# Responsible Production




Pictured above: Employee at Trail Operations, Canada.

# Responsible Production

The world requires high-quality and responsibly sourced materials, which can then stay in supply chains for years to come. The mining industry has an important role to play in the responsible production of materials, reducing waste, and increasing recycling and reuse of products and materials.[12] There is an increasing demand for responsibly mined minerals and metals, leading to more product certifications and standards to ensure that sustainable raw materials are fuelling the economy. As metals are infinitely recyclable, they are particularly well suited to recycling after use in products.

Teck provides key commodities required for sustainable products and infrastructure; these commodities are durable and naturally recyclable. Teck has long worked to reduce waste and pollution, to keep products in use and to improve the natural environment where we operate. Our Trail Operations recycles various metals, and its smelting and refining operation is highly efficient. We have a Materials Stewardship Committee responsible for ensuring the responsible use of our products and, at our operations, we track and report on waste and we are implementing waste reduction and recycling programs. In 2020, we set new goals related to responsible production, to maintain our leadership in responsibly providing the metals needed for a transition to a circular economy and to do our part in waste reduction by disposing zero industrial waste.

### GRI Indicators and Topic Boundary

306-103, 306-2, 306-4, G4-DMA (formerly MM11), G4-MM3

This topic is considered one of the most material by our employees, local communities, government regulators, investors and society in the context of all Teck-managed sites.

### How Does Teck Manage This Topic?

Information about how we manage responsible production and waste management, including relevant policies, management practices and systems, is available for download on our website.

[12] Mining New Value from the Circular Economy. Accenture. 2019.

**2020 Highlights**

**27,583 tonnes** of hazardous and non-hazardous waste recycled

**43,100 tonnes** of urban ore/ secondary sources recycled at Trail Operations

## Our Performance in Responsible Production in 2020

**Our Targets and Commitments** Teck is supporting responsible production by providing the materials that contribute to sustainability while also working to minimize environmental impacts. The following table summarizes our performance against our new sustainability strategy and goals for responsible production.

| Sustainability Strategy Goals | Status | Summary of Progress in 2020 |
|---|---|---|
| Strategic Priorities:<br>• 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<br>• Work towards disposing zero industrial waste by 2040 | | |
| **Goal:** 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. | On track | Advanced our work to establish an Industrial Waste Working Group, and the development of a catalogue of waste inventories and definitions across operations. |
| **Goal:** By 2025, develop and implement a responsible producer program and "product passport" that is traceable through the value chain. | On track | Initiated a partnership with a blockchain developer to pilot a traceability project. We expect to launch this pilot in 2021, with the goal of tracing a single product line from mine to end user. |
| **Goal:** Be a leader in product stewardship by continuing to implement our Materials Stewardship program and produce secondary metals at our Trail Operations. | On track | Continued our product stewardship activities led by our Materials Stewardship Committee. |

## Waste Management Performance

In 2020, our operations generated approximately 798 million tonnes of mineral waste, with the vast majority being waste rock from the extraction of ore and steelmaking coal. We have permit and regulatory requirements for treating and recycling waste at all of our operations. We use internal and external 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. For non-mineral wastes, storage and/or disposal is determined based on data and information provided by waste management suppliers specific to each site's applicable factors.

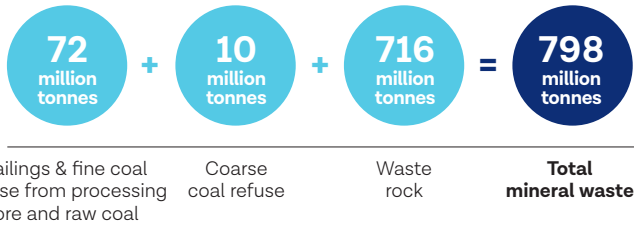
The following categories of waste are products of Teck's operations:

**Waste Rock:** Waste rock, which is material that is removed to access ores, coal and oil sands, 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. Where geochemical and physical properties allow, waste rock is also used for construction purposes such as haul roads, retention embankments for tailings storage and similar structures. The remainder of the rock, which may still have some geochemical concern, is placed in engineered waste rock facilities or used to backfill open pits.

**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 (in some jurisdictions these are classified as tailings facilities) or, if determined to not be susceptible to leaching, it may be used as a construction material. Coarse coal refuse is an excellent construction material for creating retention embankments for fine coal refuse.

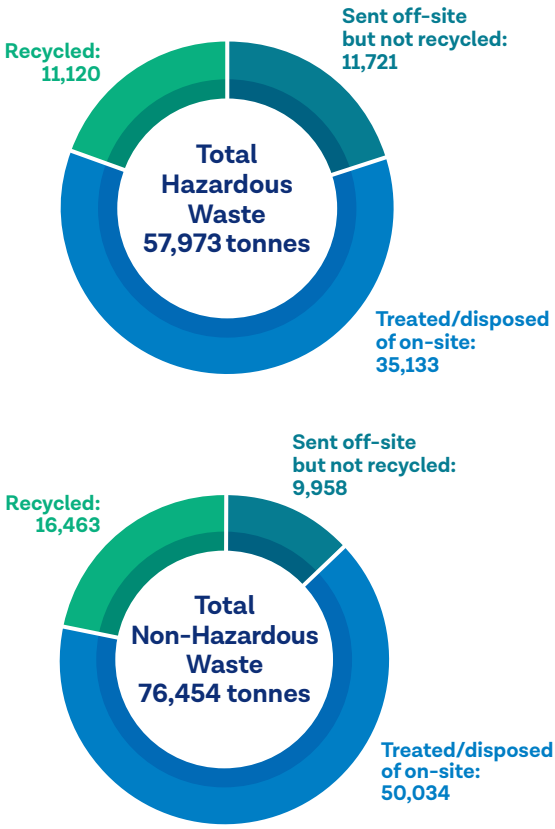
**Tailings and Fine Coal Refuse:** Tailings and fine coal refuse are the finer fractions of the processed mined material that have no economically recoverable commodities. These materials are typically stored in tailings storage facilities. Learn more about tailings management at Teck on our website at teck.com/tailings.

**Figure 11: Mineral Waste in 2020** (million tonnes)




**Other Wastes:** In addition to mineral wastes summarized above, Teck also has other hazardous and non-hazardous wastes. These waste materials are segregated and disposed of in accordance with material-specific waste management plans and regulatory requirements. The primary hazardous wastes produced at our operations include waste oil, solvents, antifreeze, paint, batteries and fluorescent tubes. Licensed contractors recycle or dispose of this waste off-site. Non-hazardous waste (e.g., scrap metal, wood waste, glass, tires, cardboard and paper) is recycled whenever possible.

**Figure 12: Hazardous and Non-Hazardous Waste in 2020** (tonnes)[1],[2]




(1) Recycled waste includes waste that is diverted from the landfill through recycling and reuse. Waste sent off-site but not recycled includes waste disposed of at appropriate facilities, landfills and deep-well injections.
(2) Hazardous and non-hazardous waste figures vary annually depending on site activities.

### Red Dog Operations and the Toxics Release Inventory

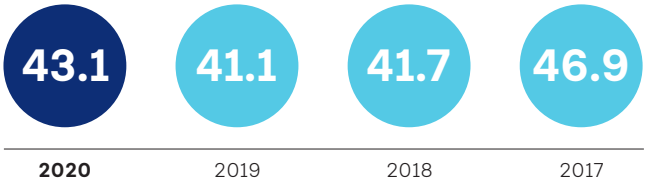
Every year, Red Dog is listed on the United States Environmental Protection Agency (EPA) Toxics Release Inventory (TRI), due to the volumes of rock and ore safely moved at the mine site each year. Red Dog is required to report the amount of materials moved at the mine site, due to the grades of zinc and lead naturally occurring in the rocks. This is part of the mining process and it does not indicate any health or environmental effects, including release of any materials from Red Dog to the environment. The Alaska Department of Environmental Conservation (ADEC) has also responded to the TRI, noting that almost all of the releases from TRI facilities in Alaska are regulated under strict EPA and state of Alaska permits, with monitoring and compliance requirements designed to prevent human and environmental harm.

### Recycling

Teck's methods for recycling include recycling for value recovery, industrial waste processing and domestic recycling. We do not currently track office and construction waste, which are managed by licensed external waste service providers. We recycle in accordance with international, national, provincial and local requirements, and we aim to exceed these requirements. Continually improving recycling at our operations by identifying and sharing best practices throughout the company is our goal — including ongoing assessments of our recycling and reuse practices.

At our Trail Operations, we recycle materials purchased from external users. Our focus remains on treating cathode ray tube glass, plus small quantities of zinc alkaline batteries and other post-consumer waste through our lead acid battery recycling program.

**Figure 13: Recycled Material at Trail Operations** (thousand tonnes)




### Case Study: Teck's partnership with Metal Tech Alley in Trail: Innovating to Reduce Material Waste

In B.C.'s Lower Columbia region, an innovative partnership is developing opportunities to reduce waste and create new value. Metal Tech Alley is an economic development initiative started by the Lower Columbia Initiatives Corporation, supporting the convergence of industry and technology in the Trail region. Teck's Trail Operations participates in the initiative as an industry partner. This partnership aims to capitalize on over 100 years of metallurgical expertise in the Kootenays, established supply chains, and the region's livability and access to nature. Metal Tech Alley brings together leaders from a wide range of sectors to spearhead business opportunities in digital fabrication, advanced materials and metallurgy, industrial recycling, the industrial Internet of Things, and big data technology. Metal Tech Alley is creating collaborative opportunities to turn waste from one process into fuel for another and, by doing so, creating new value while reducing environmental impacts. Read the full case study at teck.com/news/stories and learn more at metaltechalley.com.

## Managing Product Impacts through Materials Stewardship

All Teck products are listed on a Master Product List that is owned and managed by Teck's Materials Stewardship Committee (MSC). For products to be added to the list, a detailed application is submitted to the MSC. Products are assessed on their entire product life cycle and include customer assessments, legal jurisdiction reviews, logistics and form of transportation, hazardous materials and emergency response, contracts and financial rate of return. Two product entries on the Master Product List were amended for sales jurisdiction in 2020.

The MSC also commissions and conducts customer assessments to help ensure that products are handled safely by traders, smelters, refineries or other end users. The assessments allow us to uphold business ethics, regulatory requirements, sustainable management practices and external expectations. Numerous customer inquiries and technical support activities were carried out in 2020. Due to global health and travel restrictions, no in-person customer site assessments were performed. However, we maintained virtual engagement with our downstream partners throughout the COVID-19 pandemic.

We draw on ecotoxicity expertise developed by various commodity associations and other experts to bring sound science into our management approaches and decisions. Our materials stewardship program is also actively engaged with collective industry efforts, including those of the International Council on Mining and Metals (ICMM), towards continuously improving materials stewardship practices. In 2020, Teck achieved re-certification for Responsible Silver production in accordance with LBMA requirements, and signed on to ResponsibleSteel as a Business Member. Teck is also actively engaged with the development of the *Joint Due Diligence Standard for Copper, Lead, Nickel and Zinc* led by Copper Mark, the International Lead Association (ILA), the International Zinc Association (IZA), the Nickel Institute and the Responsible Minerals Initiative (RMI). This will enable compliance with the London Metal Exchange responsible sourcing requirements in 2022.

### Responding to Regulatory Requirements

Our materials stewardship efforts have expanded in recent years to meet growing regulatory pressures on mineral concentrates. These are manifested, for example, in the International Maritime Organization bulk cargo requirements, Chinese import restrictions and the Minamata Convention for Mercury. These requirements and restrictions now affect mining companies and smelters globally and Teck specifically, in the same way that Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulations have defined chemical management programs for refined metals, alloys and compounds in the European Union since 2006.