

An aerial photograph of a large dam structure across a wide river. The dam is a long, low concrete wall with water cascading over it. The surrounding landscape is lush green with dense vegetation. In the background, there are rolling hills under a blue sky with scattered white clouds. The overall scene is bright and clear.

THUNGELA KROMDRAAI REHABILITATION PROJECT:
A COMMITMENT TO ENVIRONMENTAL STEWARDSHIP

thungela



TABLE OF CONTENTS

INTRODUCTION	01
MANAGING THE RISK OF MINE AFFECTED WATER	05
TOWARDS THE RESTORATION OF AQUATIC LIFE	08
ADVANCING NILE CROCODILE RESEARCH AND CONSERVATION AT LOSKOP DAM	10
SOCIAL CONTRIBUTION	11
ADDRESSING THE CHALLENGES OF ILLEGAL MINING	12
BEYOND REHABILITATION: A MODEL FOR RESPONSIBLE MINING	13

“ It is up to us to produce the coal that the world requires responsibly and with due care for the environment. It must also deliver real and lasting benefits for surrounding communities and be undertaken with the highest ethical standards. ”

Thero Setiloane, Chairman: Social and Ethics Committee

INTRODUCTION

About us

Thungela is a leading, pure-play thermal coal business with a global footprint, and our purpose is to responsibly create value for a shared future. We are uncompromising in our commitment to safety and hold ourselves accountable to best-practice governance principles throughout our business.

We carefully manage the impact we have on both people and the environment – and will continue to do so at both active mining sites and operations that reach their end of life in the future. Being a responsible corporate citizen also means being a good neighbour. We want to impact neighbouring communities positively to ensure that they thrive.

Our approach to environmental, social and governance

We are on a purpose-driven maturity journey that started with the adoption of our Environmental, Social & Governance (ESG) framework, made up of several priorities. These priorities have been carefully chosen for their material relevance to our sector, shareholders, employees, communities and key stakeholders.

Recognising the imperative to address climate change, we are committed to reducing our scope 1 and 2 emissions by 30% by 2030. Thungela is pivotal in striking a balance between the immediate energy needs, societal demands, environmental impacts, and the critical role mining serves in the economy and in local communities.

Environmental stewardship

Our commitment to responsible environmental stewardship is based on the efficient use of resources, climate risk management, promoting biodiversity and land stewardship.

From an environmental stewardship perspective, our goal is to have zero level 4 (high) - 5 (major) environmental incidents. This involves an unwavering commitment to three core objectives aligned with the United Nations Sustainable Development Goals (SDGs): climate risk management, the efficient use of resources, and responsible land stewardship.

Climate risk management



Efficient use of resources



Land stewardship and biodiversity



Safety, health and wellbeing



Inclusion and empowerment





Our water policy, along with a comprehensive suite of best practice technical management standards, ensures not only adherence to regulatory requirements but also a consistent reduction in the use of all water resources, which includes municipal, groundwater, and alternative natural sources.

These guidelines are designed to enhance the optimised reuse and recycling of water and to bolster the protection against contamination of both ground and surface water. Enforced by dedicated water stewards at each site, these standards dictate procedures for dewatering, collecting, storing, and applying sustainable water practices throughout the entire mining lifecycle—from planning and construction to operation and even through to decommissioning, closure, and rehabilitation stages.

What is mine-affected water?

Mine-affected water is contaminated water that accumulates in metal. Due to the water's high level of dissolved metals and typically low pH level, its discharge into the environment can negatively impact surface water sources and aquatic life.

The accumulation of mine-affected water in both operational and old underground workings is due to the fact that sub-surface mining, especially at deep levels, often progresses below the water table. Water affected by mining operations must be routinely pumped out of active mine shafts and pits for the continuation of mining and safety of people. At the surface it is further treated through the lime plant and reverse osmosis water treatment plant to remove dissolved metals and neutralise it.

One of the greatest challenges associated with mine-affected water is the long-term management of the water that accumulates in old underground workings, some of which may have been out of use for decades or even longer.

In February 2022, Kromdraai experienced an uncontrolled release of mine impacted water from the South Shaft at Khwezela Colliery.

Preliminary investigations revealed that a concrete seal, constructed in 2019 at Khwezela Colliery's Kromdraai South Shaft (last in use in 1966), had failed. This led to the spread of a pollution plume that passed through the Wilge and Olifants Rivers, eventually reaching the Loskop Dam inlet and affecting roughly 60 kilometres of the river ecosystem.

Subsequent investigations highlighted the contribution of illegal mining activities to the event. Damage to infrastructure, coupled with the theft of essential water treatment equipment—intended for pumping water to a liming plant for treatment—was identified as the primary cause.

Planning for recovery

Upon receiving a directive from the Department of Water and Sanitation (DWS), The Biodiversity Company was appointed to serve as the lead technical specialist for the rehabilitation project. A Specialist Review Team, and a Technical Steering Committee, were established to provide guidance and oversight for the development and implementation of the rehabilitation plan.

The assembled team, consisting of river ecologists and water quality experts knowledgeable about the Upper Olifants River Catchment and DWS's monitoring and assessment methods, collaborated with a group that included representatives from Thungela, the DWS, and the Mpumalanga Tourism and Parks Agency (MTPA).

The rehabilitation plan was submitted to the DWS, and implementation commenced following its approval. The plan adhered to the directive's specifications, necessitating that the impacts of the discharge on surface water quality be mitigated to restore the affected water courses' present ecological state (PES) to what it was before the incident.






Objectives of the rehabilitation plan:

- characterise the scale and extent of the impact of the incident;
- characterise the scale of the threat posed to the aquatic ecological system by mine-affected water;
- characterise the affected stretches of water prior to and after the incident;
- monitor and assess the affected stretches of water to determine whether measures put into place by Thungela are improving the ecological integrity of the downstream system;
- assess the PES with specific reference to water quality and flow;
- determine the suitability of the quality of the water for use by key users in the catchment area, most notably farmers;
- determine what restoration interventions must be put into place if the system does not recover satisfactorily within 18 to 24 months of the incident;
- monitor the system to assess the impact of the restoration efforts and
- use an adaptive management approach to adjust interventions if and as necessary and to adjust the temporal or spatial scope of the project.

Focus areas

The plan focuses on the following disciplinary areas:

-  the biota (all animals, plants and microorganisms) in the affected areas;
-  the in-stream and riparian habitat, and
-  water and sediment quality and flow.

The biotic indicators being monitored include diatoms, macro invertebrates and fish, while the habitat indicators being monitored include both in-stream and riparian vegetation and habitat.

In water and sediment monitoring and quality control, specialists focus on the mine-affected water discharged at Khwezela Colliery, the water and sediment in all affected water courses, and in-stream velocity and flow. The in-situ physicochemical indicators used include pH and oxygen levels, temperature and electrical conductivity.

CAPITAL SPENT



Dewatering Boreholes
and Active
Treatment Plant
R380m



Wetlands
R80m



Passive Water
Treatment Plant
R18m



The Kromdraai
Phytoremediation
Project: **R4m**



Dongalocks
R20m



Construction
of Nursery
R40.1m



Loskop Fish
Breeding Facility
Capital
investment **R1.8m** Monitoring
R1.5m



Addressing the
challenges of
Illegal Mining
**excess of
R500m**

“ We are a responsible mining company and hold ourselves to the highest standards when it comes to our environmental, social and governance obligations. We are fully committed to doing what is right and within our power as citizens of the Mpumalanga community. We will lead the remediation efforts now and in the future and fully assess the causes and contributing factors that led to this incident. ”

Thungela CEO July Ndlovu

MANAGING THE RISK OF MINE AFFECTED WATER

Kromdraai Water Management Project

In May 2023, groundwater monitoring boreholes were drilled to monitor water levels against the volume of the discharge to inform future dewatering plans. Electrical power was restored at the shaft, and a 22KV line was connected to the Eskom supply. Boreholes to dewater underground workings at Turnbull Shaft and South Shaft were commissioned in October 2023. The water removed from these shafts was treated onsite before being released into the environment.

In addition, the liming plant, where mine-affected water is usually treated, was upgraded in July 2023, and a new water treatment plant was commissioned in November. These projects will improve the quality of the water released into Kromdraai Spruit.

The total capital spent on these projects was R380m



Passive Water Treatment - Dongalock™ Project

Water levels at Kromdraai's South Shaft are being constantly monitored and state-of-the-art Dongalock™ technology is being used.

Representing a revolutionary approach to environmental management, Dongalock™ technology makes use of UV-resistant, recycled PVC sheets shaped with strengthening and interlocking mechanisms. The strengthening mechanism is a hollow hexagonal shape in the centre of the sheet, providing rigidity and allowing for a Y-fence standard to be driven into it to provide horizontal stability. The interlocking mechanism or connector consists of a square shape with four female connection areas.

In order to form a barrier, the sheets are joined using the connectors, sliding together to create either multiple sheets interlocked in a straight line or four sheets interlocked to form boxes. The interlocking mechanisms allow the sheets to flex while maintaining structural rigidity. In most applications, the sheets are placed and driven into the soil, effectively creating barriers embedded in the ground.

The investment on Dongalock™ R20m



Dongalock™ technology is widely used in wetland and river rehabilitation programmes to manage the risk of stormwater damage and flooding in vulnerable areas and passive water treatment projects.



50 000
litres a day

Investing in passive water treatments

In envisioning a future where mining communities thrive sustainably even beyond the lifespan of mines, Thungela is pioneering a proactive strategy that anticipates the closure of mine sites.

Our commitment to sustainability is exemplified by our advanced water treatment initiatives, designed to ensure that the cessation of mining operations does not signify the end of community prosperity. By implementing cutting-edge passive water treatment technologies, we are preparing to transform water from closed mines into a resource that can safely support agricultural activities.

This initiative not only safeguards the environment but also bolsters local economies, demonstrating our holistic approach to responsible stewardship in the mining sector. Through such endeavours, Thungela is setting a precedent for the industry, ensuring that the legacy of mining is one of enduring community support and environmental care.

This vision is brought to life with our initiative on a 50,000-litre-a-day demonstration water treatment plant. This facility is crucial for testing passive treatment technologies aimed at managing the rain and groundwater that accumulate in mines upon closure.

Located on the eMalahleni Water Reclamation Plant site in Mpumalanga, the plant is the result of a collaborative effort with the University of Pretoria and Mintek. Here, we explore the efficacy of passive technologies—lauded for their cost efficiency and effectiveness over traditional active methods—in addressing the coal industry's enduring water risk.

Historically, the industry has leaned on high-capital, active technologies for residual water treatment. These not only demand significant operational costs and energy but also produce environmentally challenging by-products like sludge and brine. The infrastructure to support such technologies is also susceptible to theft and vandalism, and the by-products necessitate safe disposal methods.

In contrast, the advancements in passive water treatment technologies we're implementing allow for the residual water to be treated at a substantially lower cost, with the added benefit of rendering it safe for irrigation purposes. The heart of the new plant's operation lies in a process utilising biological sulphate reduction and sulphide oxidation, harnessing bacteria to extract sulphates and metals, which cuts down costs and ensures the agricultural safety of the water.

With an investment of R18 million, the facility is set to refine processes that promise to overhaul the management of mine-affected water, potentially impacting various mining practices. Data and insights from this pilot will inform the development of a full-scale plant at Khwezela Colliery and could be adapted for use across other sites.

Requiring little to no electrical power, minimal chemical use, and only periodic maintenance, the treatment is not just a low-impact biological process but also a more cost-effective solution compared to other technologies. As Thungela prepares for the long-term management of water at multiple closed sites, this passive water treatment strategy stands as an affordable and sustainable solution. It ensures that even after mines close, the legacy left behind will support agriculture and other water-dependent industries, fostering enduring growth and sustainability in mining communities.



no electrical power



low-impact biological process



minimal chemical use



cost-effective solution



periodic maintenance

The Kromdraai Phytoremediation Project

At the ecosystem level, we have initiated a phytoremediation project around Khwezela Colliery. The project aims to plant trees that will help stabilise water levels by taking up mine-affected water, thereby reducing ingress. The planned planting area of 250 hectares is divided into several different zones, and a feeder nursery has been established to supply the required number of trees for this area.

PROGRESS TO DATE

By the end
of 2023
13 000 trees
were planted on
9.3 hectares



Capital spent:
R2 million

excluding expenditure on establishing the feeder nursery.

Planned for 2024
+105 500 trees
on 80 hectares

Opportunities for additional planting
to support discharge management
have been identified on a further
350 hectares



TOWARDS THE RESTORATION OF AQUATIC LIFE

Loskop Fish Breeding Facility

Thungela's dedication to ecological restoration is exemplified by the funding of a state-of-the-art fish breeding facility at Loskop Dam, reflecting a strategic component of our remediation plan for areas affected by the discharge at Kromdraai.

This facility is specifically designed for the breeding of fish with optimal genetic quality sourced from local waters to expedite the ecological recovery process. It also serves a dual purpose of bolstering native biodiversity conservation, enhancing public awareness, and supporting the propagation of vulnerable species never before bred in captivity, thus contributing to broader conservation initiatives.

Equipped with a temperature and humidity-controlled environment room for precise monitoring and maintenance of ideal conditions, the facility houses 27 glass aquaria of various sizes and six bio-filters, each with individual temperature controls and filtration systems.

An external aquarium setup accommodates larger species ready for reintroduction into their natural habitats. It includes three spacious tanks equipped with comprehensive life support systems capable of sustaining up to 700 kg of fish.

Upon restoration of the river systems to their conditions before the incident, the operation and management of the facility will transition to the Mpumalanga Tourism and Parks Agency (MTPA).

The vision for the facility extends beyond immediate remediation; it is intended to evolve into a hub for aquatic biodiversity, serving as a centre for research and educational outreach.

The state-of-the-art Fish Breeding Facility had a capital investment of R1.8m to construct, with an additional R1.5m spent on the monitoring and related activities.



Fish bred here may also contribute to repopulating other water systems as needed, further cementing the facility's role in long-term environmental conservation.



The fish being bred at the facility

The various species of fish being bred at the facility are given in the following table:

FISH SPECIES FROM WILGE AND OLIFANTS TO LOSKOP DAM

Anguilla mossambica
Amphilius uranoscopus
Enteromius anoplus
Enteromius eutaenia
Enteromius neefi
Enteromius paludinosus
Enteromius rapax (mattozi)
Enteromius trimaculatus
Enteromius unitaeniatus
Chiloglanis pretoriae
Labeo cylindricus
Labeo molybdinus
Labeobarbus marequensis
Labeobarbus polylepis
Marcosenius macrolepidotus
Pseudocrenilabrus philander
Tilapia sparrmanii

Longfin eel
 Stargazer mountain catfish
 Chubbyhead barb
 Orangetin barb
 Sidespot barb
 Straightfin barb
 Papermouth
 Threespot barb
 Longbeard barb
 Shortspine suckermouth
 Redeye labeo
 Leaden labeo
 Largescale yellowfish
 Smallscale yellowfish
 Bulldog
 Southern mouthbrooder
 Banded tilapia

Geelbek paling
 Gewone bergbaber
 Dikkop ghieliementjie
 Oranjevlerek ghieliementjie
 Sykol ghieliementjie
 Lynvin (moeras) ghieliementjie
 Papierbek
 Driekol ghieliementjie
 Langbaard ghieliementjie
 Kortstekel suierbekkie
 Rooioog moddervis
 Loodvis
 Grootskub geelvis
 Kleinskub geelvis
 Snawelvis
 Dwergkurper
 Vleikurper

AMOS
 AURA
 BANO
 BEUT
 BNEE
 BPAU
 BMAT
 BTRI
 BUNI
 CPRE
 LCYL
 LMOL
 BMAR
 BPOL
 MMAC
 PPHI
 TSPA



ADVANCING NILE CROCODILE RESEARCH AND CONSERVATION AT LOSKOP DAM

Observations over nearly three decades have raised concerns about the Nile crocodile population at Loskop Dam, indicating a troubling decline and uneven distribution. Persistent monitoring is essential to understand and address these patterns. Historical records from the area, particularly in 2007, show instances of crocodile fatalities that may be associated with pollution events, highlighting the critical need for ongoing surveillance.

In a concerted effort to understand the complexities of Nile crocodile populations, Thungela sponsored a crocodile-tagging project at the Loskop Dam by procuring global positioning system (GPS) transmitters. This initiative provides critical data on the health and behaviour of these fascinating reptiles. By facilitating research that provides a clearer picture of crocodile ecology, Thungela is helping to ensure that conservation strategies are informed and effective and contribute to the long-term health of this key indicator species.

The exercise conducted by the Mpumalanga Tourism and Parks Agency (MTPA) involved the meticulous capture, tagging, and release of three mature Nile crocodiles at the Olifants River inlet. The process was intricate, fitting each three metre long crocodile with a satellite transmitter to track their movements post-release.



Image: Shutterstock



The technology from the GPS transmitters will offer researchers a wealth of data, surpassing what was previously possible with aerial and spotlight surveys. The team will closely monitor the crocodiles' movements, gathering insights into their habitats, feeding grounds, and migration patterns within the river system, thus informing ecological decisions with robust data.

The project was spearheaded by Dr Hannes Botha, a leading authority on crocodylians, and Dr Francois Roux, an aquatic scientist at the MTPA. Together, they transported the crocodiles, alongside several juveniles, from the Lowveld to their new home, where they were released from a barge endearingly named Noah.

Thungela's involvement in supporting MTPA's monitoring efforts reflects a deep commitment to environmental sustainability and the protection of local ecosystems. By facilitating research that provides a clearer picture of crocodile ecology, Thungela is helping to ensure that conservation strategies are informed and effective and contribute to the long-term health of this key indicator species.

SOCIAL CONTRIBUTION

During the commissioning of the rehabilitation project, Thungela exclusively engaged local suppliers, resulting in the **creation of**

138
new jobs.

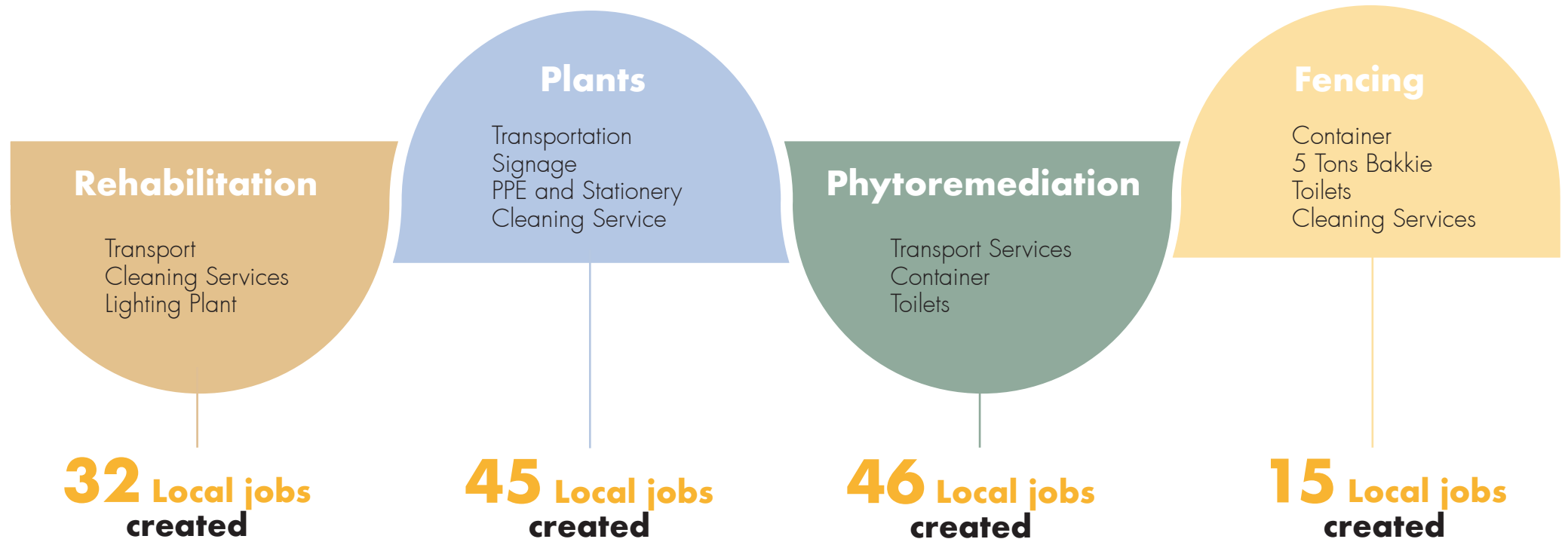


22 local individuals were selected for a **learnership programme** at Khwezela Colliery.



A soup kitchen was established in Ward 23, providing benefits to the local population.

Supporting Local Communities



ADDRESSING THE CHALLENGES OF ILLEGAL MINING

About illegal mining in South Africa

The rise of illegal mining in South Africa is a growing concern, exacerbated by the nation's challenging socio-economic conditions and the limited capacity of law enforcement. Illegal mining activities span operational, decommissioned, and abandoned mines, often conducted under hazardous conditions and suspected to be orchestrated by organised crime networks.

This illicit practice has detrimental social and economic consequences, including revenue loss, reduced tax contributions, fewer employment opportunities, decreased capital investment, and impacts on exports, foreign exchange earnings, and procurement. Moreover, illegal mining poses significant environmental risks and undermines the sustainability of the legitimate mining industry, threatening its capacity for the mining industry to contribute to a meaningful future for all South Africans.

Illegal mining activities at Thungela mines

Illegal mining has been an ongoing challenge for Thungela and the mining industry. Although we had obtained multiple court interdicts to halt these activities at our mines, local police have been unable to enforce them. Since 2021, we've spent R500 million to rehabilitate areas that had already been completely rehabilitated before illegal miners moved in to operate old mine shafts. This includes incidents of illegal miners entering operating shafts to steal copper cables.

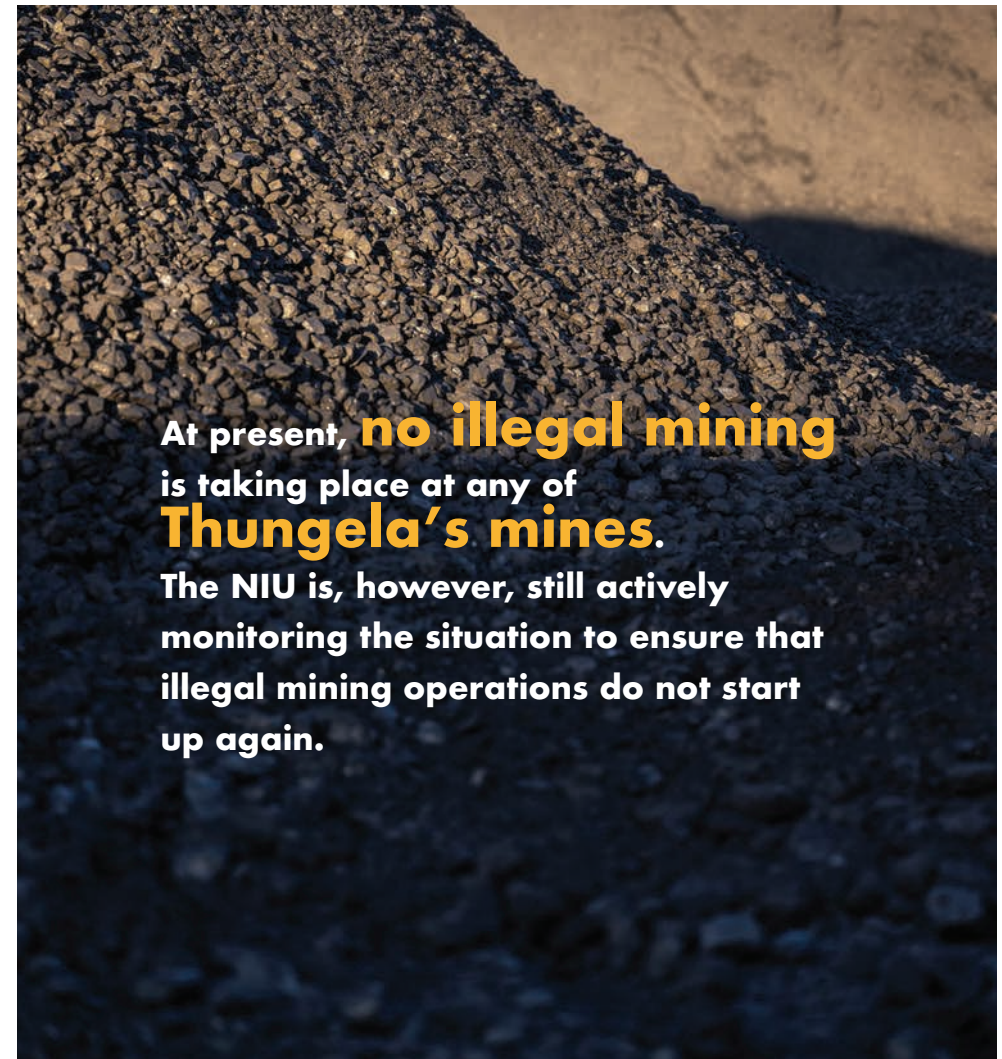
Following the environmental incident at Kromdraai, investigations revealed that illegal miners were mining at the South Shaft, investigations revealed that illegal miners entered the South Shaft, which had already been rehabilitated, contributing to the incident. This was due to the damage, vandalism and stealing of water management equipment and infrastructure to the value of R500 million.

After the incident, Thungela's Protection Services began working with the Department of Mineral and Energy Resources (DMRE), the Minerals Council South Africa, the National Intervention Unit (NIU) of the South African Police Service (SAPS) and the Directorate for Priority Crime Investigation (the Hawks) to stop the illegal mining activities.

Drone footage taken during joint investigations showed miners occupying and working without hindrance over several square kilometres. The footage, taken both during the day and at night, also showed at least ten excavators and more than a dozen dump trucks operating over an area of about one square kilometre, indicating that this was a sophisticated, well-organised and well-capitalised operation.

With this and other evidence secured, the task team put an operational plan into place to deal with illegal operations. During the execution of this plan, all illegal miners sites were arrested, and their mining equipment was impounded.

The process of prosecution is in progress, and all illegal mining cases have been allocated various court dates.



At present, no illegal mining is taking place at any of Thungela's mines.

The NIU is, however, still actively monitoring the situation to ensure that illegal mining operations do not start up again.

BEYOND REHABILITATION: A MODEL FOR RESPONSIBLE MINING

One Million Trees

One of our more notable environmental initiatives is the One Million Trees project, launched in October 2023. As the name implies, Thungela has set out to plant a million trees around its collieries at Bokgoni, Goedehoop, Isibonelo, Kromdraai and Mafube over a four-year period. Integral to our overall water management strategy, this initiative is making use of a common indigenous tree species, *Searsia lancea* (more commonly known as Karee), to control seepage of mine-affected water in the environments around our mining operations.



The Karee tree, indigenous to the local ecosystem, thrives as a frost-hardy and drought-resistant species, even in acidic soils. With an average height of eight meters, a mature Karee tree can absorb more than 1,000 mm of seepage annually.

Beyond their adaptability, a collective of 100,000 Karee trees holds the potential to sequester up to 200,000 tons of CO₂ over three decades. This substantial carbon capture is a proactive step towards climate change mitigation, enhancing air quality by infusing the atmosphere with oxygen. Additionally, the Karee's blossoms and fruit serve as vital sustenance for the region's birds and insects, playing a crucial role in preserving local biodiversity.

Thungela's commitment to environmental stewardship is deeply intertwined with our dedication to community upliftment, as demonstrated by our greening initiative. The establishment of a nursery, coupled with related tree planting, maintenance, and composting programmes, will not only bolster local ecosystems but also create fifteen new permanent job opportunities. These roles will facilitate skill development and empower community members. In line with our long-term vision, the nursery will eventually be handed over to be managed and operated by locals, ensuring the project's sustainability and providing a lasting legacy of environmental and economic benefits.

As of early 2024, we have successfully planted 43 000 trees at Kromdraai and Bokgoni. Our ambition is to plant an additional 300,000 annually in both 2025 and 2026. These saplings are nurtured at a dedicated nursery situated at the Greenside Colliery in Middelburg.

This initiative is emblematic of Thungela's holistic approach to Environmental, Social, and Governance (ESG) principles. In conceiving and executing this project, we've addressed multiple objectives: managing environmental seepage, combating climate change, managing air quality, utilising resources efficiently, creating jobs, providing training, empowering communities, and supporting biodiversity – all integral components of our ESG framework.

Spent on nursery construction
R4.1m





Creating shared value

As a good corporate citizen, we want to live up to the standards we've set for ourselves. Our commitment to 'spike' on the social element of ESG by no means absolves us from excelling on the environmental and governance fronts; it affirms our goal of ensuring that coal mining communities enjoy tangible benefits way beyond the life of a mine.

This promise is materialised through vehicles such as the Nkulo Community Partnership Trust and the Sisonke Employee Empowerment Scheme, which are a testament to our pursuit of creating shared value. Our substantial contribution of nearly R1.2 billion to these trusts since August 2021 is a testament to our commitment to forging a positive legacy. It is imperative, however, that these financial commitments are matched with stringent governance, ensuring that the positive impacts we envisage are fully realised by those for whom they are intended.

Significant metrics

In 2022, Thungela proudly achieved a significant environmental milestone: we reduced freshwater abstraction across all operations by 11% and raised our recycling and reuse rates to an impressive 96%.

Our commitment to environmental care extends to air quality, where we are bolstering our monitoring and management capabilities with the integration of Eco Elementum technology. This innovation is part of a broader effort to minimise our environmental footprint, which includes a targeted reduction in the volume of waste we send to landfills.

In line with our dedication to responsible mining, each Thungela operation is backed by a detailed and fully-funded closure and rehabilitation plan designed to restore previously mined land to a state of sustainable productivity. We stand firm in our commitment to ensuring no net loss of biodiversity and are actively executing biodiversity management plans at every site to fulfil this ambition.

About coal mining in South Africa

Coal mining in South Africa is of strategic importance to the nation's economy, energy security, industrial development and social stability. It provides employment opportunities, generates revenue through exports and domestic consumption, is the primary source of inputs for the generation of electricity, supports infrastructure development in mining regions, and contributes to broader social development.

Our Integrated Annual Reports for 2021 and 2022 can be downloaded from our website at:
<https://www.thungela.com/investors/integrated-reports>

Our Environmental, Social and Governance Reports for 2021 and 2022, as well as our Climate Change Report (2022), can be downloaded from our website at
<https://www.thungela.com/investors/integrated-reports>.

Efficient use of water

Thungela is acutely aware of the critical nature of water conservation, especially in regions where water is scarce. Our operations are grounded in a water stewardship strategy that seeks to optimise water use and lessen our environmental footprint, all while effectively supporting our mining activities.

Our targets are ambitious yet essential: we strive to reuse or recycle 75% of the water we utilise, continually decrease water abstraction in line with our set goals, and treat 40% of the water affected by our mining processes. Complementing these targets, we are actively pursuing advanced sustainable water treatment technologies, aiming to significantly diminish our consumption of freshwater and lessen our overall environmental impact.



With an output of around **250 million tonnes** per annum, **coal mining** is the **most significant form of mining** in South Africa.

Appendix 1: Glossary of Terms

TERM USED	DEFINITION
acid mine drainage.	The formation and movement of highly acid water rich in heavy metals.
air quality.	The degree to which the air in a particular place is pollution-free.
biodiversity.	The variety of plant and animal life in the world or a particular habitat. A high level of biodiversity is generally considered to be important and desirable.
carbon footprint.	The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organisation or community.
dewatering.	The planned and systematic removal of mine-affected water from operational and closed mines.
diatoms.	A common type of unicellular phytoplankton that is likely to have originated during the Jurassic period.
energy mix.	A group of different primary energy sources is produced from secondary energy for direct use, such as electricity.
environmental stewardship.	The responsible use and protection of the natural environment through active participation in conservation efforts and sustainable practices.
low-carbon future.	A future in which carbon dioxide output into the atmosphere is reduced or removed. This is achieved by moving to the use of low-carbon energy sources.
liming plant.	A treatment plant specifically designed to limit the impact of mine-affected water on the natural environment.
macro invertebrates.	Small organisms without a backbone are found in both fresh and salt water.
net-positive impact.	Impact that is more positive than negative.
riparian habitat.	A natural habitat situated on a river or stream.
thermal coal.	A type of coal that is burned to generate electricity through steam.
United Nations Sustainable Development Goals.	Seventeen world development goals were defined by the United Nations in 2015.
water table.	The level below which the ground is saturated by water.



Appendix 2: References

1. Acid mine drainage. Wikipedia: https://en.wikipedia.org/wiki/Acid_mine_drainage (accessed 13 February 2024).
2. Dongalock™ technology. GreenGab: <https://greengab.co.za/home-app-landing-2.html> (accessed 15 February 2024).
3. Illegal Mining. Minerals Council South Africa: <https://www.mineralscouncil.org.za/work/illegal-mining> (accessed 15 February 2024).
4. 'Brazen' zama zamas cost Thungela R300m. Business Live: https://www.businesslive.co.za/bd/companies/mining/2023-03-27-brazen-zama-zamas-cost-thungela-r300m/#google_vignette (accessed 15 February 2024).
5. The illegal mining invasion at Thungela Resources is becoming the new normal. Moneyweb: <https://www.moneyweb.co.za/mineweb/illegal-mining-invasion-at-thungela-resources-is-becoming-the-new-normal/> (accessed 15 February 2024).

THUNGELA

25 Bath Avenue | Rosebank | Johannesburg | 2196 | South Africa

PO Box 1521 | Saxonwold | Johannesburg | 2132 | South Africa

Switchboard: +27 (0)11 638 9300

www.thungela.com



MEDIA CONTACTS

Hulisani Rasivhaga | Head of Communications | hulisani.rasivhaga@thungela.com

Bokgabo Tlhaku | External Communications Manager | bokgabo.tlhaku@thungela.com