

BACKGROUND INFORMATION DOCUMENT

VOLSPRUIT MINING COMPANY (PTY) LTD

**INTEGRATED APPLICATION FOR A WATER USE LICENCE, A
WASTE MANAGEMENT LICENCE AND AN ENVIRONMENTAL
AUTHORISATION ASSOCIATED WITH THE PROPOSED S102
AMENDMENT OF AN EXISTING MINING RIGHT HELD BY VOLSPRUIT
MINING COMPANY (PTY) LTD, MOGALAKWENA LOCAL
MUNICIPALITY, LIMPOPO PROVINCE**

**DMRE REF: LP30/5/2/2/1/10068MR
EMPr REF: LP30/5/2/2/1/10068EM**

JULY 2024



Source: WCS, 2024

Public Participation Office
E-mail: info@solarays.co.za
Cell: 076 677 1235
P O Box 71279, Bryanston, 2021

Link to public document:
www.ecopartners.co.za



1. INTRODUCTION

The purpose of this document is to provide interested and affected parties (I&APs) with background information related to an integrated application for a Water Use Licence (WUL), a Waste Management Licence (WML), and an Environmental Authorisation (EA). The application is associated with the proposed Section 102 amendment of an existing mining right held by Volspruit Mining Company (Pty) Ltd (the Applicant) in the Mogalakwena Local Municipality, Limpopo Province. The primary aim of this Background Information Document (BID) is to provide sufficient detail of the intended operation to enable I&APs to assess what impact the activities might have on them or on the use of their land.

The BID contains the following information:

- A brief project description, location and site plan of the proposed project.
- Details of the applicable regulatory requirements.
- List of activities to be authorised. Scale and extent of activities to be authorised. Duration of the activity.
- Typical impacts of activities to be authorised.
- Contact details of the Environmental Assessment Practitioner (EAP).
- Purpose of the proposed project.
- Details of where documents for public comment can be obtained and how to register as I&APs, object, interact with the project team and provide comment on the project. Date by when comments, concerns and objections must be submitted.



The Applicant appointed EcoPartners (Pty) Ltd (EcoPartners) as the independent Environmental Assessment Practitioner (EAP) to conduct a Scoping and Environmental Impact Report (EIR) process required as part of the EA and WML Applications. Kara Nawa Environmental Solutions was appointed to undertake the Water Use Licence Application (WULA) and the GN 704 Exemption Application. Solarys (Pty) Ltd was appointed by EcoPartners to conduct the public participation process required as part of the respective processes.

2. PROJECT DESCRIPTION

The Applicant is the holder of a mining right over the farms Volspruit 326 KR and Portion 2 of the farm Zoetveld 294 KR situated in Mogalakwena Local Municipality, Limpopo Province (Figure 1). The approved mining right area covers 1335,28 hectares (ha). The minerals approved for mining include Platinum Group Metals, gold, nickel and copper. The mining right (LP30/5/2/2/1/10068MR) came into effect on 4 October 2017, the date on which the Environmental Management Programme (EMPr) (LP30/5/2/2/1/10068EM) was approved in terms of Section 39(4) of the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA). The mining right was awarded for a period of 30 years (2017 to 2047). No mining has commenced as yet.

The farm portions affected by the current mining right and proposed extension area and amendment are Volspruit 326 KR and Portion 2 of the farm Zoetveld 294 KR, the Portions RE of 4, 5, 18, 27 (of 4), 30 (of 4), 52 (of 4), 53 (of 4), 54 (of 4) and the Remaining Extent of the Farm Grasvally 293 KR and portions 1, 3, 4 and the Remaining Extent of the farm Zoetveld 294 KR (Figure 1). The extended footprint required for the proposed activities is 2746,79 ha.

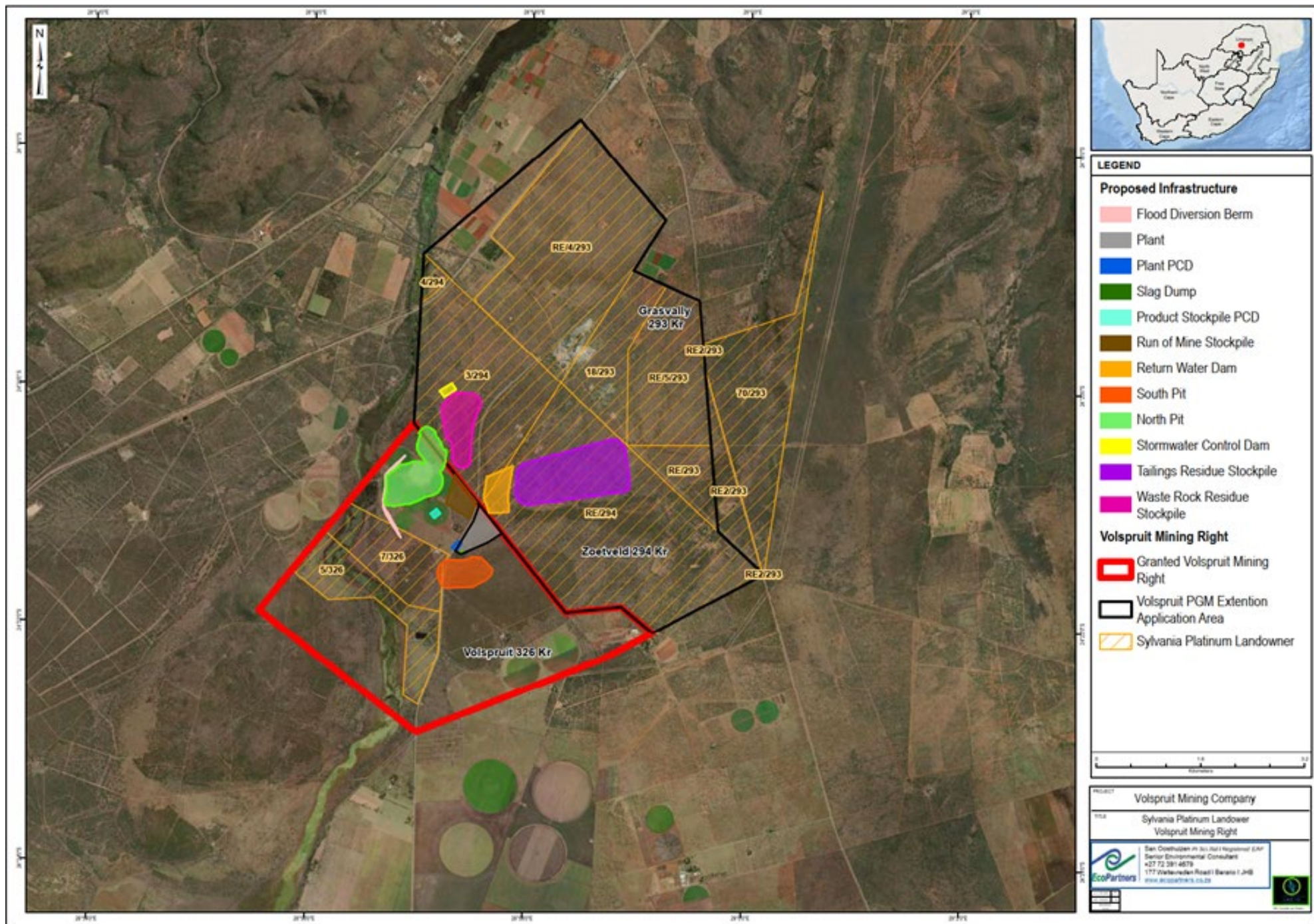


Figure 1: Locality Map

After issuing of the mining right, and based on various optimisation and environmental studies, the Applicant changed the layout and location of the waste rock residue stockpile (WRRS), and the layout of the north pit and the tailings residue stockpile (TRS) from what was previously approved. The eastern boundary of the north pit was modified as a part of the mine's optimisation studies. The western boundary of the north pit was moved further away from an adjacent wetland as an extra mitigation step, in accordance with the most recent delineation of the wetland. The proposed WRRS will comprise the overburden or natural rock from the area (waste rock) removed to access the mineral containing rock (ore) which will be processed for recovery of the saleable products. The TRS on Volspruit mine will comprise the left-over material after recovery of minerals (crushed and treated through the mineral recovery plant), commonly referred to as tailings.

Figure 2 illustrates the proposed change to the north pit layout to include a small additional area that was previously owned by a third party.

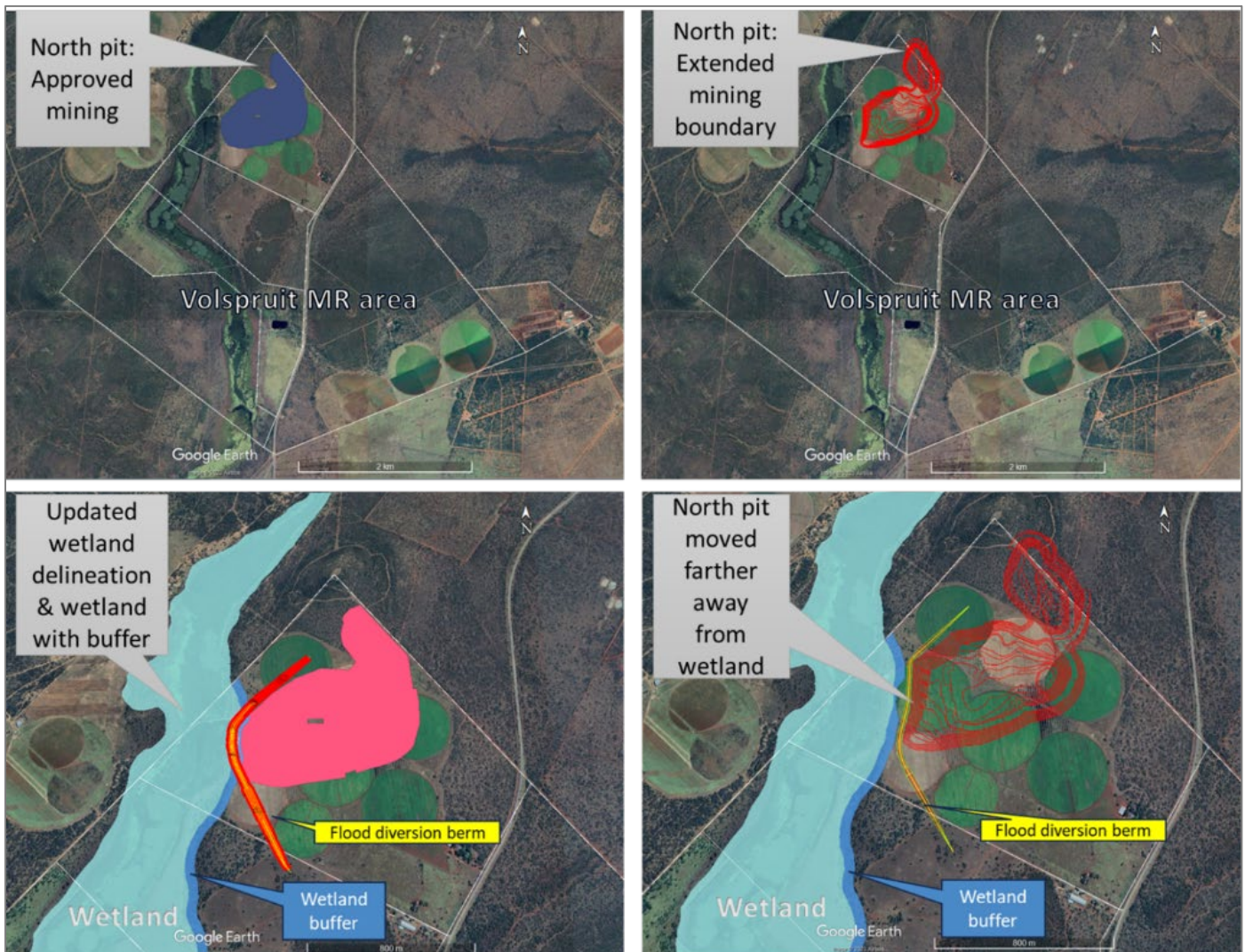


Figure 2: Proposed change in north pit layout

Source: Google Earth Imagery & EcoElementum Design Drawings, 2021 & 2023

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The new layout for the WRRS and the proposed new layout and location of the TRS site differ from the sites demarcated in the approved Environmental Management Programme (EMPr) of the Volspruit mine (Figure 3).

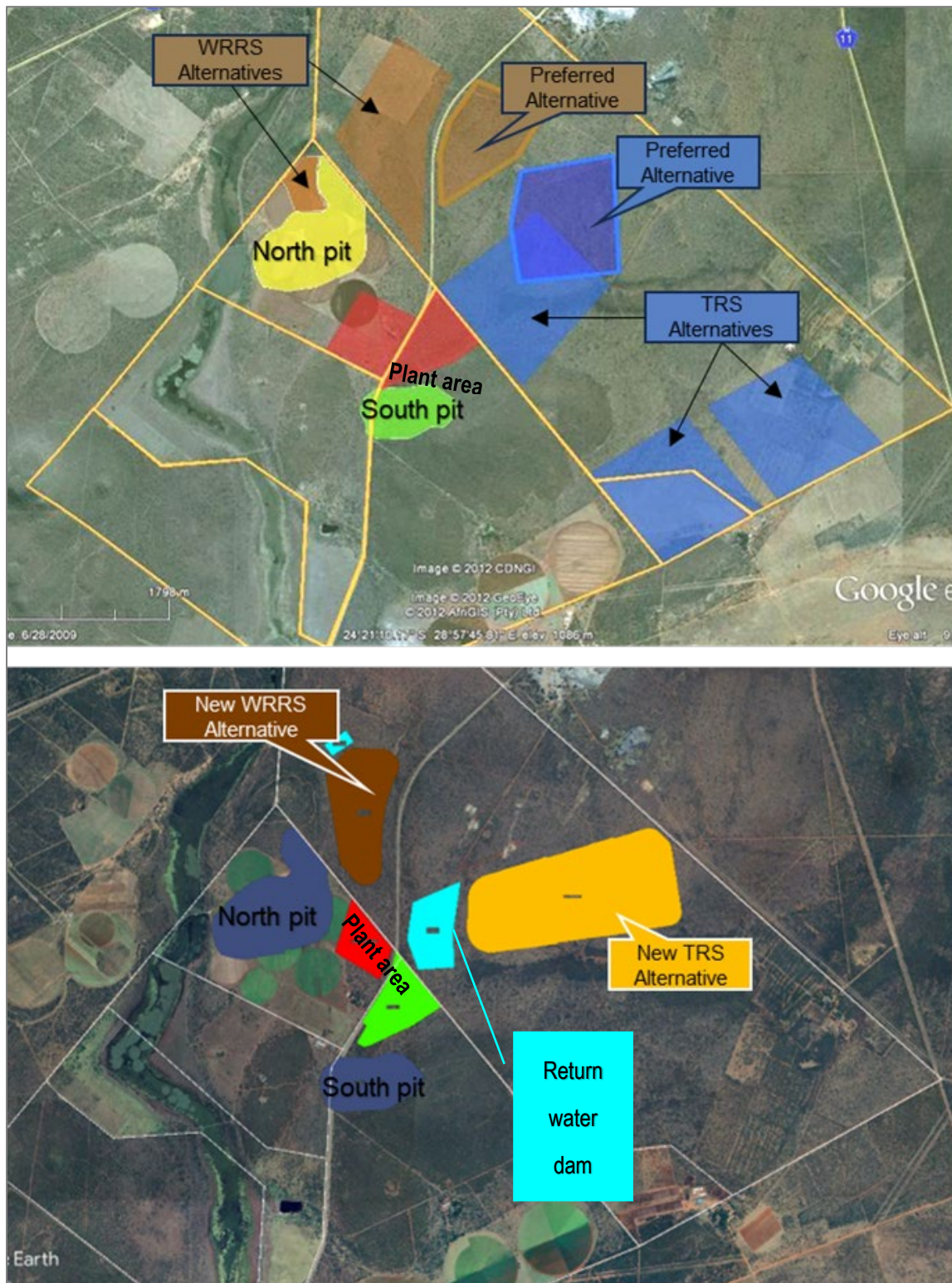


Figure 3: Comparison between the areas demarcated in the approved EMPr (top image) and the new alternative areas proposed (bottom image)

Source: EScience, Volspruit Environmental Management Programme, 2014 & Applicant, 2022

3. REGULATORY REQUIREMENTS

3.1 APPROVALS REQUIRED FROM THE DEPARTMENT OF MINERAL RESOURCES

Approvals required from the Department of Mineral Resources and Energy (DMRE) prior to commencement of mining include the following:

- An amendment of the existing Mining Right in terms of Section 102 the MPRDA to include the additional area needed for optimisation (see area outlined in Figure 1).
- Environmental Authorisation (EA) in terms of the National Environmental Management Act 107 of 1998 (NEMA) and conditions included in the approved EMPr. An EA will be required prior to commencement of activities listed in the Environmental Impact Assessment Regulations Listing Notice 1 of 2014 (as amended) (Listing Notice 1); and Environmental Impact Assessment Regulations Listing Notice 3 of 2014 (as amended), (Listing Notice 3).¹ The various Listed Activities are stipulated in Table 1.
- A Waste Management License (WML) in terms of the National Environmental Management: Waste Act 59 of 2008 (NEMWA) and GN 921 published in terms of the NEMWA prior to the establishment of the waste rock residue stockpile and the tailings residue stockpile.² Table 2 details the applicable NEMWA listed activities.

Table 1: NEMA Listed Activities

NEMA Listed Activity	Applicability of Activity
Listing Notice 1, Listed Activity 1 The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more, excluding where such development of facilities or infrastructure is for photovoltaic installations and occurs — (a) within an urban area; or (b) on existing infrastructure.	A back-up power supply will be provided for. Renewable energy sources (e.g. solar) will be used.
Listing Notice 1, Listed Activity 19 The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse; but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.	Precautionary principle applied to include the activity which could be applicable during the construction of the flood protection berm. Currently there is a farm dam, and crossings present within the watercourse. The structures were not constructed by the Applicant. Precautionary principle has been applied to include the activity should the competent authority require the removal of certain structures from within the watercourse
Listing Notice 1, Listed Activity 21D Any activity including the operation of that activity which requires an amendment or variation to a right or permit in terms of section 102 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity contained in this Listing Notice or in Listing Notice 3 of 2014, required for such amendment.	An application for an amendment of the mining right has been submitted in terms of section 102 of the Mineral and Petroleum Resources Development Act to extent the PGM mining right area.

¹ Environmental Impact Assessment Regulations Listing Notice 1 of 2014, GN R983 published in GG 38282 of 4 December 2014 (as amended); and Environmental Impact Assessment Regulations Listing Notice 3 of 2014, GN R985 published in GG 38282 of 4 December 2014 (as amended).

² List of waste management activities that have, or are likely to have, a detrimental effect on the environment GN 921 published in GG 37083 of 29 November 2013 (as amended).

NEMA Listed Activity	Applicability of Activity
Listing Notice 1, Listed Activity 25 The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.	A waste water treatment will be required for the treatment of sewerage and water treatment plant for treatment of water prior to release of water.
Listing Notice 3, Listed Activity 2 The development of reservoirs, Excluding dams, with a capacity of more than 250 cubic metres. e. Limpopo ii. Outside urban areas: (dd) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;	Listing Notice 3 activities are triggered because most of the site has been classified as a Critical Biodiversity Area in terms of the Limpopo Conservation Plan as updated for the area through the Waterberg District Bioregional Plan. A water reservoir will be required to supply drinking water.
Listing Notice 3, Listed Activity 3 The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast or tower— (a) is to be placed on a site not previously used for this purpose; and (b) will exceed 15 metres in height— e. Limpopo i. Outside urban areas: (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;	To ensure effective communication the development of a cell phone tower has been provided for.
Listing Notice 3, Listed Activity 4 The development of a road wider than 4 metres with a reserve less than 13,5 metres. e. Limpopo i Outside urban areas: (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;	A road diversion will be required around the south pit. Internal roads may also need upgrade.
Listing Notice 3, Listed Activity 10 The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres. e. Limpopo i. All areas.	Fuel and chemicals will be stored and used on the site.
Listing Notice 3, Listed Activity 12 The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. e. Limpopo ii. Within critical biodiversity areas identified in bioregional plans;	The clearance of indigenous vegetation will be required for the development (e.g. for the waste rock residue stockpile, the tailings storage facility, the south pit, etc.)
Listing Notice 3, Listed Activity 14 The development of— (i) dams or weirs, where the dam or weir, including Infrastructure and water surface area exceeds 10 square metres; or	This activity was included prior to the amendment which resulted in the flood protection berm to be located 50 m away from the wetland edge.

NEMA Listed Activity	Applicability of Activity
(ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour. e. Limpopo i Outside urban areas: (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;	
Listing Notice 3, Listed Activity 18 The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre e. Limpopo i Outside urban areas: (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans	Internal roads will need to be upgraded to cater for transport of ore and mining equipment.

Table 2: NEMWA Listed Activities

NEMWA Listed Activity	Applicability of Activity
Category A, Activity 1 The storage of general waste in lagoons	Stormwater run-off captured in stormwater dams. Monitoring to determine whether it can be considered general or hazardous waste.
Category A, Activity 3 The recycling of general waste at a facility that has an operational area in excess of 500m², excluding recycling that takes place as an integral part of an internal manufacturing process within the same premises.	A salvage yard will be required, and general waste will be recycled where feasible or stored for collection by recyclers / disposal companies
Category A, Activity 4 The recycling of hazardous waste in excess of 500kg but less than 1 ton per day calculated as a monthly average, excluding recycling that takes place as an integral part of an internal manufacturing process within the same premises.	A salvage yard will be required, and hazardous waste will be recycled where feasible or stored for collection by recyclers / disposal companies.
Category A, Activity 6 The treatment of general waste using any form of treatment at a facility that has the capacity to process in excess of 10 tons but less than 100 tons per day calculated as a monthly average, excluding the treatment of organic waste using composting and any other organic waste treatment.	A salvage yard will be required, and general waste will be recycled where feasible or stored for collection by recyclers / disposal companies. Treatment of general waste may be required prior to recycling / collection.
Category A, Activity 12 The construction of a facility for a waste management activity listed in Category A of this Schedule (not in isolation to associated waste management activity).	The construction of the facilities for category A activities.
Category B, Activity 1 The storage of hazardous waste in lagoons excluding storage of effluent, wastewater or sewage.	Storage of contaminated run-off water in stormwater management dams. Also, include excavated holding tanks required for the oil/water separators

NEMWA Listed Activity	Applicability of Activity
Category B, Activity 11 The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right, exploration right or production right in terms of the MPRDA.	Two residue stockpiles will be established (waste rock and tailings)
Category B, Activity 10 The construction of a facility for a waste management activity listed in Category B of this Schedule (not in isolation to associated waste management activity).	Construction of facilities for Category B activities.
Category C The storage of general waste at a facility that has the capacity to store in excess of 100m ³ of general waste at any one time, excluding the storage of waste in lagoons or temporary storage of such waste.	General will be stored on site until collected by registered waste transporter for legal disposal thereof.
Category C The storage of hazardous waste at a facility that has the capacity to store in excess of 80m ³ of hazardous waste at any one time, excluding the temporary storage of such waste in lagoons or temporary storage of such waste	Hazardous will be stored on site until collected by registered waste transporter for legal disposal thereof.
Category C The sorting, shredding, grinding, crushing, screening or bailing of general waste at a facility that has an operational area in excess of 1000m ²	General waste will be sorted for collection by recyclers.

3.2 APPROVALS REQUIRED FROM THE DEPARTMENT OF WATER AND SANITATION

Approvals required from the Department of Water and Sanitation (DWS) prior to commencement of mining include:

- A Water Use Licence for the following water uses as specified in Section 21 of the NWA:

Section 21 (a) taking water from a water resource – groundwater will be abstracted from boreholes and groundwater intersected by mining, will be pumped out.

Section 21 (b) Storing of water; raw water will be stored in an off-stream dam in the plant area.

Section 21 (c) impeding or diverting the flow of water in a water course; the flood protection berm will impede and divert flow in the river during flood events and the pollution control dam for the waste rock dump, as well as the North Pit will be within 500m of the wetland.

Section 21 (e) Engaging in controlled activity; Mine pit water could be used for crop irrigation.

Section 21 (g) disposing of waste in a manner which may detrimentally impact on a water resource; the residue stockpiles and pollution control facilities contains waste which could detrimentally impact groundwater, it also includes the wastewater treatment works, Run of Mine stockpile, backfilled pit, bulk hydrocarbon storage, dust suppression and open pit mine areas.

Section 21 (i) altering the bed, banks, course or characteristics of a watercourse; the flood protection berm does alter the bed, banks, and course of the watercourse during flood events and location of the pollution control dam for the waste rock dump, as well as the North Pit will be within 500m of the wetland.

Section 21 (j) removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people. removal of groundwater from the pit to ensure safe mining.
- Approval of an exemption from the requirements of GN704 for the following activities will also be required from the DWS:

Regulation 4 (a) development within 1:50 year flood line; the flood protection berm at the north pit falls within the 1:50 year floodline, as well as some clean water outlets.

Regulation 4 (b) mining within 1:50 year flood line; the north pit is located within the 1:50 year floodline.

Regulation 4 (c) backfilling of mining pit; the north pit will be completely backfilled with waste rock.

Regulation 5: using waste rock for construction. Waste rock could be used for construction of roads and berms on site.

Applications for the above-mentioned authorisations, approvals, licences and exemptions have been submitted to the relevant Competent Authorities (DMRE and DWS).

3.3 SCOPING AND ENVIRONMENTAL IMPACT REPORT PROCESS

A Scoping and Environmental Impact Report (EIR) process is now underway as part of the application. Figure 4 outlines the steps that are typically followed during a Scoping and EIR process. As indicated Figure 4, in terms of the Scoping and EIR process the applicant must, within 106 days of receipt of a decision from the Competent Authority to accept the scoping report, submit to the Competent Authority (in this instance Regional Manager of the Department of Mineral Resources and Energy: Limpopo Region) and Environmental Impact Report which have been subjected to a public participation process of at least 30 days and which reflects the incorporation of comments received, including any comments of the competent authority.

The public participation process will be carried out in accordance with Regulations 39 – 44 of the EIA Regulations. The Scoping and EIR process is currently in the 30-day public review and comment phase. Following the comment period, the Final Environmental Impact Assessment Report will be submitted to the DMRE to determine if the applications should be granted or refused.

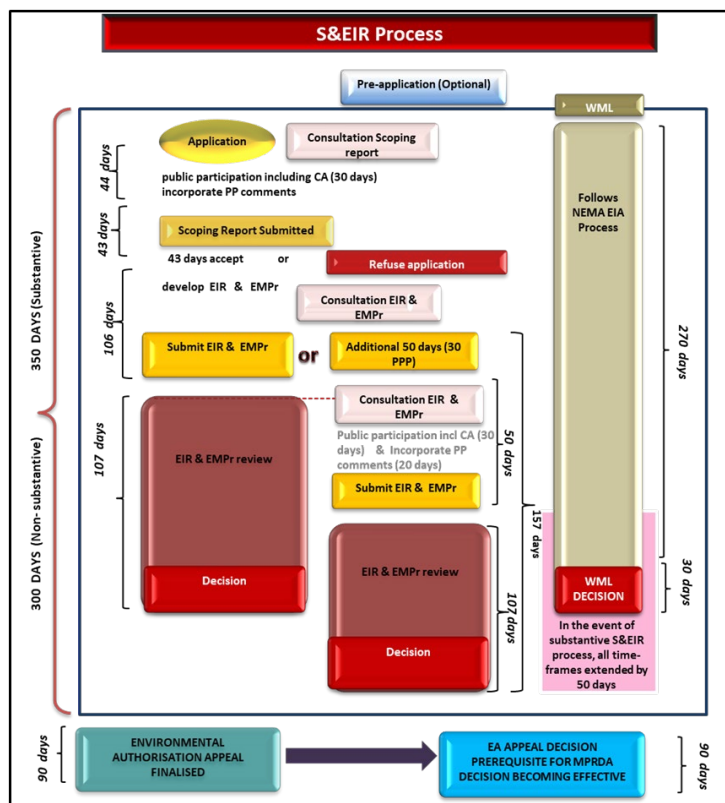


Figure 4: Scoping and EIR Process (Source: DEA, 2014)

4. CONTACT DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

The Applicant has appointed EcoPartners as the independent Environmental Assessment Practitioner (EAP) to conduct the Scoping and EIR process required as part of the EA and WML Applications. Details included below in Table 3.

Table 3: EAP Details

Project Consultant:	EcoPartners (Pty) Ltd	
Contact person:	San Oosthuizen	
Postal address:	PO Box 73513, Fairland, Johannesburg, 2030	
Telephone:	011 431 2251	
E-mail:	charlaine@ecopartners.co.za	san@ecopartners.co.za
Cell:	084 515 5840	072 3019 4679
Professional affiliation(s)	SACNASP EAPASA IWMSA IAIA	SACNASP EAPASA IWMSA IAIA
Experience	20 Years +	20 Years +
Qualification(s)	MBA; MSc. (Geol).	M. Sc Zoology

5. PURPOSE OF THE PROPOSED PROJECT

Responsible mining of PGMs, forms the foundation of “green growth” opportunities that will enable a more sustainable resilient world. The international climate change goals offer the South African economy an alternative to grow into decarbonization. Platinum is used for the following:

As the catalyst which converts hydrogen and oxygen to heat, water, and electricity.

- PGM-based proton exchange membrane (PEM) technology is well-suited to using intermittent renewable energy sources such as from solar.
- Other uses include, jewellery, electrical and electronic equipment (hard disks, video recorders, music players), glass (glassware, liquid crystal display for flat-screen computer monitors and televisions), medical (drugs including the treatment of cancer), automotive (sparks plugs, oxygen sensors), fertilisers and in chemical and petroleum refining industries.



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6. POTENTIAL IMPACTS OF ACTIVITIES TO BE AUTHORISED

Potential impacts associated with the proposed project are described in detail in the Draft Environmental Impact Assessment Report (DEIR) that is now available for public comment. I&APs are encouraged to access the document as indicated below in Section 7 below. As shown in Table 4, a total of 142 impacts were identified during the EIA (please refer Appendix 8 of the DEIR for the full Impact Assessment Table). Of these, one was considered Negligible from the onset, 20 were rated as High, 95 as Moderate, and 11 as Low. 15 Positive impacts were identified. With the implementation of mitigations and recommendations, the impacts rated as High could effectively be mitigated. The controlled impact ratings resulted in one impact being rated as High, 36 as Moderate, 77 as Low and 13 as Negligible impacts.

Table 4: Results of significance rating

Without Mitigation	Impact Rating	With Mitigation
20	HIGH	1
95	MODERATE	36
11	LOW	77
1	NEGLIGIBLE	13
15	POSITIVE	15

Almost half (9) of the 20 impacts that were rated as High before mitigation are expected to occur during the operational phase, six (6) during the construction phase and the remaining 5 during the decommissioning and closure phase. The resources impacted on where the activities were of High significance before the implementation of mitigation and management measures, are presented in the Table 5 below.

Table 5: Resources impacted on by construction, operational and decommissioning activities which experience high negative impacts if not mitigated

Resource Impacted on	Construction Phase	Operational Phase	Decommissioning & Closure Phase
Geology		1	1
Soil	1	1	
Surface water		1	
Terrestrial Biodiversity	2	2	1
Plant species of conservation concern	1		
Wetland	1	1	
Aquatic Biodiversity	1	3	3

The overall environmental sensitivity of the site is presented in Figure 5. The sensitivity is based on specialist assessments done over the period 2012 – 2023.

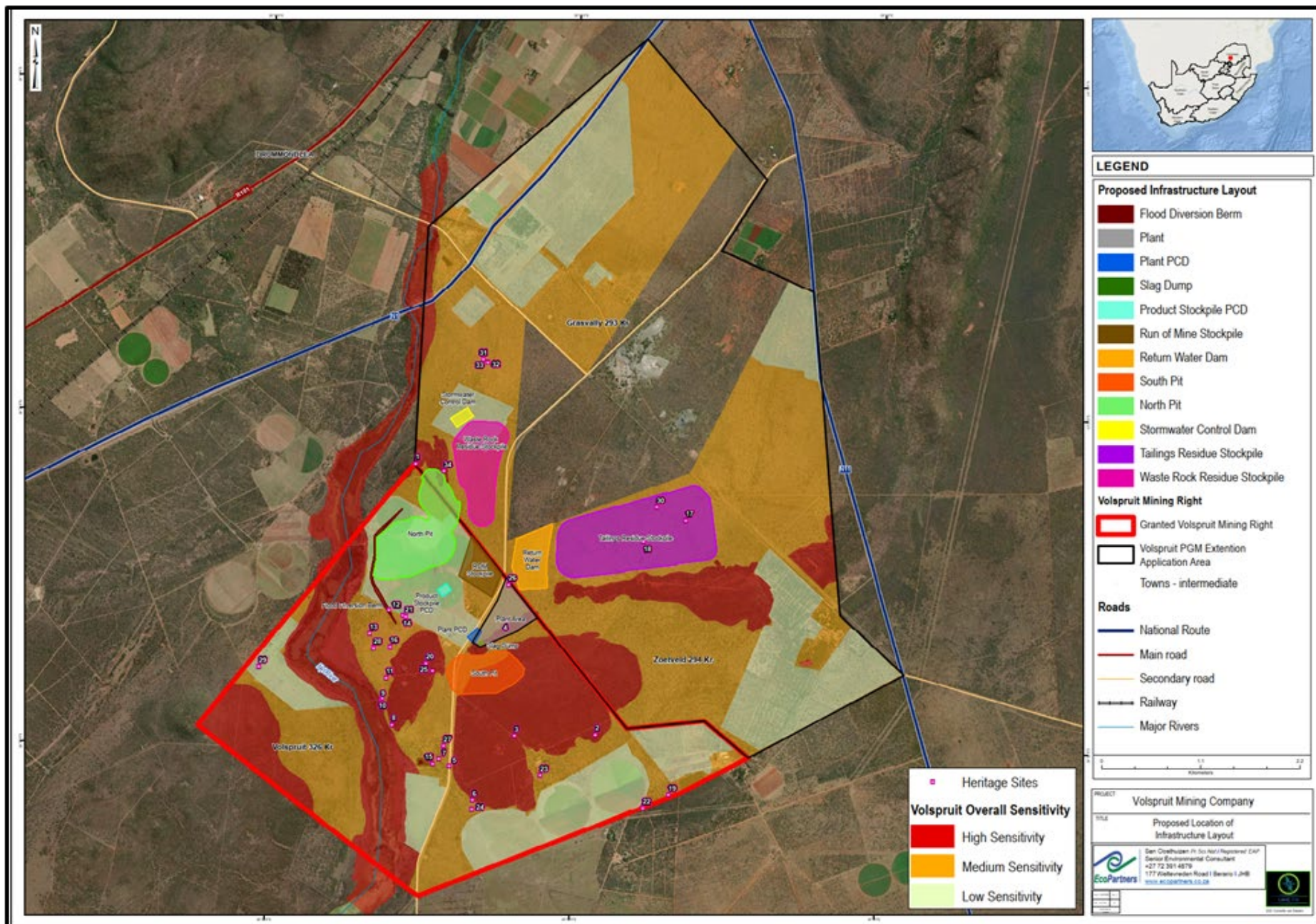


Figure 5: Overall Environmental Sensitivity Map

7. PUBLIC PARTICIPATION PROCESS

Stakeholders are invited to engage, comment on, or object to information shared, by registering as I&APs and taking part in the public participation process.

5.1 APPLICABLE COMMENT PERIODS AND PUBLIC PARTICIPATION TIMEFRAMES

I&APs can comment on the DEIR Report **until Monday, 12 August 2024**. The DEIR will be available for comment from Thursday, 11 July to Monday, 12 August 2024 (30 days).

I&APs have 60 days to object against the granting of a Water Use License (WUL) and Exemptions as listed above (**by Tuesday, 10 September 2024**). Comments on the draft WUL submission documents can also be made in the 60-day period from Thursday, 11 July to Tuesday, 10 September 2024.

5.2 DOCUMENTS AVAILABLE FOR PUBLIC COMMENT

The DEIR can be accessed at the EcoPartners website at www.ecopartners.co.za. A printed copy of the Report is available at the **Mogalakwena Library, 55 Van Riebeeck Street, Mokopane**.

Stakeholders and I&APs are invited to comment on or object to the proposed applications as follows:

- By providing comments on the proposed project, DEIR by contacting the Public Participation Office telephonically, by email, WhatsApp, SMS, post; or
- By completing a Registration and Comment Sheet which is available at the above public places, on the EcoPartners website (<https://www.ecopartners.co.za/register-2/>) or on request from the Public Participation Office.



Scan QR code to view documents

5.3 INVITATION TO ATTEND A PUBLIC OPEN DAY

Stakeholders are invited to attend a public open day as indicated below:

Date: Saturday, 27 July 2024

Time: Any time between 09h30 and 15h30

Venue: Mokopane (Potgietersrus) Bowls Club, 20 Wilge St, Chroompark, Mokopane, GPS Coordinates: 24°12'36.0"S 28°59'17.6"E.

Objectives of the public open day are:

- To share information about the proposed application and Scoping and EIR processes;
- To share the findings and recommendations of the specialists' studies and impact assessment and
- For I&APs to ask questions, raise issues of concern, contribute comments and/or suggestions for enhanced benefits.

8. CONCLUSION

We would like to encourage you to actively participate in the Scoping and EIR process. We would be happy to respond to any questions you may have, or to provide you with more information. Should you wish to obtain more information, or wish to comment, please contact the Public Participation Office via the following means:

Cell/SMS/WhatsApp: 076 677 1235 | **E-mail:** info@solarys.co.za | **By post:** P O Box 71279, Bryanston, 2021

Sincerely,

Public Participation Office

*The information contained in this document can be provided in Afrikaans or Sepedi on request from the Public Participation Office.
Tshedimošo ye e lego tokomaneng ye e gona ka Sepedi gomme o ka e kgopela Ofising ya Botšeakarolo ka Setšhaba.
Die inligting vervat in hierdie dokument kan in Afrikaans verskaf word op versoek van die Openbare Deelname Kantoor.*