

Our Approach to Tailings Management

Which Teck sites does this document apply to?

This document summarizes our approach to tailings management and applies to all Teck sites and projects, with a focus on operations and legacy sites with major tailings facilities, and on major development projects with proposed tailings facilities. This does not include operations in which Teck has/had an ownership interest but is not the principal operator. For operations and projects where Teck is not the principal operator, we provide oversight on tailings management according to the management structure of the particular joint venture.

Tailings management performance information: See our **Annual Sustainability Report**, available for download on our website. Also see the **Tailings Management page** on our website for further disclosure.



Highland Valley Copper Operations, Canada, 2015.

Background

Tailings and mine waste rock are common by-products of mining practice. They are typically created as mined ore is crushed, ground and/or processed to separate the valuable minerals and create a saleable concentrate product. The residual material from this concentrating process is called tailings. Due to the nature of the ore separation processes, tailings are commonly transported as a slurry of fine mineral particles and water, but may also be dewatered and transported using conventional earthmoving equipment. The tailings are then placed in a specially designed impoundment called a tailings facility.

Tailings facilities exist in mining areas around the world and have the potential to have a significant impact on communities, local economies and the surrounding environment. The main focus of management of tailings facilities is on ensuring that failures do not occur.

Teck's tailings facilities are operated and maintained to meet global best practices for safety throughout their life cycle. Whether active, inactive or along the path to a state of safe closure, we continually review our facilities and procedures and are committed to maintaining the highest standard of safety at our facilities. Tailings storage facilities at Teck's operating and closed sites meet or exceed regulatory requirements and are subject to our tailings stewardship program, described below, that is designed to continually improve the management of our facilities by developing and incorporating best practices.

Governance and Accountability

Accountability and Resourcing

The Board of Directors, through its Safety and Sustainability Committee, oversees implementation of Teck's sustainability-related standards (Sustainability Standards) and tailings guidance, including policies, systems, performance and auditing functions. Our activities associated with tailings and waste management are reported to the Safety and Sustainability Committee of the Board and/or to our Health, Safety, Environment and Community (HSEC) Risk Management Committee.

The following senior corporate leaders are involved in implementing the management of tailings and mine waste:

- The Senior Vice Presidents (SVPs) of the base metals, coal, and copper growth business units report directly to the President and Chief Executive Officer (CEO) and are the accountable executives for tailings facilities at our operating mines, and our development projects, respectively.
- The SVP, Sustainability and External Affairs reports directly to the President and CEO and is responsible for sustainability, health and safety, environment, community, and Indigenous affairs, including our Sustainability Standards, and is the accountable executive for tailings facilities at our legacy properties.
- The Vice President (VP), Environment reports to the SVP, Sustainability and External Affairs and oversees



Employees at the Glandwater Barge of the Highland Valley Copper Tailings Facility, 2021.

compliance with environmental standards for projects, operations and our legacy properties, and regularly reviews environmental performance risks and strategic issues, including tailings management, biodiversity, water, air, and climate change.

- The Director, Tailings, who chairs our Tailings Working Group, reports to the VP, Environment and advises other executives on emerging issues or governance concerns, per our Tailings Policy and Standard.

The Tailings Working Group includes members of our senior management team and tailings, social performance and emergency management subject matter experts from our operations, corporate functional teams and legacy properties department. The group provides oversight and guidance across the organization and conducts reviews to ensure alignment with Teck's governance framework for tailings management.

Policies and Standards

Our [Code of Sustainable Conduct](#) outlines our commitment to continually improve our environmental practices, including the safe operation and closure of tailings storage facilities. Teck is also committed to not discharge tailings to rivers or oceans.

Teck's [Tailings Management Policy](#) commits to the implementation of the Global Industry Standard on Tailings Management and industry-leading protocols established by the International Council on Mining and Metals and by the Mining Association of Canada. Our policy also outlines our commitment to the safe and environmentally responsible management of tailings facilities throughout the mining life cycle to minimize harm to the environment and to protect the health and safety of our people and surrounding communities of interest (COIs).

Teck's Tailings Policy and Standard provides a consistent company-wide approach to how we manage the risks inherent with tailings. These documents set clear expectations on roles and responsibilities related to tailings management across all Teck projects, operations and legacy properties.

Memberships, Partnerships and External Commitments

We work with various local, national and international organizations and programs to support improvements in tailings and mine waste management across the industry:

- [The Global Industry Standard on Tailings Management \(GISTM\)](#): Launched in August 2020, this standard sets a high benchmark for improving the safe management of tailings facilities toward the ultimate goal of zero harm. Teck's corporate tailings Policy and Standard have been updated to reflect the requirements of the GISTM, and Teck is committed to implementation of the GISTM across all of our sites and projects. In August 2023, Teck published [facility summaries](#) for active and inactive Extreme and very high consequence tailings facilities, and also for operating tailings facilities of other consequence classifications, per the GISTM disclosure requirements. Facility summaries for our remaining facilities and projects will be reported by August 2025.
- [International Council on Mining and Metals \(ICMM\)](#): A global industry association that represents leading international mining and metals companies who are required to implement the ICMM Principles, the Position Statements and the Performance Expectations. In order to support member companies' implementation of the GISTM, the ICMM published the [ICMM Conformance Protocols](#) and the [Good Practice Guide for Tailings Management](#), which include specific guidance and criteria related to tailings and GISTM conformance.
- [Mining Association of Canada \(MAC\)—Towards Sustainable Mining \(TSM\)](#): A Canadian industry association that promotes the development of the country's mining and mineral processing industry, works with governments on policies applicable to the sector, and promotes the value that mining brings to the economy and daily life of Canadians while operating responsibly using the Towards Sustainable Mining Protocols. The TSM program includes the TSM Tailings Management Protocol and supporting *Tailings Guide*, which have been adopted internationally by other mining associations, and are applied across Teck's portfolio of tailings facilities, regardless of jurisdiction.

- **The Copper Mark:** A multi-metals assurance framework developed by the International Copper Association to promote responsible practices and to demonstrate the contribution of the transition minerals industry to the United Nations Sustainable Development Goals. The Copper Mark criteria includes criteria related to tailings management.
- **Australian Research Council:** Teck, along with four universities in Australia and several other mining companies, is supporting the TAILLIQ research program that is focused on improving the prediction and understanding of behaviour of tailings liquefaction to avoid tailings facility failures.
- **Canadian Dam Association:** As a member of the Association, Teck's senior technical leaders actively participate in the CDA Mining Dams Committee, providing input to the development of industry guidance on best practices.

Approach to Tailings Management

Tailings Storage Facilities Management

Tailings facilities are designed based on factors such as the composition of the tailings being stored, site geology and geotechnical conditions, precipitation/climate, seismic activity, community input and environmental protection. Across Teck's portfolio of active and inactive tailings facilities, are examples of various configurations, including dewatered tailings, in-pit storage, and tailings embankments with retained tailings. See [Tailings Management](#) on our website for more information on methods of constructing tailings embankments.

At Teck, we take extensive measures to safely manage our facilities throughout the mining life cycle, including planning, design, construction, operation, and closure of our tailings facilities, such that:

- Tailings facilities are managed in a manner that addresses risks, minimizes liabilities and reduces potential long term-impacts on surrounding communities and the environment
- Proactive and meaningful engagement with COIs is carried out on the design, management and review of tailings facilities, and local knowledge is incorporated into decision-making
- Best available practices and technologies are incorporated in our management and governance of tailings facilities with the intent of continuous improvement in performance and safety
- Emergency response plans are developed and mechanisms for post-incident recovery are implemented in collaboration with our COIs

The first priority for our tailings facilities is the safety and security of communities, employees and the environment. We have comprehensive systems and procedures in place for the safe operation and monitoring of tailings facilities

that follow best practices, organized around interrelated activities that include:

1. **Surveillance:** Sites employ surveillance systems such as piezometers, inclinometers, pressure gauges, drones, satellite-based remote sensing, and other technologies to monitor tailings dams, abutments, natural slopes and water levels. We routinely evaluate new technologies to assess opportunities to improve the effectiveness of our surveillance systems.
2. **Staff Inspections:** Tailings facilities are inspected by trained operators and expert technical staff as frequently as several times daily, with formal staff inspections at regular prescribed intervals.
3. **Annual Facility Performance Reports (AFPRs):** Formal reviews are conducted annually by an Engineers of Record for all our active or inactive tailings facilities. AFPRs are conducted to review the physical performance of the facility against the expected performance and design intent, and to detect any conditions that require attention. The AFPRs and other information about our tailings facilities, both operating and inactive, are available on our website.
4. **Periodic Dam Safety Reviews (DSRs):** Comprehensive third-party dam safety reviews are conducted by qualified independent tailings experts at a frequency based on the potential consequence for each facility. DSRs are conducted to evaluate performance of the design, construction, operation, maintenance and surveillance of the facility relative to the standard of practice across the industry.
5. **Internal Governance Reviews:** Teck's Tailings Working Group conducts internal governance reviews of our active and inactive tailings facilities, as well as our major tailings projects, on a regular basis. Tailings Governance Reviews are carried out every three years by internal subject matter experts. These governance reviews assess the adequacy of personnel and procedures to meet our commitments, and our ability to address recommendations for continual improvement from our external reviewers in a meaningful and timely manner. The governance reviews also evaluate the performance of our Engineers of Record and other external reviewers and consultants who we rely on as part of our overall management processes.
6. **Independent Tailings Review Boards:** Our operations, legacy (inactive) facilities and major development projects have Tailings Review Boards made up of senior external independent experts who meet regularly, at least annually, to conduct a third-party review of design, operation, surveillance and maintenance of our storage facilities. These Boards also provide input into our internal governance and the quality of work done by our third-party Engineers of Record. The results from the Independent Review Board assessments are communicated directly to senior management.

7. **Special Reviews:** After significant global events, such as the Samarco or Brumadinho catastrophic failures in Brazil, Teck takes measures to learn as much as possible from those events and employs additional industry experts outside of independent review boards to evaluate our governance program and to assess whether the root causes of those other events are present in Teck's program.

Within joint venture arrangements where Teck is not the operator, Teck provides oversight on tailings management according to the management structure of the particular joint venture. At Antamina, our only operating joint venture, a Tailings Review Board is in place that meets the requirements of our governance review process. Teck also provides senior experts to Antamina's Tailings Technical Committee.

Technology and Innovation in Tailings Management

Teck is committed to integrating new technologies and innovation into our tailings management practices, including both physical and digital technologies. We routinely assess established and emerging tailings dewatering technologies for applicable locations, both for new projects as well as for existing operations. Further, we have incorporated real-time geotechnical monitoring systems across all of our operating facilities, we use satellite-based remote sensing at many of our facilities, and we are working to further enhance our surveillance programs to add to our already extensive monitoring and response program.

Teck understands that "one size does not fit all" when it comes to tailings management and its associated technologies, and that by working with selected vendors, academia and industry experts, our facilities are rigorously evaluated using appropriate tailings technologies.

Emergency Planning and Preparedness

Each facility has an Operation, Maintenance and Surveillance manual and a Mine Emergency Response Plan, which are both regularly reviewed and updated. We maintain site-specific tailings management systems that conform to or exceed industry standards of practice, including leading protocols established by MAC-TSM and ICMM, which we report upon publicly.

These systems, which demonstrate leadership and commitment to responsible tailings management practices, were developed through consultation with communities. We also review emergency response plans with our local communities and stakeholders and undertake community meetings and emergency drills to work through these plans and to discuss our approach to tailings management.

For all facilities with a credible flow failure scenario (tailings could leave the impoundment in an uncontrolled and destructive manner), a breach and inundation evaluation

is conducted to identify communities and waterbodies that could be impacted in the extremely unlikely event of a tailings incident, in order to evaluate mitigation strategies and to assist with emergency planning and response.

Potential consequences are evaluated based on the potential environmental, safety and economic effects of a failure. This ranking of consequence does not reflect likelihood of failure; rather, it provides a tool to assist with facility design and emergency planning. See [Our Approach to Emergency Planning and Preparedness](#) for further information.

Transparency and Disclosure

We remain committed to being open and transparent with communities and other stakeholders regarding the construction and management of our tailings facilities. As such, we make information on our approach to tailings management, a detailed list of facilities and copies of recent AFPRs available on our website. We have also provided detailed information about our tailings facilities through responses to various investor requests.

Teck is committed to responsibly managing tailings facilities and to implementing the GISTM at our operating and closed facilities in all jurisdictions. As part of our GISTM commitment, Teck has published facility disclosures for active and inactive extreme and very high consequence facilities, as well as other operating facilities. For more information, see our [Global Industry Standard on Tailings Management](#) web page.

We disclose our tailings facility inventory table annually in our [Annual Sustainability Report](#). We also report any significant incidents¹ related to tailings in our Sustainability Report and we share learnings from Teck across the mining industry.

For information about Teck's approach to waste management, including tailings and fine coal refuse, waste rock and overburden, coarse coal refuse, and hazardous and non-hazardous waste, see [Our Approach to Responsible Production](#).

Our Targets and Commitments

We are committed to the safe and environmentally responsible development, operation and management of tailings storage facilities. We continually review our facilities and procedures and are committed to maintaining the highest standard of safety and environmental protection at our operations, including standards set by MAC and ICMM. We aim to have zero significant environmental incidents across the organization.

Tailings management is embedded within our sustainability strategy alongside health and safety, biodiversity and closure, climate change, water, our people, communities and Indigenous Peoples, and responsible production. Our sustainability strategy has long-term strategic priorities and shorter-term sustainability goals.

¹ Teck uses a risk management consequence matrix to determine incident severity, which includes environmental, safety, community, reputational, legal and financial aspects. "Significant incidents" includes incidents assessed as Level 4 or Level 5 based on our risk matrix and guidance.

Strategic Priority:

- Continue to manage our tailings across their life cycle in a safe and environmentally responsible way

Goals:

- Preferentially consider milling and tailings technologies that use less water, both for new mines and any mine life extensions at existing mines
- Expand the use of digitally connected surveillance technologies to assist in monitoring our tailings storage facilities

For more information on our sustainability strategy goals, see the [Sustainability Strategy](#) section of our website.

We report on our performance against indicators and goals related to tailings management on an annual basis in our [Sustainability Report](#).

Assurance Related to Tailings Management

Teck takes an effective, efficient, risk-focused and integrated approach to assurance activities, which ensures internal controls are appropriately designed and operating effectively. These assurance activities include:

- Risk assessments and control verification at sites and in business units

- Sustainability internal audits and mid-term effectiveness reviews conducted at sites by Teck's Sustainability Assurance team
- Corporate annual internal audits conducted by Teck's Assurance and Advisory team
- External assurance by independent auditors for relevant regulatory and voluntary membership requirements

Following each of these processes, applicable management teams use the results to inform future actions and Teck's five-year planning process.

In addition to the various assurance activities above, Teck performs tailings-specific Tailings Governance Reviews to assess operational tailings management activities relative to the Tailings Governance framework. We also assess our tailings management practices under MAC's TSM Tailings Management Protocol. Achieving a minimum of a Level A rating under TSM is a requirement of our Sustainability Standards. A Level A rating indicates that tailings management practices that meet industry best practice, as defined by the MAC Tailings Guidelines, have been developed and implemented. All of our operations meet or exceed this standard. Several of our facilities reached a verified Level AAA, which indicates excellence and leadership in tailings management, through validation by an external, independent evaluation.

Assurance Related to Tailings Management

Type	Organization	Items Reviewed
Internal	Teck (risk-based sustainability audits)	<ul style="list-style-type: none"> • Adherence to regulatory and permit requirements • Effectiveness of controls based on risk profile • Sustainability Standards
Internal	Teck's Tailings Governance Reviews	<ul style="list-style-type: none"> • Assessment of operational tailings management activities relative to Tailings Governance framework
External	ICMM Conformance Protocols: Global Industry Standard on Tailings Management	<ul style="list-style-type: none"> • Conformance against the GISTM for extreme or very high-potential consequence facilities across the six topic areas of the standard: <ul style="list-style-type: none"> ◦ Communities ◦ Integrated knowledge base ◦ Design, construction, operation and monitoring ◦ Management and governance • Emergency response disclosure
External	International Council on Mining and Metals: Sustainability Report Assurance and Performance Expectations	<ul style="list-style-type: none"> • Principle 6: Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change (Performance Expectation 6.3)
External	Mining Association of Canada: Towards Sustainable Mining	<ul style="list-style-type: none"> • TSM Tailings Management Protocol
External	The Copper Mark	<ul style="list-style-type: none"> • Issue area 19: Tailings Management