Mining the coal isn’t the end of it. It’s putting it all back together again.

- Ken Dixon
Environment & Community Manager
Rolleston Open Cut
In 2018, our Australian coal operations:

**Completed**

1,530 ha of rehabilitation

Our highest ever annual achievement

**Invested more than**

$48 million

In rehabilitation work

**Used more than**

2 million cubic metres of topsoil

**Planted almost**

100,000 tubestock & seedlings

**Sowed more than**

36 tonnes of seed

**Rehabilitated**

500 ha more land

Than we disturbed for mining
Guiding **Principles**

We understand and accept the responsibility of managing the land we own as **productively and sustainably** as possible, and to ensure that **we rehabilitate and restore mined land progressively** during the mine life as well as after mining activities have finished.

We go above and beyond Government requirements.

Our rehabilitation planning ensures programs are **resourced, budgeted and delivered**.

"We’re very proud that we go over and above any minimum standard expected of us or required."

- Damien Ryba
  Environment & Community Co-ordinator
  Mangoola Open Cut
Rehabilitation

To protect the health and welfare of our employees, our Australian coal business has a program known as SafeCoal in place across all sites. The SafeCoal rules are non-negotiable.

We take a similar approach when it comes to looking after the environment.

We have in place at all sites land management and rehabilitation requirements that aim to **minimise our active mining footprint** and assist with making sure mined land is **returned to either self-sustaining native ecosystems, agricultural use or other suitable purposes** that meet requirements set down by Government. The final land use design is done in consultation with our communities.

This strong focus on rehabilitation is driven by Senior Executives and cascades throughout the business.

The revitalised approach commenced in 2010. This more systematic approach has seen **more challenging rehabilitation targets** set and achieved, has helped **address rehabilitation backlogs** at some sites and created a process by which progress towards **rehabilitation goals can be measured**.

As of January 2019, our operations have rehabilitated about **17,000 hectares** of mined land to native vegetation or grazing pastures.

During 2018 we rehabilitated more than 1,500ha of mined land, planted almost 100,000 tubestock and seedlings, used more than 2,000,000 cubic metres of topsoil and sowed more than 36 tonnes of seed in **exceeding our rehabilitation targets**.

Cattle graze rehabilitation pastures at some of our sites and a six-year trial at our Liddell open cut mine in the Upper Hunter of NSW has demonstrated that **mined land can be returned to productive pasture**.

Our **Mangoola** open cut mine in the Upper Hunter, has pioneered the use of **natural landform** in its rehabilitation.

Our work in **rebuilding Ravensworth State Forest** at Mt Owen open cut mine in the NSW Upper Hunter has been **recognised internationally**, and has been used as the model for published guidelines on re-establishing native vegetation on disturbed land.

Our Newlands Open Cut operation in central Queensland is the **first in Bowen Basin coal mining history** to have mine spoil certified by regulators as being successfully rehabilitated while operations continue.

And we have followed this with further **certification of rehabilitation** at our **Rolleston Open Cut** mine in Queensland.

Our focus on resourcing and planning is reflected in the quality of our rehabilitation.

- Pieter Swart
  Queensland E&C Manager
Over the last 5 years, we’ve averaged over 1,000ha of rehabilitated land each year.

Since 2010, a more systematic approach to rehabilitation has seen our sites meet and exceed more challenging targets.

Our rehabilitation is not just about quantity. It has to be quality as well; that is, capable of meeting an agreed end land use.

- Nigel Charnock
  Land & Property Manager
  Glencore Coal
It’s really gratifying to see visitors that come so impressed with our work.

- Robyn Stoney
  Environment & Community Manager
  Ulan Coal
It's really gratifying to see visitors that come to site being so impressed with our work.

- Robyn Stoney
  Environment & Community Manager
  Ulan Coal
1,345ha to regenerate endangered ecological communities

Planting 100,000 trees in offset area

One of the largest White Box Woodland plantings ever undertaken in NSW
Ulan
Case study

Our Ulan Coal complex in central-west NSW has a long history of mining, dating back to the 1920s.

The site currently supports two underground mines and a coal processing plant. The site’s open cut mine ceased operating in 2014.

The site now has almost half of its footprint settled in revegetation appropriate to the local environment. The rehabilitation is providing sustainable outcomes for endangered communities, ecological diversity and protection of water flows and quality for the life of the mine and beyond.

Overburden areas are rehabilitated to specifically support communities of Greybox and Ironbark woodlands, consistent with the pre-disturbance environment.

Seeds for the rehabilitation are sourced from within the Ulan-owned land and processed to high levels of quality control by a local supplier.

Rehabilitation of the Acacia ausfeldii threatened species, previously untried, has also been successfully introduced into the site’s rehabilitation and the species is thriving.

Three interconnected Biodiversity Offset areas, a total of 1,345ha, were established in 2012. Plantings for regeneration of endangered communities include White Box Woodland, Yellow Box Woodland and Blakely’s Red Gum.

Ulan’s White Box Woodland planting program is one of the largest ever undertaken in NSW, with 100,000 trees planted in offset areas to connect extensive areas of native vegetation to the west of the operations with the Durridgere State Conservation Area and Goulburn River National Park to the north and east of the site.
Newlands
Case study

Glencore’s Newlands coal complex has achieved a first in Bowen Basin coal mining history with official Queensland Government certification for rehabilitation of overburden spoil.

Glencore worked collaboratively with the Department of Environment & Heritage Protection to progressively certify 73.5ha associated with part of an overburden dump at Ramp 7. Rehabilitation of the proposed certification area was undertaken in three sections in 1995, 1997 and 1998.

The requirement that Newlands achieved was to provide habitat suitable for flora and fauna within overarching objectives of being safe, stable, non-polluting and sustainable.

Glencore received certification in June 2017 for the rehabilitation.

It is the first time that rehabilitation of coal mine overburden spoil has ever been certified and provides a constructive way forward for both Government and the mining sector in encouraging further certification of progressive rehabilitation.

Glencore is using the key learnings from the Newlands certification case study to look for additional opportunities to obtain certification in other areas of the site along with its Collinsville, Oaky Creek and Rolleston mines.

Newlands is also successfully rehabilitating open cut mine voids, returning them to landform consistent with surrounding areas.

In 2018, we achieved similar certification for 220ha of rehabilitation at our Rolleston open cut mine.

* Certified by the then Department of Environment & Heritage Protection.
I want my kids’ kids to drive past this place and for my kids to tell them ‘Grandpa used to work in that mine’ . . . and they won’t be able to tell where it was.

- Jason Bell
  Senior Mining Engineer
  Mangoola Open Cut