

# NON-TECHNICAL SUMMARY

## Kruidfontein MRA & Triple Crown Project

### Scoping Report

### 1. INTRODUCTION

Sedibelo Resources Limited (SRL) (previously known as Sedibelo Platinum Mines Limited), through its South African operating subsidiaries Pilanesberg Platinum Mines (Pty) Ltd (PPM), Itereleng Bakgatla Mineral Resources (Pty) Ltd (IBMR), Richtrau No. 123 (Pty) Ltd and C&L Mining and Resources (Pty) Ltd (C&L), has mining interests over various properties to the northwest and north of the Pilanesberg National Park. In 2022, IBMR ceded the Mining Right for the Wilgespruit Project to PPM.

This Environmental Impact Assessment (EIA) process consists of two parallel processes, a Mining Right Application (MRA) for the Kruidfontein Project and the consolidation of the Kruidfontein Mining Right (MR) (should it be approved by the North West Department of Minerals and Energy - DMRE) and the approved Magazynskraal MR into the approved Wilgespruit Project MR (the Triple Crown Project) (Figures 1 and 2).

Once this Application is approved, all environmental impacts associated with the mining areas for the Wilgespruit, Magazynskraal and Kruidfontein Projects will be authorised and managed in terms of the amended Wilgespruit Project Environmental Management Programme (EMPr). Should the Kruidfontein MRA not be approved by the DMRE, then that element of the Triple Crown Project would be excluded. The proposed Triple Crown Project site is located northwest of the Pilanesberg National Park within the Moses Kotane Local Municipality (MKLM) in the North West Province of South Africa (Figure 1).

This Scoping Report, the EIA Report and the Public Participation Process (PPP) relating to the Triple Crown Project will be integrated. The objective of this Environmental Authorisation (EA) application is in support of creating “one mine”. The total extent of the Triple Crown Project area will be equivalent to 16 927 ha. Proposed changes to the adjacent approved PPM mining operation are dealt with under a separate application process. SLR Consulting (South Africa) (Pty) Ltd (SLR) was appointed as the Environmental Assessment Practitioner (EAP) to undertake the regulatory EIA and associated EMPr Amendment process for the proposed Triple Crown Project. In this regard, PPM intends to lodge an application for EA to the DMRE in terms of the National Environmental Management Act (No. 107 of 1998) (NEMA), the Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA) and other relevant legislation.

This Non-Technical Summary (NTS) provides a summary of the Scoping Report (SR) prepared for the Kruidfontein MRA and the Triple Crown Project. The SR will be submitted to the North West DMRE for decision making. The NTS is available in English and Setswana and is being distributed to stakeholders as a basis for notification and comment.

### 2. AFFECTED PROPERTIES

The proposed projects and the associated properties to be affected for each project are listed below:

- Kruidfontein Project (Kruidfontein MRA applied for by C&L):
- Portion 1 and 2 and Remainder of the Farm Middelkuil 8 JQ
  - Farm Kruidfontein 40 JQ
  - Portion 1, 2 and Remainder of the Farm Modderkuil 39 JQ

Magazynskraal Project (Magazynskraal Mining Right held by Richtrau):

- Farm Magazynskraal 3 JQ

Wilgespruit Project (Wilgespruit Mining Right held by PPM):

- Farm Wilgespruit 2 JQ
- A portion of the Farm Legkraal 45 JQ
- A portion of the Farm Koedoesfontein 42 JQ
- A portion of Portion 1 of the Farm Rooderand 46 JQ

### 3. HOW CAN YOU GET INVOLVED?

The SR is currently available for review and comment. The SR outlines the scoping process undertaken to date including public participation, provides a description of the proposed Project.

#### You can be involved by reviewing the NTS or Report:

Available at the following locations:

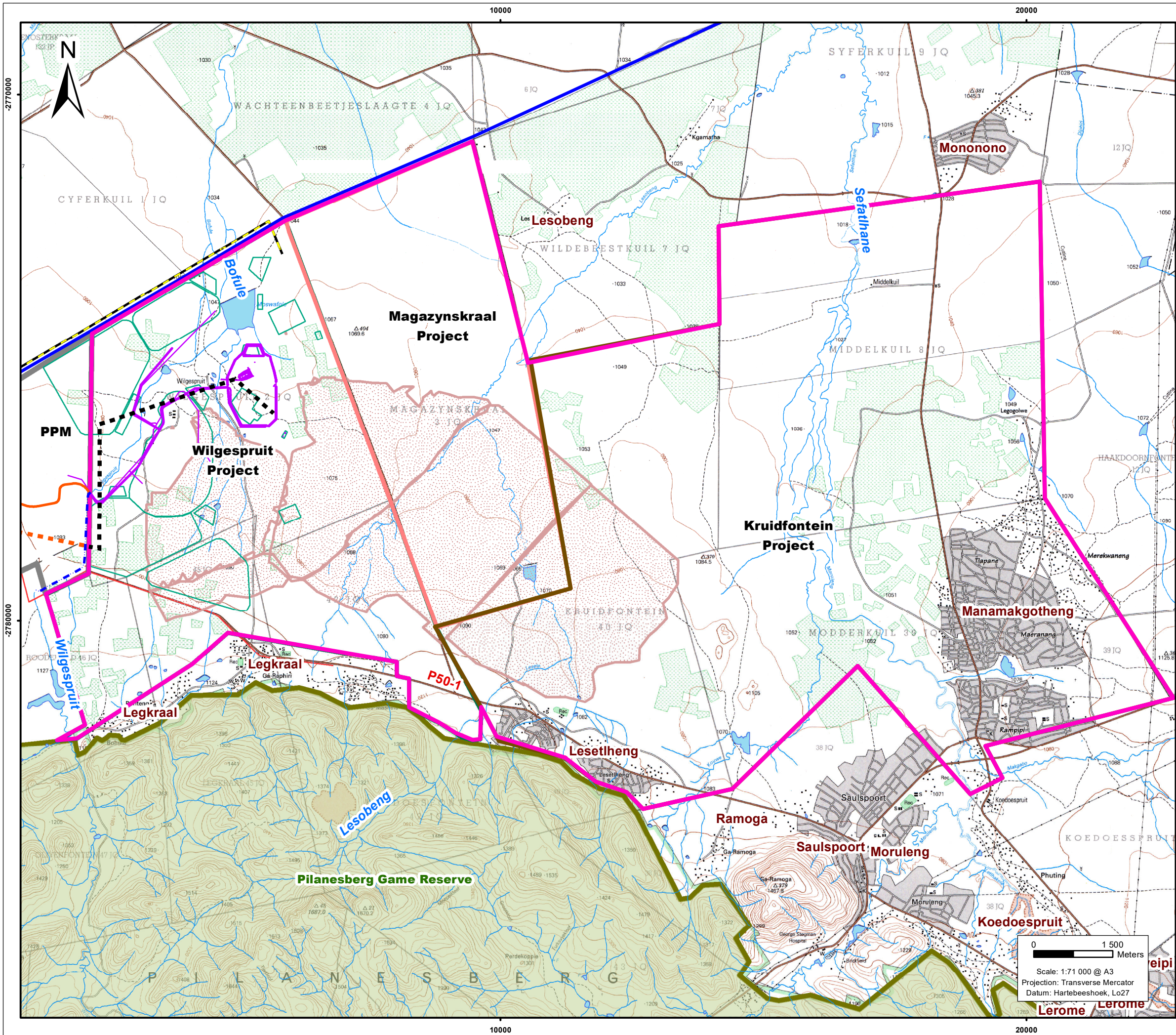
- The full report at [mts-engage.co.za/sedibelo](https://mts-engage.co.za/sedibelo) accessible from internet-capable mobile phones without data charges.
- The full report is also available at: <https://slrconsulting.com/public-documents>.

Hard copies available at the following locations:

Location	Address
Moses Kotane Local Municipality	Stand no 935, Station Road, Unit 3, Mogwase Shopping Complex, MOGWASE.
Mogwase Library	933 Old Railway Road, 0314 Mogwase, South Africa
Segakwana Dikweipi Welgeval Modderkuil Magong Mothlabe	Magalane Nswana-Le-Metsing Nqweding Legkraal Moruleng

- Sending comments, questions or concerns to SLR at the contact details below.

**Please send your comments to:**  
**Michael Nkomo**  
**Cell: 074 582 4384**  
**Website : mts-engage.co.za/sedibelo**  
**Comments to reach MTS by 7 September 2022**



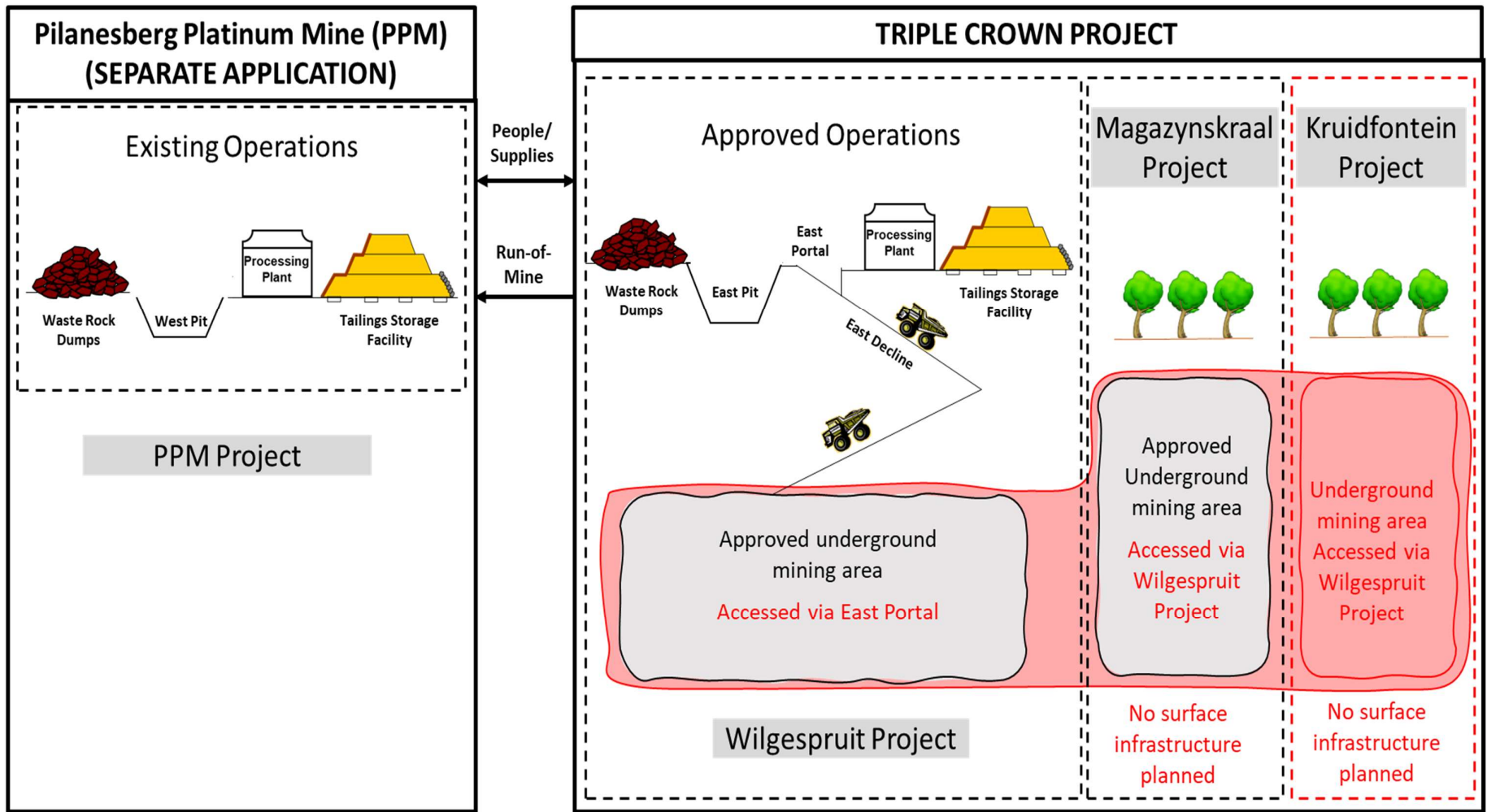
- Legend**
- Roads
  - Powerline
  - Watercourses
  - Dams
  - - - Wilgespruit River Diversion
  - Magalies Water Pipeline
  - - - Pipeline from Tuschenkomst Reservoir to Sedibelo / Magazynskraal Mining Projects
  - Pilanesberg National Park
- Mining Operations**
- Triple Crown Project Area
  - Kruidfontein Project MRA
  - Magazynskraal Project
  - Wilgespruit Project
  - Approved Wilgespruit Project Infrastructure
  - Proposed Wilgespruit Project Infrastructure
  - - - Proposed Ropecon
  - Proposed Underground Mining Area
  - Pilanesberg Platinum Mine

Kruidfontein MRA and Triple Crown Project

**Figure 1**  
Local Setting



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Existing/ approved operations

Proposed Amendments

Figure 2: Proposed PPM and Triple Crown Applications

#### 4. PROJECT DESCRIPTION

In support of the continuation of approved mining operations at the Wilgespruit Project, the following main activities are proposed:

##### Kruidfontein Project

Underground mining would be undertaken with access from underground from the adjacent Magazynskraal mining area. No surface infrastructure is proposed at this stage at the Kruidfontein Project. All services and facilities needed to support the underground mining activities will be provided from the Wilgespruit Project.

##### Magazynskraal Project

The mining right over this area has been granted, however, no development has taken place at Magazynskraal to date. The proposed plan for the Magazynskraal Project is to access the underground ore reserves from the East Portal at the Wilgespruit Project. No surface infrastructure is proposed at this stage at the Magazynskraal Project. All services and facilities needed to support the underground mining activities will be provided from the approved Wilgespruit Project.

##### Wilgespruit Project

The following is proposed at the Wilgespruit Project:

- Reconfiguration of the decline shaft complex (East Portal) within the approved shaft complex footprint;
- Rope conveyor from the East Portal to the PPM run of mine (ROM) pad;
- Use of internal haul roads to transport ROM from the East Portal to the existing ROM pad at PPM until the rope conveyor is in place;
- Use of the PPM mineral processing facilities to process ore from the Wilgespruit Project; and
- Revised underground mine plan to support the mining of the adjacent mining areas using approved infrastructure at the Wilgespruit Project.

Once steady state mining is achieved (after approximately 6 years), a RopeCon ore and waste transport system is proposed to be installed from the East Portal to the PPM concentrator plant's ROM Pad at PPM. A typical RopeCon is shown in Figure 3. The proposed alignment for the RopeCon is shown in Figure 1. The tower bases of the RopeCon are anticipated to be positioned within areas approved for surface disturbance as part of the approved Wilgespruit Project operations. The surface conveyor is proposed to be ~6 000 m in length and will have ~6 towers (to be finalised) each with a fenced footprint area of 400 m<sup>2</sup>.



Figure 3. Typical RopeCon Section

##### The Triple Crown Project

The aim is to consolidate and operate a single mining operation under the Wilgespruit Project's amended EMPr. The extent of the updated underground mine layout can be seen in Figure 4 showing the progression and depth of the underground workings from the west (on the farm Wilgespruit) to the east (at the Kruidfontein Project). Underground mining on the farm Wilgespruit starts at an average depth of 250 m below ground level (bgl) increasing to a depth of approximately 1 000 m bgl at the Magazynskraal Project area and 2 000 m bgl at the Kruidfontein Project area. All ore would be removed from underground via the approved facilities at the Wilgespruit Project and transported to the PPM mineral processing facilities.

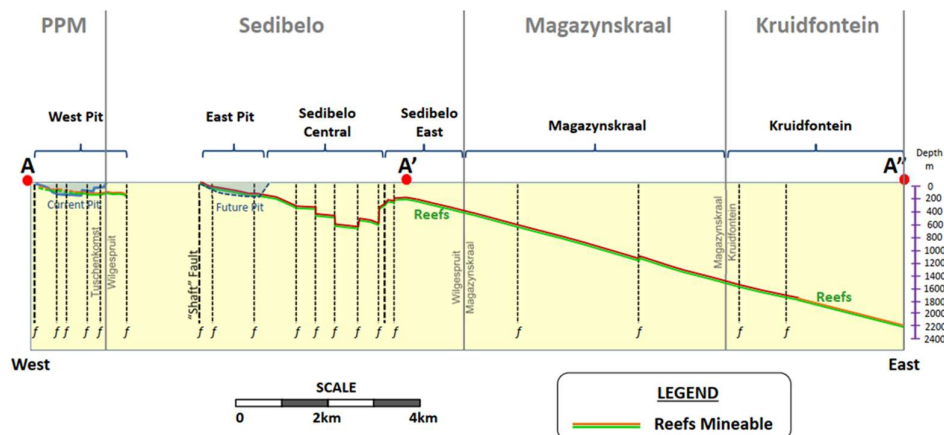


Figure 4. Cross Section Showing Underground Mining Across the Triple Crown Projects

## 5. POLICY AND LEGISLATIVE CONTEXT

Prior to the commencement of the proposed Triple Crown Project, Environmental Authorisations are required from the following competent authorities:

- Mining Right Application from the DMRE in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) and Regulations, as amended for the Kruidfontein Project.
- Environmental Authorisation from the DMRE in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and regulations (as amended).
- In terms of Section 102 of the MPRDA, an EMPr may also not be amended or varied without the written consent of the Minister of the DMRE.
- An amended Water Use Licence (WUL) from the Department of Water and Sanitation (DWS) in terms of the National Water Act, 1998 (No. 36 of 1998) (NWA).

A Scoping and EIA process conducted in terms of the EIA Regulations (as amended) is required to inform the DMRE's decision making. The Scoping Report considers the potential issues relating to the proposed Kruidfontein MRA and Triple Crown Project and identifies issues which are potentially significant. It also outlines how the EIA will deal with each of the issues, providing the scope for further studies, as required.

## 6. NEED & DESIRABILITY OF THE PROJECT

The key components of the Need and Desirability Guideline are:

### Ecological Sustainable Development and Use of Natural Resources

Due to the nature of mining projects, impacts on biodiversity and the role that it plays in the ecosystem are inevitable. The proposed project footprint is located within the Dwaalboom Thornveld and the Central Sandy Bushveld which are both considered Least Concern (LC) ecosystems and are currently Moderately Protected.

According to the North West Biodiversity Sector Plan (2015) (NWBSP), the MRA and associated focus area fall within both a Critical Biodiversity Area (CBA2) and an Ecological Support Area (ESA2). Due to the potential occurrence of floral and faunal species of conservation concern (SCC) permits may be required to move or destroy any SCC if identified on site.

In addition, according to the National River Freshwater Ecosystem Priority Areas (NFEPA) database, numerous artificial wetlands are located within the study area. These range from channelled valley bottom wetlands, unchannelled valley bottom wetlands and wetland flats. These wetland features are, however, indicated as heavily to critically modified due to current activities in the area.

As per the approved EMPr for the Wilgespruit Project, measures to avoid or minimise potential impacts on terrestrial biodiversity, aquatic habitat and soil resources must be implemented and will continue to be implemented. In addition, as part of this Triple Crown Consolidation Project no additional surface area will be impacted.

### Promoting Justifiable Economic and Social Development

#### National Policy and Planning Framework

South Africa's mining and minerals industry is backed by a vast and diversified resource base, which since its inception, has been the cornerstone of South Africa's economy and at the forefront of developmental opportunities. A key intent of the Minerals and Mining Policy of South Africa, 1998 states that government will: "Promote exploration and investment leading to increased mining output and employment". The proposed project is in alignment with the policy as the proposed expansion into underground resources will contribute directly to the mining and minerals sector through the provision of ongoing job and procurement opportunities.

#### Regional and Local Policy and Planning Framework

As part of the North West Provincial Spatial Development Framework (PSDF), 2016 five strategic objectives have been identified. *Strategic Objective 4* states "Support economic development and job creation guiding the spatial development pattern of the North West" relates to the Triple Crown Project as the proposed project would support economic development through the provision of job and procurement opportunities within the region. Good environmental management on the site also supports Strategic Objective 2.

## 7. PUBLIC PARTICIPATION UNDERTAKEN TO DATE

The following public participation has been undertaken so far:

- Pre-application meeting with the DMRE and approval of a Stakeholder Engagement Plan.
- Focussed Meetings with the Commenting Authorities, Tribal Council and Ward Councillors.
- Development and continuous update of an Interested and Affected Party (I&AP) database;
- Notification to I&APs in June 2021;
- Distribution of a Background Information Document (BID), in English and Setswana, in November 2021;
- Publication of advertisements in the Rustenburg Herald and the Platinum weekly for the edition dated 13 May 2022;
- Erection of site notices at various locations in April 2022; and

Public meetings with affected communities were held on the 22 and 29 November 2021.

The Draft Scoping Report is currently out for the regulated 30 day public comment period from 8 August to 7 September 2022.

## 8. ALTERNATIVES ANALYSIS

Due to the minor amendments to the footprint that are proposed as part of the Triple Crown Project the preferred alternative is to keep any amendments within the approved footprint of the Wilgespruit Project, thereby minimising any additional impacts.

In terms of ROM transport from the East Portal to the PPM ROM pad, a mix of trucking using new haul roads and the installation of the RopeCon once steady state mining is achieved (after approximately 6 years) was decided on due to minimal additional clearing and limited emissions from the haul trucks. Additional recommendations from specialist studies will be considered as part of the EIA Phase.

## 9. WHAT ARE THE KEY ENVIRONMENTAL AND SOCIAL SENSITIVITIES?

The (1) Physical, (2) Biological and (3) Social status of the potentially affected environment is being investigated in order to assess impacts. The SR presents the findings of the investigations undertaken to date, a summary of these findings is in the following sections.

### 9.1 Physical Environment

The Triple Crown Project falls within the Highveld Climatic Zone where 85% of the mean annual precipitation falls during summer thunderstorms. The thunderstorms generally occur every three to four days in summer. Temperatures in this climatic zone are generally mild, but low minima can be experienced in winter due to clear night skies. The prevailing wind direction is from the east, however, strong winds can be experienced during the day from the east and north, with a decrease in the wind speed during the night-time.

In terms of geology, the Triple Crown Project falls within the Bushveld Complex (BC). The BC is centred on the Limpopo Province and extends into the Mpumalanga, North West and Gauteng Provinces in South Africa. It is one of three layered igneous complexes in the world where Platinum Group Elements are currently mined as a primary product. In the area the topography slopes gently towards the north-east and topographic elevation varies between 1 060 to 1 100 metres above sea level (masl). The study area is relatively flat at an average elevation of 1 080 masl.

Groundwater in the area is influenced by the non-perennial Wilgespruit, as well as the Motlhabe, Lesele, Bofule, and Lesobeng drainages. The groundwater flows

from the southwest towards the northeast, away from the Pilanesberg complex. Boreholes are mainly distributed along perennial and non-perennial streams, local dykes and local faults which are mainly concentrated on the western side of the Pilanesberg and the existing PPM. Boreholes within the area are largely used for monitoring and mining purposes as well as domestic and livestock watering. There are four perennial springs located approximately 4km southwest of the project area.

The proposed Triple Crown Project area falls within the Crocodile West and Marico Water Management Area (WMA) with the major river catchment being the Crocodile River. The project falls within within quaternary catchment A24D and A24E. The Wilgespruit River which traverses the project area originates south of the project area and flows in a northerly and north easterly direction towards the Bofule River. Surface water use by the communities locally is not an option due to the irregular flow patterns and the elevated levels of naturally occurring fluoride.

### 9.2 Biological Environment

The study area is situated within the Central Bushveld Bioregion of the Savanna Biome. Two main vegetation types are found in the area: Dwaalboom Thornveld and the Central Sandy Bushveld.

Both the Dwaalboom Thornveld and the Central Sandy Bushveld are of LC. LC ecosystems have not experienced a significant loss of natural habitat or deterioration in condition.

Several faunal SCC have distribution ranges which encompass the study area, however, it is considered unlikely that any faunal SCC will permanently utilise the study area, due to the location of the study area within an existing mine setting and the limited habitat and food resources necessary to support faunal SCC. The study area is located within a 10km radius of the Pilanesberg National Park Bird Area.

A desktop analysis established that the study area has a high terrestrial sensitivity which is likely triggered by several attributes of the area which include a CBA2, ESA2, freshwater ecosystem priority area quinary catchments, focus areas for land-based protected areas expansion and South African Protected Areas. As noted previously, however, the area is currently an operating mining project under an approved EMP and proposed development will be undertaken within this approved footprint.

According to the NFEPA database, five rivers traverse the study area. These are the Wilgespruit, Sefathlane, Lesobeng, Kolobeng and Bofule Rivers. The Wilgespruit has been diverted by historic mining activities and is therefore no longer in a completely natural state. The Lesobeng River within the Magazynskraal Project, the Sefathlane River within the Kruidfontein Project area

and the Kolobeng River situated approximately 6.7 km north-west of the investigation area are all classified under NFEPA as moderately modified. In addition, numerous artificial wetlands that are located within the study area and are indicated as heavily to critically modified.

The land capability of the soils within the Triple Crown Project area is considered as marginal potential arable land and the livestock grazing capacity potential is considered not ideal for commercial grazing. A sensitivity map for the Triple Crown Project is included in Figure 5.

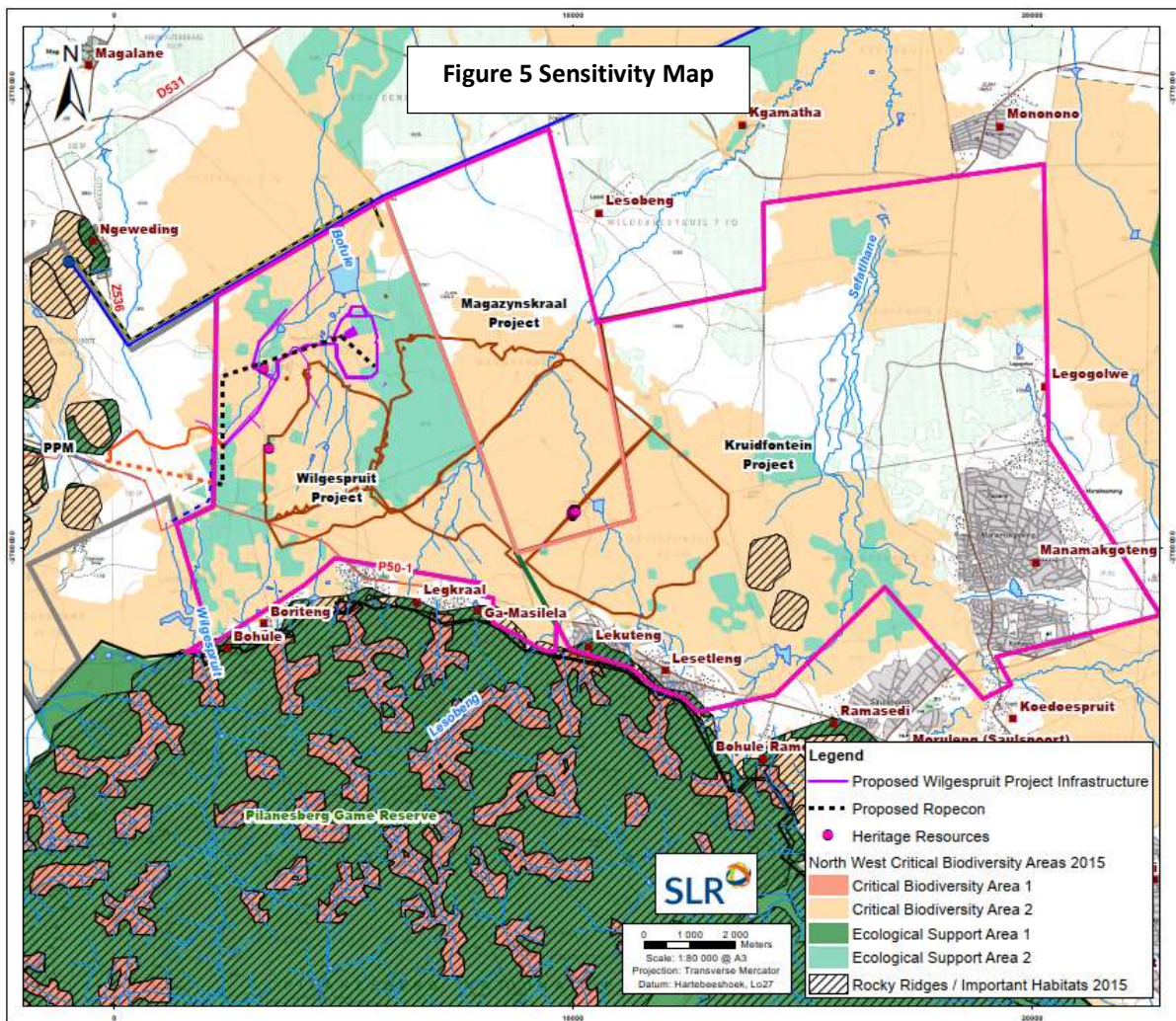
### 9.3 Socio-economic Environment

Approximately 65% of North West residents live in rural areas, and the majority of residents speak Setswana as a first language, with English primarily spoken as second language. Mahikeng is the province's capital, and other larger towns include Brits, Klerksdorp, Lichtenburg, Potchefstroom and Rustenburg.

The province has four districts, each administering a number of local municipalities. The Triple Crown Project falls within the Bojanala Platinum District and MKLM.

The MKLM covers an area of approximately 5 719 km<sup>2</sup> and is mostly rural in nature, comprising 107 villages and the two towns of Mogwase and Madikwe.

The economy of MKLM is mainly characterized by mining, tourism and agriculture, and two of the province's main tourist attractions, Pilanesberg and Sun City, are located in this municipality. According to the MKLM Final IDP/Budget for the Financial Year 2017/2022, the unemployment rate in the municipality is 51%, which is a significant increase from the 2011 rate, and also significantly higher than the national rate of 30.1%. Although the average yearly income has increased, the municipality still experiences high levels of poverty.



## 8. POTENTIAL ENVIRONMENTAL & SOCIAL IMPACTS IDENTIFIED AND PLAN OF STUDY

This section provides a list of high level potential impacts on the biophysical, heritage/cultural and socio-economic aspects that have been identified in respect of each of the Triple Crown Project for each of the project phases. A full assessment and rating of these impacts will be undertaken during the EIA phase and mitigation measures will be included to feed into the Environmental Management Programme (EMPr).

**Table 1. Potential identified Impacts and Associated Specialist Input**

Potential Impact	Proposed Specialist Study	Specialist Details	Unmitigated Significance	Mitigated Significance
Reduced groundwater quantity and quality, affecting downstream and third-party users	Groundwater Study	Exigo Sustainability (Pty) Ltd	Medium Negative	Very Low Negative
Reduced groundwater quantity due to dewatering – impact on 3rd party groundwater users			Medium Negative	Low Negative
Reduced surface water quantity and quality, affecting downstream and third-party users			Surface Water Study	Very Low Negative
Physical loss or general disturbance of terrestrial biodiversity	Terrestrial Ecology Study	Scientific Terrestrial Services	Low Negative	Very Low Negative
Loss or disturbance of aquatic ecosystems	Aquatic Biodiversity Study	Scientific Aquatic Resources	Medium Negative	Low Negative
Loss of soil and land capability through contamination and physical disturbance	Soil, Land Capability and Agricultural Potential Study	Zimpane Research Collaborative	Low Negative	Very Low Negative
Increase in ambient noise levels	Noise Impact Study	Airshed Planning Professionals	Low Negative	Very Low Negative
Reduced air quality	Air Quality Impact Study		Low Negative	Low – Medium Negative
Negative visual impacts due to the proposed development	Visual Impact Study	Graham Young Landscape Architect	Low Negative	Very Low Negative
Reduced road safety due to project related traffic	Traffic Impact Study	Siyazi Gauteng Consulting Services (Pty) Ltd	Very Low Negative	Very Low Negative
Positive socio-economic changes due to increased investment and job creation	Socio-economic Study	Hilda Bezuidenhout	Medium Positive	High Positive
Negative socio-economic impacts due to influx and reduced security			Medium Negative	Low Negative
Loss of or damage to cultural heritage and/or paleontological resources	Cultural Heritage and Palaeontological Study	Julius Pistorius (Heritage) Marion Bamford (Palaeontology)	Medium Negative	Very Low Negative