

#### **INTRODUCTION**

At Capstone Copper (Capstone), we are committed to the responsible management of our Tailings Storage Facilities (TSF), in alignment with the Global Industry Standard on Tailings Management (GISTM). Our approach is grounded in prioritizing the safety of people, the environment, and local communities. By adhering to the GISTM requirements, we aim to embed best practices across all phases of our TSF lifecycle, from project conception to post-closure.

Capstone's **Sustainable Development Strategy** (SDS) defines achieving industry best practices for safe and responsible tailings management as a priority, with the goal of achieving GISTM conformance across all Capstone TSF by year end 2028.

Our <u>Tailings Management Policy</u> outlines our continued commitment to achieving excellence in tailings management, prioritizing safety, sustainability, and adherence to our core values; and includes our commitment to implement and maintain a company-wide **Tailings Management System (TMS)** to ensure a consistent, comprehensive, and systematic approach to tailings management.

# CEO MESSAGE ELEVATING STANDARDS IN TAILINGS MANAGEMENT

**Cashel A. Meagher, President and CEO of Capstone Copper, stated:** "We are committed to achieving excellence in tailings management, prioritizing safety, sustainability, and adherence to our core values. The release of our company-wide TMS and its nine supporting guidelines marks a significant milestone in aligning our practices with the highest industry standards, including the GISTM requirements. These governance documents outline the essential principles and practices for managing TSF throughout their lifecycle



in Capstone. By implementing the TMS, we aim to achieve our ultimate goal of ZERO HARM to people and the environment, reflecting our unwavering dedication to responsible and sustainable mining practices.

Together, through training sessions and collaboration, we can elevate our operational standards and contribute to a more responsible future for mining.

Let us continue to work as a united team, ensuring our actions today build a better tomorrow."



# **EVOLUTION OF CAPSTONE'S TAILINGS MANAGEMENT APPROACH**

Prior to the 2022 merger of Capstone Mining with Mantos Copper to create Capstone Copper, the management of tailings at each operation was in alignment with local regulations, the Mining Association of Canada (MAC), and GISTM, to ensure best practices on appropriate design and construction, instrumentation and monitoring, and regular inspections. Capstone's Tailings Working Group, composed of Corporate and site resources, aimed to ensure tailings risks were adequately characterized, mitigated and consistency improved across sites.

Following the launch of the ICMM Tailings Management Good Practice Guide and Conformance Protocols in 2021, Capstone's Tailings Management Policy and TMS Guide were established in 2022, and then further updated in 2023 to align with the SDS. The Tailings Working Group has evolved into the Tailings & Water Working Group (T&WWG). The T&WWG is responsible for Tailings and Water priorities, strategies, milestones, and goals defined in the SDS. The group is led by the Tailings & Civil Infrastructure Team (T&CI), with sponsorship from the Senior Vice President, Technical Services, and with participation of representatives of all Capstone operations.

Capstone established its first Tailings Management Standard (Standard) in 2024 to set the minimum requirements for the management of TSF and incorporate the GISTM requirements. Along with the Standard, nine (9) technical guidelines were launched to provide guidance on how to meet the requirements established in the Standard. As defined in the SDS Tailings priority, Capstone is in the process of ensuring GISTM conformance for all TSF by YE 2028 with Mantoverde, Cozamin, and Santo Domingo operations aiming to achieve conformance by YE 2026, and Pinto Valley and Mantos Blancos by YE 2028. This journey exemplifies Capstone's commitment to safe and responsible tailings management over time.



Figure 1- Capstone Tailings Management Journey



Tailings consist of finely ground rock particles and water left over after the extraction of valuable minerals. These materials are typically stored in TSF, which are engineered structures designed and managed to safely contain the tailings, while minimizing environmental and social impacts.

The types of TSF by construction method in the Capstone portfolio include:

- a. Upstream raised dams,
- b. Centerline raised dams,
- c. Downstream raised dams, and
- d. Dry stacking placement.

These raised dam configurations (Figure 2) refer to the direction in which the embankment crest moves in relation to its initial starter dam position, as the embankment increases in height.

At Capstone, tailings are recognized as a critical by-product of our mining operations, requiring rigorous management to ensure safety and sustainability. Our TSFs are constructed and maintained to prioritize stability, water efficiency, and long-term environmental safety through integration of best practices and innovative technologies, including dry stack tailings, to reduce the TSFs footprint and enhance water conservation.



Figure 2 - Type of TSF by construction method

#### TSF LIFECYCLE

A TSF lifecycle includes design, construction, operation, closure, and post-closure. Capstone manages its TSF in alignment with the GISTM during all phases of the TSF lifecycle. Some phases, such as Operation, Closure, and Post-closure, typically only occur once in the lifecycle of the TSF, while others such as project conception, design, and construction may occur periodically through the life of the facility. **Project Conception** - consider the development and analysis of different alternatives for location, technology and strategy of a new tailings facility. The primary output is the approved and applicable selection of the preferred alternative with costing estimate to move to design stage.

**Design** - a recurring lifecycle activity that progresses from the decisions established in the Project Conception phase. Following the selection of a preferred alternative, detailed design work encompasses all aspects of that chosen alternative. This phase relies on the design intent and specified performance objectives to guide the detailed planning process. **Construction** - involves construction of the TSF and infrastructure that must be in place before tailings deposition commences.

**Operation** - involves the transportation and deposition of tailings into the TSF, including any periods of inactivity before the initiation of the closure plan. Construction activities may occur intermittently or continuously throughout the Operation phase. Furthermore, concurrent reclamation activities aligning with the closure plan might take place during this phase. **Closure** - commences when the permanent deposition of tailings into the tailings facility ends, and the closure plan is enacted.

**Post-closure** - commences once the closure plan has been executed, and the tailings facility has shifted to long-term maintenance and monitoring. This phase encompasses all safety and environmental compliance aspects related to long-term stability and legal requirements.





#### **OUR TAILINGS MANAGEMENT SYSTEM**

Capstone's (TMS) provides a comprehensive framework to ensure consistent, systematic, and effective tailings management throughout the lifecycle of our TSF. Following GISTM principles, our TMS integrates people, processes, resources, and technology to minimize risks, enhance safety, and promote sustainability. The TMS aims to meet the 15 Principles and 77 Requirements outlined in GISTM, ensuring that all TSF achieve conformance by end 2028. Our TMS follows the well-established Plan-Do-Check-Act cycle (Figure 3).

- **PLAN** define plans for effective operational and safe management of the TSF based on Capstone policy.
  - **DO** implement the plans defined in the PLAN phase.
- **CHECK** compare results of the implementation from the DO phase with the plans and performance objectives defined during the PLAN phase.
  - ACT identify improvement actions based on the results of the verification carried out in the CHECK phase to improve performance, as necessary.



Figure 3 - TMS Framework

Anchored in our vision, values, and commitment to adopt applicable leading practices and technologies, the TMS framework rests on six fundamental pillars. These pillars serve as the foundation principles for responsible tailings stewardship through continuous improvement. Each pillar is accompanied by specific elements that contribute to its effectiveness.

Key elements of the TMS pillars are:

**Governance, Planning & Design -** Lines of defense & governance structure, policy, standards, guidelines, change and quality management, facility management plan, planning & design.

**Register, Reporting & Public Disclosure** - Recommendation tracking tool, real-time monitoring, TSF register, public disclosure, GISTM conformance tool.

Operation, Maintenance and Surveillance (OMS) & Emergency Preparedness and Response Plan (EPRP) -

Performance indicators, monitoring, inspections, critical controls & trigger action response plans (TARP), emergency response planning, drills.

**Risk Management** - Risk Management Plan, Potential Failure Mode Assessments (PFMA) & As Low As Reasonably Practicable (ALARP), operational / construction risk, Enterprise Risk management (ERM).

Review & Assurance - Dam Safety Inspection (DSI), Dam Safety Review (DSR), Independent Tailings Review Board (ITRB), Audits (external & internal). Training & Competency - Training materials, succession plans.



BAP&BAT – Applicable at site-specific conditions





#### **GOVERNANCE STRUCTURE**

In terms of Capstone's governance structure, each mining unit follows a similar organizational structure as depicted in Figure 5. There is an overarching governance structure above the Mine General Manager (GM) that oversees all units, led by the Board. The GM is the risk owner of the TSF and is responsible for the day-to-day operations and tailings management decisions specific to their site. This hierarchical governance approach fosters a cohesive and integrated management strategy, aligning the efforts of individual mining units with the overarching goals and standards set by Capstone at the corporate level.

Capstone's governance structure for tailings management has four **Lines of Defense (LoD)** to ensure clearly defined roles, responsibilities, accountability, and key processes for all decisions related to tailings management.

**1st LoD** - provides site management implementation:

- Mine General Manager (GM)
- Responsible Tailings Facility Engineer (RTFE)
- Engineer of Record (EOR)
- Tailings & Water Operations Team (T&WOT)

2nd LoD - provides systematic review process:

- Independent Tailings Review Board (ITRB)
- Dam Safety Inspection (DSI) by the EOR
- Annual Performance Review by the EOR
- Periodic Dam Safety Review (DSR) by independent consultant
- Independent Reviewers and Auditors

**3rd LoD** - provides corporate oversight and technical support:

- Accountable Executive Officer (AEO)
- Tailings & Civil Infrastructure (T&CI) Corporate Team
- Tailings and Water Working Group (T&WWG)
- Relevant Chief Officers & SVP
- Technical Services Team
- ESG Team

4th LoD - comprises high-level oversight by senior leadership:

- Board of Directors (Board)
- Technical & Operational Performance Committee
  (TOP Committee)

Capstone follows a multi-tiered approach throughout the lifecycle of TSF:

- Senior Leadership (Board, TOP Committee) TMS program sponsors
- Corporate Teams AEO, T&WWG, T&CI Corporate Team - vision, management and mine unit (MU) support
- MU tailings management GM, RTFE, T&WOT enact and respond
- Engineer of Record (EOR) provide technical support and guidance
- Independent Tailings Review Board (ITRB) review and recommend



Figure 5 - TMS Governance Structure



Picture 1 - ITRB session at MB 2024



# **TSF INVENTORY**

Capstone manages twelve (12) TSF worldwide, of which six (6) are active, four (4) are inactive, and two (2) are closed. The below table shows the distribution of TSF, their status, consequence classification, and construction method. Consolidated disclosure information responsive to the Church of England Questionnaire can be accessed in our <u>TSF Inventory List</u>, including TSF locations, and key characteristics such as consequence classification, storage capacity, heights.

ID	Mine Unit	TSF Name	Current Construction	Current Status	Current Consequence
1	Pinto Valley	PV TSF1	Upstream	Closed	High
2		PV TSF2	Upstream	Inactive	Extreme
3		PV TSF3	Upstream	Active	Extreme
4		PV TSF4	Upstream	Active	Extreme
5		PV CTI	Upstream	Inactive	High
6	. Cozamin	Cozamin TSF	Dry stack	Active	Very High
7		Chiripa Norte & Sur TSF	Upstream	Closed	Significant
8	Mantoverde	MV TSF	Centerline	Active	Significant
9	Mantos Blancos	MB Pit Phase 8	Downstream	Active	Significant
10		MB Coarse TSF	Dry stack	Active	Significant
11		MB Cubeta 1 TSF	Centerline	Inactive	Significant
12		MB Cubeta 2 TSF	Centerline	Inactive	Significant



# TAILINGS STORAGE FACILITIES

#### **Cozamin Mine, Mexico**

Cozamin Mine has been owned and operated by Capstone since 2003. The site currently manages one active TSF and is responsible for the closed Chiripa TSF. In 2023, Cozamin transitioned its active TSF to a dry stack facility, significantly improving water conservation and allowing for the expansion of the mine's Mineral Reserves without the need for a new TSF. This conversion enhances operational sustainability by reducing water consumption and facilitating quicker reclamation of the tailings area. The Chiripa TSF, located near the mine, was inactive long before Capstone's acquisition. Reclamation efforts began in 2022, with full implementation in 2024. These initiatives reflect Capstone's commitment to responsible resource management, environmental stewardship, and alignment with the GISTM.



Picture 2 - Cozamin TSF

#### Pinto Valley Mine, USA

Pinto Valley Mine has been owned and operated by Capstone since 2013. The site manages two active TSFs) and three inactive TSF. The two active TSF (TSF3 and TSF4) were originally constructed in the 1970s, during a time when tailings management standards were significantly different. Capstone is undertaking upgrades to these facilities to meet modern standards for stability, earthquake resilience, and water recovery. These enhancements ensure our continued compliance with local regulations and international standards, while supporting operational efficiency. The inactive Cottonwood TSF, built in the 1940s, is located on public land managed by the United States Forest Service (USFS). Capstone is collaborating with the USFS to execute a reclamation plan, which includes re-sloping to improve water drainage, capping with soil, and revegetating with native plants. These efforts align with Capstone's commitment to environmental stewardship and the sustainable management of legacy sites.



Picture 3 - PV TSF4



# TAILINGS STORAGE FACILITIES

#### Mantos Blancos Mine, Chile

Mantos Blancos Mine has been owned and operated by Capstone since the merger with Mantos Copper in 2022. Operating since 1960, the mine produces copper concentrate and cathodes and manages two active TSF and two inactive TSF. The mine employs innovative tailings management practices, separating the tailings into coarse tailings and fine tailings. The coarse tailings are dewatered and placed in a dry stack TSF (Coarse TSF), enhancing water conservation and enabling progressive reclamation. The fine tailings are stored in an open pit and partially impounded by a downstream dam constructed using waste rock from the mine (Pit Phase 8 TSF). These practices ensure stability, minimize environmental impact, and promote long-term sustainability. Through these tailored management strategies, Mantos Blancos demonstrates Capstone's commitment to responsible resource management, water efficiency, and alignment with the GISTM.



Picture 4 - MB Pit Fase 8 TSF

#### Mantoverde Mine, Chile

Mantoverde Mine has been owned and operated by Capstone since the merger with Mantos Copper in 2022. In operation since 1995, Mantoverde produces copper cathodes and is currently undergoing significant development to expand its capabilities. The Mantoverde Development Project included the construction of a new TSF to support the processing of sulfide ore through a modern mill. The state-of-the-art MV TSF is designed to meet the highest global standards for safety and environmental sustainability. The start-up construction of this TSF started in H1 2024 marking a critical step to the performance of the TSF from a material balance and stability standpoint. The start-up construction covers the period of time until the embankment reaches the crest of the starter dam.



Picture 5 - MV TSF



#### TMS EMERGENCY RESPONSE

Capstone's TMS includes a comprehensive Emergency Response framework aligned with the GISTM. This framework ensures swift and effective action in normal and emergency events through TARP. The response structure comprises:

- Normal Operational Levels: Managed through proactive monitoring and the OMS Manual.
- Emergency Levels: Escalated responses guided by the EPRP and overseen by the Crisis Management Committee for severe events. Capstone has defined three levels of emergency, Level 1, Level 2, and Level 3.



Emergencies can occur suddenly or incrementally over time and may start from alert levels (operational conditions) described in the OMS Manual until reaching emergency levels. This transition process, along with the levels of operational and emergency conditions, is shown in the TMS Infrastructure Event & Response Levels (Figure 6). The TARP, which are measurable levels, are used to move from one Operational level to another or from one Emergency level to another.

Key elements include:

- Real-time Monitoring: Detects critical changes to trigger immediate actions.
- TARP: Ensure consistent and effective responses to predefined thresholds.
- Crisis Management Integration: Activate a coordinated response to high-severity events including site teams, corporate leadership, and external stakeholders as needed.
- Regular Drills: Enhance readiness and ensure team preparedness.
- · Clear Communication Protocols: Enable timely updates to all stakeholders.

#### **OUR TMS FACILITY PERFORMANCE**

#### Monitoring Instrumentation according to TARP

We have implemented advanced monitoring systems that include specialized instrumentation to measure critical factors such as phreatic surface, pore pressure, and surface and subsurface displacements. These instruments align with our TARP, ensuring early detection of potential issues and immediate implementation of planned responses.

#### **Operational Conditions & Key Performance Indicators**

We established key performance indicators (KPIs) to continually assess the operational conditions of our tailings facilities. These include metrics such as water use efficiency, available storage capacity, and adherence to environmental standards. KPIs provide a quick and accurate snapshot of operational performance.

#### Independent Reviews and Tracking of Recommendations

We conduct periodic independent reviews of our tailings facilities, engaging external experts to evaluate effectiveness and safety. Recommendations from these reviews are diligently tracked, and changes are implemented based on best practices and innovative approaches to continuously improve our operations.