

Our Approach to Water Stewardship

Which Teck sites does this document apply to?

This document summarizes our approach to managing water stewardship. This document applies to all Teck sites and projects. This does not include operations in which Teck has/had an ownership interest but is not the principal operator.

Water Stewardship performance information: See our **Annual Sustainability Report**, available for download on our website.



Elk Valley, Canada- 2019

Governance and Accountability

Background

In the mining industry, water stewardship is critical because processing of mined materials often uses large volumes of water. This use can also potentially affect water quality, which in turn can affect other water users in the watershed if not managed appropriately. Mining can demonstrate leadership in water stewardship by using water efficiently, protecting water quality and collaboratively managing a shared water resource by working with communities.

Teck recognizes that access to water is a human right, and that water is essential to stakeholders in the watersheds where we operate. Communities with whom we share watersheds care about clean water for physical and spiritual health, quality of life, economic well-being and ecosystem health, and we share these values. Responsible water management is fundamental to maintaining trust in the watersheds where we operate.

We work to incorporate water stewardship into our business planning through implementation of our Water Governance framework so that we effectively manage the quantities of water we use and the quality of water as it leaves our operations and legacy properties. Effective and efficient water management is a priority to meet regulatory requirements and engage with stakeholders.

Accountability and Resourcing

The Board of Directors, through its Safety and Sustainability Committee, broadly oversees health, safety, environment and community policies, systems, performance and auditing, including implementation of

our Health, Safety, Environment and Community (HSEC) Management Standards and our Water Governance framework.

The following senior leaders at the corporate level are involved in implementing water stewardship:

- The Senior Vice President, Sustainability and External Affairs reports directly to our CEO and is responsible for sustainability, health and safety, environment, community, and Indigenous affairs, including water stewardship
- 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 water

Policies and Standards

We have a [Water Policy](#) and a Water Governance framework to ensure we implement consistent and effective water stewardship across Teck. Our Water Policy outlines our commitment to apply consistently strong and transparent water governance, to manage water at operations efficiently and effectively, and to collaborate to achieve responsible and sustainable water use. It defines the company-wide approach we use to manage the risks and realize the opportunities related to water.

Our Water Governance framework includes requirements to ensure:

- Qualified individuals are involved in water activities
- Water risks and opportunities are identified and managed
- Water considerations are integrated into business planning

- Water expertise is developed and knowledge is shared across the organization
- Mechanisms are in place for evaluating and reporting on water performance

Memberships, Partnerships and External Commitments

We work with various local, national and international organizations and programs to support improvements in water stewardship across the industry:

- **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 10 Principles, including Principle 6 (6.2—Water Stewardship) on environmental performance; we use the ICMM water reporting definitions and guidance for all water-related metrics
- **Mining Association of Canada (MAC):** Promotes the development of Canada’s mining and mineral processing industry; through MAC, we are required to implement the Towards Sustainable Mining program, which aids in improving industry performance
- **Canada’s Oil Sands Innovation Alliance (COSIA):** An alliance of oil sands producers focused on accelerating improvement in environmental performance in Canada’s oil sands through collaborative action and innovation
- **UN Global Compact Water Action Platform (CEO Water Mandate):** A commitment to adopt and implement the mandate’s strategic framework and its six core elements for water management
- **International Organization for Standardization (ISO) 14001:** Eight of our nine operations¹ are certified to ISO 14001 for their environmental management systems
- **The Copper Mark:** An assurance framework developed by the International Copper Association in 2019 to promote industry-wide responsible copper production practices and to demonstrate the industry’s commitment to green transition Approach to Managing Water

We work to be a leader in water stewardship by moving beyond compliance and towards collaborative water management practices that focus on sustaining and restoring water resources. Our approach to water management is based on three pillars: protecting water quality, improving water management and use efficiency, and engaging collaboratively within our watersheds.

Approach to Managing Water

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Identifying Water Risks and Opportunities

Water risks and opportunities are used to inform decision-making at each of our sites throughout exploration, development, operation and closure, and at the corporate level to inform strategic planning activities. Each operation completes a water risk and opportunity assessment, and priority risks are used by each operation and business function to maintain and biannually update their risk registers in accordance with a standardized risk management system approach to identifying and assessing all risks. We employ a variety of techniques and tools to assess water-related risks, including internal company knowledge and tools, water-risk guidance and tools such as the World Resources Institute’s Aqueduct tool.

At the company level, water is integrated into a comprehensive, company-wide strategic-level risk assessment process. The Board of Directors Safety and Sustainability Committee, as well as the HSEC Risk Management Committee include water risks as part of their scope. We also use qualified water professionals and independent third-party review processes to guide and review our decision-making related to water.

Protecting Water Quality

A key component to how we manage water quality at each operation is ensuring compliance with applicable standards, regulations and permits. The other key component is undertaking aquatic life and ecosystem assessments that use scientifically rigorous evaluations and projections for ecosystem health.

Our practices include frequent monitoring of existing and reference conditions, and planning for future conditions, so that we can manage the risks and realize the opportunities related to water. As part of our practices, we report on water quality measurements and trends to relevant authorities, and adaptively manage our activities. We are also implementing a Source Control Program, to assess and advance innovative technologies, and to prevent and minimize our impact on water quality, including metals leaching (ML) and acid rock drainage (ARD) from mined materials.

Each location has specific water considerations that depend on the local context. For example, we actively [manage water quality in the Elk Valley region of British Columbia](#), where Teck operates four steelmaking coal operations, and we are implementing a groundwater remediation plan at our Trail Operations in British Columbia. We also monitor and report on water quality and aquatic health in the Elk Valley. Making this information broadly available helps advance community knowledge and understanding, and can accelerate the pace of scientific progress and innovation. Our monitoring activities include regular water quality monitoring of surface and groundwater, and monitoring of aquatic health through

¹ Includes Highland Valley Copper, Red Dog, Trail, Carmen de Andacollo and our four steelmaking coal operations in the Elk Valley. This does not include operations in which Teck has/had an ownership interest but is not the operator, e.g., Antamina and Fort Hills.

programs such as Regional Aquatic Effects Monitoring and Local Aquatic Effects Monitoring. The results are typically reported annually by professional scientists and reviewed by external experts. For example, in the Elk Valley, an Environmental Monitoring Committee was established to provide science-based and Ktunaxa traditional knowledge advice and input to Teck and regulators relative to our monitoring programs. Teck's water-related impacts are assessed as part of permit applications and environmental impact assessment processes, which are publicly available through agency websites.

Improving Water Management and Use Efficiency

We continuously work on optimizing our water use, thereby minimizing our consumption of fresh water. We focus on reducing our fresh water intake and maximizing the reuse of water to increase water availability for others near our operations in water-scarce regions.

We use water to support material processing and transport activities, for cooling and for dust control. A portion of the water we withdraw for use is consumed, as it is either entrained in our products or tailings, or is lost through evaporative processes. The water we withdraw for use is obtained primarily from where our operations interface with surface water and groundwater systems, and we are increasingly moving to seawater sources for our water supply in water-scarce regions such as northern Chile.

We discharge a significant proportion of our water withdrawals without use and, where practical, we discharge this water as close as possible to the withdrawal location. The water we discharge is monitored and treated if necessary. We operate in jurisdictions with existing stringent water quality standards, and use local standards to determine treatment requirements and to assess compliance. Local standards are also used as a starting point to inform site-specific water criteria. We also classify and report on water types in accordance with industry-specific requirements defined by ICMM. The majority of our discharge undergoes primary treatment, with a significant portion of water also undergoing tertiary treatment.

Each operation maintains a Water Management Plan (WMP). Annually, we update WMPs in conjunction with the update of each operation's water balance. The plans describe how the operation fits into the local watershed and its associated regulatory context. WMPs also describe how we manage water now and in the future, in order to:

- Contribute to meeting our water goals
- Provide direction and strategies to address water management risks and opportunities
- Define how water performance will be monitored and reviewed

Site-wide water balances at each operation provide an understanding of water inputs, consumption, and reuse/recycle and discharge volumes at each operation. We use

water balances as a decision-making tool to assess water management alternatives, to evaluate an operation's water management performance and to provide water data for our company-wide reporting.

Groundwater

We monitor and model local groundwater resources to determine rates of drawdown and to ensure long-term protection of these water sources. Forecasts of future availability and use are developed to guide decision-making and to ensure the aquifers are protected for the benefit of local water users in the future.

Water Stewardship in Water-Stressed Regions

Our Carmen de Andacollo and Quebrada Blanca operations are located in regions where water is scarce. Viable water use and supply options are considered when planning projects and assessing potential expansions or extensions.

A broad range of scenarios is developed and assessed, including, for example, the use of desalinated water at our Quebrada Blanca Phase 2 project.

At Carmen de Andacollo Operations, Teck is a member of the Pan de Azúcar Mesa Hídrica, a regional group of stakeholders for the management of common water issues. Teck was also central to the creation of the Culcatán Mesa Hídrica, which are multi-stakeholder forums to manage water in water-stressed areas.

Engaging Collaboratively Within Our Watersheds

Access to clean and sufficient water by others in the watersheds where we operate is important to us and to our stakeholders. When implementing our water management practices, we consider and engage with other water users in the watersheds to promote water stewardship.

As part of this process, we are incorporating the approach defined in ICMM's [guide to catchment-based water management](#) to identify, evaluate and respond to water-related risks and opportunities in our watersheds. One example of a watershed-based approach is in the Elk Valley, where four of our steelmaking coal operations are located, and where we actively engage stakeholders in the implementation of the [Elk Valley Water Quality Plan](#).

Our Targets and Commitments

Our sustainability strategy outlines our goals in relation to continuously improving water stewardship at our operations.

Strategic Priorities:

- Transition to seawater or low-quality water sources for all operations in water-scarce regions by 2040
- Implement innovative water management and water treatment solutions to protect water quality downstream of all our operations

Goals:

- By 2025, design all development projects in water-scarce regions with a seawater or low-quality water source
- By 2025, implement new source control or mine design strategies and water treatment systems to further advance efforts to manage water quality at our operations

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

We report on our performance against these indicators and our progress towards Water Stewardship goals on an annual basis in our [Sustainability Report](#).

Assurance Related to Water

At Teck we conduct four types of assurance. This includes operations- and business unit- level audits; corporate annual HSEC assurance and mid-year effective checks conducted by Teck's HSEC Assurance team; corporate annual internal audits conducted by Teck's Assurance and Advisory team; and external assurance by independent auditors for relevant regulatory and voluntary membership requirements. Following each of these types of assurance, applicable management teams use the results to inform future actions and Teck's five-year planning process.

Assurance Related to Water

Type	Organization	Items Reviewed
External	International Council on Mining and Metals: Sustainability Report assurance	<ul style="list-style-type: none">• All operations—Water withdrawals for use• Principle 6: Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change• Performance Expectation 6.2—Water Stewardship
External	Mining Association of Canada: Towards Sustainable Mining assurance	<ul style="list-style-type: none">• Water Stewardship Protocol: Implementation of the new protocol for water stewardship, including self-assessments in 2021 for our Canadian sites, and external verification at our Highland Valley Copper and Line Creek Operations.
External	ISO 14001 External Audit	<ul style="list-style-type: none">• Components of the environmental management system at each site
Internal	Risk-based Health, Safety and Environment audits	<ul style="list-style-type: none">• Adherence to regulatory and permit requirements• Effectiveness of controls based on risk profile
Internal	Water Reviews	<ul style="list-style-type: none">• Assessment of operational water management activities relative to our Water Governance framework
External	The Copper Mark	<ul style="list-style-type: none">• Issue area 17—Freshwater Management and Conservation