



JUNE 2025

KLOOF TAILINGS  
STORAGE FACILITY (TSF) 2

## DETAILS OF TAILINGS STORAGE FACILITY

<b>Tailings Storage Facility (TSF) Name</b>	Kloof TSF 2
<b>Operation</b>	Kloof
<b>Operational Status</b>	Dormant since December 2022
<b>Operating Segment</b>	RSA - Gold
<b>Location</b>	Near Westonaria, southwest of Johannesburg - please refer to Figure 1
<b>Latitude, Longitude (decimals)</b>	-26.4434417, 27.5908444
<b>Ore Source</b>	Underground
<b>Type of Storage Facility</b>	Impoundment (upstream development)
<b>Deposition Methodology</b>	Day-Wall Paddock
<b>Year of Commissioning</b>	1960
<b>Consequence Classification (GISTM, 2020)</b>	High
<b>Operating Contractor</b>	Stefanutti Stocks Inland (SSI)
<b>Engineer of Record (EoR)</b>	Knight Piesold (Pty) Ltd
<b>Current Maximum Height (m)</b>	60
<b>Final Maximum Height (m)</b>	60
<b>Total Volume Already Deposited (Mm<sup>3</sup>)</b>	41.8
<b>Life of TSF (year)</b>	N/A



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## 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 piezocone probing and laboratory testing was conducted in 2024. (KP Reference: SSAND301-00726/89 – A Rev A, 28 March 2025)

The assessment confirmed that all Factors of Safety (FoS) for drained conditions exceed the recommended minimum thresholds. While the undrained peak FoS values across some sections are below the threshold. Discussions are ongoing with the Engineers of Record (EoR) to further evaluate and address this matter

### Dam Breach Assessment

Assessment completed in 2022  
(KP Reference: RI301-00726/22 Rev A, 23 June 2023)

### Area of Inundation

Has been identified by EoRs – please refer to Figures 2 to 7

### 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 2025 available

Mandatory Code of Practice (MCOP) Document No: KP RI301-00726/63 is in place (dated March 2025)

### Design Basis Report (DBR)

Version 2025 available  
(KP Reference: RI301-00726/63 Rev 2, 1 March 2025)



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## Environmental Management System

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

### Surveillance: Surveillance Frequency

The initial Environmental Management Programme (EMPr) is dated 2011.  
Daily by the Operator and monthly 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

### Site Specific Emergency Preparedness & Response Plans (EPRP)

Version 2023 available

Annual emergency mock drill for a catastrophic TSF failure – undertaken on 15 June 2023 with SSW employees and contractors. No mock drill was carried out in 2024

## CLOSURE & POST CLOSURE

### Closure Planning

In place - report prepared by Golder Associates (Golder Reference: 20360027-341339-2, April 2021)

### Closure Costing

Adequate financial capacity in place  
Financials prepared by Golder Associates (Golder Reference: 20447293-349383-5, December 2021)

### Asset Insurance Cover

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



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## Independent Reviews:

### Independent Tailings Review Board (ITRB)

25 August 2021 with no material concerns identified

### Future ITRB Review

Currently underway

### Performance Reviews

Annual and quarterly reports with inspections completed by EoR  
(KP Reference: SAND301-00726/89 - A Rev A, 28 March 2025)

### Dam Safety Review (DSR)

Carried out by an independent third party in 2019/2020 with no material findings  
(KP Reference: 301-00840/02-004 Rev 1, February 2020)

Next review is currently underway



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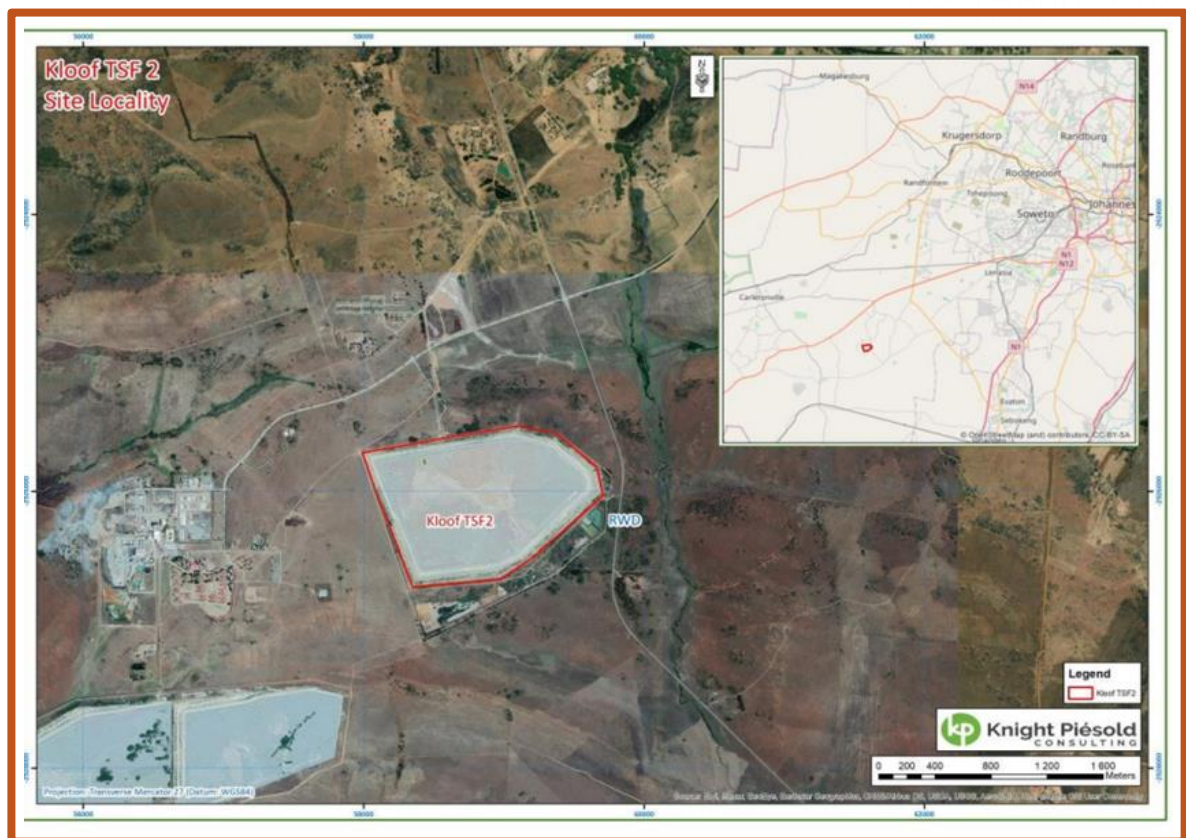


Figure 1: Layout of Kloof TSF 2

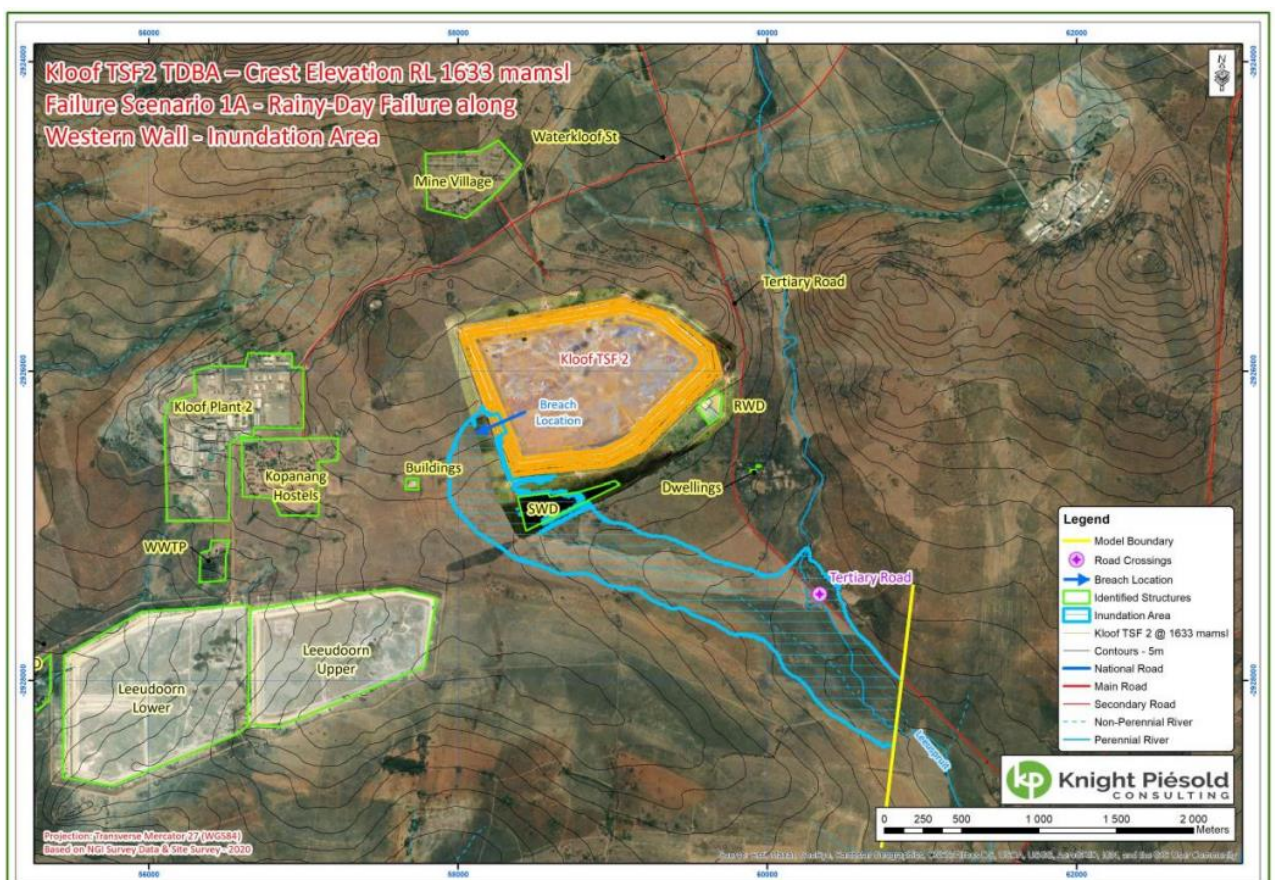


Figure 2: : Inundation Map for a Breach at the Western Wall (preliminary)



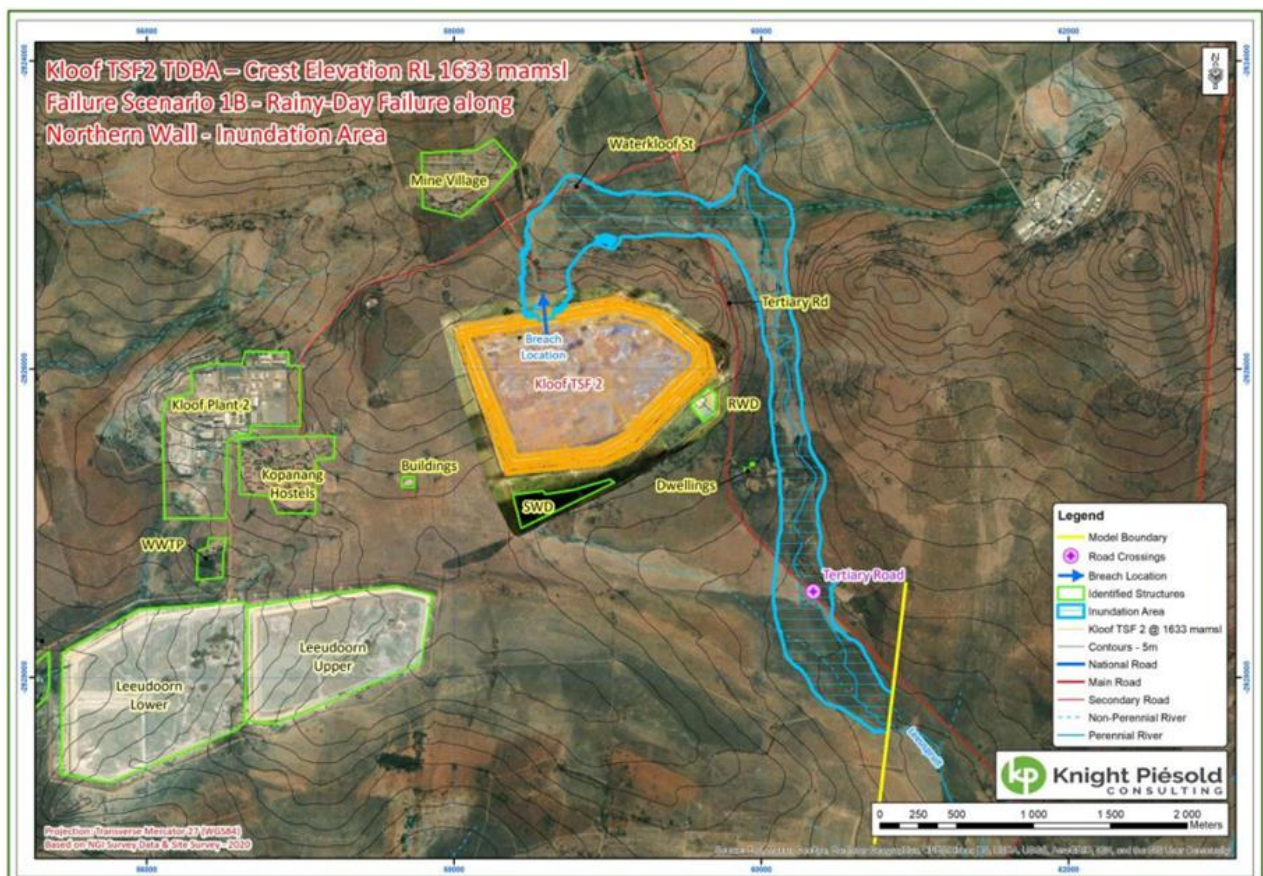


Figure 3: Inundation Map for a Breach at the Northern Wall (preliminary)

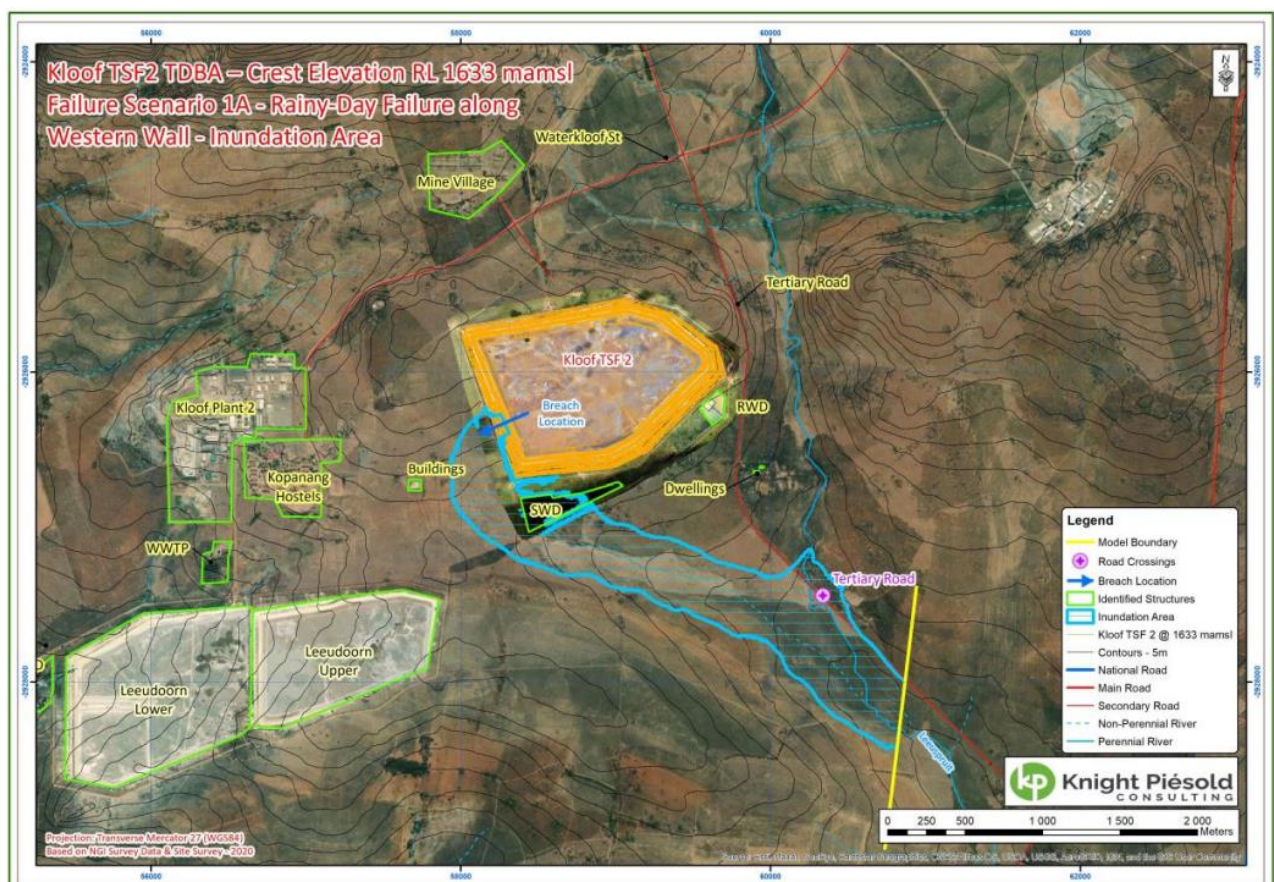


Figure 4: Inundation Map for a Breach at the South-Eastern Wall (preliminary)



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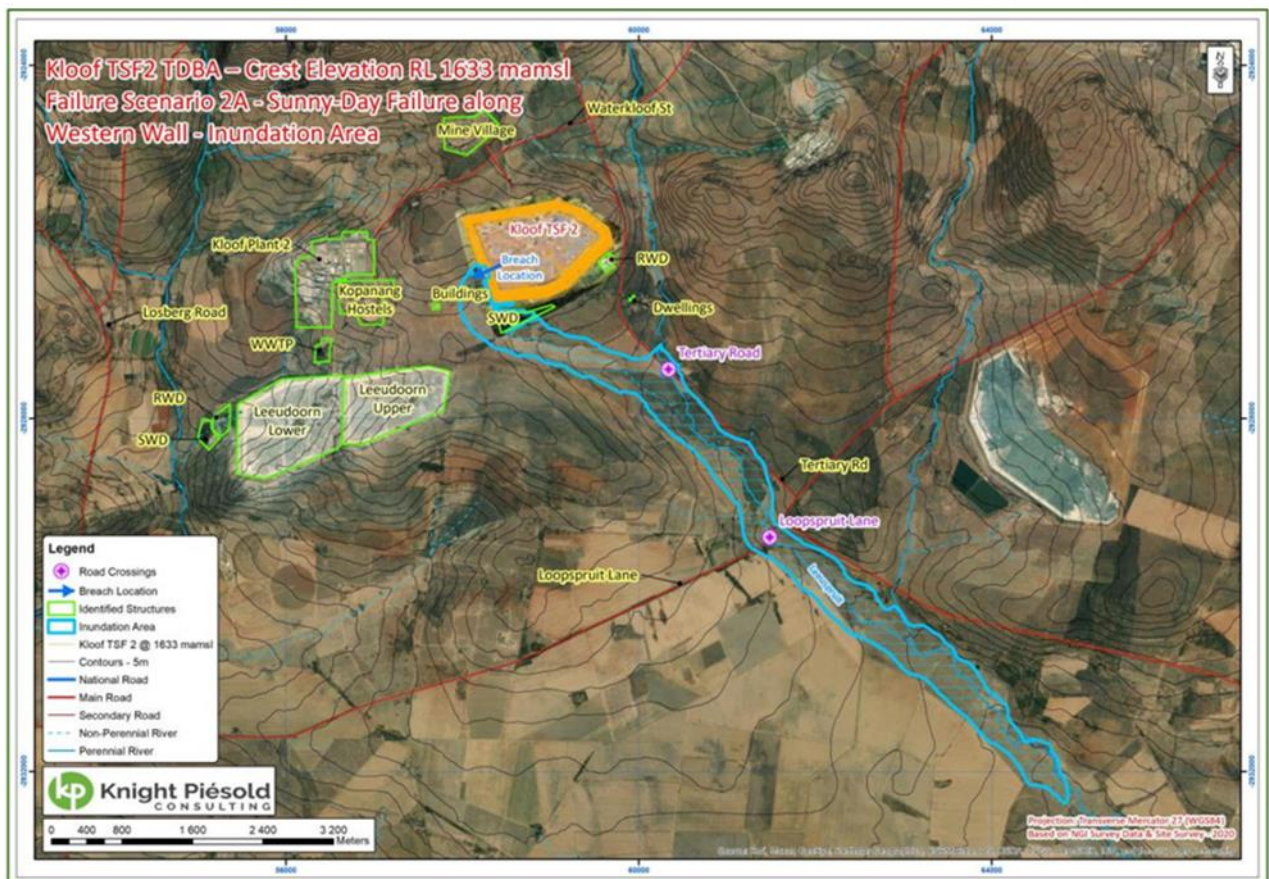


Figure 5: Inundation Map for a Breach at the Western Wall (preliminary)

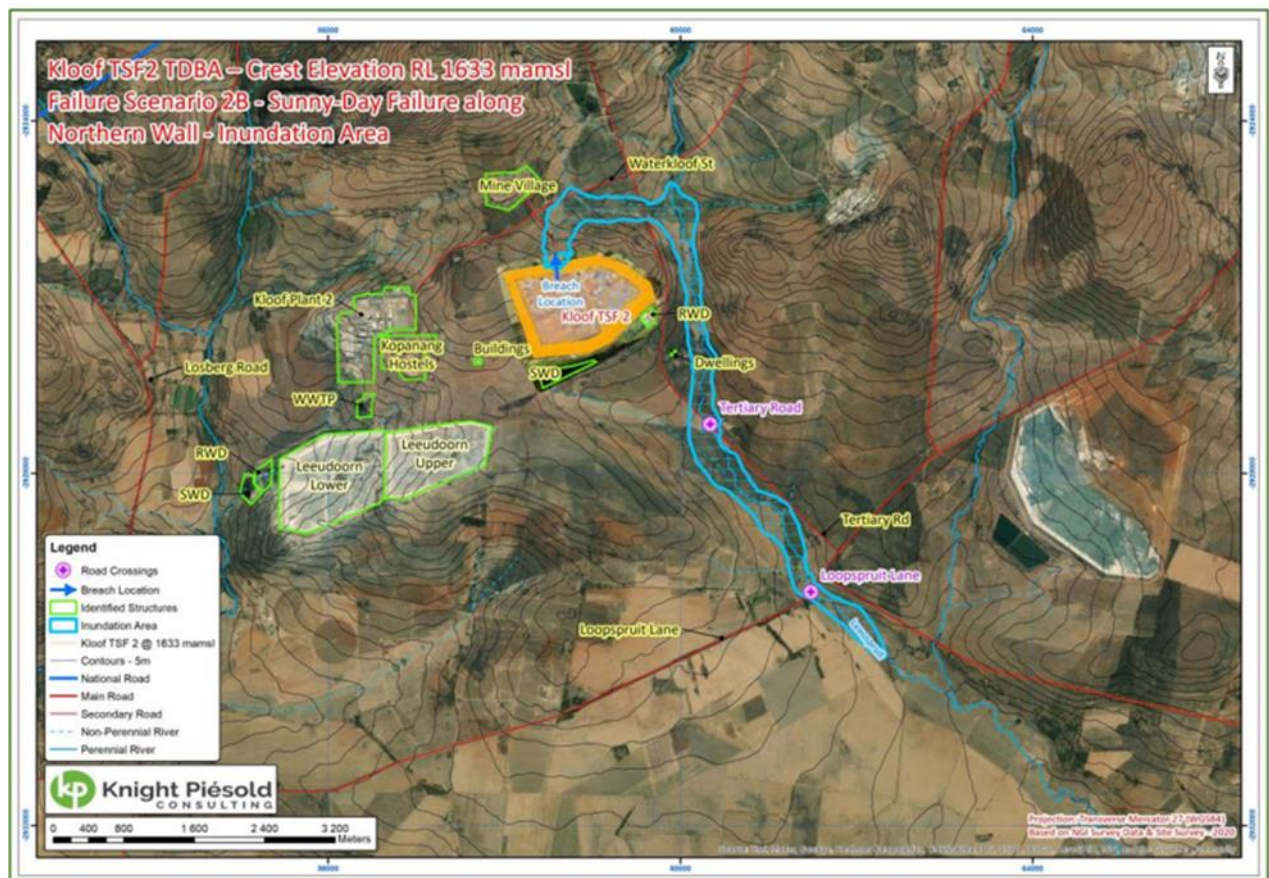


Figure 6: Inundation Map for a Breach at the Northern Wall (preliminary)





Figure 7: Inundation Map for a Breach at the South-Eastern Wall (preliminary)



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