



JUNE 2025

WESTERN PLATINUM MINE TAILINGS STORAGE FACILITY (TSF) 1

DETAILS OF TAILINGS STORAGE FACILITY

Tailings Storage Facility (TSF) Name	Western Platinum Tailings Dam Complex - Tailings Dam 1 (WPL TD1)
Operation	Marikana
Operational Status	Dormant since 1992
Operating Segment	RSA - PGM
Location	5 km east of the town of Marikana in the North-West province – please refer to Figure 1
Latitude, Longitude (decimals)	-25.7085, 27.5093
Ore Source	Underground
Type of Storage Facility	Impoundment (upstream development)
Deposition Methodology	Spigot
Year of Commissioning	Pre 1980
Consequence Classification (GISTM, 2020)	High
Operating Contractor	Fraser Alexander (Pty) Ltd (FAT)
Engineer of Record (EoR)	SLR Consulting (Pty) Ltd
Current Maximum Height (m)	23
Final Maximum Height (m)	23
Total Volume Already Deposited (Mm³)	3.8
Life of TSF (year)	N/A



INNOVATION



COMMITMENT



ACCOUNTABILITY



RESPECT



ENABLING



SAFETY

TECHNICAL ASPECTS:

Design Criteria

GISTM and best practice guidelines including Australian National Committee on Large Dams (ANCOLD) (Guidelines on Tailings Dams, July 2019). Site specific design criteria were specified by the EoR. Details are included in the Design Basis Report (DBR).

Stability Assessment and Mitigation Measures

A detailed stability assessment based on laboratory test work was conducted in 2024.
(SLR Project No: 20.070536.00002 Rev 1, 30 May 2025)

All the FoS are above the recommended limits and thus no remedial measures were required.

Dam Breach Assessment

Assessment completed in 2023
(SLR Ref No: 723.000006.00001 Rev 1, July 2023)

Area of Inundation

Has been identified by EoRs – please refer to Figure 2

Summary of Human Exposure

Consequence classification has been based on Population at Risk (PAR). Communities have been identified and are being engaged through various means including Community Engagement Forums (CEF). An appointed external specialist has conducted vulnerability assessments for communities located within the Area of Inundation

DOCUMENTATION:

Site Specific OMS Manual

Version 2023 available

Mandatory Code of Practice (MCOP) Reference No: SS-ZA-PGM's-MCOP-ENG-CON-0002 is in place (dated June 2024)

Design Basis Report (DBR)

Version 2023 available
(SLR Project No: 720.19129.00035 Rev 1, July 2023)

Environmental Management System

The Environmental Management System is ISO accredited (ISO 14001:2015)

The initial Environmental Management Programme (EMPr) is dated 2004. Numerous addendums have been submitted with the latest being in 2013.



INNOVATION



COMMITMENT



ACCOUNTABILITY



RESPECT



ENABLING



SAFETY

Surveillance:

Surveillance Frequency

Daily by the Operator and quarterly reports of critical and operational controls submitted to and reviewed by the EoR

Surveillance Technology/System

Quartex

Deformation Monitoring

Interferometric Synthetic Aperture Radar (InSAR)

Phreatic Surface Levels & Pore Pressure Measurements

Standpipe piezometers

RISK MANAGEMENT / EMERGENCY PREPAREDNESS:

Risk Assessment

Annual Risk Assessment (Failure Mode Effect Analysis) completed with no untoward risk identified

Risk Management

Site specific OMS Manual in place
Site specific Trigger Action Response Plans (TARPs) in place
Critical and operational controls established and implemented
Operating contractor Technical and Operational Risk Assessment System (TORAS)

Site Specific Emergency Preparedness & Response Plans (EPRP)

Version 2024 available

Annual emergency mock drill for a catastrophic TSF failure – undertaken on 28 September 2024 with SSW employees and contractors.

Environmental emergency preparedness is managed on site according to ISO14001: 2015.

CLOSURE & POST CLOSURE

Closure Planning

In place - report prepared by Golder Associates (Golder Reference: 20141966-340280-9, June 2021)

Closure Costing

Adequate financial capacity in place
Financials prepared by Golder Associates (Golder Reference: 21467970-349390-1, December 2021)

Asset Insurance Cover

In place – July 2024 to June 2025 (renewal process has commenced))



INNOVATION



COMMITMENT



ACCOUNTABILITY



RESPECT



ENABLING



SAFETY

Independent Reviews:

Independent Tailings Review Board (ITRB)

27 June 2023 with no material concerns identified

Future ITRB Review

June 2026

Performance Reviews

Annual and quarterly reports with inspections completed by EoR
(SLR Project No: 20.070536.00002 Rev 1, 30 May 2025)

Dam Safety Review (DSR)

Carried out by an independent third party in 2020. All recommendations at the time have been addressed in the last 2 years.
(KP Reference: RI301-00877/02 Rev B, 26 August 2020)

Next review is currently underway



INNOVATION



COMMITMENT



ACCOUNTABILITY



RESPECT



ENABLING



SAFETY

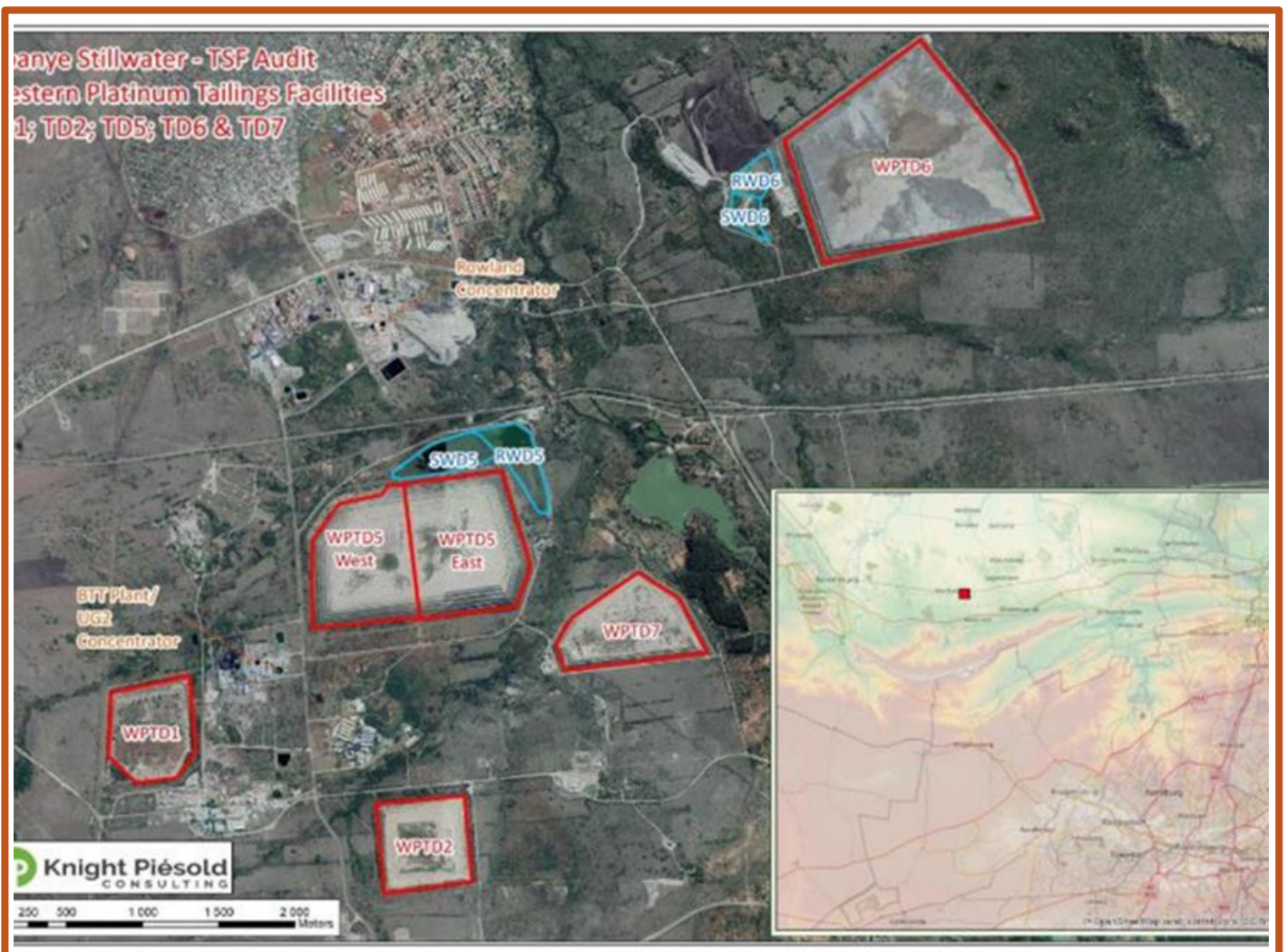


Figure 1: Layout of Western Platinum (WPL) Tailings Dam Complex



INNOVATION



COMMITMENT



ACCOUNTABILITY



RESPECT



ENABLING



SAFETY

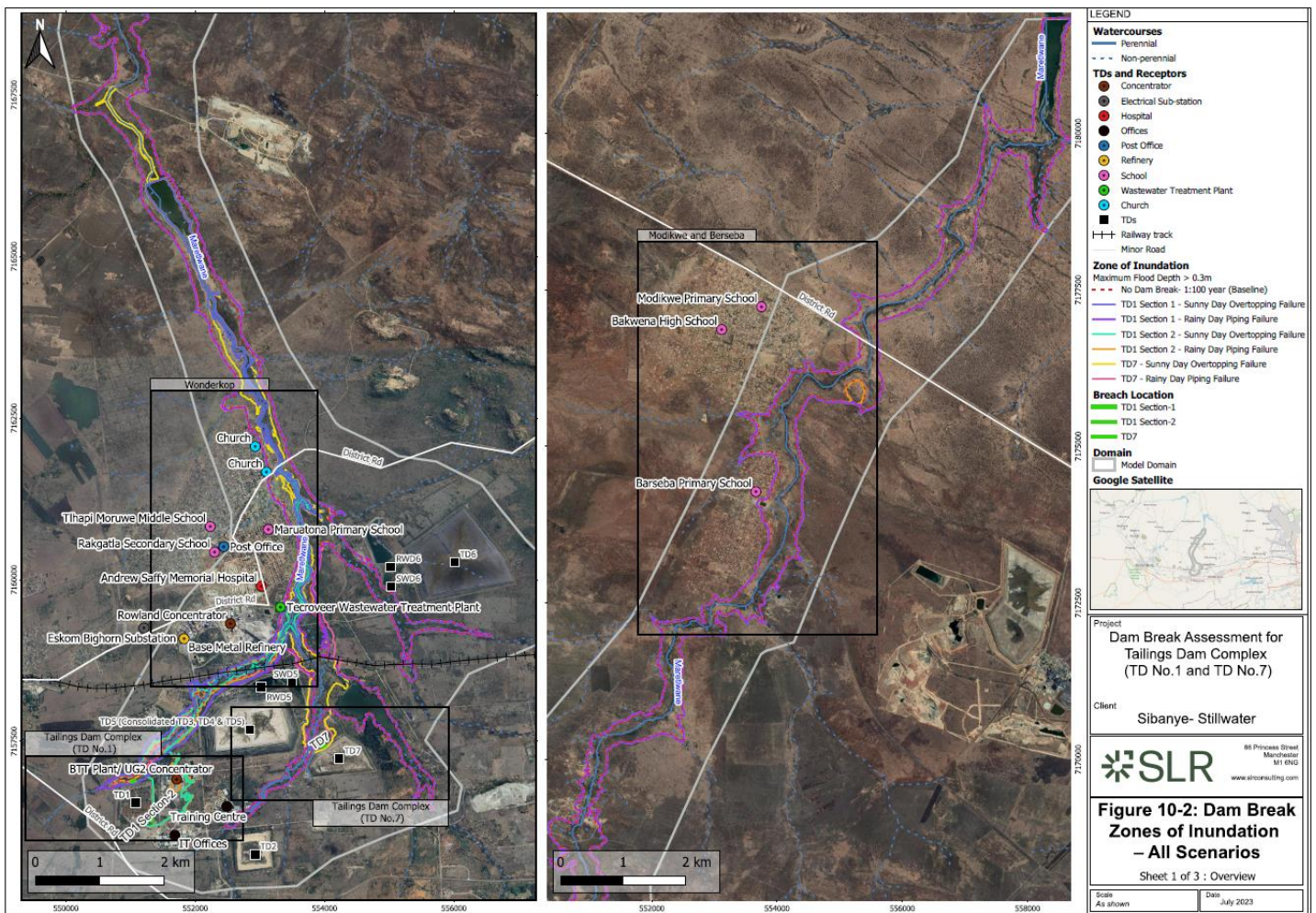


Figure 2: Area of Inundation (All Scenarios)



INNOVATION



COMMITMENT



ACCOUNTABILITY



RESPECT



ENABLING



SAFETY