



## **BACKGROUND INFORMATION DOCUMENT**

### **White Rivers Exploration (Pty) Ltd**

#### **DMRE File References:**

PR Application Ref #: FS 30/5/1/1/2/10696 PR  
EA Application Ref #: FS 30/5/1/1/3/2/1/10696 EM

### **New Kroonstad North Project**

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**White Rivers**  
**Exploration**

**18 June 2024**

## **PURPOSE OF THIS DOCUMENT**

- This Background Information Document provides you, as an Interested and Affected Party, with an overview of the proposed project.
- The Background Information Document invites you, as an Interested and Affected Party, to participate in the required Public Participation Process.
- The Background Information Document provides you, as an Interested and Affected Party, with an opportunity to contribute and participate in the formulation of the Basic Assessment Report and Environmental Management Programme.
- The Background Information Document also provides you, as an Interested and Affected Party, an opportunity to provide the project team with your comments, concerns and objections to the proposed project.

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## 1. INTRODUCTION

White Rivers Exploration (Pty) Ltd (White Rivers Exploration) submitted an online Prospecting Right and Environmental Authorisation Application to the Free State Department of Mineral Resources and Energy on the 7<sup>th</sup> March 2024. The online application was successful and the project was allocated the reference number FS 30/5/1/1/2/10696 PR. Acceptance of the Prospecting Right application was received on the 25<sup>th</sup> March 2024. If the application is granted, White Rivers Exploration will be enabled to ascertain if economically viable mineral deposits exist within the application area. The minerals of interest include:

- Gold
- Silver
- Coal
- Cobalt
- Copper
- Diamond (Alluvial)
- Iron
- Manganese
- Molybdenum
- Nickel
- Lead
- Platinum Group Metals
- Rare Earths
- Sulphur
- Uranium
- Tungsten
- Zinc

The proposed project will be known as New Kroonstad North and it will aim to explore and quantify the potential mineral deposits. In order to undertake prospecting activities, White Rivers Exploration requires a Prospecting Right in terms of the Mineral and Petroleum Resources Development Act, 2002 (MPRDA, Act No.28 of 2002, as amended). White Rivers Exploration is also required to obtain an Environmental Authorisation (EA) in terms of the National Environmental Management Act, 1998 (NEMA, Act No. 107 of 1998, as amended) which involves the submission of a Basic Assessment Report (BAR), and Environmental Management Programme Report (EMPR) as well as undertaking a Public Participation Process (PPP). Shango Solutions (Pty) Ltd (Shango Solutions) has been appointed by White Rivers Exploration as the Environmental Assessment Practitioner (EAP) to assist in complying with these requirements.

## 2. AIM OF THE BACKGROUND INFORMATION DOCUMENT

Public Participation forms an integral part of the application process. The Background Information Document (BID) offers the reader the opportunity to obtain information, comment, raise issues of concern and collaborate in the development of the process. The distribution of this document is a crucial step in advising the reader on how to become involved in the process.

This document aims to provide the reader with basic information regarding the proposed project which includes:

- An introduction to the project, including location details.
- An indication of the proposed activities and the legal framework in which the project is executed.
- Environmental impacts that may potentially occur.
- An explanation of the Public Participation Process (PPP) to be followed.
- An explanation of how to become involved as an Interested and Affected Party (I&AP).

## 3. PROJECT LOCALITY

The project area covers an aerial extent of 18 340.4536 hectares (ha) (Figure 1) and is situated in the Magisterial Districts of Kroonstad and Koppies, approximately 25 kilometres (km) north of Kroonstad town in the Free State Province of South Africa. Table 1 indicates the property details within the project area.

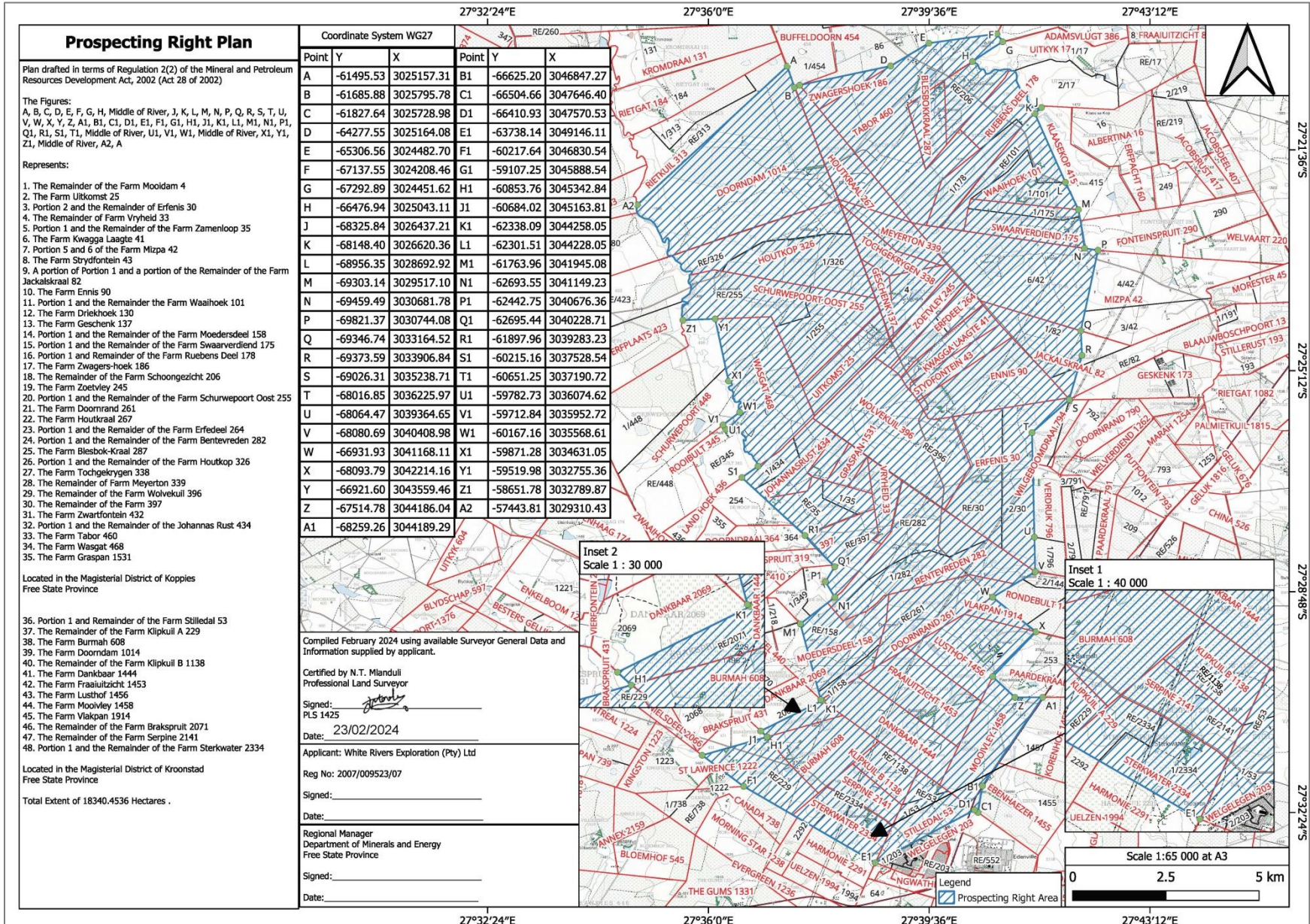


Figure 1: Locality map (Regulation 2(2) Plan).

Table 1: Property details.

	Farm Name	Farm Portion	Surveyor General Code
1	Bentevreden 282	Remainder	F0190000000028200000
2	Bentevreden 282	1	F0190000000028200001
3	Blesbok-Kraal 287	Farm	F0190000000028700000
4	Brakspruit 2071	Remainder	F02000000000207100000
5	Burmah 608	Farm	F0200000000060800000
6	Dankbaar 1444	Farm	F02000000000144400000
7	Doornadam 1014 (314)	Farm	F01900000000031400000
8	Doornrand 261	Farm	F01900000000026100000
9	Driekhoek 130	Farm	F01900000000013000000
10	Ennis 90	Farm	F0190000000009000000
11	Erfedeel 264	Remainder	F01900000000026400000
12	Erfedeel 264	1	F01900000000026400001
13	Erfenis 30	Remainder	F01900000000003000000
14	Erfenis 30	2	F01900000000003000002
15	Farm 397	Remainder	F01900000000039700000
16	Fraaiuitzicht 1453	Farm	F02000000000145300000
17	Geschenk 137	Farm	F01900000000013700000
18	Graspan 1531 (331)	Farm	F01900000000033100000
19	Houtkop 326	Remainder	F01900000000032600000
20	Houtkop 326	1	F01900000000032600001
21	Houtkraal 267	Farm	F01900000000026700000
22	Jackalskraal 82	A portion of the Remainder	F0190000000008200000
23	Jackalskraal 82	A portion of Portion 1	F0190000000008200001
24	Johannas Rust 434	Remainder	F01900000000043400000
25	Johannas Rust 434	1	F01900000000043400001
26	Klipkuil A 229	Remainder	F02000000000022900000
27	Klipkuil B 1138	Remainder	F02000000000113800000
28	Kwagga Laagte 41	Farm	F01900000000004100000
29	Lusthof 1456	Farm	F02000000000145600000
30	Meyerton 339	Remainder	F01900000000033900000
31	Mizpa 42	5	F0190000000004200005
32	Mizpa 42	6	F0190000000004200006
33	Moedersdeel 158	Remainder	F01900000000015800000
34	Moedersdeel 158	1	F01900000000015800001
35	Mooidam 4	Remainder	F01900000000005300000
36	Moovley 1458	Farm	F02000000000145800000
37	Ruebens Deel 178	Remainder	F01900000000017800000
38	Ruebens Deel 178	1	F01900000000017800001
39	Schoongezicht 206	Remainder	F01900000000020600000
40	Schurwepoort Oost 255	Remainder	F01900000000025500000
41	Schurwepoort Oost 255	1	F01900000000025500001
42	Serpine 2141	Remainder	F02000000000214100000
43	Sterkwater 2334	Remainder	F02000000000233400000
44	Sterkwater 2334	1	F02000000000233400001
45	Stilledal 53	Remainder	F0200000000005300000
46	Stilledal 53	1	F0200000000005300001
47	Strydfontein 43	Farm	F0190000000001100000
48	Swaarverdiend 175	Remainder	F01900000000017500000
49	Swaarverdiend 175	1	F01900000000017500001
50	Tabor 460	Farm	F01900000000046000000
51	Tochgekrygen 338	Farm	F01900000000033800000
52	Uitkomst 25	Farm	F01900000000002500000
53	Vlakpan 1914	Farm	F02000000000191400000
54	Vryheid 33	Remainder	F01900000000003300000
55	Waaihoek 101	Remainder	F01900000000010100000
56	Waaihoek 101	1	F01900000000010100000
57	Wasgat 468	Farm	F01900000000046800000

Farm Name		Farm Portion	Surveyor General Code
58	Wolvekuil 396	Remainder	F01900000000039600000
59	Zamenloop 35	Remainder	F0190000000003500000
60	Zamenloop 35	1	F0190000000003500001
61	Zoetvley 245	Farm	F01900000000024500000
62	Zwagers-hoek 186	Farm	F01900000000018600000
63	Zwartfontein 432	Farm	F01900000000043200000

#### 4. PROJECT DESCRIPTION

The following prospecting activities are detailed as part of the PWP during Year 1 to Year 5 of the project:

##### 1. Data Gathering:

###### Desktop Studies

[Year One; Duration: 12 months]

###### Data Acquisition

[Year One; Duration: 12 months]

All historical data detailing the position and economic potential of the target horizons will be revisited. The data obtained will be in the form of historical drillhole information, cadastral maps, geological maps, geophysical surveys (all available existing published gravimetric, radiometric, magnetic, seismic data, remote sensing data, as well as any information pertaining to previous exploration or mining will be consulted and integrated). Data will be scrutinised and verified (QA/QC procedure).

###### Database, Map Generation and Development of Geological Model:

[Year One; Duration: 6 months]

The above data will be compiled into a geological database for the area that will be utilized to present the relevant geological data in useable GIS digital map format. These different data sets will be plotted on a base map of the project and surrounding areas in order to develop a geological model. This model will be used to further refine the exploration programme for the target area.

###### Field Visit:

[Year One; Duration: 1 week]

A field visit will be undertaken to familiarise the applicant with surface features (such as infrastructure, outcrops, water bodies and wetlands) in the project area and to meet the surface landowners. During this visit farm boundaries within the project area and farming activities will be verified. An effort will be made to identify any factors that may impact the exploration programme.

##### 2. Geophysical Survey

Geophysical surveys conducted by mining companies are available and could be acquired without the need for further surveys. A seismic survey was conducted along a line of 60 km long by Anglo Gold Ashanti and initial discussions indicate that it might be possible to purchase this line. Regional aeromagnetic surveys are available and will be acquired and interpreted in conjunction with the borehole and other data. Based on a favourable outcome of the work in Year One, the decision will be taken to purchase this survey.

If the regional geophysical survey is favourable, further ground geophysical investigations (magnetic) will be carried out.

###### Geophysical Survey and Seismic Survey:

[Year Two; Duration: 12 months]

###### Data Compilation and Interpretation:

[Year Two; Duration: 12 months]

###### Refinement of Geological Model:

[Year Two; Duration 12 months]

Should the seismic surveys be purchased, they will be integrated with the geological database and presented in useable GIS digital map formats. This information will also be incorporated into the geological model in order to further define the resource.

**3. Re-Visit Key Historic Drillhole Core, and Re-Logging and Re-Sampling: [Year Two; Duration: 6 months]**

Based on the initial geological model, specific key drillholes previously drilled in the area will be re-visited and negotiations with the owners undertaken to obtain access to the core. Once access to the historical core is obtained, the core will be re-logged and, if necessary, re-sampled. This activity will allow verification of the historical drillhole logs and consequently increase confidence in the data underpinning the geological model.

**4. Drilling**

Invasive prospecting will take the form of diamond drilling and will occur in Years 3 and 4. This information will then be integrated into the geological model to further define the orebodies, which when combined with the assay information will be utilised to define a resource.

**4.1 Drilling of 3 Diamond Drillholes to a Depth of 700 m Each: [Year Three; Duration: 12 months]**

Based on the initial geological model established, a diamond drilling programme comprising of four boreholes will be undertaken.

**4.2 Revise Geological Model: [Year Three; Duration: 6 months]**

The data obtained from the logging and sampling of the historical drillholes will be integrated into the geological model to confirm the geology and drilling targets.

**5.1 Drilling of 3 Diamond Drillholes to a Depth of 700 m Each: [Year Four; Duration: 12 months]**

Should the drilling programme prove to be successful in Year 3, an additional three holes will be considered. It is imperative to note that the drilling in Year 4 is dependent on positive outcomes from the drilling in Year 3. Drilling will be conducted in a competent and environmentally responsible manner including rehabilitation of the drill sites to their original state. Plastic lining will be placed underneath the rig motors to prevent oil seepage. It is noted that no drilling fluids other than water for dust suppression, will be utilised in the case of diamond drilling. Environmental rehabilitation measures will be included in the contract with the drilling company and environmental rehabilitation costs will be included in the drilling costs.

**5.2 Finalisation of 3D Geological Model: [Year Five; Duration: 4 months]**

Based on the logging and sampling of the core, the 3D geological model will be updated and finalised for use during resource estimation.

**5.3 Code Compliant Mineral Resource Estimation: [Year Five; Duration: 4 months]**

Utilising the finalised geological model together with historical assay results and any results from the drilling programme, a code compliant resource estimate will be performed.

**5.4 Concept Study [Year Five; Duration: 4 months]**

Should the exploration activities yield promising results, a concept study will be conducted. During this investigation, resources will be converted to reserves and a conceptual mine plan and schedule shall be established. This will reveal whether the deposit is economically mineable.

**5. GEOLOGY AND PROSPECTING TARGETS**

The application area has been selected based predominantly on historical data available for the region, which indicates the potential for economically viable resources to occur. The Free State Goldfield was discovered by geophysical means during the 1930's, when Dr. R Krahmman delineated the edge of the Witwatersrand Basin by mapping magnetic shales of the West Rand Group with a magnetometer. This was followed by extensive diamond exploration drilling, which intersected the auriferous conglomerates of the Central Rand Group (Figure 2). As a result, one of the major goldfields on earth was developed.

Welkom, the largest town in the Free State Goldfield, is situated about 270 kilometres towards the southwest of Johannesburg, about 1 370 metres above mean sea level. The Welkom Goldfield hosted eleven mines in the triangle between Allanridge, Welkom and Virginia. These mines have collectively produced in excess of 9.6 million kilogrammes of gold.

The main targets of the exploration project are the conglomerates (reefs) of the Central Rand Group of the Witwatersrand Supergroup and the Ventersdorp Contact Reef of the Ventersdorp Supergroup.

The Witwatersrand Supergroup which hosts gold is generally overlain by 500 metres of Karoo Supergroup strata, predominantly horizontally bedded sandstones and shales of the Ecca Group. The Eccca Group contains coal at shallow depths which might be exploitable. In addition to gold, the primary prospecting target, silver, uranium, sulphur, diamonds, rare earths and platinum group metals are currently and have been historically, extracted as by-products of gold. Base metals (cobalt, copper, manganese, molybdenum, nickel, lead, tungsten and zinc) could potentially be present in mafic intrusions.

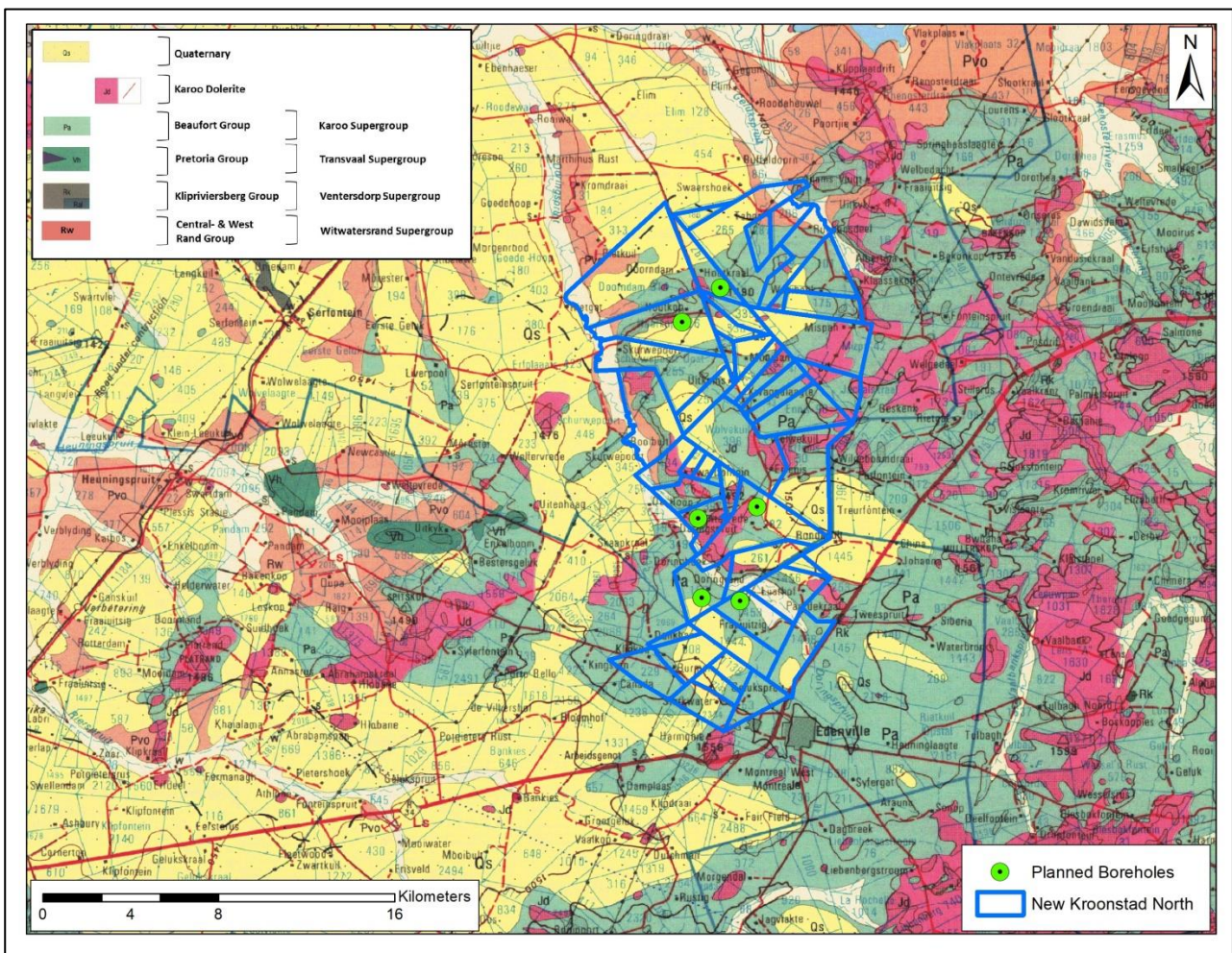


Figure 2: Surface geological map with relevant farm boundaries superimposed.

## 6. REGULATORY REQUIREMENTS

The proposed project will include the following application processes with associated activities:

- Compilation of a BAR and EMPR.
- Compilation of a Closure Report.
- Undertaking a PPP.



It is anticipated that the following NEMA EIA listed activities will be triggered by this application:

- **Listing Notice 1 - Activity 20 of GNR 327 (as amended on 11 June 2021):** Any activity including the operation of that activity which requires a prospecting right in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), as well as any other applicable activity as contained in this Listing or in Listing 3 of 2014, required to exercise the prospecting right.
- **Listing Notice 3 - Activity 12(b)(i) and (ii) of GNR 324 (of 2017):** The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of such indigenous vegetation is required for maintenance purpose undertaken in accordance with a maintenance management plan (i) within any critically endangered or endangered ecosystem listed in terms of Section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004 and (ii) within critical biodiversity areas identified in bioregional plans.

## 7. TYPICAL IMPACTS ASSOCIATED WITH THESE ACTIVITIES

The following impacts *inter alia* will be included and assessed in the BAR:

- Safety and security risks to landowners and lawful occupiers.
- Interference with land-use.
- Sense of place.
- Loss/destruction of habitat.
- Damage to existing infrastructure.
- Perceptions and expectations.
- Clearance of vegetation.
- Soil instability/compaction/pollution.
- Erosion and sedimentation.
- Disturbance/damage of heritage features.
- Noise.
- Introduction of alien invasive species.
- Fugitive emission (dust).
- Hydrocarbon spills/contamination.
- Surface and groundwater pollution.
- Generation and disposal of waste.


## 8. BASIC ASSESSMENT PROCESS

The key steps involved in a typical Basic Assessment process are described below.

### Initiation and Application

- Compile and submit application form.

### Public Participation Process

- 
- Identification of I&APs.
  - Preparation of notification documents (BID, letter, advert, site notice, registration form).
  - Notification of I&APs and relevant stakeholders of the project.
  - Placement of site notices and advertisement.

### BAR and EMPR

- Compilation of baseline environment data and identification of potential impacts associated with the project.

- Assessment of alternative project aspects.
- Specialist studies undertaken (if applicable).
- Potential impacts are rated and mitigation measures proposed.
- Monitoring programmes proposed to ensure mitigation measures are efficient.
- Draft BAR and EMPR is made available to the public and Authorities for public review and comment.
- Final BAR and EMPR is updated to include all comments prior to submission to the DMRE.
- DMRE accepts the BAR and EMPR or requests additional information.

#### Record of Decision

- DMRE makes a decision and either approves or rejects the application for an Environmental Authorisation.
- All I&APs are notified of the outcome of the application, and their right to appeal.

### 9. AVAILABILITY OF THE BASIC ASSESSMENT REPORT AND DETAILS OF THE OPEN DAY

The draft BAR and EMPR will be made available for public review for a period of 30 days, **from the 18<sup>th</sup> June 2024 until 26<sup>th</sup> July 2024**, for the perusal and comment of all I&APs. A hard copy of the report will be available at the following public venue from the 18<sup>th</sup> June 2024:

Venue	Address	Contact Details
Koppies Public Library	Dirkie Uys Street, Koppies, 9540	056 777 1713

Furthermore, an electronic copy will also be obtainable on the Shango Solutions website ([www.shango.co.za/public-documents/](http://www.shango.co.za/public-documents/)) from the 18<sup>th</sup> June 2024. In order to present the findings of the Basic Assessment process to the public and to solicit comments on the report, an Open Day will be held. The schedule for the Open Day is as follows:

Date	Time	Venue	Address	Contact Details
12 <sup>th</sup> July 2024	10:00 - 14:30	Friesland Hotel	36 North Street, Koppies, 9540	071 449 0285

All input from the public with regards to the draft BAR and EMPR will be incorporated into the revised report that will be submitted to the Competent Authority, the DMRE.

### 10. PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

The Environmental Authorisation is required for the same duration as the associated Prospecting Right.

### 11. NEED AND DESIRABILITY OF THE PROJECT

Should prospecting prove successful and a resource is quantified, it would indicate a potential viable economic activity in the form of mining. Mining will contribute greatly to local economic growth through direct employment, future business opportunities, royalties and tax revenues.

### 12. PUBLIC PARTICIPATION PROCESS

The reader is hereby invited to participate freely and submit any questions or information that may contribute to the Basic Assessment process. Public involvement is an essential component of the process. It addresses the right of I&APs to be informed of the proposed activities and to be involved in decisions that affect them. It also affords the EAP the opportunity to address the issues and concerns raised by I&APs thus allowing the EAP to assess all the potential impacts of the proposed project.

### 13. INVITATION TO REGISTER

In order to ensure that you are identified and registered as an I&AP (if you are not already identified as one) and to comment on the BAR and EMPR, please complete and submit the attached questionnaire and your comments to Shango Solutions by **no later than 26<sup>th</sup> July 2024**.

It is important to note that the Basic Assessment process is guided by legally stipulated timeframes. As such, in order to ensure your continued and valuable involvement in the project, we request that your registration requests and any preliminary comments are submitted by no later than the date provided above. Please include the project reference name (New Kroonstad North) in all correspondence. Please note that only registered I&APs will be notified of further opportunities for involvement in this process.

**Any queries, comments, or concerns with regards to this application can be directed to Shango Solutions:**

- Tel: 011 678 6504
- Fax: 011 678 9731
- E-mail: zizo@shango.co.za
- Contact person: Ms Zizo Siwendu
- Project name: New Kroonstad North
- Postal address: P.O. Box 2591, Cresta, 2118, South Africa

**Any comments or concerns regarding this application can also be directed to the Department of Mineral Resources and Energy (and a copy sent to Shango Solutions):**

- Tel: 057 391 1356
- Fax: 057 357 6003
- Contact person: Ms Nkateko Mhlarhi
- Postal address: Private Bag X33, Welkom, 9460
- DMRE reference number: FS 30/5/1/1/3/2/10696 EM
- Attention: Regional Manager – Free State Region Mineral Regulation