

Our Approach to Circularity

Which Teck sites does this document apply to?

This document summarizes our approach to advancing circularity and how Teck contributes to the broader circular economy. This document applies to all Teck-controlled sites and projects inclusive of contractor activities. This does not include operations in which Teck has/had an ownership interest but is not the principal operator.

Performance information related to circularity: See our **Annual Sustainability Report**, available for download on our website.



Employee at Trail Operations, Canada. 2019.

Background

The world is transitioning to both a low-carbon and a more circular economy, the principles of which involve reducing or designing out waste and pollution, including carbon emissions; keeping materials in use at as high a state of value and for as long as possible; and realizing overall benefits through the regeneration of nature and similar actions.

Teck provides minerals and metals that are critical to the low-carbon future and that play an important role in the circular economy due to their high durability and recyclability. In producing these minerals and metals, we apply the principles of circularity at a site level, through our value chain, and at a larger scale that brings benefits to the communities and environments where we operate and that reduces our impact.

Our commitments to increased circularity and our contributions to the broader circular economy are demonstrated in three key areas:

- Responsible production across our business and across the mine life of our operations, including minimizing waste and impacts on nature, and delivering benefits to the local region
- Provision of key metal recycling services, including partnering with related businesses to support larger networks and markets for recycled materials
- Collaboration with industry and downstream partners to increase the circularity of commercial and consumer products after our minerals and metals have entered the market

Governance and Accountability

Accountability and Resourcing

The Board of Directors, through its Safety and Sustainability Committee, broadly oversees health, safety, environment and community policies, systems, and performance, including the implementation of Teck's sustainability-related standards (Sustainability Standards). The following senior leaders are involved in advancing circularity and implementing circular practices at the corporate level:

- The Senior Vice President (SVP), Sustainability and External Affairs reports directly to the President and Chief Executive Officer (CEO) and is responsible for sustainability, health and safety, environment, and community, government, and Indigenous affairs, including waste management
- The SVP, Base Metals, who reports directly to the President and CEO, is responsible for production, including from our Trail refinery, is an Advisory Committee member for both the International Lead Association and the International Zinc Association, and is the Chair of the International Copper Association
- The SVP and Chief Commercial Officer, who reports directly to the President and CEO, is responsible for supply, marketing and logistics, managing supply chain risk, customer engagement and providing strategic direction for material stewardship activities at Teck, and is the Chair of our Materials Stewardship Committee

- The Vice President, Environment oversees compliance with environmental standards for projects, operations and our legacy properties, and regularly reviews environmental performance risks and strategic issues, including nature, climate change, water, tailings, air and waste

Policies and Standards

Teck's approach to advancing circularity and implementing circular practices across the company is addressed through several Teck policies and guidance documents. Our [Code of Sustainable Conduct](#) outlines our commitment to sustainable development, including: reducing negative environmental, social, and economic impacts and maximizing positive opportunities and promoting the responsible supply of materials and responsible use of our products.

Our [Expectations for Suppliers and Contractors](#) communicate Teck's expectations for suppliers of goods and contractors performing services for or on behalf of Teck. The expectations include our requirement that suppliers and service providers address issues relating to environmental stewardship, as well as human rights, ethics, local communities, Indigenous Peoples, and health and safety.

Teck's policies related to [Water](#), [Tailings Management](#), [Human Rights](#) and [Indigenous Peoples](#) provide additional detail and requirements related to our approach to circularity and responsible production. Our mineral sourcing program applies to concentrates that are received from mines for processing at our Trail Operations, and is in compliance with the London Bullion Market Association (LBMA) Responsible Silver Guidance and the London Metal Exchange (LME) Responsible Sourcing program, which are also aligned with the Organisation for Economic Co-operation and Development (OECD) programs for Responsible Supply Chains for Minerals.

The above codes, expectations and policies are put into practice through our Sustainability Standards that provide a framework for the identification and effective management of sustainability risks and opportunities, and that promote continuous improvement. The standards were modelled after the International Organization for Standardization (ISO) management standard 14001, OHSAS 18001 standards and U.S. Environmental Protection Agency (EPA) compliance-focused Environmental Management System guidance. Key internal standards that are relevant to the circular economy include the environment, social performance, risk management, and materials stewardship standards.

Memberships, Partnerships and External Commitments

We work with various industry associations to support increased circularity and to contribute to the broader circular economy:

- [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, which include criteria related to responsible production.

- [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 Copper Mark](#): A multi-metals assurance framework developed by the International Copper Association to promote responsible practices and to demonstrate the transition minerals industry's contribution to the United Nations Sustainable Development Goals. The Copper Mark criteria includes criteria related to waste management and due diligence in supply chains.
- [International Organization for Standardization \(ISO\) 14001](#): An international standard that specifies the requirements for an environmental management system that organizations use to manage environmental responsibilities in a systematic way to enhance environmental performance.
- [The International Copper Association \(ICA\)](#): Brings together the global copper industry to develop and defend markets for copper and to make a positive contribution to society's sustainable development goals. The ICA's Joint Due Diligence Standard is applicable to copper, lead and zinc, and ensures compliance with OECD standards for responsible supply chains for minerals
- [International Lead Association](#): An organization dedicated to serving lead producers and other companies that have a direct interest in lead and its use.
- [International Zinc Association \(IZA\)](#): A non-profit organization that promotes the role that zinc plays in product applications, human health and crop nutrition. We participate in the IZA's programs that have a strategic focus in the areas of environment and sustainable development, technology and market development, and communications
- [International Molybdenum Association \(IMOA\)](#): An organization representing the majority of the molybdenum industry worldwide that works to raise awareness about the unique properties of molybdenum, its beneficial effects on materials performance, its safety in use and its contribution to sustainable development.

We also actively participate in organizations in our downstream value chain, including the American Galvanizers Association (AGA), Association of Battery Recyclers (ABR), Battery Council International (BCI), Galvanizers Association (GA), London Bullion Market Association (LBMA) and the London Metal Exchange (LME). A full list of Teck's memberships, partnerships and external commitments related to sustainability is available on [our website](#).

Approach to Advancing Circularity

Our mine designs seek to avoid areas of high cultural and ecological value, to minimize disturbed areas, to reduce impacts on water and biodiversity, and to incorporate progressive rehabilitation and plans for closure. We also look to improve efficiencies and recoveries through mining and at our processing facilities and refinery complex, such that we minimize waste and emissions generated from production.

Learn more about our commitments and approach to nature, climate change, community relationships and other topics on [our website](#).

In the mining industry, critical aspects of the circular transition include process circularity, which are processes that minimise, reuse and ultimately eliminate waste, and product circularity, which includes product design and collection processes that harvest and reuse metals indefinitely.¹ For Teck, focus areas for these critical aspects include waste management at our operations and provision of recycling services at Trail.

Process Circularity

We continually improve our waste management practices so that we can avoid waste at the source wherever possible, and minimize waste by adopting best operational and circular practices. This approach allows Teck to provide the minerals and metals that the world needs while minimizing potential impacts from our mines and ensuring that benefits are delivered to local communities and the environment. A key component of how we manage waste at each operation is by complying with applicable standards and regulations. All our operations have waste management aspects in their permits, and several operations have waste-specific policies aligned with their permit requirements.

We divide waste into two main categories: mineral waste and non-mineral waste, which are further divided into several subcategories:

Mineral Waste

Based on volume, mineral waste is the most significant waste type generated by Teck. We characterize mineral waste as waste rock, coarse coal refuse, fine coal refuse from processing ore and raw coal, and tailings. Teck uses internal and independent third-party subject matter experts to design our mineral waste storage facilities. Mineral waste storage methods are determined based on site-specific conditions and industry good practices.

- **Waste Rock:** Waste rock, which is material that is removed to access ore and coal, typically contains trace amounts of naturally occurring metals and other constituents. The bulk of waste rock from our operations is placed in areas that are specifically designed to contain the rock. Waste rock is also used for reclamation activities and to construct dams, roads

and similar structures. Long-term storage of waste rock is conducted in accordance with closure plans and approved by regulatory authorities. These plans typically include contouring, covering and revegetation to achieve established land use objectives.

A portion of waste rock may be susceptible to geochemical instability, such as oxidation processes, which can in turn lead to leaching of the trace metals and minerals from the rock. In these cases, management practices are used to reduce the potential for leaching to occur and/or to mitigate effects, should leaching occur. Management practices include placing this portion of waste rock within tailings storage facilities, as backfill in open pits or underground workings, or in similar locations where appropriate controls are in place

- **Coarse Coal Refuse:** Coarse coal refuse is a coarse fraction of raw coal that is separated during processing; it is not currently an economic product. Coarse coal refuse is placed in designated engineered facilities or can be used as construction material if not susceptible to leaching. Coarse coal refuse can also be mixed with dewatered fine coal refuse within engineered structures; Teck carries out this practice at several of our operations for storage efficiency and optimal geotechnical performance. Long-term storage of coarse coal refuse is conducted in accordance with regulatory approved closure plans, which typically involves contouring, covering and revegetation to achieve established land use objectives.
- **Tailings and Fine Coal Refuse:** Tailings and fine coal refuse are the finer fractions of the processed mined material that have no economically recoverable commodities. These materials are typically stored in tailings storage facilities. See [Our Approach to Tailings Management](#), as well as [our website](#) for more information.

See [Our Approach to Water Stewardship](#) for details on protecting water quality and acid rock drainage from mined materials.

Non-Mineral Waste

Teck also generates non-mineral waste. Non-mineral waste includes waste generated from overall activities such as construction, packaging, maintenance and office activities, and is further categorized as non-hazardous and hazardous waste. Non-mineral waste excludes waste generated from extraction and processing. Our strategic intent is to utilize apply the waste management hierarchy (prevent, reduce, reuse, recover, dispose) to reduce the generation of non-mineral waste, to explore long-term viable alternatives, and to divert waste from disposal through reuse and recycling whenever possible. These waste materials are segregated and disposed of in accordance with material-specific waste management plans and regulatory requirements, mitigating potential impacts on human health and the environment. For non-mineral wastes, storage and/or disposal is determined based on regulatory requirements,

¹ [Mining and the Circular Economy](#). ICMM. 2023.



Recycling facility, Andacollo, Chile, 2017.

product information provided by vendors, and on requirements from waste management suppliers specific to each site's applicable factors.

The following categories of non-mineral waste are products of Teck's operations:

- **Hazardous Waste:** At Teck, waste is considered hazardous if it is defined as such by jurisdictional regulatory regimes. The primary industrial hazardous wastes produced at our operations include waste oil, solvents, antifreeze, paint and batteries. We collect and store hazardous waste in a responsible manner and in accordance with regulatory requirements. Licensed contractors recycle or dispose of this waste off-site in line with legislative obligations.
- **Non-Hazardous Waste:** The most significant types of non-hazardous waste streams include contaminated solids and liquids, scrap metal, wood waste, glass, tires, e-waste, cardboard and paper.
- **Industrial Waste:** Industrial waste is a subcategory of non-mineral waste, which includes types of waste generated by industrial processes; it excludes municipal/domestic waste streams. Significant industrial waste streams at Teck include metallurgical waste, sludges, process residuals (i.e., water treatment), haul truck tires, construction and demolition debris, equipment and contaminated soil. We have established site-based industrial waste inventories and are working on plans to turn this waste into useful and appropriate products.

Our mine designs balance resource development with environmental, social and economic considerations. While the natural environment constrains where and in what form minerals are found, there are economic drivers to targeting higher mineral grades and promoting high recovery through processing. At the same time, mine designs and activities look to minimize waste generation and the associated costs of waste handling and storage.

We recognize that our activities generate waste as a result of geology, extraction methods and process efficiencies.

While most waste generated through mining is inert, mining waste can include constituents that can have environmental impacts. By adopting best operational and circular practices, we seek to continually improve our mineral and non-mineral waste management practices so that wherever possible, we can avoid waste at the source and minimize waste.

Recycling at Teck

Recycling is an important aspect of the circular economy, as it conserves scarce natural resources, reduces the amount of waste that must be burned or buried, and helps to sustain the environment for future generations. At Teck, we recycle in accordance with international, national, provincial and local requirements, and we aim to exceed these requirements. Our goal is to continually improve recycling at our operations by identifying and sharing best practices throughout the company—including ongoing assessments of our recycling and reuse practices. We apply the methods and definitions as described below.

- Recycling for value recovery: treating materials to create a renewed value for Teck in their new form
- Industrial waste processing: treating end-of-life materials generated from our own operations and from other sources
- Non-hazardous waste recycling: recycling of items such as newspaper, bottles, cans, and organics

Managing Incidents Related to Waste

Teck defines an incident as an “undesirable event arising from company activities that is both unplanned and uncontrolled, regardless of the severity of consequences”. In the vast majority of cases, incidents are immediately managed and have no significant implications.² We actively monitor and manage all incidents related to our activities, including those related to health and safety, communities and the environment. Company-wide criteria have been established for sites to identify, report and evaluate the severity of consequences of incidents.

² “Significant implications” includes implications that arise from “significant incidents” (incidents assessed as Level 4 or Level 5 based on our risk matrix and guidance).

Teck is committed to preventing waste-related incidents, including spills, leaks or releases of hazardous or non-hazardous materials to the environment. When an incident does occur, Teck supports all safe response requirements, to eliminate or minimize the adverse effects of the event on communities and the environment, and to protect the health and safety of our employees and contractors. We have incident and spill management plans as well as mine emergency response plans at all our sites. See Our [Approach to Emergency Preparedness and Planning](#) for more information.

Sites are expected to follow up on all incidents identified to understand the impacts and implement corrective actions wherever possible, with more significant incidents potentially subject to an in-depth root cause investigation. Waste-related incidents are reported as they occur, in monthly company-wide performance reports and on a quarterly basis to the Health, Safety, Environment and Community (HSEC) Risk Management Committee, which is made up of several members of our executive management team. We also report any significant incidents³ related to waste management, including spills, in our [Annual Sustainability Report](#) and share learnings from Teck across the mining industry.

Product Circularity

Mining provides the primary metals and minerals needed to support global development and our transition to a low-carbon economy. While metals are unique, in that they are highly durable and infinitely recyclable, there simply is not enough metal currently available or accessible for recycling to meet our global demands.

Our products are of high quality, and meet or exceed customer specifications in terms of product characteristics and physical properties. We conduct analyses to show how these specifications are met and we provide full disclosure of this information to our customers so that our products are used or handled appropriately.

Our products from the mines and refinery are transported by combinations of truck, rail, container and vessel. Transport involves handling at various stages of a product's journey, as well as temporary storage at facilities such as rail load-outs, warehouses, and port facilities. Teck provides relevant information and proper classification of products to support these activities along the logistics network.

Value Chain

Teck requires a wide range of materials, supplies, and external services to run our operations. This part of our value chain is important to overall responsible production, as recognized in Teck's Expectations for Suppliers and Contractors and in our [Responsible Mineral Sourcing Standard](#). We select suppliers and contractors based on commercial requirements and sustainability performance, including the degree of alignment between

their sustainability policies and Teck's Expectations and Sustainability Standards.

While Teck maintains access to global markets in part by demonstrating responsible practices in our operations and along our transportation corridors, we have similar expectations of our customers. Besides reflecting geographic diversity, we select our customers based on regulatory requirements of applicable countries or regions, as well as risk-based evaluations that consider financial and commercial terms, export and import considerations, and applicable laws, international conventions, and industry standards.

A key component of Teck's governance related to customers and downstream use of our products involves our Master Materials List. As part of this, we sanction product use (and exclude certain uses and customers/regions) and are committed to knowing our customers at an organizational level and to evaluating risks of their performance.

Providing Recycling Services to Support the Circular Economy

The unique metal recycling services provided by Teck are a critical component of the circular economy, enabling the circular principle of keeping materials in use for as long as possible. Teck operates one of the world's largest fully integrated zinc and lead smelting and refining complexes, which is also one of the largest metal recycling centres in North America. Our Trail Operations produces refined zinc and lead; a variety of precious and specialty metals; and chemicals, fertilizers and ferrous granules, as well as metal-containing by-products that are sold for further processing.

Trail Operations takes in several end-of-life materials and urban ore feeds (lead batteries, alkaline batteries, cathode ray tube glass, zinc ferrites, mineral by-product from port facilities) that represent approximately 20% of the new feed to the lead circuit. By incorporating these used materials as feed to the circuit, metals are recovered and kept in circulation for reuse in new commercial or consumer products, thereby avoiding permanent disposal.

As the commercial and consumer economies become increasingly circular, Teck and our Trail Operations will continue to play a key role in the recovery of metal, the retention of this value and the ability to reuse these materials, thus prolonging their circulation. The need for existing and expanded recycling services is also expected to grow, given increased demand for materials to support the low-carbon transition, including technology, products and infrastructure that require large quantities of metals and minerals.

³ 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.

Collaborating for Increased Circularity of Commercial and Consumer Products

The mining industry is helping to advance the circular economy by working with customers and downstream product manufacturers to drive increased circularity through knowledge-sharing, innovation and partnerships. Teck's responsible production practices and expectations also extend through our logistics networks, to our customers and to ultimately, to consumer products. Through all of this, we continually look to reduce the intensity and direct effects of our business, and to responsibly manage environmental, social, and governance issues.

In addition to mining practices within our operational control, Teck promotes the recovery and recycling of metals once they've entered consumer markets. We do this through industry associations like the Association of Battery Recyclers (ABR) and Battery Council International (BCI). We actively work with partners to develop new markets and new uses for materials that would otherwise be considered waste and require disposal. We also collaborate with commodity associations to understand the available stocks and flows globally of specific commodities such as copper and zinc.

Managing Employee and Community Feedback

Teck provides response mechanisms at every operation and project and in every exploration region to specifically ensure that those who want to provide feedback on our business practices—whether it's a comment, question, concern, complaint or compliment—can do so easily and, if they wish, anonymously. See [Our Approach to Relationships with Communities](#) for more details on how we manage community feedback and grievances.

Our *Doing What's Right* program is designed to maintain an ethical and safe workplace and uphold the moral and ethical principles within our Code of Ethics. It includes the Employee Concerns Disclosure Program, which deals with concerns from employees involving such issues as environmental violations. See [Our Approach to Business Conduct](#) for more details on this program.

Our Targets and Commitments

Teck is committed to continually improving our practices and applying circular principles in our business. As such, we have a strategic priority and goals related to waste management and to providing key metals recycling services, which support our leadership in the global transition to a low-carbon and increasingly circular economy.

Strategic Priorities:

- Be a leader in responsibly providing the metals and minerals needed for the transition to an economy focused on reducing waste and keeping products in use
- Work towards disposing zero industrial waste by 2040

Goals:

- By 2025, establish site-based industrial waste inventories and plans to turn waste into useful and appropriate products; based on these inventories and plans, set goals for industrial waste reduction
- By 2025, develop and implement a responsible producer program and “product passport” that is traceable through the value chain
- Be a leader in product stewardship by continuing to implement our Materials Stewardship program and produce secondary metals at our Trail Operations

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 responsible production on an annual basis in our [Sustainability Report](#).

Assurance Related to Circularity and Waste 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.

Assurance Related to Circularity and Waste 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	ISO 14001 internal audits	<ul style="list-style-type: none"> • Components of the environmental management system at each certified site
External	International Council on Mining and Metals: Sustainability Report Assurance and Performance Expectations	<ul style="list-style-type: none"> • Total hazardous waste sent off-site but not recycled • Principle 6: Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change (Performance Expectation 6.4) • Principle 8: Facilitate and support the knowledge base and systems for responsible design, use, reuse and disposal of products containing metals and minerals (Performance Expectation 8.1 and 8.2)
External	Mining Association of Canada: Towards Sustainable Mining	<p>TSM Responsible Sourcing Alignment Supplements:</p> <ul style="list-style-type: none"> • Criteria 9: Supply Chain • Criteria 20: Pollution Prevention and Waste Management • Criteria 26: Circular Economy
External	The Copper Mark	<ul style="list-style-type: none"> • Issue area 18: Waste management • Issue area 31: Due diligence in mineral supply chain