

# Biodiversity & Reclamation



Protecting and enhancing biodiversity, which is the abundance and variety of living organisms and ecosystems in nature, is integral to global sustainability. Many of the world's ecosystems are being altered, and loss of biodiversity is a concern. Corporations, governments and civil society alike recognize this challenge, and many are working together to find innovative new solutions for biodiversity protection. This action will help towards achieving the United Nation's Sustainable Development Goal 15 to sustainably manage forests, combat desertification, and halt and reverse biodiversity loss.

Mining operations can have direct and indirect impacts on biodiversity and natural resources. These impacts can include land or wildlife disturbances, and discharges to waterbodies or air. Regulatory requirements are becoming increasingly stringent in response to widening recognition of these impacts on biodiversity. This includes requirements to tailor reclamation with a focus on wildlife and plants of greatest conservation concern, and to implement biodiversity offsets to mitigate impacts that cannot be fully addressed through avoidance, minimization and rehabilitation.

We are challenging ourselves to achieve a vision of having a net positive impact on biodiversity. We also have a firm commitment, in accordance with the International Council

on Mining and Minerals' (ICMM) world-leading Position Statement on respecting biodiversity, to not explore or mine in World Heritage sites, and to respect all legally designated protected areas.

All of our operations are adjacent to or within areas of high biodiversity value, including temperate and arctic areas, montane forests, and deserts. Stakeholders and Indigenous Peoples expect us to contribute to the conservation of biodiversity and to work collaboratively with them to develop integrated approaches to land use. At the end of 2018, Teck had a total footprint of 30,619 hectares (ha), of which 24,450 ha are yet to be reclaimed and 6,169 ha have been reclaimed.



## Our Performance in Biodiversity and Reclamation in 2018

**Our Targets and Commitments:** Our vision is to work towards achieving a net positive impact on biodiversity in areas affected by our activities. The following table summarizes our performance against our targets and 2020 sustainability goals in biodiversity.

2020 Sustainability Strategy Goal	Status	Summary of Progress in 2018
Implement biodiversity management plans for each of our operations.	On track	Began planning for ongoing revegetation at our Highland Valley Copper Operations, with an increased shift to using more diverse mixes of native species and alternative soil amendment materials.
Integrate the consideration of biodiversity into the exploration, construction and closure stages of the mining life cycle.	On track	Advancing development of our net positive impact strategy with our exploration and project development groups.
Enhance our contributions to biodiversity conservation knowledge through collaboration in research, education and conservation.	On track	Initiated new collaboration with the BC Parks Foundation to develop and implement an innovative new ecological monitoring program in provincial parks.

### Conservation Champions

In May 2018, the U.S. Fish & Wildlife Service named Red Dog Operations as one of the 18 recipients of the 2017 Recovery Champion award, which honours its own employees and partners for outstanding efforts to conserve and protect endangered and threatened species, such as the polar bear. [Click to read more.](#)

## Working to Achieve a Net Positive Impact

As part of our work to achieve our vision of having a net positive impact on biodiversity, we continued to implement biodiversity management plans at our operations in 2018, while also operating in accordance with the ICMM [Mining and Protected Areas Position Statement](#).

In accordance with ICMM, we respect legally designated protected areas (including International Union for Conservation of Nature (IUCN) category Ia, Ib, II, III or IV protected areas), and ensure that any new operations or changes to existing operations are not incompatible with the value for which they were designated. We do not explore or mine in World Heritage properties.

Cardinal River continued to participate in regional research partnerships involving the Foothills Research Institute, which included monitoring grizzly bear populations and assessing how cougars are using the site's reclaimed landscape as habitat.

**Table 35: Key Activities and Accomplishments in Biodiversity and Reclamation in 2018**

Operation	Performance Highlight
Cardinal River Operations	Cardinal River continued to participate in regional research partnerships involving the Foothills Research Institute (fRI), which included monitoring grizzly bear populations and assessing how cougars are using the site's reclaimed landscape as habitat.
Carmen de Andacollo Operations	Biodiversity monitoring continued at Carmen de Andacollo's El Runco conservation area, which was visited by more than 400 community members in 2018. In addition, new sites have been identified as possible future biodiversity conservation areas.
Highland Valley Copper Operations	Highland Valley Copper initiated multiple research projects in 2018 under Thompson Rivers University's Centre for Ecosystem Reclamation, on the topics of biodiversity and soil amendments.
Quebrada Blanca Operations	A series of measures designed to protect biodiversity are currently being incorporated into Quebrada Blanca Phase 2 project design. These include the capture and relocation of low- and medium-mobility wildlife species such as reptiles and micro-mammals.
Red Dog Operations	A comprehensive site-wide study using a multi-increment sampling method was conducted to determine if there have been reductions in cadmium, lead and zinc concentrations in moss plants due to recent site improvements in fugitive dust management.
Steelmaking coal operations in the Elk Valley	Operations in the Elk Valley began incorporating geomorphic landform design in mine closure planning/reclamation, which works to make the post-closure mining landscape better mimic natural landforms, and helps with water management, slope stability, aesthetic appeal and habitat values. Additionally, four new species management plans for plants and four new plans for wildlife were developed; these included whitebark pine and the American badger.
Trail Operations	Permanent photo monitoring locations were established on Trail's Gold Island/Shoreacres Conservation Area, East Rossland Conservation Area and Beaver Creek Conservation Area to provide baseline data and allow for assessment of conservation value over time.

## Area Reclaimed and Disturbed

At the end of 2018, Teck had a total footprint of 30,619 hectares (ha), of which 24,450 ha are yet to be reclaimed and 6,169 ha have been reclaimed. As this data relates to active operations,

the area of land yet to be reclaimed will generally increase over time until the mining areas are closed and become available for reclamation.

**Table 36: Area Reclaimed and Disturbed** <sup>(1),(2)</sup>

	2018	2017	2016	2015
Area reclaimed during the current year (ha)	31	30	147	199
Area disturbed during the current year (ha)	1,018	388	421	508
Area of land yet to be reclaimed (ha)	24,450	23,458	22,918	22,777
Total area of land reclaimed (ha)	6,169	6,342	6,564	6,469
Total footprint (ha)	30,619	29,800	29,482	29,245

(1) The area of land disturbed in the current year may include land that was previously reclaimed and has been re-disturbed. The total area of land reclaimed may decrease in a year due to unsuccessful reclamation attempts or the mining of a previously reclaimed area. Total footprint is the sum of total area of land yet to be reclaimed and total area of land reclaimed. Values are based on estimates stemming from the use of Geographic Information Systems. In an effort to constantly refine the values, annual surveys are conducted and estimates are refined, which may lead to restatements of historical values.

(2) This data only applies to active operations, with the exception of Duck Pond Operations, which closed in June 2015.

## Closure and Closure Planning

Closure planning and closure progressed at several of our active and closed operations in 2018:

- **Duck Pond Operations**, which closed in 2015, continued to execute the approved closure plan. Following the implementation of the plan, the property will begin transitioning from a property in active closure to a legacy property.
- **Coal Mountain Operations** continued community engagement with respect to the Coal Mountain Closure Project and the operation's processing plant continued to be utilized during the year. See [this case study](#) for further information on our community engagement closure activities.
- **Cardinal River Operations** continued the process of developing a detailed closure plan, as the operation is scheduled to reach the end of its current mine life in 2019.

## Post-Closure

A legacy property is a property previously explored, constructed and/or operated (usually by Teck, but not always) that is in an inactive state (no longer being explored, developed or operated), not expected to become active again, and permanently closed. We track more than 100 legacy properties, where the majority are no longer owned or controlled by Teck, in our legacy properties database. In total, we actively monitor 38 of these properties, and carry out ongoing management actions on a subset of 32 of these sites.

## Outlook for Biodiversity and Reclamation

In 2019, we will continue to work towards achieving our vision of having a net positive impact on biodiversity, including advancing integration of biodiversity into the exploration, construction and closure stages of the mining life cycle. We will also continue to implement, improve and enhance the biodiversity management plans at all operations. For example, our steelmaking coal operations will continue their transition to an ecosystem-based approach to site preparation and reclamation planning, monitoring the resulting vegetation quality and wildlife use patterns.

### GRI Indicators and Topic Boundary

304-103, 304-1, 304-2, 304-3, 304-4, G4-MM2

This topic is considered most material by local communities and society in the context of all Teck sites.

### How Does Teck Manage This Topic?

Information about how we manage biodiversity and reclamation, including relevant policies, management practices and systems is [available for download on our website](#).