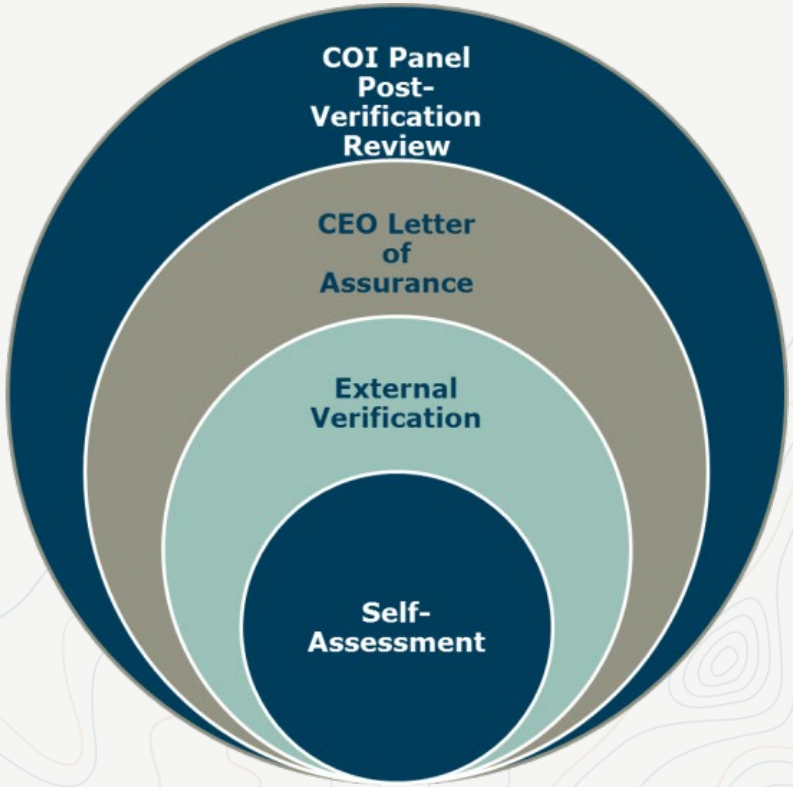
Indigenous and Community Relationships

- Improvements in industry performance are measurable and meaningful over time
- Companies commit to demonstrate continual improvement until they achieve good practice



Verification Process

- Annual self-assessments
- External verification of self-assessments by trained verifiers every three years
- Letter signed by CEO that the results are externally verified according to requirements
- Potential for selection by the Advisory Panel for a post-verification review



Increasing Focus on Equivalency with Other Standards:

TSM Responsible Sourcing Alignment Supplement

1. CORPORATE GOVERNANCE AND ETHICAL CONDUCT

Purpose

To ensure the application of ethical business practices and sound systems of corporate governance and transparency to support sustainable development

	ICMM PE	RGMP	CM/RRA
Through interview and review of documentation, determine:			
1 Legal compliance			
• Establish and maintain processes to ensure compliance with applicable laws	1.1	1.1	1
2 Code of conduct			
• Maintain a code of conduct to make clear the standards with which employees, suppliers and contractors are expected to comply with.	1.3	1.2	n/a
• Actively promote awareness of the code and implement systems to monitor and ensure compliance.	n/a	1.2	n/a
3 Combating bribery and corruption			
• Implement policies, practices and controls that prohibit and effectively prevent bribery (including facilitation payments) and corruption in all their forms, conflicts of interest and anti-competitive behavior by employees, agents or other company representatives.	1.2	1.3	2
4 Political contributions			
• Publicly disclose the value and beneficiaries of financial and in-kind political contributions, whether directly or through an intermediary.	1.5	1.4	n/a
5 Transparency of Taxes, Ownership and Transfer Pricing			
• Publish tax, royalty and other payments to governments annually by country and project (*for Canadian companies this is accomplished through compliance with the Extractive Sector Transparency Measures Act).* Encourage governments to promote greater transparency around revenue flows, mining contracts and the beneficial ownership of license holders.	Mineral Revenue PS & 10.2	1.5	32
• Implement processes to ensure and demonstrate that transfer pricing outcomes are in line with fair business practices and value creation.	n/a	1.6	n/a
• Publicly support the implementation of the Extractive Industries Transparency Initiative (EITI)	10.2	1.5	32

3. RESPECT FOR HUMAN RIGHTS AND LABOUR RIGHTS

Purpose

To pursue continual improvement in the areas of human rights and labour rights that are not addressed by the TSM protocols.

	ICMM PE	RGMP	CM/RRA
Through interview and review of documentation, determine that:			
10 UN Guiding Principles on Business and Human Rights			
• Adopt and implement policies of the UN Guiding Principles on Business and Human Rights by developing a policy commitment to respect human rights, undertaking human rights due diligence and providing for or cooperating in processes to enable the remediation of adverse human rights impacts that the facility has caused or contributed to.	3.1	2.3,5.1,5.2	25
11 Conflict-Affected and High-Risk Area Due Diligence			
• Undertake risk-based due diligence on conflict and human rights that aligns with the OECD Due Diligence Guidance on Conflict-Affected and High-Risk Areas when operating in – or sourcing from – a conflict-affected or high-risk area. Implementation of the Conflict Free Gold Standard fully addresses this criterion.	4.2	5.4	31
12 Resettlement			
• Avoid the involuntary physical or economic displacement of families and communities. Where this is not possible apply the mitigation hierarchy and implement actions or remedies that address residual adverse effects to restore or improve livelihoods and standards of living of displaced people.	3.2	7.8	29
13 Security and Human Rights			
• Implement, based on risk, a human rights and security approach consistent with the Voluntary Principles on Security and Human Rights. (This requirement is in line with MAC's membership commitment on the Voluntary Principles for those members that conduct external assurance on their security structures.)	3.3	5.3	27
14 Labour Rights			
• Respect the rights of workers by eliminating harassment and discrimination, respecting freedom of association and collective bargaining, and providing a mechanism to address workers grievances.	3.4	6.2, 6.3, 6.4	7, 8, 13

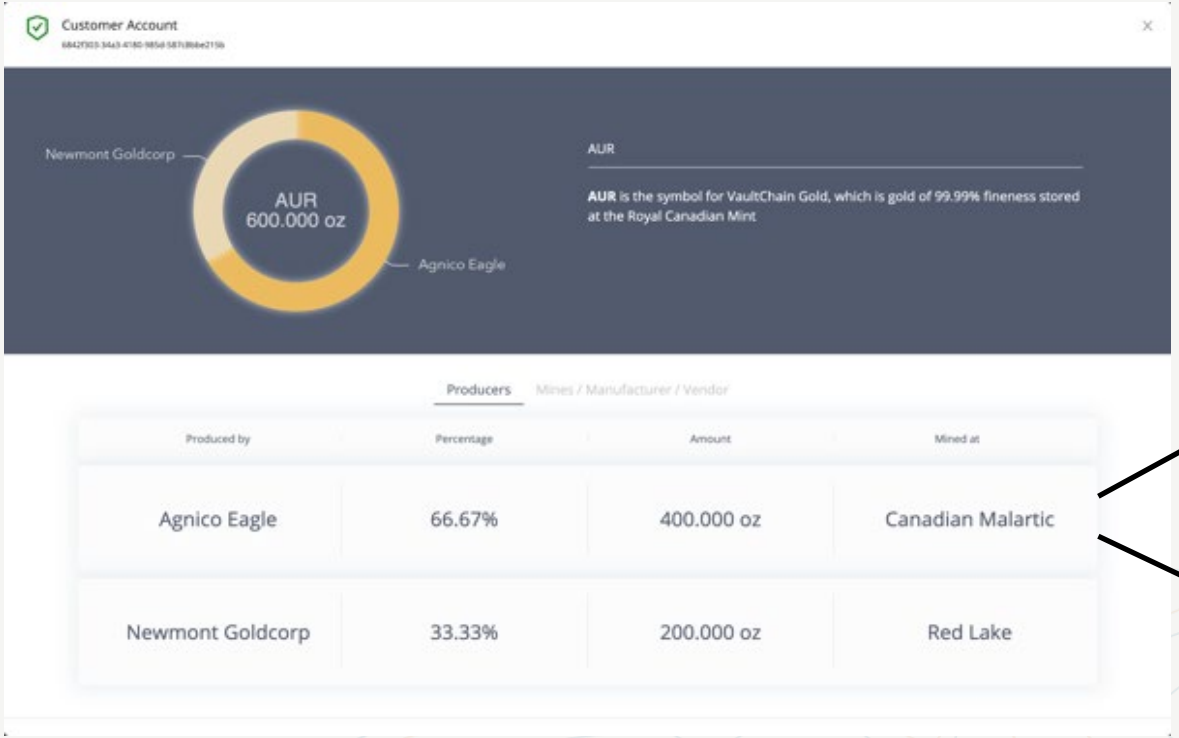
DRAFT

ESG Ratings

- Ratings firms are using TSM performance to inform sustainable investment decisions
- Sustainalytics includes TSM in its criteria for top scores in tailings management
- Sustainalytics plans to introduce other indicators using TSM data

Tick Box	CRITERIA	Score
1	**Mining Association of Canada-Towards Sustainable Mining (MAC-TSM) AA, AAA** or Initiative for Responsible Mining Assurance (IRMA) compliance levels 3, 4 (>50% of assets).	10
2	**MAC-TSM Rating A**, or IRMA level 2 (>50% of assets), or MAC-TSM Rating AA, AAA or IRMA levels 3 or 4 (<50% of assets).	6
3	Contracted third-party audits (minimum three years, with annual interim surveillance audits), Responsible Mining Initiative (RMI) or **MAC-TSM Rating C or B**, or IRMA Compliance levels at any asset, or **MAC-TSM Rating A** or IRMA level 2 (< 50% of assets).	5
4	Application of TSF management standard and self-assessed management programmes (per **MAC-TSM** review panel requirements).	3
5	TSF management standards applied (**ICMM**, ILO, IFC PS4.6, **ISO14001**, IUCN, SASB NR0302.07-09, IRMA transparency level).	2

Traceability



TRADEWIND ORIGINS

Agnico Eagle
895cf856-44bf-47b9-b8e7-5ec8f9a0b14d

Location: Canadian Malartic (Mine)
Format: Dore
Certifications: Towards Sustainable Mining
Shipping Date: 11/15/2019
Creation Date: 11/15/2019

Refiner: Royal Canadian Mint
Est. Gold: 3,000.000 oz
Est. Silver: 3,000.000 oz

Responsible Sourcing

Supplier Responsibility Standards

Applicable Upstream Standards for Large Scale Mining Companies * and/or Artisanal and Small Scale Mining ("ASM/SSM")* (Mining and Metals Supply Chain)

Organization/ Standard	Human Rights & Labor			Health & Safety		Environment		
	Conflict	Child Labor	Forced Labor	Occupational Health & Safety	Community Health & Safety	Water Consumption Abstraction	Tailings	Pollution
Better Sourcing**	☑	☑	☑	☑	☐	☐	☐	☐
CCCMC	☑	☑	☑	☑	n/a	n/a	n/a	n/a
Fairmined**	☑	☑	☑	☑	☐	☐	☑	☐
Fairtrade Gold**	☑	☑	☑	☑	☐	☐	☑	☑
IFC Performance Standards	☑	☑	☑	☑	☑	☑	☑	☑
IRMA	☑	☑	☑	☑	☑	☑	☑	☑
ITSCi**	☑	☑	☑	n/a	n/a	n/a	n/a	n/a
Mining Association of Canada (TSM)	☐	☑	☑	☑	☑	☑	☑	☐
RJC Chain of Custody**++	☑	☑	☑	☑	☐	☐	☑	☑
World Gold Council	☑	☐	☐	n/a	n/a	n/a	n/a	n/a
ICMM+	☑	☑	☑	☑	☐	☑	☑	☑
CRAFT	☑	☑	☑	☑	☐	☑	☐	☑

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