



# TAILINGS MANAGEMENT



## GROUP FACTSHEET

### Sibanye-Stillwater has embarked on a wide-ranging programme to align its management of tailings storage facilities (TSFs) with the Global Industry Standard on Tailings Management (GISTM).

Adopting the GISTM is a requirement of all member companies of the International Council on Mining and Metals (ICMM).

Sibanye-Stillwater currently has 37 TSFs (as listed in the table below), 34 in South Africa and three in the United States, most of which were inherited through acquisitions.

All our TSFs in South Africa are upstream TSFs, of which 30 are classified (according to GISTM) as having either a very high or extreme consequence classification; 19 of which are active. Our US operations have three downstream TSFs, all classified as extreme or very high consequence, two of which are active.

There are currently no TSFs at the Sandouville or Keliber operations as yet.

Due to catastrophic failures, it is recognised that upstream TSFs may pose the largest risk resulting in specific countries having banned further upstream construction (for example, Chile, due to earthquakes and more recently Brazil, due to high rainfall). Due, primarily to low seismicity and evaporation exceeding rainfall, TSFs have however been successfully constructed in the upstream direction in South Africa for many decades.

Upstream TSFs require an increased level of management to ensure they are being operated within the design intent. None of our South African TSFs have been designed to store water and are accordingly operated with sufficient freeboard and minimal supernatant ponds, thereby preventing failures such as those experienced at some other South African TSFs.

Having been built by various companies according to different specifications over decades, there is limited uniformity in Sibanye-Stillwater's TSFs; and they have been managed and governed differently. In addition, local regulatory frameworks vary per jurisdiction. Aligning to the GISTM, however, has ensured a standard and consistent approach to the management of our TSFs. For further details on consequence classification, risk exposure, location as well as the status, see *Tailings management* on our website

[www.sibanyestillwater.com/sustainability/environment/tailings-management/](http://www.sibanyestillwater.com/sustainability/environment/tailings-management/)

“Sibanye-Stillwater has 37 tailings storage facilities currently under management – both in South Africa and the United States.”

Operating segment	Active tailings storage facilities	Dormant tailings storage facilities
SA gold operations	5 (deposition)	6
	1 <sup>1</sup> (reclamation)	
SA PGM operations	14 (deposition)	6
	2 <sup>1</sup> (reclamation)	
US PGM operations	2 (deposition)	1

<sup>1</sup> Lindun TSF and Waterval East fully reclaimed



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## LEGISLATION

In South Africa, SANS 10286 (1998) is the primary management guidance document for TSFs. This standard includes principles and minimum requirements for best practice in mitigating risk. Although a credible and useful standard, SANS 10286 currently falls short of more stringent global best practice requirements (notably, the GISTM). SANS 10286 has been redrafted to align with the GISTM. The revised document is currently under final review by the South African Bureau of Standards.

Montana's regulations (MCA 82-4-376) are broadly reflective of international best practice in the management of TSFs. These regulations stipulate all storage facilities are to be designed using the most advanced practices and technologies available, requiring ample review and approval by expert engineers.

Both the SA and US operations have formal quarterly inspections by the respective engineers of record. The TSFs also have to stand the scrutiny of an Independent Tailings Review Board (ITRB).

Sibanye-Stillwater is committed to aligning all its TSFs to the GISTM requirements. To this end, we have accomplished

- Monthly compliance self-assessments (on Pivot Tailings Module) for all SA and US operations
- K2fly Decipher implementation; this is an industry leading cloud-based tailings management platform; Decipher uses manual data, IOT data and satellite monitoring to identify potential risks to enable proactive mitigation.

The US operations have advanced emergency response plans in place. Emergency Preparedness and Response Plans for the SA operations have been significantly upgraded and are being finalised.

The US ITRB reviews the US TSFs annually. The SA ITRB reviews high risk TSFs annually and the remainder on a three-year cycle.



## THE GLOBAL INDUSTRY STANDARD ON TAILINGS MANAGEMENT (GISTM)

The GISTM was launched in August 2020. It was developed through collaboration between the United Nations Environment Programme (UNEP), Principles for Responsible Investment (PRI) and the ICMM.

It covers the entire TSF lifecycle – from site selection, design and construction, management and monitoring, to closure and post-closure. It seeks to strengthen current practices in the mining industry by integrating social, environmental, local economic and technical considerations. The GISTM aims for zero harm to people and the environment and significantly raises the bar for the industry to achieve strong social, environmental and technical outcomes. It elevates accountability to the highest organisational levels and adds new requirements for independent oversight. The GISTM also establishes clear expectations around global transparency and disclosure requirements, helping to improve the understanding of interested stakeholders.

It comprises six topic areas, 15 principles and 77 auditable requirements. The GISTM is supported by the ICMM conformance protocols that provide detailed guidance for certification and assurance, as well as equivalence with other standards. This is in addition to the existing commitments under the ICMM Mining Principles and the ICMM Tailings Governance Framework Position Statement. The purpose of the Position Statement is to enable enhanced focus on the following six key elements

1. Accountability, responsibility and competency
2. Planning and resourcing
3. Risk management
4. Change management
5. Emergency preparedness and response
6. Review and assurance

For more information, refer to the ICMM website at <https://www.icmm.com/>

Also see our policy statement on tailings stewardship at: [www.sibanyestillwater.com/sustainability/reports-policies](https://www.sibanyestillwater.com/sustainability/reports-policies)



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“Sibanye-Stillwater is committed to the safe and environmentally responsible stewardship of our tailings storage facilities.”

## JOURNEY TO COMPLIANCE

Given the GISTM's extensive requirements for compliance, all participating mining companies were given a grace period of three to five years to improve the management of facilities and adjust policies to comply.

Key actions completed to date include

- Implementation of Group Tailings management system
- Appointment of a Vice President Tailings Engineering (Group) to set strategic direction for tailings management, provide suitable systems to support the strategy and guide the drive for GISTM compliance
- Finalisation of internal governance structure including the appointment of an accountable executive and responsible tailings facility engineers
- Finalisation of external governance structure including the appointment of Engineers of Record and an Independent Tailings Review Board (SA and US)
- Ongoing self-assessments at operational level to close gaps and monitor progress toward compliance
- Dam break assessments to classify the facilities and identify impacted communities within the theoretical areas of inundation
- Geotechnical investigations and detailed stability assessments to characterise the tailings facilities and as input to design basis reports and continuation reports
- Drafting of detailed emergency preparedness and response plans including socialisation with relevant authorities and NGOs
- Tailings safety and emergency awareness training of impacted communities
- 17 out of the 22 active Very High or Extreme consequence TSFs conformed with the GISTM by end December 2022. The remaining five will conform by early 2023 on completion of specialist studies being undertaken by Engineers of Record
- A focus is being given to dormant TSFs and TSFs undergoing re-mining to meet the August 2023 deadline

## DRDGOLD ACQUISITION

In recent years, Sibanye-Stillwater has undertaken various initiatives to improve its rehabilitation capabilities, particularly where they relate to TSFs. The initiative was the purchase of a 50.1% shareholding in DRDGOLD, a world leader in the retreatment of surface gold tailings. This partnership allows Sibanye-Stillwater to leverage off DRDGOLD's proven capabilities, particularly in terms of

- Reversing the environmental legacy of mining through the removal of dormant TSFs and redeposition of the resultant tailings in a TSF designed in accordance with latest best practice
- Developing infrastructure for surface processing
- Optimising use of technology for processing

The acquisition of DRDGOLD has helped the Group to substantially reduce the number of legacy TSFs under its management.

## STAKEHOLDER INTERVENTIONS

Sibanye-Stillwater holds regular TSF safety awareness and training interventions for stakeholders including downstream communities, faith groups, local municipalities, non-governmental organisations and schools. These interventions are supported by various pamphlets, radio interviews and newspaper inserts.

A digital information App, Ulwazi, that functions without data with free registration, is utilised to disseminate information and enable effective engagement with stakeholders. Community notices provided via the app include posts to raise awareness of potential risks posed by TSFs.

## FOR MORE INFORMATION, CONTACT:

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To be a leader in superior shared value for all stakeholders

OUR VISION