



202308 UNDERGROUND EXPANSION PROJECT - DRAFT ENVIRONMENTAL IMPACT ASSESSMENT (EIA) AND ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR); AND INTEGRATED WATER AND WASTE MANAGEMENT PLAN (IWWMP) PUBLIC REVIEW

VENUE: VIRTUAL MS TEAMS MEETING CONVENED ON 12 MAY 2025 FROM 11.00 TO 12:00

	Name	Organisation	Email address
Attendees present:	Mpho Manyabe (MM) Mariette Liefferink (ML)	Manyabe Consultancy (MC) Federation for a Sustainable Environment (FSE)	mpho@manyabeconsultancy.com mariette@pea.org.za
Apologies:	None.		
Objectives of the meeting:	<ul style="list-style-type: none"> • Provide project background of the proposed Underground Expansion Project. • Discuss the Applications, Specialist Studies undertaken and project layout plans. • Review of the Draft EIA and EMPr Report; and the IWWMP. 		

AGENDA ITEMS

ACTION

1. WELCOME AND INTRODUCTION

MM

MM welcomed ML to the meeting.

2. OBJECTIVES OF THE MEETING

MM

The objectives of the meeting are as detailed above.

3. DISCUSSION

ALL

ML indicated that she is highly supportive of the proposed underground mining as opposed to opencast mining. She added that underground mining is less invasive and that proponents/applicants in the Closure Phase often do not wish to backfill open pits as it is costly. She made an example referencing the Pilanesberg Platinum Mine, that it has significant impacts as the intention of the Mine is not to backfill the open pit, which prevents the migration of animals, especially elephants, from the Madikwe National Park to the Pilanesberg National Park, causing many elephants to starve to death. MM indicated that there is a Closure Plan that was attached to the Draft EIA and EMPr Report and added that one of the objectives of Public Participation Process (PPP) is to allow the public to either support what has currently been proposed at closure i.e. change the mine liability into an asset that can be used sustainably in the long term, for water supply, agricultural projects, aqua-culture or a combination. She further indicated that more detailed work for the mine closure is yet to be undertaken and that the end land use is still to be finalised, with the Closure Plan being updated throughout the operation of the proposed underground mine.

With respect to the Land Tenure Map, ML enquired as to whether Wonderkop, which is part of Sibanye Stillwater 's operations and Lonmin were consulted. She enquired as to whether Tharisa has any regional Closure Plan and if the Rehabilitation and Closure Plan objectives are in line with the adjacent mines' plans. MM responded by stating that all the specialist studies that have been undertaken, also considered cumulative impacts in all phases of the proposed project. She added that MC has engaged at length with all the various stakeholders, including the adjacent mines. She indicated that Sibanye Stillwater are planning to in future utilise its UG2 void located on the Tharisa Mining Right (MR) area for tailings deposition. She further added that Sibanye Stillwater requested that a quantitative cumulative assessment be conducted to determine the holistic impacts of the surrounding mining projects.

ML enquired about the Sterkstroom River, if there is a buffer created for the western surface infrastructure. MM responded by stating that the wetlands and the floodlines have been delineated, including the Sterkstroom River. She added that the West Shaft will have two main access areas, one on the east and one on the western side which will be access controlled. The access road on the east will be accessed via a new bridge to be constructed over the Sterkstroom River which will join to the existing Marikana Road. The hydrological design ensures that the bridge is above the 1:100 year flood lines.

On the existing infrastructure, ML enquired as to whether Tharisa's existing Pollution Control Dam (PCD) is lined. MM confirmed that the dam is lined.

ML enquired as to whether Tharisa will be using the polluted water from the Return Water Dam (RWD) or PCD for the operation of the proposed infrastructure and underground mining, and if there will new water uses. MM indicated that there are new water uses that are being applied for. She added that the operation will remain a closed system. The water to be discharged into the dams will be reused in the mine processes. She added that Tharisa has also secured an allocation from Rand Water through an agreement with Samancor i.e. The total maximum quota to be supplied is 2,666,000 kilolitres per month. ML indicated that she supports the reuse of water.

ML enquired about water currently sourced from local groundwater via abstraction, if the abstraction has any impact on the groundwater level. She indicated that if the water level is lowered then it will affect adjacent farmers and affected parties using boreholes. MM indicated that from the monitoring reports, it is evident that the amount of water being abstracted is not significant as there are various other water sources supporting the operation of the mine currently. She alluded to the following points:

- During the 2024 hydrocensus, water levels, boreholes EDW 101 and EDW 102 recorded some of the deepest water levels.
- From the proposed project, dewatering and loss of yield from potable (villages) and/or agricultural water supply boreholes within the Zone of Influence (ZOI) are amongst the activities which were assessed in the Geohydrological Report.
- Tharisa is situated within a minor aquifer region, characterised by poor to minor groundwater quality. Based on analogue data from similar mining operations in similar geology, there is a low risk of the shallow aquifer being affected by deep underground mining. However, based on the precautionary principle and scenario modelling, drawdown for the high case scenario was evident. From the 2024 hydrocensus, no major groundwater users were found within the underground extension zone, but it is recommended to conduct a regional hydrocensus north of Tharisa Mine (including Marikana settlement) based on the modelled ZOI to map all users and include in monitoring protocol.
- Abstraction volume and water level monitoring and observations if geological fractures are intersected at depth during underground mining must be investigated.

ML enquired about the quality of the stormwater, what variables and contaminants will be present in the stormwater runoff, and if the water will be suitable for reuse. MM indicated that clean runoff from the areas such as the office, roads, and upstream natural environment will be allowed to flow freely into the environment, with no need to capture clean water or create clean water channels.

Clean stormwater will be prevented from entering dirty water catchments by creating upstream cut-off berms around the pit footprint (channels and berms) and the workshop areas. Stormwater on the roads will be allowed to flow freely by gravity as these will be designed with a slight slope and, most importantly, sloping away from the underground portal. She further indicated that the wash bay and the workshops will be fitted and serviced by sumps, for the collection of oil contaminated water for appropriate disposal and these will be operated as isolated areas surrounded by dirty water trenches discharging into the sumps. Diesel and lubrication tanks will be stored on lined impermeable surfaces and inside bunding equivalent to tank capacities plus a safety margin. Alternatively, the bunding will contain at least 110% of the largest storage vessel, or a combined volume of two tanks may be considered.

She further listed the following infrastructure to be established:

- Silt traps which will receive the service and fissure water from underground and the discharge from the dirty water channel.
- Two settling dams which will discharge into the RWD.
- The return water pumps which will return water to the service water tank.
- The emergency spillway which will allow overflow to and from the PCD.
- The infrastructure area will be split into two distinct areas (northern and southern areas), separated by a dirty water channel running east-west.
- Dirty water runoff from the southern infrastructure area will be collected in the channel and directed to the silt trap on the eastern side of the infrastructure area and ultimately into the settling dams and RWDs.
- Stormwater run-off from the Northern infrastructure area will naturally flow to the catchment areas for the Sterkstroom River.
- The portal will have a cutoff channel.

ML enquired about the Waste Rock Dumps (WRDs), if there are plans to backfill the operational open pits with waste rock and asked about the future land use. MM indicated that what was proposed is to convert open pits into sustainable assets i.e. act as a pit lake/ water resource for the surrounding communities, and therefore, the open pits will not be backfilled, which is subject to be investigated depending on the comments received from all stakeholders on what the final closure layout plan could be.

ML indicated that she is not in support of the open pits being used post closure although it might be a cheaper option, but it is also a risky option. She recommended backfilling of the open pits with waste rock as a less risky option, which is more sustainable.

She added the following motivation for the preferred option:

- The option aligns with the principles of sustainable development, and if the communities were to use water from the pits, it must first be fit for use.
- There will be infrastructure required to pump the water from the pits due to the high evaporation rate and the low to moderate rainfall rates in the area; thus, the pits will not be filled with water naturally.
- Concerns regarding the ability of cattle and wildlife to access water from the pits, as they will not be fully filled. The pits may be only half filled with water, which means cattle and wildlife would not be able to drink from the pits.
- Maintaining the infrastructure to pump the water from the pits and all the adjacent pipelines will be challenging.
- The communities in that area are poverty stricken, and it would therefore be a challenge, unless if there would be funds available for the infrastructure and its maintenance in perpetuity.

MM concurred and added that with all the WRDs at the mine, rather than leaving them elevated, some of the waste rock can be used to infill the open pits in the future. She indicated that she would discuss the backfilling option with Tharisa.

ML requested that the draft minutes be sent to her prior to being circulated, which MM agreed to.

ML enquired as to whether Tharisa intends on removing the existing Tailings Storage Facilities (TSFs). MM indicated that Tharisa has not communicated such to MC.

ML asked MM to send her the link for the specialists' reports. She also requested for MM to engage with the Legacy Group Hotels within the Pilanesberg National Park, who own the lodges at Bakubung and Kwa-Maritane Bush. She asked if MM has engaged with them and if any public meetings were convened. MM showed ML the MC website link where reports can be downloaded from. MM responded by stating that MC has engaged with the Buffelspoort Resort and other businesses around the mine. She further added that public meetings were also convened.

ML expressed that her organisation shares interest in environmental issues, as well as social and economic benefits aligned with the environment, indicating that socio-economic elements and environmental elements within the definition of sustainable development are not equal, since there can be no socio-economic development on a deteriorating environmental base. She enquired as to whether the applications will be in line with the One Environmental System, if the approvals [Mining Right (MR) and Environmental Authorisation (EA)] by the Department of Mineral Resources and Energy (DMRE) will be aligned with the Integrated Water Use License (IWUL) to be issued by the Department of Water and Sanitation (DWS). MM responded by stating that for the DMRE to issue approvals, they rely on the DWS to provide comments, and therefore, co-operative, environmental governance is applicable as all relevant Competent Authorities' decisions need to be aligned.

ML stated that, with regards the Closure Plan, she supports the DMRE regulations, that concurrent or progressive rehabilitation must be implemented. She enquired as to whether MM would be aligned with the South African National Biodiversity Institute's (SANBI) Biodiversity and Mining Guidelines. She referred to the mining and biodiversity guidelines from SANBI, which mention categories such as protected areas, national parks, nature reserves, and World Heritage sites, where mining is prohibited. She recommended that critical endangered and endangered ecosystems, critical biodiversity systems, rivers, freshwater and wetlands must be considered. MM explained the above categories and presented from the findings of the associated specialists' studies, which took into account all the relevant guidelines and principles.

ML asked MM if MC had engaged with Mr. Jay Naidoo, who owns the property called Calabash. She explained that he has entered into a Memorandum of Understanding (MoU) with Sibanye Stillwater, and he would like to develop a nature-positive initiative for the Magaliesberg Biosphere, incorporating all the mines. She suggested that MM engages with Simone (she is no longer working at Sibanye Stillwater) who is the organiser of meetings.

ML enquired as to whether the water quality is impacted by sewage or mining activities. MM indicated that the Present Ecological State (PES) assessment indicated that the Sterkstroom River was in a 'Largely Modified' state, which can be attributed to the fish community assessment where an alien invasive species *Micropterus salmoides* (Largemouth Bass) was collected during the 2024 survey, lowering the fish assessment score. She added that, when it comes to water quality, one of the parameters exceeded was nitrate, which is often the case, and the reason behind such is as follows: It is not solely due to mining, it also results from blasting activities; therefore, it is not only related to the Tharisa mine but also to every activity upstream, such as agricultural use of fertilisers and the decay of plant material, which would exacerbate such readings. ML also added that nitrate can also be produced by cattle's urine and open pit toilets etc.

ML asked about communities that are close to the mining operations. She also enquired about the buffer zone between the residential development and mine site. MM explained that the communities are Mmaditlhokwa and Lapologang, and that a 100m blasting buffer zone is applicable, and she reminded ML that the proposed project will be transitioning underground, and therefore, the impact will be lessened. ML also added that the 100m buffer is a regulated buffer zone in terms of the mine health and safety regulations, but the DMRE has recommended 2 kilometers due to complaints from both the mines and the communities, as there is often encroachment by communities onto the mine sites, which exacerbates the risk to communities. ML continued to add that complaints received from communities regarding blasting indicate that houses often crack, and the reason is that the houses are not very sturdily built. She also mentioned that recognition must also be given to the fact that these structures might, due to poverty, have not been built according to building regulations which must also be considered. MM indicated that those are some of the issues mentioned in the Blast Impact Assessment Report, which states that a thorough survey must be conducted before underground mining commences, of all structures on surface directly above the underground footprint. MM further stated that Tharisa must conduct a study to examine all the houses with established cracks, as it cannot be definitively stated that they are due to the blasting, and they may not comply with building regulations, and some of these houses were built with different structures. Some are of older design, while others are more contemporary, which makes them likely to crack.

ML enquired about the alien plant species that have been identified. MM indicated that the specialists have identified the potential for existence of alien plant species and the area is already disturbed as it is currently being mined. She explained that only a portion of the area where the bridge will be constructed is pristine within the Sterkstroom River. MM showed ML on the table listing alien species within the study area.

ML enquired as to whether Tharisa has a MR over all farm portions, and if they own them. MM indicated that a Section 102 application was submitted to the DMRE to add additional farm portions, including farm portions which belong to Sibanye Stillwater, and a consent letter for those farm portions was submitted with the application.

ML recommended that there should be zero loss to indigenous species and that Tharisa should strive to implement an active programme for the eradication of invasive species, which should be replaced by indigenous species. MM concurred and added that one of the recommendations by the specialist is that protected species must be avoided., and if that is not possible, the relevant permits will need to be obtained to carry out a plant search and rescue (specifically for Marula - *Sclerocarya birrea subsp. caffra*).

ML asked why the sulphate levels are exceeded at TM SW02 and TM SW03. She indicated that the potential risk in Platinum Group Metals (PGM) mining and mine water management indicates that only coal and gold mines are classified as category A mines, which are acid-producing. MM indicated that it is not necessarily attributed to the operation of the mine; rather, these are boreholes that are within the monitoring programme. Between March and July 2020, higher concentrations of nitrate and sulphate were observed in the vicinity of the processing plant, west of TSF 1 and south of the East Pit. Exceedances were localised and confined to the mining area and within 500m from known waste facilities.

ML asked about mitigation or management measures which have been prescribed to ensure that there is no increase in surface water in the mining compartments. MM indicated that water will be prevented from entering the underground mining access portal by using upstream diversion berms. She added that a Section 21(j) of the National Water Act , 1998 (Act No. 36 of 1998) (NWA) for removal and discharging of water found underground for the efficient continuation of the proposed underground mining and for the safety of people.

ML enquired about the facilities for tailings disposal, if there will be construction of TSFs to store tailings from the underground workings. MM indicated that there will not be tailings generated from the underground working. Tailings are only generated from the processing plants, which are disposed of at the existing TSFs.

ML asked about the catchment within which Tharisa reports to. MM explained it is the Crocodile (West) and Marico Catchment – Limpopo Water Management Area (WMA). ML further enquired as to whether the mine presents the water quality results quarterly to the catchment management forum. MM explained that she was not certain about the water quality results being presented. During the meeting, MM indicated that Tharisa participated in a catchments management forum which is incorrect. In terms of the Tharisa's amended WUL (License Number: 03/A21K/ABCGIJ/1468), no condition stipulates for Tharisa to participate in the catchment management forum.

ML posits that Tharisa should comply with the Mine Health and Safety Act, 1996 (Act No. 29 of 1996) (MHSA), as it is a legal requirement. It not only requires that Tharisa make provisions for its employees, but it also refers to non-employees, stating that a policy should be developed to protect their health as well. Given that the communities are in close proximity to the Tharisa mine, it would be prudent to develop such a policy for non-employees. She further added that, in terms of Section 5(2) of the Act, Section 8(1) and Subsection C of the Act, *it states that the Act is mainly concerned with defining the obligations of mining owners with regards to ensuring a safe working environment. However, a general obligation rests upon every employee to identify the relevant hazards and assist with the related risks to which non-employees are exposed. Furthermore, it ensures that no employees who are directly affected by the activities of the mine are exposed to any hazards to their health and safety. To do this, the employer must establish a policy concerning the protection of non-employees who are directly affected by the activities at the mine.* MM indicated that she would establish from Tharisa if such a policy for non- employees is in place, and if not, one needs to be developed in order to comply with the Act.

ML noted from the table with projected employment opportunities that most of the highly skilled staff will be limited, and the unskilled workers will be mostly from the communities. She added that it would be great for Tharisa to consider job opportunities for the unskilled personnel or alternatively introduce skills development programmes.

MM asked for ML to go through the Closure Report and send back comments or additions to what had been suggested for ultimate discussion with Tharisa.

ML suggested that I&APs be granted access to internal and external audit reports. MM noted the suggestion for discussion with Tharisa.

4. CLOSURE

MM

Meeting ended at 12:33.



Ms. Mpho Manyabe

Managing Director: Manyabe Consultancy (Pty) Ltd

Meeting title	202308 Underground Expansion Project - Draft EIA and EMPr; and IWWMP Public Review
Attended participants	2
Start time	5/12/25, 10:58:30 AM
End time	5/12/25, 12:33:51 PM
Meeting duration	1h 35m 20s
Average attendance time	1h 35m
Name	Email Address
Mpho Manyabe	mpho@manyabeconsultancy.com
Mariette Lieferink (External)	mariette@peaorgza.onmicrosoft.com



202308 THARISA UNDERGROUND MINE PUBLIC MEETING MINUTES
VENUE: LAPOLOGANG LAPA, CONCENED ON TUESDAY, 25 APRIL 2025 FROM 14:00 TO 16:00 PM

	Name	Organisation	Email address
Attendees present:	Mpho Manyabe (MM) Romeo Mpofu (RM) Fanny Mabasa (FM) Rudzani Mabaso (RM) Bongane Nkuna (BN) Cllr. John Salang (JS) Community Members	Manyabe Consultancy (MC) MC MC MC Tharisa Minerals (Tharisa) Ward 32 Councillor	mpho@manyabeconsultancy.com romeo@manyabeconsultancy.com fannyl@manyabeconsultancy.com rudzi@manyabeconsultancy.com Bnkuna@tharisa.com cllrsalang@rustenburg.gov.za
Objectives of the meeting:	<ul style="list-style-type: none"> • Provide project background of the proposed Underground Expansion Project. • Discuss the Applications, Specialist Studies undertaken and project layout plans. • Review of the Draft EIA and EMPr Report; and the IWWMP. 		
AGENDA ITEMS			ACTION
1. WELCOME AND INTRODUCTION			JS
JS welcomed all attendees to the meeting.			
2. OBJECTIVES OF THE MEETING			BN
The objectives of the meeting are as detailed above.			
3. DISCUSSION			ALL
<p>MM reintroduced herself and provided with the objectives of the public meeting since the previous review of the Draft Scoping Report. She indicated that part of the meeting objectives is to provide with an update since the last meeting held in February 2024, as the application process is now in the Impact Assessment Phase. She further indicated that specialists were appointed to conduct investigations to evaluate and assess the impacts associated with the proposed Underground Expansion Project. She elucidated that the specialists reports will form part of the supporting documents that will be submitted to the Department of Mineral Resources and Energy (DMRE) for decision making.</p> <p>JS raised the following concerns:</p> <ul style="list-style-type: none"> • Poor attendance by the community members. • Public meetings always feature destructive brawls, preventing the community from gaining information about the project and from voicing out concerns. • The scheduled date for the public meeting is not suitable as it coincided with the month-end salaries payments, and most of the community members were intoxicated, with some members having committed to other obligations. <p>The following comments were raised by the members of the Lapologang Community, although community members' details could not be captured, as attendees refused to sign the attendance registers:</p> <ul style="list-style-type: none"> • The following comments were raised by the members of the Lapologang Community, although community members' details could not be captured, as attendees refused to sign the attendance registers: 			

- The EAP must conduct a site visit around the area to observe the impacts as a result of the current opencast mining.
- The majority of the youth is unemployed primarily because they do not have the necessary skills nor do they meet the minimum requirements to be employed by the mine.
- The mine employs personnel outside of the Lapologang Community instead of prioritising the locals.
- The mine should look into introducing training programmes to equip the youth with the necessary skills which would qualify them to work at the mine.
- There is no employment equity at the mine as some political figures tend to interfere with the employment selection process.
- The community is reluctant to voice out their concerns on important subject matters as they fear it might jeopardise their chances of getting employed by the mine.
- The mine is not supportive of the local businesses. The community members do meet the business operating requirements, but they however not given opportunities by the mine.
- There are no street lights within the community to aid visibility at night which has resulted in the perpetuation of crime in the area, especially during night time.
- The mine pledged to relocate the community and that has not been fulfilled to date.
- Generation of dust due to blasting activities.
- Bad network reception posing difficulty in contacting emergency services e.g. ambulance services.
- The activities of the mine are damaging (cracking) the houses and grave sites within the vicinity of the mine.
- Piet Retief School needs to be relocated as it is dilapidated and poses safety risks to the learners and teachers. The school is impacted by noise and dust.
- Roads are in a bad state due to frequent use by heavy vehicles from the mine.
- Flooding during heavy rainfalls which is aggravated by poor stormwater management in the area which has resulted in some residential properties being damaged

BN acknowledged all issues raised by the community members and indicated the need for ongoing dialogue and potential solutions. BN also stated that the issues will be responded to in due course. Tharisa further indicated that they take note of the concerns raised and indicated that the responses will be communicated through the existing community structures/forum.

4. CLOSURE

BN

- Meeting ended at 17:30.



Ms. Mpho Manyabe

Managing Director: Manyabe Consultancy (Pty) Ltd