ENVIRONMENTAL SCOPING AND IMPACT ASSESSMENT

For the proposed minerals exploration for Base and rare metals, industrial minerals, nuclear fuel minerals, and precious metals within EPL 9053

||Karas Region

Date: February 2024
Proponent: KoBold Metals Namibia (Pty) Ltd
APP: 00664

Alliance
ENVIRONMENTAL CONSULTANCY

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TABLE OF CONTENTS

TABLE OF FIGURES

LIST OF TABLES

NON-TECHNICAL SUMMARY

Alliance Environmental Consultancy CC (AEC) (herein referred to as the consultant) has been appointed by KoBold Metals Namibia (Pty) Ltd (herein referred to as the proponent) to act on their behalf in applying for an Environmental Clearance Certificate (ECC) for the proposed minerals exploration for base and rare metals, industrial minerals, nuclear fuel minerals, and precious metals within EPL9053. The project area is located within the Karasburg East constituency covering a total area of approximately 44329.4523 Hectares, near Ariamsvlei settlement, ||Karas Region. The EPL site is accessible via several tracks that branch through the EPL from the B3 national highway and D202 district road from Ariamsvlei. The major towns/settlements in and around the project area include Ariamsvlei, Nakop and Heirachabis. Error! Reference source not found. **& FIGURE 2** provides a detailed o verview layout of the project area in the ||Karas Region and as represented on the Ministry of Mines and Energy (MME) licences Cadastre Portal https://maps.landfolio.com/Namibia/. **Table 1** indicates the corner coordinates for the EPL. The land - use of the larger area includes agriculture, livestock farming, and freehold tourism and it covers several farmlands as reflected in **FIGURE 2**.

In terms of the Environmental Management Act No.7 of 2007 and the Environmental Impact Assessment (EIA) Regulations of 2012, the project triggers listed activities that cannot be undertaken without an Environmental Clearance Certificate (ECC). An environmental clearance application will be submitted to the Ministry of Mines and Energy (MME) and the Ministry of Environment, Forestry, and Tourism (MEFT) for approval before the commencement of the anticipated project activities.

The exploration activities will be executed through a series of stages which may include a desktop review of existing data, regional reconnaissance assessment which includes field-based activities such as geological mapping, geochemical sampling and analysis, aerial and ground based geophysical surveys (including, but not limited to remote sensing, induced polarization, and magnetics), , and exploration drilling in selected targeted areas.

This Scoping Report (SR) has been compiled in support of an application for an Environmental Clearance Certificate and it includes an Environmental Impact Assessment section. This report describes the baseline bio-physical and socio-economic environment, legal requirements and it also documents the mitigation and control measures which are also carried over into an Environmental Management Plan (EMP), which is bound to this report. The results of this scoping assessment were considered satisfactory and concluded that no further assessment was necessary for this phase of the project.

The part of the||Karas Region in which the EPL lies receives an average precipitation of 17.86mm per year. The climate is classified as subtropical desert climate which is very hot and dry in the summer and a cooler dry winter. The hot season lasts the longest, from September to March, with an average annual

high temperature above 32°C. The study area lies within the Nama Karoo vegetation biome. The vegetation within the study site was found to be dominated by the Commiphora sp. (kanniedood). The vegetation in the surrounding consists of; trees, shrubs, grass cover and sparse woodland occurring along riverbeds the terrain and water availability may contribute to local vegetation distribution.

A biodiversity and heritage specialist study/site survey of the physical, chemical, and biological characteristics of the actual site and surroundings was conducted. Additionally, a number of similar EIA and biodiversity studies have previously been completed for other projects in the vicinity of the project area and will be a reference to this report. This EIA and scoping report represents a reference point for the project and for comparison of the current/known data, and data collected in future.

According to the Atlas of Namibia, the area is regarded as a relative medium to high mammal, reptile, and intermediate amphibian diversity. The soils in this area are broadly categorized as the group of leptosols and defined by a eutric leptosols domination soil and lies in the orange Groundwater basin. limited volumes of ground water are present in the basement rocks of the southern ||Karas Region, since there are no productive aquifers.

High grade metamorphic rocks belonging to the Namaqua Metamorphic Complex (NMC) underlie most of the area. Parts of the NMC basement rocks are overlain by the Karoo aged flat lying sedimentary rocks of the ECCA group and the post Karoo intrusive dolerites. Some portions are overlain by the Neogene Quaternary sediments.

The public was informed of the project via four (4) newspaper advertisements, public notices placed in town/settlement hubs in accessible places around the project area, and at relevant local office notice boards. Notification letters were sent to the affected landowners in consultation with the Ministry of Lands. Furthermore, direct communication was done through email, telephone calls, and text messages.. The consultant hosted five face-to-face interactions with the communities at the Noordoewer - EHW BAARD P.S hall, the Warmbad - Church Hall, the Karasburg east constituency office (2 Sessions), and at the Ariamsvlei settlement office. The proponent also had a representative attending the public meetings to present the project and answer questions posed to the company. The draft documents are shared with the public via email for their review and commentary before submission to the relevant authorities. The concerns and comments received from the public and the local community members form the basis for this report as well as the draft EMP. It is important to note that, the Public Participation Process was carried out as a combined process for all the KoBold southern EPLs (total of 10) which will be later referred to as the larger "KoBold Metals Namibia southern minerals prospecting/exploration project".

The identification of potential impacts included impacts that may occur during the planning, operational and decommissioning phases of the project. The following potential impacts on the socio-environment during exploration activities have been identified:

- Dust & Noise
- Health & Safety
- Visual
- Ecological
- Groundwater and surface water
- Heritage & Socio-Economic

The benefits that could arise from the project are:

- Creation of additional employment in the area.
- Generation of export and foreign exchange earnings.
- Skills transfer and training would develop the local workforce.
- Increase in knowledge on the subsurface which then contributes to development, and geoscience research.

Due to the limited scope of the proposed activities and the use of a step-by-step approach in advancing exploration operations, the overall severity of potential environmental impacts of the proposed project activities on the receiving environment will be of low to medium magnitude, temporally and permanent duration, localized extent, and high probability of occurrence. All impacts are provided with mitigation measures in order to minimize or avoid them to acceptable degrees.

Based on the conclusions of this SR, it is thus recommended that an Environmental Clearance Certificate be issued for the planned project activities. When implementing the proposed program, the Proponent shall consider the following critical requirements:

- Where applicable, the Proponent will negotiate access agreements with landowners/authorities.
- The Proponent is responsible for obtaining all additional permits that may be required to support the prospecting activities.
- In addition to all applicable national rules and laws, the Proponent shall comply with all terms of the EMP.
- In cases where baseline information, national or international guidelines, or mitigation measures have not been supplied or do not adequately address the site-specific project effect, the Proponent must use the precautionary approach/principles.

LIST OF ABBREVIATIONS

AEC	Alliance Environmental Consultancy
BID	Background Information Document
CA	Competent Authority
CBRM	Community Based Resource Management
CV	Curriculum Vitae
°C	Degree Celsius
DDH	Diamond Drill Hole
DEA	Directorate of Environmental Affairs
DoF	Directorate of Forestry
DWA	Directorate of Water Affairs
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act No 7 of 2007
EMP	Environmental Management Plan
EPL	Exclusive Prospecting Licence
ESAR	Environmental Scoping & Impact Assessment
GRN	Government of the Republic of Namibia
GSN	Geological Survey of Namibia
HSE	Health Safety and Environment
IAPs	Interested and Affected Parties
km	Kilometers
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment Forestry and Tourism
mps	Meters per second
MME	Ministry of Mines and Energy
MSDS	Material Safety Data Sheet
NCAA	Namibia Civil Aviation Authority
NHCN	National Heritage Council of Namibia
NSA	Namibia Statistics Agency
WHO	World Health Organization
OSHA	The Occupational Safety and Health Administration
PPE	Personal Protective Equipment
PPP	Public Participation Process
RC	Reverse Circulation
SOP	Standard Operating Procedure
SR	Scoping Report
ToR	Terms of Reference
pXRF	Portable X-Ray Fluorescence

GLOSSARY OF TERMS

Alternatives	A possible course of action, in place of another, that would meet the same purpose and need but which would avoid or minimize negative impacts or enhance project benefits. These can include alternative locations/sites, routes, layouts, processes, designs, schedules and/or inputs. The "no-go" alternative constitutes the 'without project' option and provides a benchmark against which to evaluate changes; development should result in net benefit to society and should avoid undesirable negative impacts.
Competent Authority	A body or person empowered under the local authorities act or Environmental Management Act to enforce the rule of law.
Environment	As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, palaeontological or social values".
Environmental Assessment (EA)	Process of assessment of the effects of a development on the environment.
Environmental Management Plan (EMP)	A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.
Evaluation	The process of ascertaining the relative importance or significance of information, the light of people's values, preference and judgements in order to make a decision.
Hazard	Anything that has the potential to cause damage to life, property and/or the environment. The hazard of a particular material or installation is constant; that is, it would present the same hazard wherever it was present.
Interested and Affected Party (I&AP)	Any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.
Mitigate	The implementation of practical measures to reduce adverse impacts.
Proponent (Applicant)	Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act no. 7 of 2007, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment & Tourism.

Public	Citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a homogeneous and unified group of people with a set of agreed common interests and aims. There is no single public. There are a number of publics, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.
Scoping Process	Process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.
Significant Effect/Impact	An impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.
Stakeholder Engagement	The process of engagement between stakeholders (the proponent, authorities and IAPs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can therefore be described by a spectrum or continuum of increasing levels of engagement in the decision-making process. The term is considered to be more appropriate than the term "public participation".
Stakeholders	A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (I&APs).

1. INTRODUCTION

1.1. ABOUT THE CONSULTANT

Alliance Environmental Consultancy CC (also referred to as AEC) is a dynamic Namibian independent environmental consulting firm that provides cutting-edge environmental management services. We develop and implement solutions for a variety of projects by combining solid scientific expertise, legislative understanding, and fieldwork to uphold environmental safety and management standards throughout a projects' development, operational and decommissioning phases. We assess and monitor the social and environmental impacts for projects related to minerals exploration and mining, transport, construction, energy, biomass, tourism, and other sectors. Our wide range of capabilities, disciplines, and services are fundamentally based on proactively delivering advice and solutions with the outlook of sustainability.

Our expertise in environmental management for mining projects has been taking dominance in the company. We have been involved in the compilation of Environmental Impact Assessments (EIA) and Environmental Management Plans (EMP) for activities on Exclusive Prospecting Licences (EPLs), Mining Claims and Mining Licenses as lead practitioners and assistant practitioners. We are also involved in projects operational environmental compliance monitoring.

Our reputation is built on our unique techniques, experience, and exceptional client service. We strive to provide high-quality, cost-effective, and responsive environmental solutions for our clients by taking pride and staying current with environmental trends and regulatory changes. The consultant was assisted by Mr. Tulinayo Kanime who was the PPP facilitator, Mr. Charles Adam and Ms. Helena Elago who are interns in the company. The detailed CV of the team is presented in **Appendix A**.

AEC is in no way a direct affiliate of the applicant and has no personal or financial interest in the proposed project other than reasonable compensation for the professional services provided.

1.2. ABOUT THE PROPONENT

KoBold Metals is a mineral exploration company. KoBold is leading one of the world's largest exploration research and development (R&D) effort to advance the frontier of exploration technology with artificial intelligence (AI) and novel hardware, in mineral exploration of the metals needed for the transition to a low-carbon economy. KoBold's business is discovering, defining, expanding, and developing mineral resources. The company's objective is to achieve a step-change improvement in exploration success, whereby the company aims to discover more tier 1 resources, faster, and with fewer failures.

KoBold has a global portfolio of more than 50 exploration properties targeting nickel, copper, cobalt, and lithium, which range from 100%-owned, to partnerships with both majors, junior explorers, and prospectors.

The KoBold team includes the best of the industry in exploration geoscience, data science, software engineering, operations, and business personnel. The company's exploration programs are co-led by geoscientists and data scientists, who develop exploration hypotheses, rigorously quantify uncertainty in the understanding of the subsurface, and design data collection programs that most effectively reduce uncertainty, drawing upon a large suite of proprietary exploration technology built by the company's data scientists and software engineers. The company's field programs validate and improve the system and have demonstrated material improvements over conventional exploration methods.

KoBold is prepared to extend its footprint into the Namibian minerals prospecting industry and have applied for several prospecting licenses in the country. More details on the company can be accessed on the company website: https://www.koboldmetals.com/.

1.3. PROJECT LOCALITY

The project area is located within the Karasburg East constituency covering a total area of approximately 44329.4523 Hectares, near Ariamsvlei settlement, ||Karas Region. The EPL site is accessible via several tracks that branch through the EPL from the B3 national highway and D202 district road from Ariamsvlei. The major towns/settlements in and around the project area include Ariamsvlei, Nakop and Heirachabis. Error! Reference source not found. **& FIGURE 2** provides a detailed o verview layout of the project area in the ||Karas Region and as represented on the Ministry of Mines and Energy (MME) licences Cadastrehttps://maps.landfolio.com/Namibia/.

The land - use of the larger area includes agriculture, livestock farming, and freehold tourism. The EPL covers portions of the farms reflected in **TABLE 1**. The Namibian Farms shapefile used was obtained from the Ministry of Agriculture, Water and Land Reform (MAWLR)), July 2023 version. Through the public PPP meetings some farmers raised concerns that some farm names are not presented correctly on the maps. AEC takes note of that and will consider adopting the correct farm names and boundaries in consultation with the landowners and the MAWLR.

TABLE 1 – FARM OVERLAPPING EPL 9053

FARM NO.	FARM NAME
59	VLISSINGEN
60	NEIKOP
69	UKAMAS
70	NABABIS
71	ELANDSDRAAI
72	BLYDEVERWACHT
75	ONDERMATJIE
79	BOKKIESBANK OST
80	LOSKOP
416	CHARLIESPUTS

The proponent applied for the EPL through the MME on 12th of October 2022. The proponent was granted a notice of preparedness to grant the EPL on the 09th of October 2023. The physical EPL is pending approval subject to submission an ECC to the MME, after its issued by the MEFT. This environmental scoping and impact assessment will form part of ECC application that will be submitted to the MEFT.

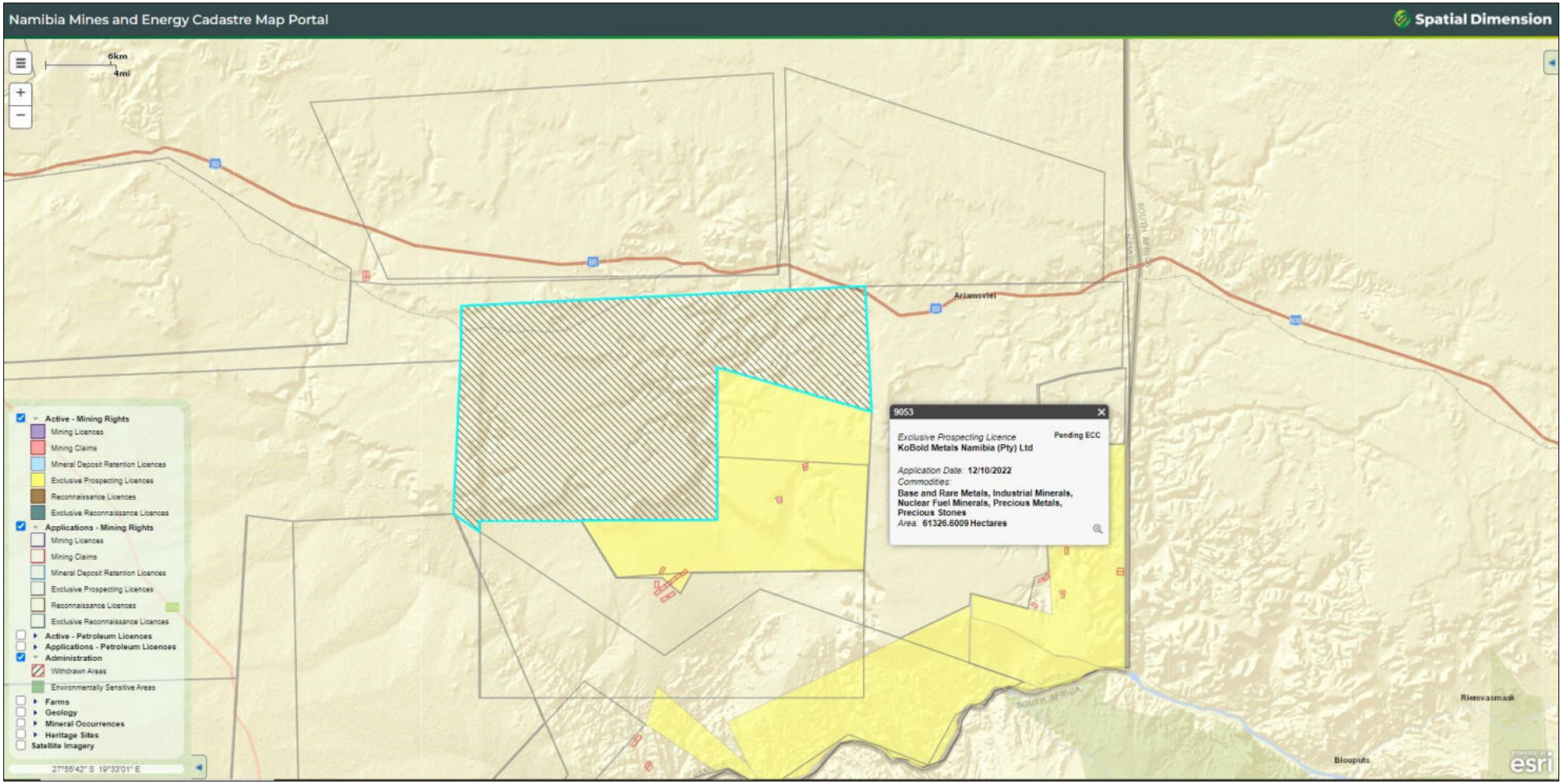


FIGURE 1 - LOCALITY DISPLAY ON THE MINING CADASTRE PORTAL (MME,2023) https://portals.landfolio.com/namibia/.

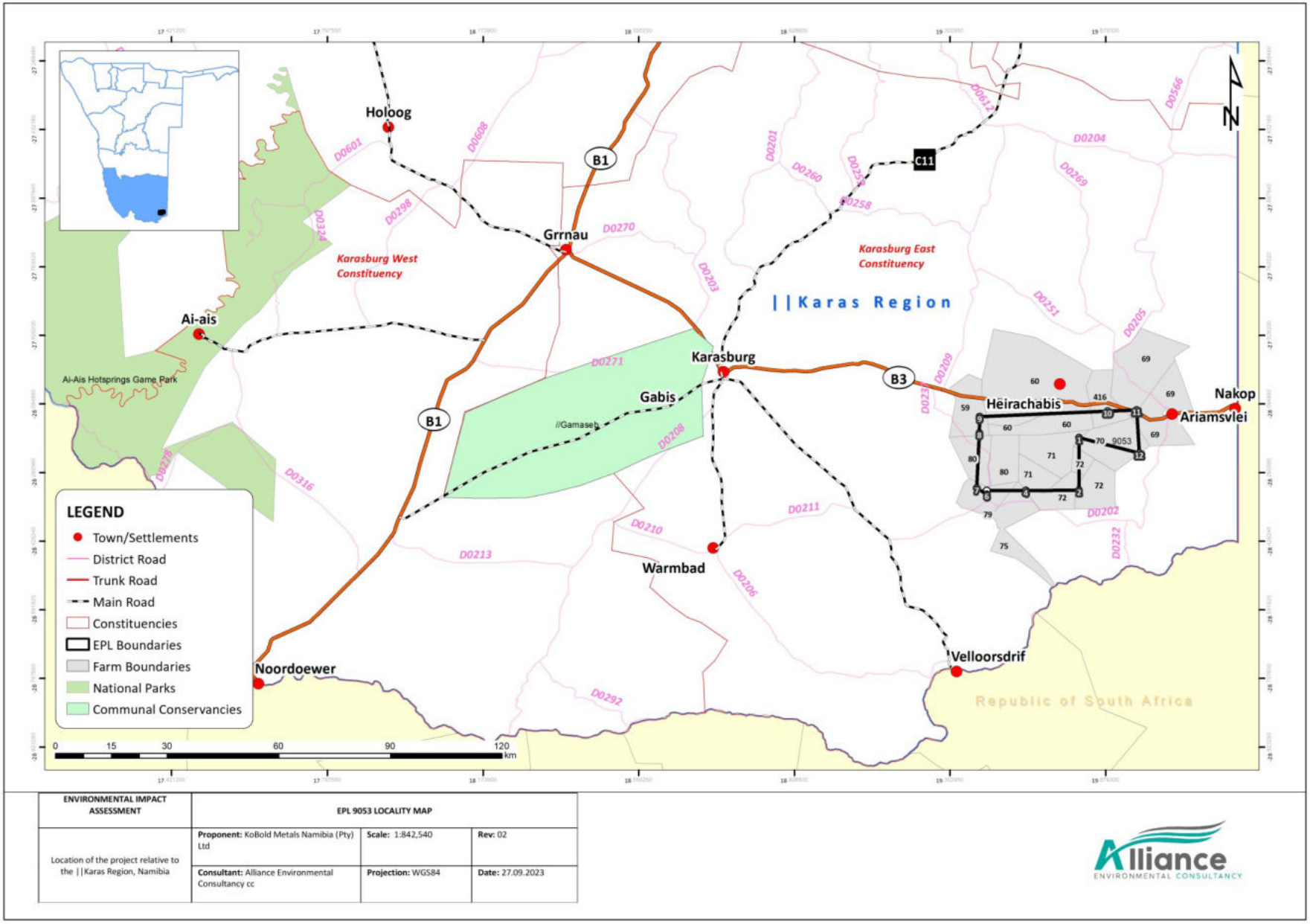
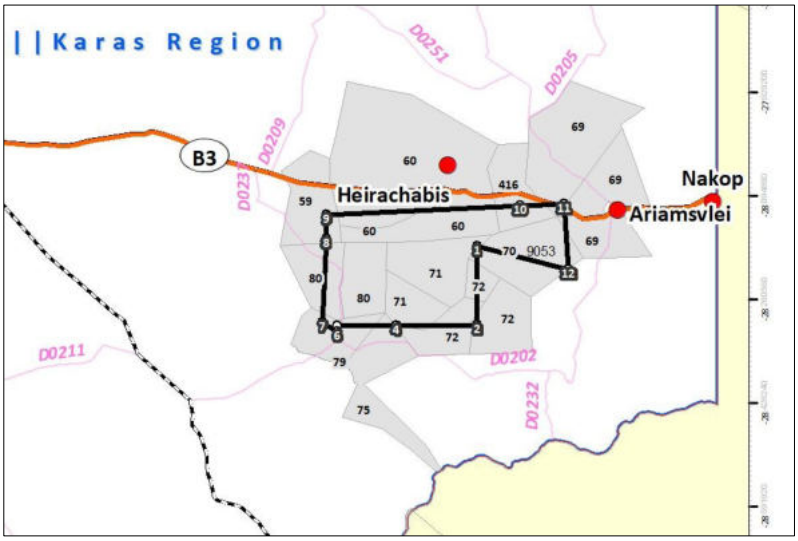


FIGURE 2 – LOCALITY MAP AND INFRASTRUCTURE OF THE PROPOSED PROJECT

TABLE 2 - CORNER COORDINATES FOR THE EPL 9053

	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE
1	-28.176316	19.615532	7	-28.29791	19.367543
2	-28.302876	19.615336	8	-28.16482	19.374445
3	-28.30357	19.486821	9	-28.125619	19.375059
4	-28.303848	19.486402	10	-28.112106	19.684434
5	-28.303883	19.391935	11	-28.109032	19.7548
6	-28.312521	19.391914	12	-28.213391	19.760917



1.4. PURPOSE OF THE DOCUMENT

In terms of the Environmental Management Act No.7 of 2007 and the Environmental Impact Assessment (EIA) Regulations of 2012, the project triggers listed activities that cannot be undertaken without an Environmental Clearance Certificate (ECC). An environmental clearance application will be submitted to the Ministry of Mines and Energy (MME) as the competent authority and the Ministry of Environment, Forestry, and Tourism (MEFT) as the issuing authority for the decision process to issue an environmental clearance certificate to the proponent, before the commencement of the anticipated project activities.

The environmental scoping assessment report aims to address the following:

i. Identification of potential positive and negative environmental impacts.
ii. Evaluation of the nature and extent of potential environmental impacts
iii. Identify a range of management actions that could mitigate the potential impacts.
iv. Consult relevant stakeholders regarding the proposed development.
v. Provide sufficient information to the MEFT to make an informed decision regarding the proposed project.

The provision of the listed activities are as follows:

WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES

2.1 The construction of facilities for waste sites, treatment of waste and disposal of waste.

2.3 The import, processing, use and recycling, temporary storage, transit, or export of waste.

MINING AND QUARRYING ACTIVITIES

3.1 The construction of facilities for any process or activities which requires a license, right, or other forms of authorization, and the renewal of a license, right, or any other form of authorization in terms of Minerals (Prospecting and Mining Act), 1992.

3.2 Other forms of mining or extraction of natural resources whether regulated by law or not.

3.3 Resource extraction, manipulation, conservation, and related activities.

FORESTRY ACTIVITIES

4.1 The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorization in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.

WATER RESOURCE DEVELOPMENT

8.1 The abstraction of ground or surface water for industrial or commercial purposes.

HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE

9.2 Any process or activity which requires a permit, Licence or other forms of authorization, or the modification of or changes to existing facilities for any process or activity which requires amendment of an existing permit, Licence or authorization or which requires a new permit, Licence or authorization in terms of a governing the generation or release of emissions, pollution, effluent or waste.

9.4 The storage and handling of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.

1.5. PROJECT MOTIVATION/RATIONALE

Successful mineral exploration leads to discoveries of economic mineralization that can be mined. Mining activities in Namibia are one of the biggest contributors to the country's revenue and mining is one of the largest economic sectors in the country. The following are some of the possible benefits of the proposed project activities:

- Contributions to annual license fees to the government through the MME.

- Payments of lease agreements and services rendered.
- Provision of contractual employment opportunities.
- Increase in knowledge on the subsurface which then contributes to development, and geoscience research.
- Contribute to the socio-economic development of the local area and region,
- Direct capital investment into ||Karas Region, and the nation through taxes on goods purchases as required for exploration activities.

Should an economic mineral resource be found on the license, it could provide social and economic development within the region and the country. In the case the company finds economic mineralization and want to proceed to mining, the company would need to apply for a Mining Licence (ML) with the MME, and a separate, comprehensive (full) Environmental Impact Assessment (EIA) process would be undertaken at that stage.

1.6. SCOPING ASSESSMENT LIMITATIONS

AEC assumes that all information and technical data for the Project relevant to the scope of the environmental scoping procedure provided by the Proponent, collected by AEC specialists and during the public participation process are true and correct, and that all necessary information has been disclosed.

This report is compiled as a scoping assessment, in addition other specialist studies were done as part of this assessment i.e., Heritage/Archeological specialist study and a biodiversity specialist study. This is because the consultants believed that the magnitude of the proposed activities and the existence of similar projects in the vicinity can be used to sufficiently address potential impacts from the proposed project under the impact assessment section of the SR and to provide mitigation measures. Reviewed literature, and professional experience from similar studies in the Region and elsewhere were also considered when addressing these effects/impacts. The project specific information used in this document is as provided by the Proponent, the consultants, specialists, and relevant literature reviewed/research. This report has been compiled on assumption that there will be no substantial changes to the proposed project activities or to the affected biophysical and social environment between the time of compiling this document and execution of the project, that could potentially influence the findings of this document. Where project activities alter or new impacts are identified, the EMP (**Appendix B**) should be updated to cater for the new impacts and mitigation measures should be provided therein.

1.7. TERMS OF REFERENCE

The Terms of Reference (ToR) for the proposed project are based on the requirements set out by the Environmental Management Act (EMA) (2007) and its EIA Regulations (2012). The scope of this assessment is to identify and evaluate potential environmental impacts emanating from the proposed activity. Data has been compiled by making use of literature, information provided by the proponent, communication with relevant stakeholders, specialist studies, and the consultant's experience.

The process covered the following steps, as divided into the sections below. Each section describes what was undertaken.

1.7.1. SCREENING PHASE (OCTOBER 2023)

This involves project initiation discussions with the proponent to finalize the TOR for the study. The consultants identify potential environmental aspects and potential impacts that may be relevant to the project. Once the screening phase is concluded the scoping process is initiated.

1.7.2. SCOPING PHASE (OCTOBER 2023 TO DECEMBER 2023)

This phase constitutes the identification of further potential environmental issues associated with the proposed project, a description of the receiving environment, assessment of potential environmental impacts, and development of management and mitigation measures.

Other activities that can be conducted at this phase include site visits, communication with potential affected parties, and the compilation of Scoping and EMP Reports. The reports are then distributed to Interested and Affected Parties (I&APs) for comment. This stage is further discussed under **Chapter 2**.

1.7.3. LEGAL FRAMEWORK

All legislation, policies and guidelines relevant to the proposed project are listed under **Chapter 5**. The activities for which clearance is required for the project were extracted from the EMA Regulations. As per legal requirements, any exploration activity requires the Environmental Commissioner within the Ministry of Environment, Tourism and Forestry (MEFT) to render an Environmental Clearance Certificate (ECC), as per the Environmental Management Act, No 7 of 2007 (EMA).

1.7.4. AIM OF THE REPORT

The aim of this report is to provide details on the proposed mineral exploration activities, their technical, operational, and possible decommissioning and closure, to enable decision makers to make an informed decision regarding the project from an environmental perspective.

1.7.5. PUBLIC PARTICIPATION PROCESS

To inform Interested and Affected Parties (IAPs) and relevant authorities of the details of the proposed development, and to provide them with a reasonable opportunity to participate during the process.

Stakeholder engagement through the public consultation process (PPP), is described in a later section of this report (**Chapter 7**).

1.7.6. ENVIRONMENT DESCRIPTION

The 'environment' is defined in the Environmental Assessment Policy and Environmental Management Act as "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values".

Relevant environmental data was compiled by making use of secondary information from past research in the area, from recent specialist studies, and stakeholder consultation. The consultants/EAP identified existing environmental (both ecological and socio-economic) conditions of the receiving environment in order to determine environmental sensitivities. Information regarding the biophysical and socio-cultural environment was sourced from a number of studies previously done in and around the study area. Furthermore, biodiversity and heritage specialist studies were conducted as part of this assessment. Please refer to **Chapter 6** and the document reference list for the sources of information consulted.

1.7.7. IMPACT ASSESSMENT

The scoping and assessment process aims to guide and promote sustainable and responsible development and not to discourage development. Potential environmental impacts and associated social impacts were identified and addressed in the report (**Chapter 9**). The EAP has assessed likely positive and negative impacts, including environmental and social impacts at the local and regional levels (|| |Karas Region), and at national level (Namibia) using the Hacking Assessment Method.

Possible enhancement measures have been listed for the positive impacts, while prevention, mitigation, and rehabilitation measures have been provided for negative impacts. The environmental assessment was conducted to comply with Namibia's Environmental Management Act, the requirements of Local Authorities and all other legal requirements applicable to the development and Namibia.

The assessment process involved merging various information streams into a description of the environment and the proposed project. If the environmental commissioner finds that the assessment

of potential impacts and the proposed mitigation measures proposed in this report are acceptable, an ECC will be awarded to the proponent.

1.7.8. ENVIROMENTAL MANAGEMENT PLAN (EMP)

This task involved the drafting of a standalone document that outlined the management, monitoring and mitigation measures that will avoid, minimise and/or mitigate potentially negative impacts. The ECC should refer to the EMP contained in **Appendix B,** and the conditions stipulated therein, thus rendering the EMP a legally binding document to which the proponent will adhere. The EMP is a live document and can be amended where project activities alter, or new impacts are identified throughout the life of the project.

2. THE EIA APPROACH AND METHODOLOGY

The EIA and EMP methodology applied for this project will take into account the provisions of the Environmental Impact Assessment (EIA) Regulations, 2012, and the Environmental Management Act (EMA) Act No. 7 of 2007. The process followed is detailed below and in **FIGURE 3**.

PHASE 1 – ENVIRONMENTAL SCREENING

Project initiation and registration with the Competent Authority

- This involves meeting with the client and discussing timeframes, logistics and project descriptions.
- Basic desktop baseline analysis and compilation of a Background Information Document (BID)
- Project registration with the Department of Environmental Affairs (DEA), done on the EIA online portal system.
- After the project is registered, the environmental commissioner advises whether a full EIA or scoping assessment is required for the project; for this project a scoping assessment. The required documents are outlined on the online system.

PHASE 2: ENVIRONMENTAL SCOPING ASSESSMENT INCLUDING PUBLIC PARTICIPATION PROCESS (PPP)

- An extensive desktop baseline study and review for the area is undertaken using remote sensing to identify and describe potential sites that are likely to be impacted by the project before on ground site verification.
- The consultants may conduct a site visit during this stage to form a basis for the assessment and determine the real sensitivity of the surrounding biophysical and socio-economic environment.
- The information obtained during the site visit (if done) is supplemented by a literature review and used by the environmental consultant to: (a) Determine the actual/real risks associated with the project activities, (b) Provide practical mitigation measures to minimize the risks; and (c) Make recommendations for further studies, should it be required.

Public Consultation Process and stakeholder engagement (21 Days)

- Public consultation is an important stage of the EIA process as it ensures public involvement. The public consultation process begins with newspaper advertisement (minimum two (2) local newspapers, advertised twice for two consecutive weeks), site notices placed at easily accessible places around the project area, in nearby towns/villages/settlements, through respective constituency offices (especially in remote areas where newspapers might not reach on time), followed by public meetings. If necessary, adverts can also be made via radio announcements. This is being done to provide the public with the opportunity to be involved in the process, provide their views and input regarding the proposed activities in the area.

- The EAP approaches different organizations and government institutions to gather information on potential stakeholders' contact details.
- During this stage, potential stakeholders (local governments, constituency offices, farmers etc.) are identified and made aware of the project as advised in writing. Invitation letters and or emails are sent to the identified I&APs. All I&APs contact details are collected for future communications related to the project progress.
- The Background Information Document (BID) prepared in phase 1 is shared with all identified and registered I&APs during this period. The BID usually contains summarized project information such as the project description of activities, project motivation, potential impacts, and the EIA process followed. This document is shared via email or delivered in hardcopy to the relevant/applicable parties. Other social media platforms such as WhatsApp can also be utilized. During this stage, face to face public engagement and information sharing could be hosted.
- All comments, inputs, issues and/ or concerns raised by I&APs during the process is recorded for consideration in the environmental assessment report and towards the development of the EMP.

PHASE 3: ENVIRONMENTAL REPORTING – ENVIRONMENTAL SCOPING ASSESSMENT REPORT (ESAR) AND ENVIRONMENTAL MANAGEMENT PLAN (EMP)

- This stage includes data reduction and analysis using appropriate techniques to produce suitable project results for interpretation and discussion. It also entails consolidation of the findings in the form of a report that can be presented to the proponent for review and comments. An EMP is drafted to mitigate negative impacts and manage all impacts identified in the scoping report.
- After approval of the documents by the Proponent, the draft ESAR and EMP is prepared for circulation to the public (I&APs) for comments over a period of 7-14 days.
- All comments are consolidated and included in the reports and the ESAR and EMP are finalized for submission to the competent authority MME and issuing authority (MEFT).
- The registered and identified I&APs are informed that the final documents have been submitted to the authorities for decision making and that for any further comments, they can directly contact the DEA. Furthermore, the DEA provides another 14 days period for public participation on the online portal.

PHASE 4: FOLLOW-UP WITH THE COMPETENT AUTHORITY UNTIL FEEDBACK IS GRANTED

Should the DEA require further information, the EAP is alerted of this request and which information to provide.

FIGURE 4: BELOW PROVIDES A SIMPLIFIED EIA PROCESS FLOWCHART

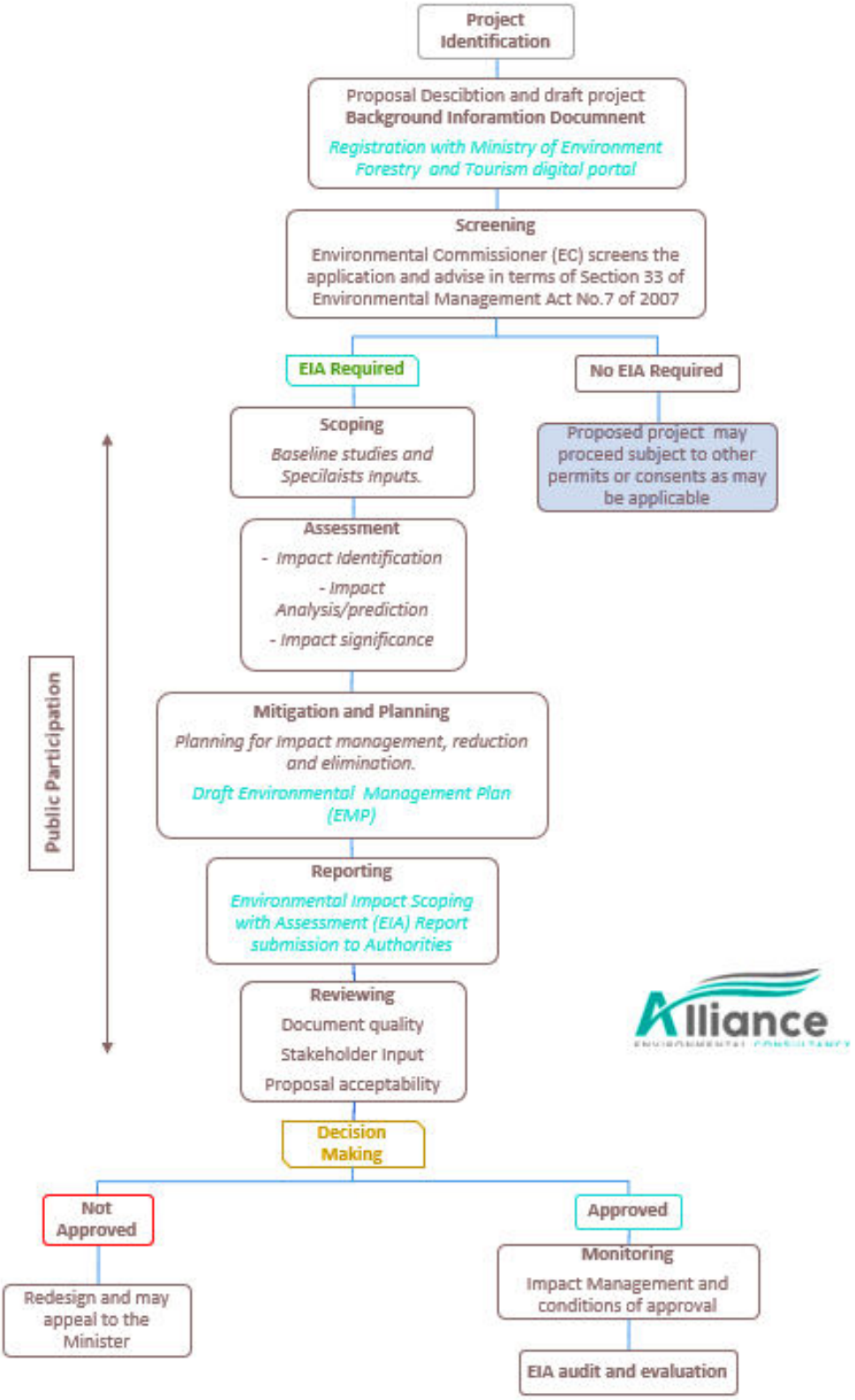


FIGURE 3 - EIA FLOW CHART BY AEC

3. PROJECT DESCRIPTION

3.1. PROJECT PLAN AND ACTIVITIES

The proponent wants to conduct mineral exploration programs on EPL 9053 for base & rare metals, precious metals, industrial minerals, and nuclear fuel minerals. Once the license is granted by MME, it will be valid for three years with possible renewal after this period. The commencement of the project is planned as soon as the environmental clearance certificate and physical EPL license has been issued. An outline of the possible exploration phases is detailed below:

3.1.1. PLANNING PHASE

This phase includes acquisition of necessary permits, and getting agreements in place with various state, parastatal agencies, as well as surface landowners/land custodians.

Possible parties that may be consulted include:

- Ministry of Mines and Energy (MME)
- Ministry of Environment Forestry & Tourism (MEFT, this application)
- ||Karas Regional Council
- Ministry of Agriculture, Water & Land Reform (MAWLR)
- Affected Traditional Authorities
- National Heritage Council of Namibia (NHCN)
- Landowners/ Land custodians

3.1.2. INITIATION/PRE-OPERATIONAL PHASE

i. Accommodation

There are various accommodation options being considered. Options include existing field camps or farmhouses with basic infrastructure within the boundaries of the EPL or in the surrounding areas/towns, to provide accommodation for approximately 5 to 10 people(depending on the labour needs). Alternatively, workers can commute from the nearby towns/settlements, or any accommodation places that may be deemed sufficient by the proponent. Any new infrastructure will be erected with the permission of the land custodians. The accommodation area will be demarcated to limit the movement of equipment and personnel beyond the footprint of the camp area, and also to limit the movement of animals onto the site from the surrounding.

ii. Access

The proponent will negotiate land access with the landowners. Regarding access roads on the tenements, existing access roads will be utilized. If new access roads are required these will be established in consultation with the landowners or custodians. The selective clearing of vegetation

(trees) in areas designated for prospecting will be minimal. In mineral exploration land is often only cleared at areas where drilling operations will be conducted, or to service advanced exploration, or where the camping area will be erected. When lateral expansion is required the removal of vegetation will be done in consultation with the landowners/custodians and with the Directorate of Forestry that issues the relevant permits before any trees could be fallen.

iii. Waste management

Solid waste will be removed off site and taken to the nearest registered dumpsite. When exploration is concentrated in one area for an extended period (such as during drilling activities), portable toilets will be used at these work sites. In the case of remote camps toilets may be established where the staff resides , with septic tanks to be emptied regularly using a tanker truck which removes the sewerage and takes it to the municipal sewerage works. For a longer-term field camp arrangement, a French drain system could be devised and constructed.

3.1.3. OPERATIONAL SUPPORT SERVICES

i. Water supply

Water supply sources being considered are either.

- Ground water abstraction; and
- NamWater

The consultant and proponent recognize the water sensitivity in the ||Karas region. The volume of water used will depend on the phase of the exploration program. Water needs in the initial phases of mineral exploration will be minimal for drinking and ablution facilities. If diamond drilling is required to test a target then larger volumes may be required. Water can be sourced from the nearest NamWater supply scheme or from one of the surrounding neighbors or community boreholes and then be trucked to the exploration sites and camps.

For any additional water needs ground water abstraction will be considered, which can be done at minimal extraction. A borehole can be sunk to augment supply, or an existing borehole can be utilized with the owner's permission. However, for this option groundwater exploration would need to be undertaken followed by the required permit application process with the Directorate of Water Affairs (DWA).

ii. Power supply

The proponent will evaluate what electrical supplies are readily available to the project. Generators may be used in remote locations, and a small field of photovoltaic panels is also envisaged for power generation in the medium term in semi-permanent camps and during long-term work. No infrastructure

development to get electricity from the national grid has been planned. All mobile equipment is diesel/petrol driven and self-propelled. Static equipment will use electricity generated by diesel generators.

iii. Onsite fuel storage

Due to distance from town hubs to exploration and accommodation sites, the proponent may store fuel (diesel and/or petrol) at a safe location on site, for use during exploration activities. Approximately 200-400 litres of diesel will be stored in a bunded fuel tank system, conveniently placed and accessible for deliveries. This facility will be of modern construction, either double-skinned or 110% bunded to ensure spills are prevented.

Delivery systems will use sealed fittings to prevent spillage. The fuel facility is to be actively manned. Standardized spill kits and reporting systems will be in place to deal with any hydrocarbon spills. Contaminated soil will be transferred to a remediation site, which is specifically designed for such treatment.

Although unlikely during the mineral exploration phases, should the company need to store more than 600 litres of fuel at its exploration sites in the rural areas, storage permission will be sought from the MME.

3.1.4. PROSPECTING/OPERATIONAL PHASE ACTIVITIES

The primary exploration target on the license is for nickel-copper-platinum group elements (Ni-Cu-PGEs). The primary mineralization model is that of disseminated to massive sulphide deposits associated with mafic to ultramafic magmatic rocks. The secondary exploration target on the license is that of Lithium bearing pegmatites. Besides quartz, feldspar and mica, lithium bearing pegmatites may also carry other valuable minerals that contain rare elements such as tantalum, niobium, tin, tungsten, cesium, rubidium, boron, fluorine, and many other elements.

The exploration team is envisioned to consist of up to fifteen (15) skilled, semi-skilled, and non-skilled workers. Initially the company may start with 2-3 exploration geologists and 2-3 field technicians. Additional support like logistics, labourers, cooks etc., will likely be needed, and employment will ramp up as needed for each phase of the exploration program. Laborers will be sourced from the communities nearest to the projects. Field operations may operate up to 10 hours a day (7am to 5pm) for up to seven days per week, or as needed. The personnel will be transported to and from the operational site.

i. Vehicle, machinery, and associated equipment

At the initial stages of mineral exploration, the company will use 4x4 vehicles. Heavy machinery will be used from drilling stages. The number of vehicles will depend on the work program. The main equipment types that will be used will include 4X4 bakkies, drill rigs (Reverse Circulation (RC) or Diamond Drill Hole (DDH)), excavators and front-end loaders to be used if overburden topsoil removal is required, water tankers for the camp site and to support drilling operations, portable geophysical equipment, sampling equipment (bags, sieves, spades etc.). The equipment will be stored in designated areas at the exploration sites, camps, or accommodations.

The projected mineral exploration activities during prospecting follow a staged approach. The different work aspects and consecutive phases are summarized as follows:

ii. Desktop studies including geological mapping.

Initially the proponent would gather all existing data for the areas of interest. This may be done by purchasing data such as historical assessment reports, geochemical data, and high-resolution geophysical data from the MME/GSN. The existing data forms the basis of desktop studies, evaluation of areas of interest for mineral exploration, and target identification. Once the licences are granted, one of the initial stages in mineral exploration on the EPL would be to ground truth known mineral occurrences and conduct geological mapping at targets generated from the desktop studies. The information gathered from the various field campaigns are fed into the existing databases towards improving exploration tools and mineralization models for successful exploration. This stage of mineral exploration is non-invasive.

To map the sub-surface, in potentially mineralized areas, the company may consider trenching. Trenches may be dug / excavated to a depth of about 5m or less. The material from the trenches is put on the sides of the trenches for backfilling of these trenches once they are no longer needed. If the trenches are needed for a longer period they may be fenced off.

iii. Geophysical survey

The geophysical surveys include the collection of information of the substrata, by ground and airborne techniques. Detection is through sensors such as radar, magnetics and electromagnetics to detect any mineralization in the area. Ground geophysical surveys would be carried out using sensors mounted on vehicles or carried by hand **FIGURE 4**. Aerial geophysical surveys would be carried out using sensors mounted on low flying aircraft or unmanned drones **FIGURE 5**. The airborne geophysical technique tries to measure electrical conductivity and magnetic variations of the ground using measuring instruments suspended underneath a helicopter, drone or aircraft. During the survey, the magnetometer continuously records the conductivity or total magnetic field intensity immediately beneath the magnetometer. Where necessary, permits will be obtained from Namibia Civil Aviation

Authority (NCAA) to support the airborne geophysical surveys. Geophysical methods used in mineral exploration are generally, non-intrusive, with little to no impact on the receiving environment.

FIGURE 4- IILUSTRATIVE IMAGE OF A GROUND-BASED GEOPHYSICAL SURVEY WITH MAGNETOMETER (Photo taken from: https://irsl.ss.ncu.edu.tw/media/course/CI/SIO_9.pdf

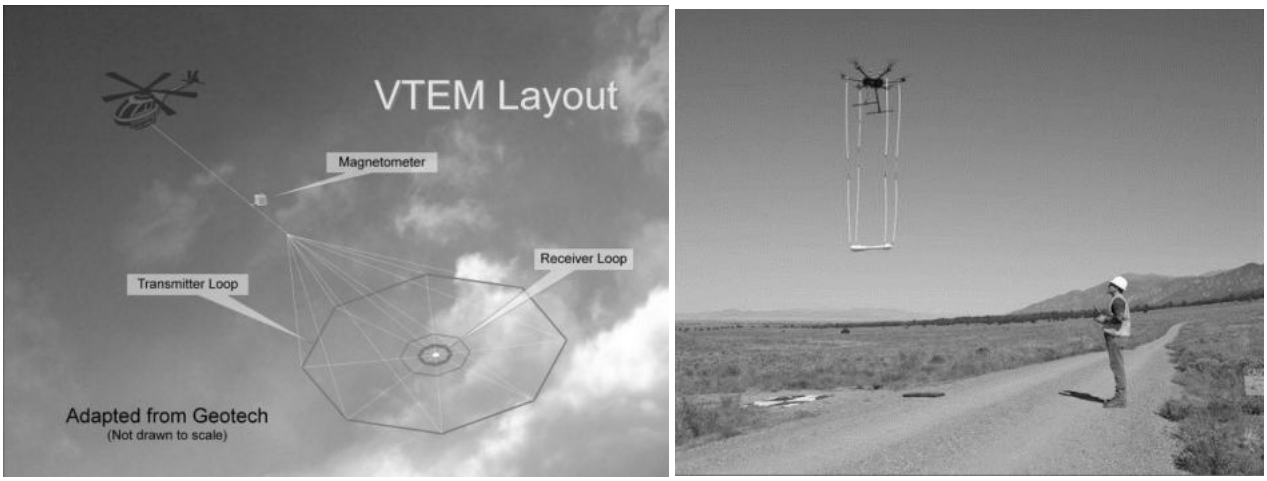


FIGURE 5 – ILLUSTRATIVE IMAGES OF AIRBORNE GEOPHYSICAL TECHNIQUES (Photo credits: https://www.geologyforinvestors.com/airborne-geophysical-methods/)

Prior communication should be made with the relevant landowners and general public before surveys are conducted. This is to impart information on what is taking place as some may not understand why a helicopter or drone is flying back and forth (predetermined grid lines), and what the attached equipment does. Also, depending on the height being flown, the noise from airborne surveys may present a discomfort to people and animals.

iv. Geochemical sampling

This stage incorporates the collection and geochemical analyses of material such as rocks, drill core or drill chips, and soil **FIGURE 6**. Rock samples are collected during ground-truthing/reconnaissance and geological mapping activities.

Soil samples are collected at depths of at least 20 - 30cm, by firstly removing the upper surface of the soil that will be filled back once a sample is collected. The samples are collected into bags of approximately 500grams to 1kg. Sampling might be carried out in up to 8 teams, each consisting of a field technician or geologist and local field assistants.

The samples collected during field campaigns are sent to an analytical laboratory (as preferred by the proponent) for geochemical trace element and whole rock analysis, mineralogy, or for heavy mineral separates. This is to determine if the desired mineralization is present, and in which quantities. Mineralogical studies on samples collected will run consecutively to geochemical sampling to determine host mineralogy and any complications that may arise later in the geo-metallurgy process.

FIGURE 6 - EXAMPLES OF GEOCHEMICAL SAMPLING OF SOILS (Photo taken from: https://www.fishereng.com/post/b-understanding-geotechnical-investigations)

v. Exploration Drilling

Exploration drilling (**FIGURE 7)** is the process of sampling rock below surface, where it is suspected that there may be mineralization. Drill targets are generated from the review and interpretation of results in combination of desktop studies, geological mapping, geophysical surveys, and geochemical analysis. It may be necessary to clear tracks and drill platforms/pads in preparation for drilling activities. Efforts will be made to limit or minimize the amount of clearing of trees and shrubs for drilling. For these purposes tree removal and clearing permits can be applied for at the Department of Forestry (DoF), at MEFT.

Initially, drilling would be localized on discrete targets identified through the different stages of mineral exploration, and if the results are positive then more drilling would be planned.

The commonly used drilling techniques are Reverse Circulation Drilling (RC) or Diamond Drilling. Both methods are applied in mineral exploration, resource evaluation and subsequently in defining an ore reserve. Storage of the drill products (rock chips and/or drill core) may be near the exploration site, the exploration camp, a storage warehouse in proximity to the project, or rental of a warehouse near the project. Additional work may be required on the drill products, such as XRF analysis, core cutting and sampling, which may be conducted at the storage facility.

FIGURE 7 - ILLUSTRATIVE IMAGE OF A DRILLING OPERATION (Photo credits: https://www.juniorminingnetwork.com/junior-miner-news/press-releases/394-tsx-venture/sgn/100723-scorpio-gold-commences-exploration-drilling-program-on-manhattan-mine-nevada.html)

During Diamond drilling a solid tubular rock known as core is extracted (**FIGURE 8**) The cored rock represents the lithology/rocks below ground, and is extracted from depth, for examination at surface. The key technology of the diamond drill is the diamond bit. It is composed of industrial diamonds set into a soft metallic matrix. The drill produces a "core" which is logged, photographed and which can be split longitudinally for sampling. Half of the split core is assayed while the other half is stored for future uses and as a reference.

FIGURE 8 - IILUSTRATIVE IMAGE OF A DIAMOND DRILL CORE (Photo credits: https://www.istockphoto.com/photos/core-drilling)

RC Drilling uses a pneumatic hammer, which drives a rotating tungsten-steel bit. The technique produces an uncontaminated large volume sample, which is comprised of rock chips (**FIGURE 9**). RC is relatively quick and cheap compared to Diamond Drilling. In mineral exploration RC drilling is commonly used in uncomplicated geology at shallow levels, or for infill drilling, at a much higher density or narrower spacing for confidence in the mineralization and to allow extrapolations of the mineralization host rock units.

FIGURE 9 -IILUSTRATIVE IMAGE OF RC DRILLING ROCK CHIPS *(Photo taken from: https://www.marketindex.com.au/news/aldoros-pegmatite-intersections-at-murchison-look-encouraging)*

Drilling platforms/pads in RC and diamond drilling, are approximately 15 m x 15 m. This space is needed for the machinery and working areas of the drill teams. When the machines are on, for safety, the drilling site is off-limits to those who are not part of the exploration team.

The drill results once received and the drilling phase is completed, the results are evaluated, and a decision will be taken whether to continue to the next phase of mineral exploration on the EPL. If

exploration drilling results are positive the information will be used to determine follow-up drilling phases which may lead to resource definition and modelling.

vi. Advanced prospecting/exploration

In the advanced stages of mineral exploration, and if an economic mineral deposit is found on the EPL, larger amounts of rock sample material may be required for performing processing trials and for metallurgical testing programs. Ground conditions and geotechnical parameters also need to be established for planning and costing purposes to move to the next phases of the project.

Bulk sampling for metallurgical tests and processing trials will be done to complement the material obtained during drilling. A bulk sample can be collected via trenching if the weathering of the rocks is not too deep, or from drilling with larger bit sizes, or from localized blasting. The size of the sample required depends on the nature of the mineralization as observed from drilling and sampling.

vii. Pre-feasibility and feasibility studies

If the advanced exploration activities yield positive results the project will move to feasible evaluation. A feasibility study is conducted to determine whether the defined mineral resource on a certain project can be mined economically.

In addition to the data previously gathered on the project, this stage may require additional detailed and site-specific resource and geotechnical drilling, bulk sampling, laboratory and metallurgical testing, and possibly trial mining.

viii. Mining Licence Application or End of exploration Program

If a feasible mineral resource is discovered within the EPL, the proponent may decide to move the project forward to mining and apply for a mining licence with the MME. A separate and detailed environmental impact assessment study will be undertaken. The proponent can also decide to carry out the detailed EIA as part of the feasibility studies. The EIA will comprise of detailed site-specific specialists' studies of different aspects of the project these studies may include the following impact assessments; socio-economic, hydrology and geohydrology, archaeology, air quality, traffic, biodiversity (fauna & flora), visual and soil etc.

Should there be no discovery of economic mineralization on the EPL during the various stages of mineral exploration/prospecting, the proponent can decide at any stage to discontinue the activities planned on the EPL, rehabilitate the areas disturbed during their exploration, and relinquish the EPL back to the MME.

3.1.5. DECOMMISSIONING AND FINAL REHABILITATION

In accordance with the EMA, the proponent is required to have funds available and allocated for rehabilitation. This fund should continually be available during the period of the active operation and be sufficient to cover all decommissioning activities, when required. Decommissioning activities will

include the removal of any temporary infrastructure, rehabilitation of roads and other linear infrastructure, drill sites and bulk sampling pits. This is done to reduce the effects of soil erosion and to re-establish normal ecosystem functionality so as to rehabilitate the environment. Functional water boreholes (if any were drilled by the proponent) and solar panels could be donated to the local communities. Rehabilitation efforts can be expected to be low if economic mineralization is not found on the EPL, because the mineral exploration activities would have had minimal impact on the environment or may have been limited to non-invasive activities, if there was no justification from surface observations to trench or drill test any of the targets.

4. ALTERNATIVES CONSIDERED

In In terms of the Environmental Management Act, No. 7 of 2007 and EIA Regulations, alternatives considered should be analyzed to identify different means of meeting the general purpose and requirements of the activity, which may include alternatives to, location, type of activity, design and layout, technology, and operation aspects. This is to ensure that during the design evolution and decision-making process, potential environmental impacts, costs, and technical feasibility have been considered, which leads to the best option(s) being identified. The alternatives considered are tabulated below:

ALTERNATIVE	JUSTIFICATION
Site/Location	**Minerals Occurrence Location**- Several economic deposits are known to exist in various locations of Namibia, some of which have been explored and mined by various companies throughout the years. However, economic mineral occurrences are highly localized and therefore primarily determined by the site geology. In this specific EPL, the proponent proposes to explore and potentially mine for base & rare metals, precious metals, industrial minerals, and nuclear fuel minerals. The proponent has evaluated the geology of the country and identified areas where there are potential lithologies that may host the metals of interest. They thus decided to apply for EPLs in these areas of interest throughout the country. Some of the EPLs were rejected due to environmental sensitivity known by the GRN in those areas.
Infrastructure	**Access Roads –** The access routes to target areas and around the EPL have not been determined yet, however the proponent will use the existing external and internal road networks during the various phases of the project, should any new access be created, it will be done in consultation with the landowners/land custodians as well as MEFT. At a later stage in the exploration, the Proponent may need to upgrade some of the tracks to ensure that they are fit to accommodate project vehicles, such as rig bearing trucks, and may erect temporary road signs for the duration of the project. **Equipment and infrastructure –** The equipment and infrastructure options considered by the proponent are deemed sufficient at this stage of the project and were chosen based on cost, the environment, as well as accuracy in terms of required mineral information. However, in the world of revolving technology, the proponent may opt to employ other improved and environmentally safe to use equipment/infrastructure, in future and if deemed necessary, to maximize the project output.
Water supply	The proponent will use existing water infrastructure. Water may be brought to site from the nearest town/settlement and stored in tanks on site for basic water needs (drinking, cooking, ablutions etc). The alternative is to use existing boreholes or do a hydro search to drill a new borehole. Extra water needs may be supplemented with borehole water or other alternatives to be sought when the need arises.

Power supply	The first alternative is to use existing power supply sources in the area. If there are no existing power infrastructure in the area, power may be sourced from a diesel generator. Another alternative is to Install photovoltaic solar panels.

4.1. NO GO ALTERNATIVES

The no-go option to not conduct mineral exploration on the license will deprive the proponent of an opportunity to pursue its business and to strive for mineral resource discoveries, it will also constitute an opportunity loss for the Namibian economy and overall wealth of the Namibian people. As such, it will also deny other key stakeholders an opportunity to earn a much-needed income. The local authority and central government agencies will not earn revenue through rates and taxes. Considering the above losses, the "no-action/go" alternative was not considered a viable option in the interest of the directly affected community and the proponent.

5. LEGAL REQUIREMENTS

5.1. LIST OF APPLICABLE LAWS AND LEGISLATIONS

A list of legislation that is applicable to the proposed project is presented in **TABLE 3**.

TABLE 3 - LIST OF APPLICABLE NATIONAL LAWS AND LEGISLATIONS

LAW	SUMMARY DESCRIPTION & APPLICABILITY
Constitution of the Republic of Namibia, 1990	The Constitution is the supreme law in Namibia, providing for the establishment of the main organs of state (the Executive, the Legislature, and the Judiciary) as well as guaranteeing various fundamental rights and freedoms. Provisions relating to the environment are contained in Chapter 11, article 95, which is entitled "promotion of the Welfare of the People". This article states that the Republic of Namibia shall – "Actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at; maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for all Namibians, both present and future. The Government shall provide measures against the dumping or recycling of foreign nuclear waste on Namibian territory."
Minerals (Prospecting and Mining) Act, No. 33 of 1992 *Ministry of Mines and Energy*	Minerals (Prospecting and Mining) Act 33 of 1992 and special regulations Sections 50, 52, 54, 57 and 130 of this Act sets out provisions for environmental management for activities arising from mineral, Exploration, and exploitation of mineral resources
The Minerals Policy of Namibia, 2003 *Ministry of Mines and Energy*	This policy sets out guiding principles and directions while communicating the values of the Namibian people in pursuit of the development of the mining and mineral resources beneficiation sector.
Charter for Sustainable and Broad-Based Economic and Social Transformation in the Namibian Mining Sector 2014 – 2020 (The Namibian Mining charter)	This charter aims to facilitate meaningful participation of historically deprived Namibians in the mineral exploration, mining and mineral beneficiation industry. It has effectively been developed as an instrument to effect transformation and sets specific targets for mineral license holders and Operators of mineral processing facilities active in Namibia. This has relevance to this project as the license Holder is a previously disadvantaged individual and will undertake the proposed activities jointly with their partners.

Environmental Management Act (2007) *Ministry of Environment, Forestry and Tourism (MEFT)*	The purpose of the Act is to give effect to Article 95(l) and 91(c) of the Namibian Constitution by establishing general principles for the management of the environment and natural resources. - to promote the coordinated and integrated management of the environment to give statutory effect to Namibia's Environmental Assessment Policy. - to enable the Minister of Environment, Forestry and Tourism to give effect to Namibia's obligations under international conventions. - In terms of the legislation, it will be possible to exercise control over certain listed development activities and activities within defined sensitive areas. The listed activities in sensitive areas require an Environmental Assessment to be completed before a decision to permit development can be taken. The legislation describes the circumstances requiring environmental assessments. - Activities listed as per the provisions of the Act will require environmental assessment unless the Ministry of Environment, Forestry and Tourism, in consultation with the relevant Competent Authority, determines otherwise and approves the exception. The provision of listed activities is listed under **section 1.4.**
Environmental Assessment Policy (1994) *Ministry of Environment, Forestry and Tourism (MEFT)*	This policy aims to promote sustainable development and economic growth while protecting the environment in the long term by requiring environmental assessment prior to undertaking of certain activities. Annexure B of the policy contains a schedule of activities that may have significant detrimental effects on the environment, and which require authorisation prior to undertaking.
Water Act 54 of 1956 Water Resources Management Act (Act No. 11 of 2013) Ministry of Agriculture, Water and Land reform (MAWLR)	This Act provides for the control, conservation, and use of water for domestic, agricultural, urban, and industrial purposes. In terms of Section 6, there is no right of ownership in public water and its control and use is regulated and provided for in the Act. In accordance with the Act, the proposed project must ensure that mechanisms are implemented to prevent water pollution. water permits will also be required to abstract groundwater as well as for "water works."
Forest Act 12 of 2001 - Minister of Environment, Forestry and Tourism (MEFT)	The Act provide for the establishment of a Forestry Council and the appointment of certain officials; to consolidate the laws relating to the management and use of forests and forest produce; to provide for the protection of the environment and the control and management of forest fires.

	Section 22 requires a permit for the cutting, destruction or removal of vegetation that are classified under rare and or protected species; clearing the vegetation on more than 15 hectares on any piece of land or several pieces of land situated in the same locality which has predominantly woody vegetation; or cut or remove more than 500 cubic metres of forest produce from any piece of land in a period of one year. Should the above be unavoidable, it will be necessary to obtain a permit from the Ministry. Minimal vegetation clearing will be required to support the project activities. The necessary permit should be obtained from the MEFT, where the application should satisfy that the cutting and removal of vegetation will not interfere with the conservation of soil, water, or forest resources.
Hazardous Substance Ordinance 14 of 1974 *Ministry of Health and Social Services (MoHSS)*	Provisions for hazardous waste are amended in this act as it provides "for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances. to provide for the prohibition and control of the importation, sale, use, operation, application, modification, disposal or dumping of such substance and to provide for matters connected therewith."
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001) *Ministry of Mines and Energy*	Regulation 3(2)(b) states that "No person shall possess or store any fuel except under authority of a licence or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area. The project will require diesel storage for supplying power, and machinery operation. The necessary permits should be acquired in this regard.
Atmospheric Pollution Prevention Ordinance 11 of 1976. Ministry of Health and Social Services (MoHSS) WHO guideline on noise levels. Occupational Safety and Health Administration (OSHA) guidelines	This regulation sets out principles for the prevention of the pollution of the atmosphere and for matters incidental thereto. Part III of the Act sets out regulations pertaining to atmospheric pollution by smoke. While preventative measures for dust atmospheric pollution are outlined in Part IV and Part V outlines provisions for Atmospheric pollution by gases emitted by vehicles. The proposed prospecting activities would not entail the discharge of large quantities of gaseous pollutants into air but may result in increased noise levels, dust generation, destruction of in situ soil structure during such operations.

The Nature Conservation Ordinance 4 of 1975, Ministry of Environment, Forestry and Tourism (MEFT)	Care must be taken to ensure that protected plant species and the eggs of protected, and game bird species are not disturbed or destroyed. If such destruction or disturbance is inevitable, a permit must be obtained in this regard from the Minister of Environment, Forestry and Tourism. Should the Proponent operate a nursery to propagate indigenous plant species for rehabilitation purposes, a permit will be required.
Soil Conservation Act, No. 76 of 1969 and the Soil Conservation Amendment Act, No. 38 of 1971	The act makes provision for the prevention and control of soil erosion and the protection, improvement and conservation of soil and vegetation
Labour Act, 1992, Act No. 6 of 1992 as amended in the Labour Act, 2007 (Act No. 11 of 2007 *Ministry of Labour, Industrial Relations, and Employment Creation (MLIREC)*	The Labour Act gives effect to the constitutional commitment of Article 95 (11), to promote and maintain the welfare of the people. This Act is aimed at establishing a comprehensive labour law for all employees. to entrench fundamental labour rights and protections. to regulate basic terms and conditions of employment. To ensure the health, safety and welfare of employees under which provisions are made in chapter 4. Chapter 5 of the act improvises on the protection of employees from unfair labour practice.
Affirmative Action (Employment) Act No. 29 of 1998	Fair employment practice
Regional Councils Act (Act No. 22 of 1992)	The Regional Councils Act legislates the establishment of Regional Councils that are responsible for the planning and coordination of regional policies and development. The main objective of this Act is to initiate, supervise, manage, and evaluate development in the regions.
Namibia's Environmental Assessment Policy for Sustainable Development and Environmental Conservation of 1995	Prescribes Environmental Impact Assessments for any developments with potential negative impacts on the Environment
Nature Conservation Amendment Act 5 of 1996	To provide for an economically based system of sustainable management and utilization of game in communal areas

Draft Pollution and Waste Management Bill (1999)	This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management. The Bill repeals the Atmospheric Pollution Prevention Ordinance (11 of 1976). In terms of water pollution, it will be illegal to discharge of, or dispose of, pollutants into any watercourse without a Water Pollution Licence (apart from certain accepted discharges). Similarly, an Air Quality Licence will be required for any pollution discharged to air above a certain threshold. The Bill also provides for noise, dust or odour control that may be considered a nuisance. The Bill advocates for duty of care with respect to waste management affecting humans and the environment and calls for a waste management licence for any activity relating to waste or hazardous waste management.
Convention on Desertification of 1994	Combating desertification and mitigation of the effects of drought
National Heritage Act 27 of 2004 *Ministry of Education, Arts and Culture (MEAC)*	This Act provides provisions for the protection and conservation of places and objects of heritage significance and the registration of such places and objects. The proposed activities will ensure that if any archaeological or paleontological objects, as described in the Act, are found during the implementation of the activities, such a find shall be reported to the Ministry immediately. If necessary, the relevant permits must be obtained before disturbing or destroying any heritage

TABLE 4 - INTERNATIONAL LAW TO WHICH NAMIBIA IS A SIGNATORY

INTERNATIONAL LAW TO WHICH NAMIBIA IS A SIGNATORY
Vienna Convention for the Protection of the Ozone Layer - 1985
Montreal Protocol on substances that deplete the Ozone Layer - 1987
The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal – 1989
The Rotterdam convention on the Prior Informed Consent Procedure for Certain Hazardous chemicals and Pesticides in International Trade – 1989
The Rio de Janeiro Convention on Biological Diversity - 1992
United Nations Framework Convention on Climate Change - 1992

5.2. KEY REGULATORS / COMPETENT AUTHORITIES

The regulatory authorities responsible for environmental protection and management in relation to the proposed project, including their role in regulating environmental protection are listed in **TABLE *5***.

TABLE 5 - AGENCIES REGULATING ENVIRONMENTAL PROTECTION IN NAMIBIA.

AGENCY	RESPONSIBILITY
Ministry of Environment, Forestry and Tourism (MEFT)	Issuance of Environmental Clearance Certificate (ECC) based on the review and approval of the Environmental Assessments (EA) reports comprising Environmental Scoping and Environmental Management Plan (EMP) prepared in accordance with the Environmental Management Act (2007) and the Environmental Impact Assessment Regulations, 2012
Ministry of Mines and Energy (MME)	Competent authority. The national legislation governing minerals prospecting and mining activities in Namibia fall within the jurisdiction of the Ministry of Mines and Energy (MME) as the Competent Authority (CA) responsible for granting authorisations. The Minerals Prospecting and Mining Act No.33 of 1992 approves and regulates mineral rights in relation to exploration, reconnaissance, prospecting, small scale mining, mineral exploration, large-scale mining, and transfers of mineral licences.

5.3. PERMITS

Some permits related to exploration activities are listed in **TABLE 6**.

TABLE 6 - APPLICABLE PERMITS TO THE PROPOSED PROJECT

PERMITS/CERTIFICATES	ACTIVITY	VALIDITY
Exclusive Prospecting Licence - MME	Issued once the mining commissioner is satisfied if all requirements outlined in the preparedness to grant are met.	3- Years
Environmental Clearance Certificate - MEFT	Issued once the environmental commissioner is satisfied with the EMP submitted in support of the project. The EMP will be the legally binding document between the MEFT and the proponent.	3-Years
Fuel Consumer Installation Certificate - (MME)	Regulates the amount of fuel product in possession	Temporary/ permanent
Notice of intention to drill – (MME)	This is submitted to the mining commissioner prior to drilling operation.	Valid for the drilling period in notice
Water abstraction permit – (DWA)	This is applied for at the Directorate of Water Affairs to outline the borehole locations and the quantities of water you intend to abstract and for what sort of activities	Permit dependent
Forestry Permits – (DOF)	Regulates the forest species to be cleared.	Temporary.

6. BASELINE ENVIRONMENT/ STUDY AREA

This section lists the most important environmental characteristics of the study area. This provides a baseline where changes that may occur as a result of the proposed project can be measured. The data was gathered through desktop analysis of existing data, through spatial analysis, and from site observations. The spatial data used for mapping under this section was obtained from various sources including the https://digitalnamibia.nsa.org.na/ of Namibia Statistics Agency (NSA) as well as the MME minerals Cadastre Portal https://maps.landfolio.com/Namibia/ and The Environmental Information Services website at http://www.the-eis.com/. Archeological and biodiversity site specialist studies were conducted for this larger project **Appendix E** and **Appendix F**.

6.1. SITE AND SURROUNDING LAND USE

Livestock farming, tourism, and mining are key land use sectors for this region. The wildlife and landscape are the aspects that play a major role in tourism in the region. The socio-economic situation in the Warmbad area and the ||Karas region at large has somehow been constrained by its geography and limited economic opportunities. However, the region has made progress in recent years, particularly in the mining sector, and there are opportunities for further growth in tourism and other industries.

The EPL overlaps with farmlands as depicted in **TABLE 1**. The importance of proactive communication between the proponent, farmers, and owners of nearby properties is emphasized. Excellent relationships should be maintained throughout the life of the project.

6.2. CLIMATE

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °C (°F)	38.43 (101.17)	38.43 (101.17)	38.43 (101.17)	33.51 (92.32)	31.54 (88.77)	28.58 (83.44)	28.58 (83.44)	32.52 (90.54)	37.45 (99.41)	39.42 (102.96)	39.42 (102.96)	38.43 (101.17)	39.42 (102.96)
Average high °C (°F)	33.74 (92.73)	33.0 (91.4)	31.79 (89.22)	27.74 (81.93)	24.79 (76.62)	20.32 (68.58)	20.41 (68.74)	22.9 (73.22)	27.04 (80.67)	29.82 (85.68)	31.85 (89.33)	33.45 (92.21)	28.08 (82.54)
Daily mean °C (°F)	29.98 (85.96)	29.48 (85.06)	28.29 (82.92)	24.18 (75.52)	21.02 (69.84)	16.21 (61.18)	15.97 (60.75)	18.01 (64.42)	22.36 (72.25)	25.42 (77.76)	27.57 (81.63)	29.36 (84.85)	23.99 (75.18)
Average low °C (°F)	23.1 (73.58)	23.22 (73.8)	22.17 (71.91)	18.14 (64.65)	15.1 (59.18)	9.96 (49.93)	9.13 (48.43)	10.33 (50.59)	14.08 (57.34)	16.93 (62.47)	18.97 (66.15)	21.26 (70.27)	16.86 (62.35)
Record low °C (°F)	11.83 (53.29)	13.8 (56.84)	11.83 (53.29)	7.88 (46.18)	5.91 (42.64)	0.0 (0)	0.99 (33.78)	-0.99 (30.22)	1.97 (35.55)	1.97 (35.55)	8.87 (47.97)	9.86 (49.75)	-0.99 (30.22)
Average precipitation mm (inches)	40.42 (1.59)	64.41 (2.54)	37.43 (1.47)	16.6 (0.65)	13.38 (0.53)	3.26 (0.13)	4.19 (0.16)	2.22 (0.09)	6.25 (0.25)	6.26 (0.25)	4.81 (0.19)	15.07 (0.59)	17.86 (0.7)
Average precipitation days (≥ 1.0 mm)	6.18	7.71	5.82	3.05	1.79	0.44	0.54	0.81	1.79	1.53	1.25	3.22	2.85
Average relative humidity (%)	25.88	28.85	27.53	30.58	29.57	34.08	32.64	27.04	22.93	20.97	19.94	22.14	26.85
Mean monthly sunshine hours	11.4	11.29	11.32	11.0	10.67	10.5	10.6	10.91	11.24	11.31	13.38	13.63	11.44

FIGURE 10 – ARIAMSVLEI WEATHER BY MONTH (www.weather-and-climate.com)

6.2.1. TEMPERATURE

The climate data presented in this section is referenced to Ariamsvlei which is the nearest settlement to the project area with a weather recording data found online. The Ariamsvlei climate is classified as Subtropical desert climate which is very hot and dry in the summer and cooler but still dry in the winter (EIS, 2023). The hot season lasts the longest, from September to March, with an average annual high temperature above 32°C. The hottest month of the year in Ariamsvlei is January, with an average high of 33.74°C and low of 23.01°C (**FIGURE 10**). The cool season lasts for 3 months, from June to August, with an average high temperature below 21°C. The coldest month of the year in Ariamsvlei is July, with an average low of 9.13°C and high of 20.41°C (**FIGURE 10**).

6.2.2. RAINFALL

Ariamsvlei receives an average precipitation of 17.86mm per year, however, evaporations normally exceed rainfall resulting into water deficit. Only 8% of the Namibian land surface receives more than approximately 500mm of annual rainfall. Most rainy season is seen in January and March, the dry period in the area starts from June up to November. On average, February is the wettest month with 64.41 mm of precipitation whilst June and August are the driest month with 2.22mm & 3.26mm of precipitation (**FIGURE 10**).

6.2.3. CLOUD COVER

The average percentage of cloud cover Ariamsvlei and EPL surrounding area fluctuates seasonally over the course of the year. The clearer part of the year in the EPL's surrounding area begins around July and lasts for about 6 months, ending around December. The clearest month of the year is July. The cloudier part of the year begins around January and lasts for 3 months, ending around March. The most humid month is June and October is the least humid month (**FIGURE 11**) (www.worldweatheronline.com).

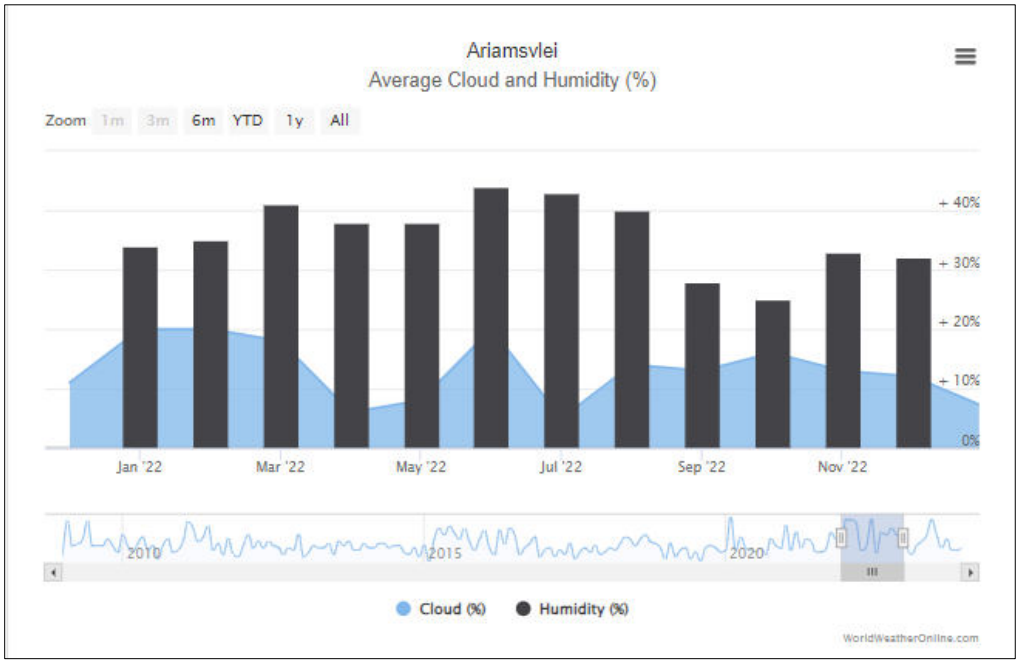


FIGURE 11 - AVERAGE CLOUD AND HUMIDITY FOR ARIAMSVLEI (wordweatheronline.com)

6.2.4. SUNSHINE AND WIND

The number of hours of sunshine refers to the time when the sun is visible. That is, without any obstruction of visibility by clouds, fog, or mountains. The sun hours data is reference to Ariamsvlei settlement which has the closest recording station to the EPL area. December, March, July and August are the sunniest month in the area whilst in February, the sun shines the least (**FIGURE 12**).

Wind experienced at any locality is highly reliant on local geography plus possibly other factors (direction, hourly and speed). Generally, the windiest part of the year last for 7.9 months from May to January. The calmest month is March whilst the windiest month is July. Easterly and westerly wind are predominant in the area from September to December (World weather, 2023). The maximum windspeed recorded for areas around Karasburg which had the nearest wind record available online from 2008 up to 2015 in the **FIGURE 13**Error! Reference source not found. below ranges from 6 – 7.9 mps northeastern wind with an average of 2.8mps (Iowa weather, 2023).

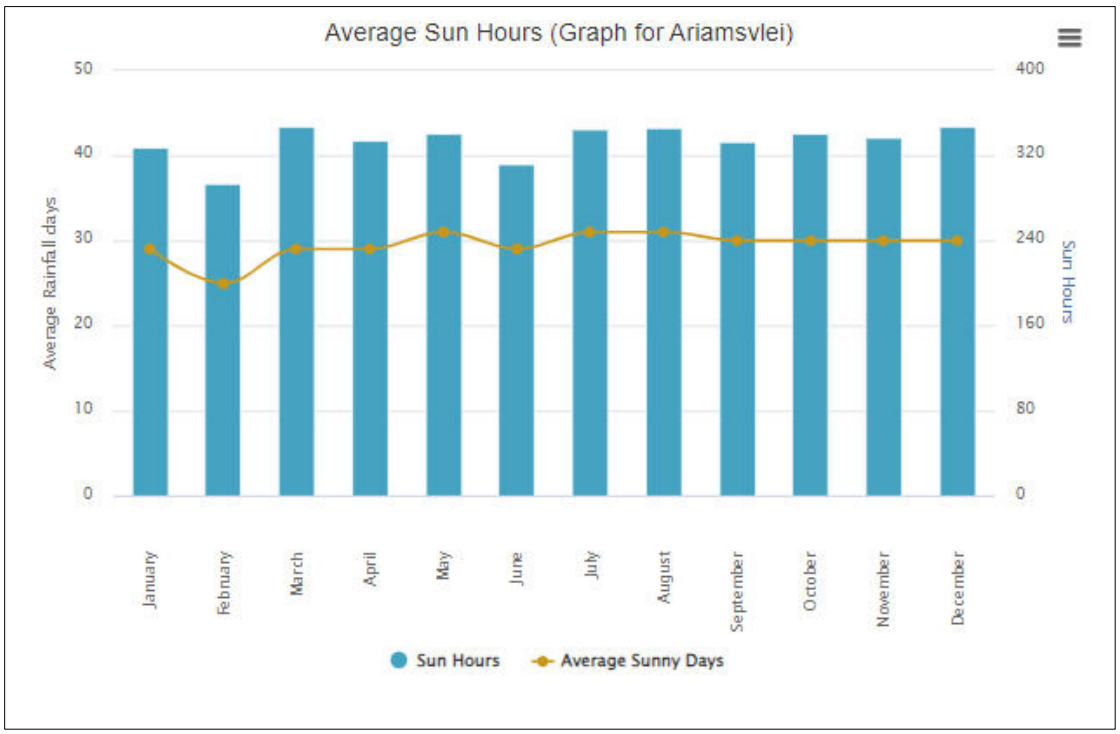


FIGURE 12 - AVERAGE MONTHLY SUN HOURS IN ARIAMSVLEI (wordweatheronline.com)

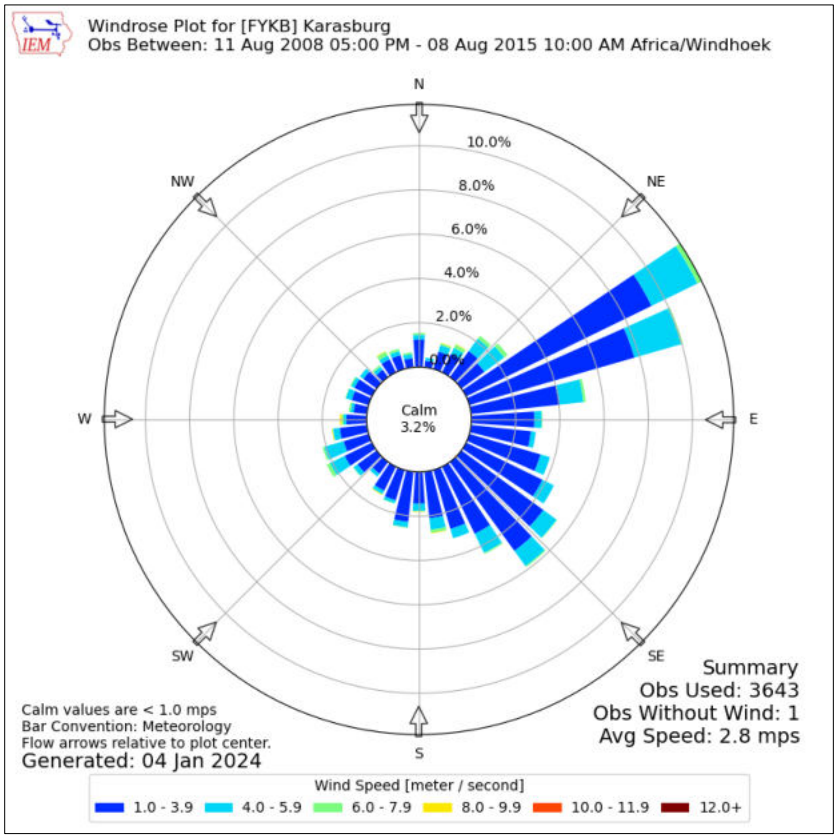


FIGURE 13 - WINDROSE FOR KARASBURG FROM AUGUST 2008 TO AUGUST 2015 (Iowa weather, 2023)

6.3. BIOPHYSICAL ENVIRONMENT

6.3.1. FLORA

The majority of Namibia is arid to semi-arid environments. Livestock farming is the most prevalent land use activity, while dryland and irrigated crop agriculture are minor sectors in the Namibian economy (Burke, 2000). Namibia's vegetation is strongly influenced by rainfall patterns. The study area lies within the Nama Karoo Biome of Namibia refer to **FIGURE 15**. A biodiversity study conducted for the larger KoBold Metals southern project has outline four main landscapes-level/crosscutting habitats that were identified, investigated, and are listed as follows, the approximate delineation of the communities is shown in Figure 4 of the specialist report in **Appendix F**:

- Riverine and Sandy Valley plains
- Schist, Quartzite and Granite hills
- Gravel plains
- Ephemeral aquatic systems

According to the study undertaken for the project, EPL 9053 falls within the hills and ridges habitat (EnviroLeap, 2023) The substrate is generally rocky and sparse vegetation, with the only larger perennial plants are the Commiphora sp. (kanniedood), and grass species being *Stipagrostis uniplumis.* Generally, Ariamsvlei is located in a dry farming area, the vegetation in the surrounding consists of; trees, shrubs, grass cover and spares woodland occurring along riverbeds. Vegetation in the area is predominantly *Tamarix usneoides* trees associated with loam soil, other areas are populated by *Phragmite australis* reeds, capensis trees, *Schotia afra* trees, *Acacia erioloba*, *Salix mucronate*, and *Sisyndite spartea* shrubs (Namibia Journal of Environment, 2023).

The terrain and water availability may contribute to local differentiation of the vegetation. During rainy seasons, various grass types such as *Centropodia glauca* and *Stipagrostis* species can be seen. The specialist report indicates that the larger EPL falls withing a least sensitive area in terms of biodiversity with a smaller section to the south being highly sensitive (***FIGURE 14***) also seen in *Figure 17* of the specialist report.

The Acacia erioloba (camel thorn) trees in the Nama-Karoo Biome have trunks up to 3 m in diameter. These are large old trees on a national level. Elsewhere in Namibia, camel thorn trees of < 1 m in diameter have been dated as being up to 400 years old (Namibia Journal of Environment, 2023). There are no dating studies on the trees in the project area, but based on their size versus where data is known one speculates that they must be older than 400 years. Therefore, the conservation of these trees should be prioritized during the exploration activities.

Fauna and flora are key receptors of potential environmental impacts particularly in case of vehicular trampling, potential poaching, and potential ground contamination that may result during project activities. This study, the specialist biodiversity report and the attached EMP will thus advise the proponent on the environmental management and ways to mitigate potential negative impacts to the receiving environment (fauna and flora) in which they will operate. The sensitivity classes are further explained in the specialist report in **Appendix F**

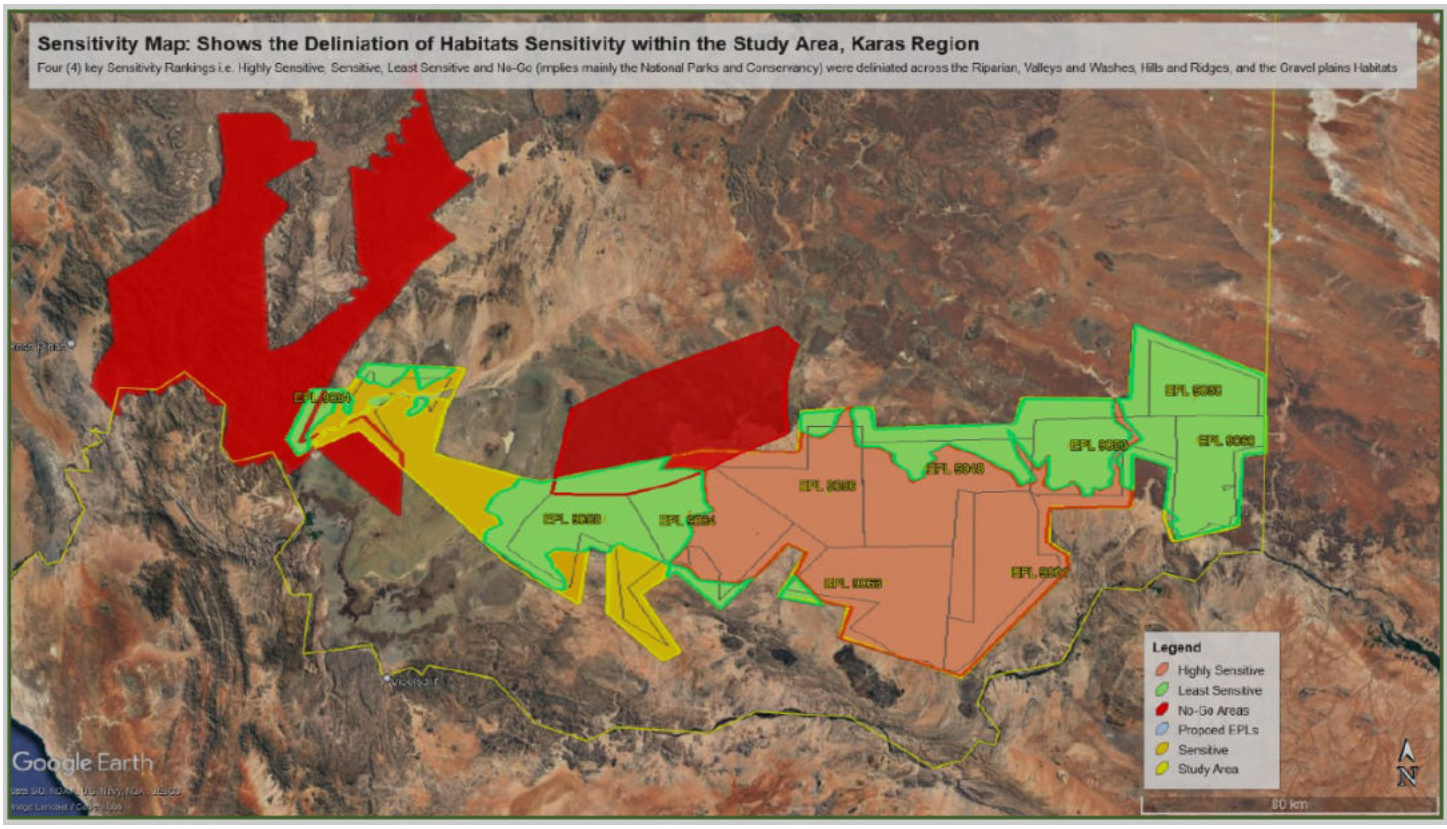


FIGURE 14 - HABITATS / BIODIVERSITY SENSITIVITY MAP FOR THE PROPOSED LICENSES AREA. (Photo. C Nekare, 2023)

Some bush clearing may be required during exploration where access roads, drill pads and bulk sample sites are chosen. The clearing of any vegetation would not be on the scale, which triggers a full EIA, but permits to fell trees and clear bush for exploration will require a Forestry Permit. In addition to this, vegetation clearing restrictions within 100m of rivers must be taken into account as outlined in the regulations of the Water Resource Management Act. Any relaxation of this rule needs to be confirmed and approved by the Ministry of Agriculture, Water and Land Reform. Also refer to the biodiversity specialist report contained in **Appendix F.**

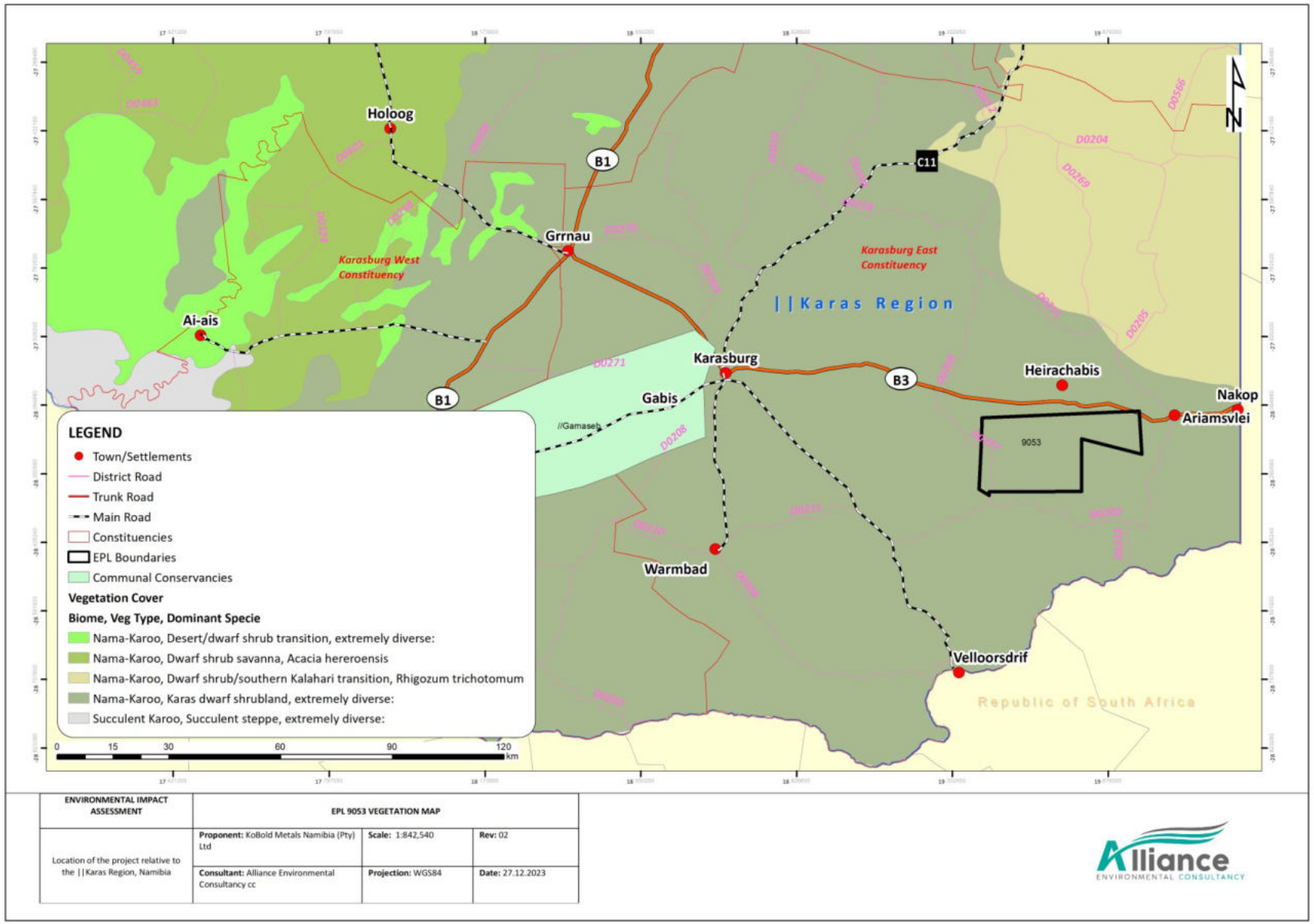


FIGURE 15 - VEGETATION COVER OF THE SURROUNDING AREA.

6.3.2. FAUNA

This section is mostly taken from the book of Mendelsohn et al. 2002.
Nationally, the area is regarded as a relative medium - high mammal, reptile and intermediate amphibian diverse. Although many endemic species are known to occur from the general area, it cannot be determined if any of these are expected within the EPL area.

The Orange River mouth to the far west of the project area is recognized as an important wetland which holds a significant seabird population. The larger project area hosts a small variety of game, such as Kudus (*Tragelaphus strepsiceros*), Caracal (*Caracal caracal*), Duiker (*Sylvicapra grimmia*), Springbok (*Antidorcas marsupialis*), Jackal (*Canis aureus*), Gemsbuck (*Oryx gazella*), Bat eared fox (*Otocyon megalotis*), Aardwolf (*Proteles cristatus*), Steenbok (*Raphicerus campestris*), African wild cat (*Felis lybica*), Brush-tailed Hairy-footed Gerbil (*Gerbillulus vallinus*), Zebra (*Subgenus hippotigris*), African Clawless Otter (*Aonyx capensis*) Klipspringer (*Oreotragus oreotragus*), Pygmy Rock Mouse (*Petromyscus collinus*) , Red Hartebeest (*Alcelaphus buselaphus caama*) and Porcupine (*Hystric africaeaustralis*) (Mendelson,2002). The area also hosts a number of reptiles such as the Broadleys Flat lizard, Water Monitor lizard, Blacknecked spitting Cobra and Bushmanland Tent Tortoise. Reptile diversity is dominantly found on the rocky slopes (Mendelson, 2002). Other species such as birds might also be associated with this environment. Additionally, livestock farming (such as sheep, goats and cattle) is a key economic contributor to some farmers in the area.
Although Namibia's fauna is sparse in comparison to high rainfall areas in Africa, a fair number of species are recorded in this area with a diverse and unique arid endemic group. There is potential that the area may have some endemic bird species, with some classified as endangered, which may include the booted eagle, ludwigs bustard, martial eagle, black harrier, vulnerable; vulture and secretary bird (Newmans, 2000). **Appendix F** contains more information on the Fauna in the area.

Species most likely to be adversely affected by exploration would be the variety of reptiles and ground nesting birds as well as livestock such as sheep that are sensitive to interferences. Mitigation measures aimed to prevent any serious or lasting damage to this diversity including limiting damage to habitat and prohibiting poaching is contained in the EMP.

Generally, activities such as long-term farming and tourism also have an effect on fauna and flora, and the general natural landscape.

6.4. SOIL

The soils in the majority area of the EPL are broadly categorized to the group of leptosols and defined by a eutric leptosols domination soil as indicated in **FIGURE *16***. Leptosols are either very shallow soils over continuous rock or soils that are extremely stony, with less than 20 % fine earth (soil particles < 2 mm in diameter). Leptosols are prevalent in mountainous regions, in areas with highly dissected topography and where the erosion rate exceeds that of soil formation or sediment accumulation. (Coetzee, 2021). The chemical and some physical properties of Leptosols are defined by the underlying parent rock. Ariamsvlei is purely underlined by Sedimentary rocks of the Nama group which are typically impermeable with very little or no absorbency. The majority of topography consists of flat plains interspersed with rocky outcrops. The area is naturally characterized by riverbeds for short periods of time during the rainy season. Differential weathering, illuviation and biotic disturbance cause large spatial heterogeneity in these soils.

The stoniness and shallowness of Leptosols decrease their water-holding capacity and mean that they have poor agronomic properties. Leptosols are azonal (not limited as to climatic zone). They are prevalent in mountainous regions, in areas with highly dissected topography and where the erosion rate exceeds that of soil formation or sediment accumulation, therefore very prone to high erosions, especially during heavy rainfalls. Christelis, 2018

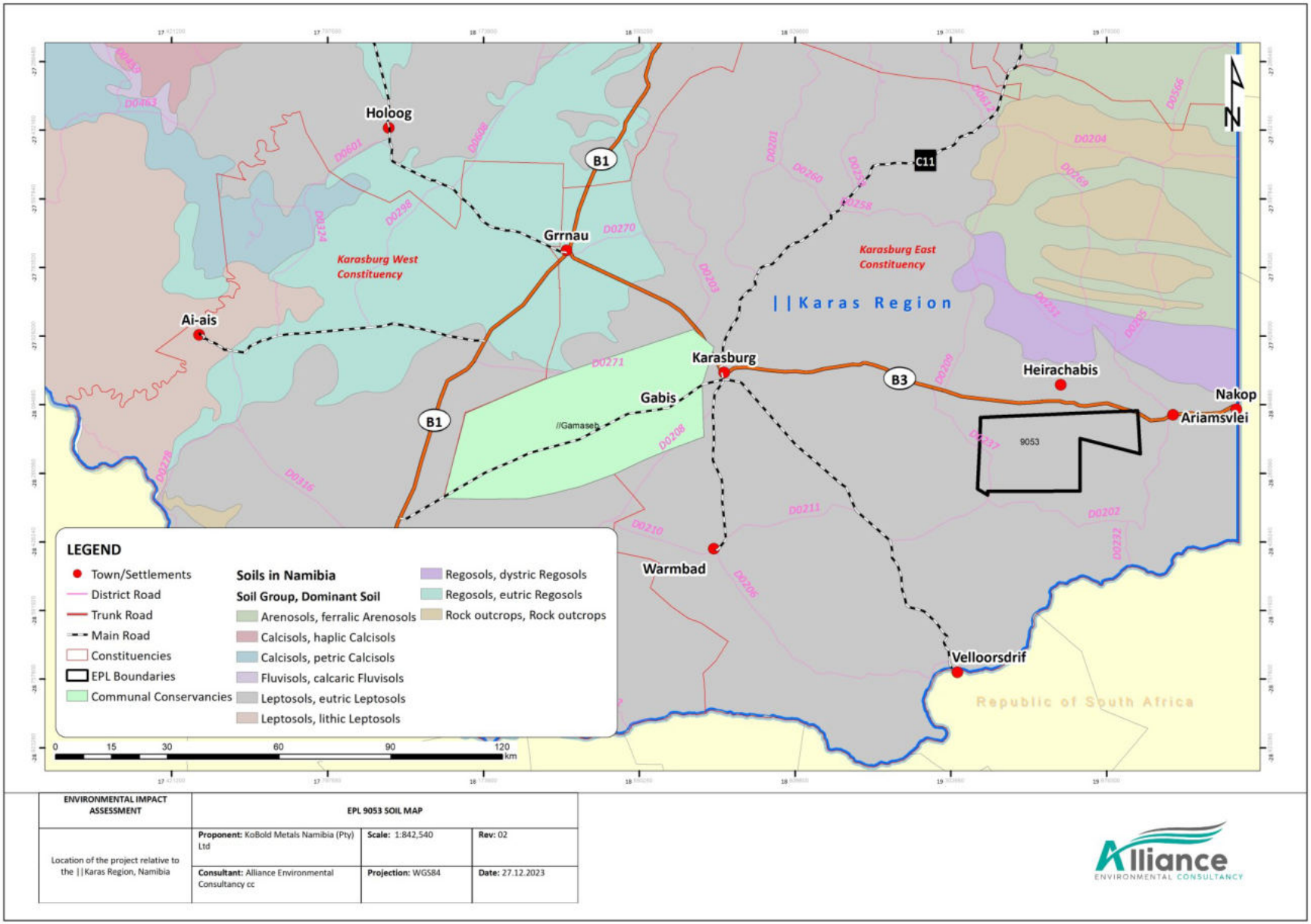


FIGURE 16 - DOMINANT SOIL AROUND THE STUDY AREA

6.5. GEOLOGY

High grade metamorphic rocks belonging to the Namaqua Metamorphic Complex (NMC) underlie most of the area (**FIGURE 17**) and consist of metamorphosed intrusive and sedimentary rocks. Parts of the NMC basement rocks are overlain by the Karoo aged flat lying sedimentary rocks of the ECCA group and the post Karoo intrusive dolerites. Some portions are overlain by the Neogene Quaternary sediments.

The primary exploration target on the EPL is for nickel-copper-platinum group elements (Ni-Cu-PGEs). The mineralization model for Ni-Cu-PGEs in the area is that of disseminated to massive sulphide deposits associated with mafic to ultramafic magmatic rocks. The secondary exploration target/model is that of Lithium bearing pegmatites. Besides quartz, feldspar and mica, lithium bearing pegmatites may also carry other valuable minerals that contain rare elements such as tantalum, niobium, tin, tungsten, cesium, rubidium, boron, fluorine, and others.

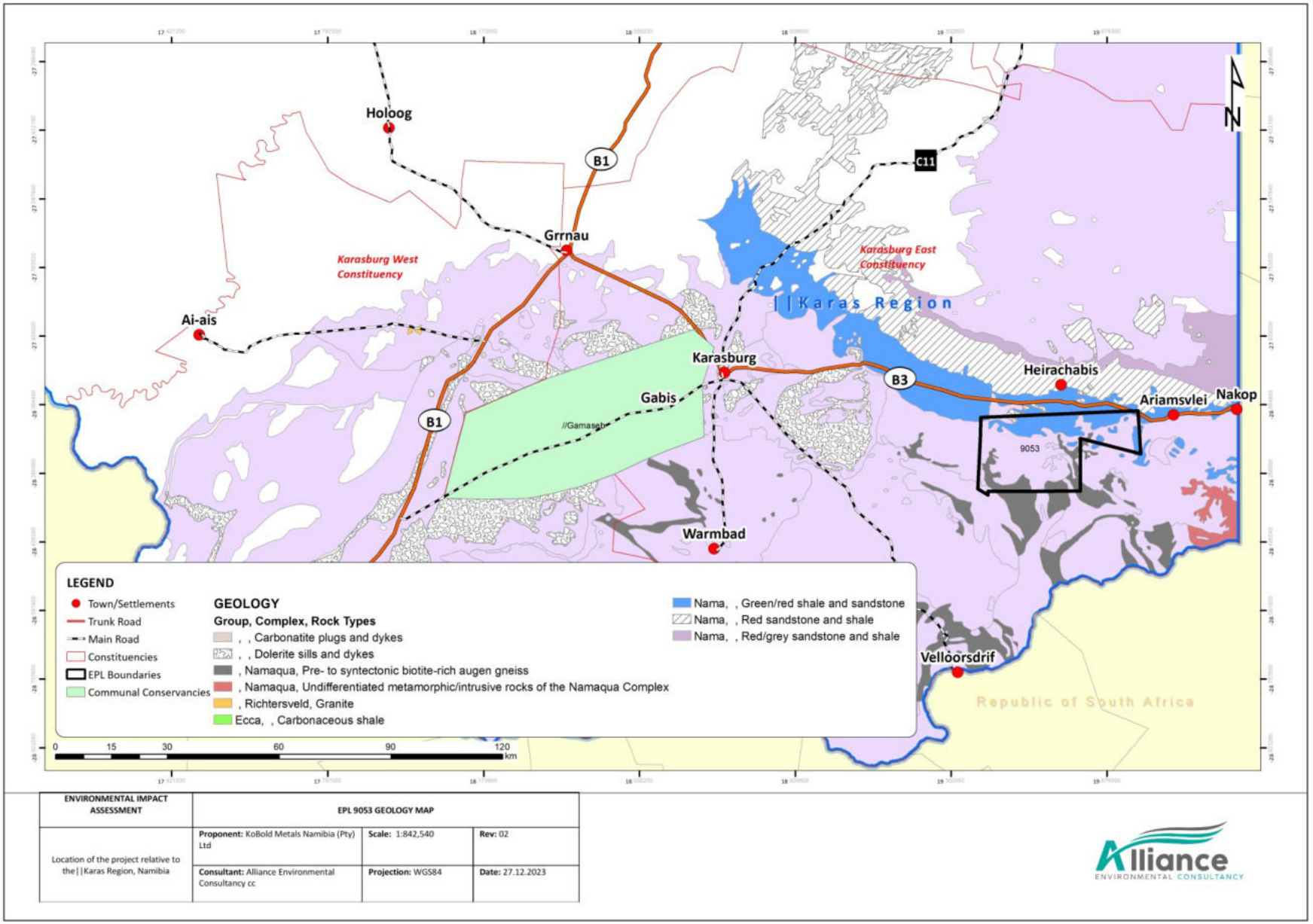


FIGURE 17 - GEOLOGY OF THE SURROUNDING AREAS.

6.6. HYDROLOGY

Due to the infrequent rainfall in Namibia, surface water is scarce and quickly evaporates, seeps into the ground, or is drained by ephemeral rivers. Christelis (2011) & Amwele, (2021) states that limited volumes of ground water are present in the basement rocks of the southern Karas Region, since there are no productive aquifers. The area falls within the orange groundwater basin (**FIGURE 18**). Lack of recharge and poor ground water quality in most areas further aggravates the situation. Potential available underground water is held in tributary features such joints in sedimentary rocks of origins (shale, quartz and sandstone) and in limestones as well as dolomites in forms of solutions (Christelis, 2011).

There are over 10 recorded boreholes situated within and around the EPL area. The surrounding communities predominantly use ground water from borehole abstraction (**FIGURE 18**)(shapefile obtained from the DWA). The shapefile used does not provide information as to whether the boreholes indicated are for production wells, and if they are all operational. Provided that the boreholes within the area are operational, it is assumed that water will be obtained from some of these existing boreholes for exploration activities. Groundwater abstraction and utilization for exploration activities should be done in agreement with the landowners. Appropriate permits should be obtained from the DWA should it be necessary to use borehole water, for excess abstraction. Accounting the nature and scale of the proposed exploration activities for the project, these activities are unlikely to have a large impact on groundwater resources.

The groundwater basin is deep, and any surface contamination will not pose risk to these water resources. Nonetheless, storage of any material substance that may cause pollution to water sources should be handled and stored in accordance with appropriate regulations and legislations, and should pollution take place, this must be cleaned up immediately.

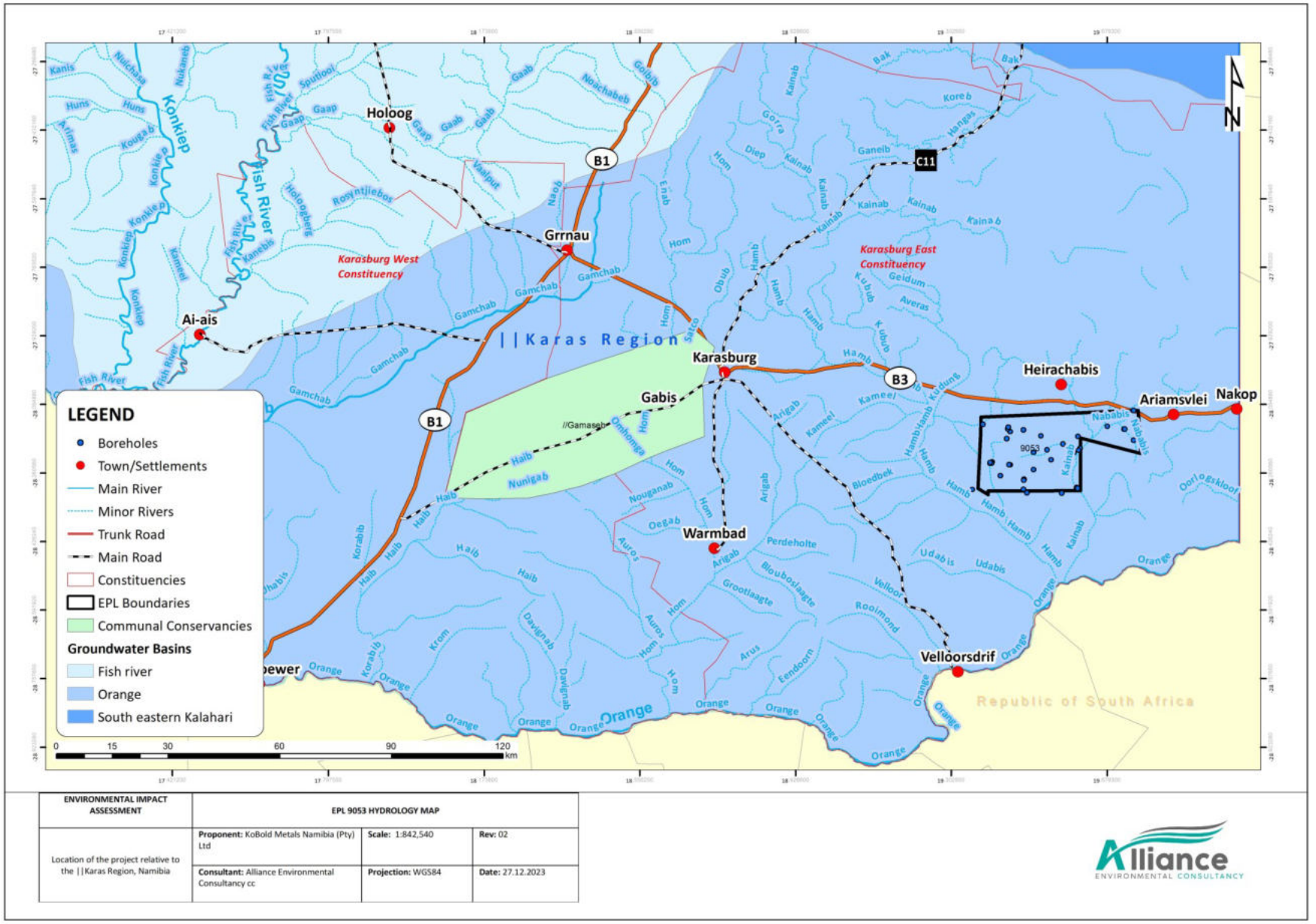


FIGURE 18 – HYDROLOGY SETTING OF THE SURROUNDING AREA.

6.7. SOCIO-ECONOMIC SETTING

6.7.1. REGIONAL AND LOCAL PROFILE

The EPL 9053 is located within the ||Karas region which is the largest region in the country and has the border of southern Namibia to South Africa. The region has 6 constituencies (Keetmanshoop rural and urban, Berseba, Karasburg, Lüderitz and Oranjemund). The regional name, ||Karas, reflects the prominence of the Karas mountain range. The region is known for its predominantly small stock farming the most dominant being sheep and goat. The region's administrative capital is Keetmanshoop.

6.7.2. DEMOGRAPHY

The region covers a distance from the west-east of about 360km and over 300km towards the south from the north. According to the NSA(2011) the total regional population is approximately 77412 people (38014 females and 39407males), with Keetmanshoop urban holding the highest number of inhabitants, 19447 people, and Tses having the lowest inhabitants (2000 people). The region has an annual growth rate of 1.1%. The urban population is the highest at 54% inhabitants whilst the rural areas make up 46% of the total population. Children of the age 5-14 makes up 20% and under 5 years 11% , 63% of the population are between the ages of15-59, and the 60+ age group makes up 6% of the population. The commonly spoken languages are Afrikaans and Nama/Damara.

6.7.3. EDUCATION AND EMPLOYMENT

Any region's socioeconomic growth can be greatly accelerated by education because it significantly increases the literacy, knowledge, and competency that people and communities require to function on a daily basis. The education sector in these regions covers Pre-primary education, Primary education, Secondary education and adult education.

Unemployment in karas stands at a rate of 24%. Luderitz and Keetmanshoop are the only largest towns in the region, the rest are smaller towns/villages/settlements. The region's literacy rate stands at 95% and only 5% have not received formal education. 92% out of the total population have safe drinking water, 67% have lighting electricity, 28% use firewood for cooking, and 23% have no toilet facilities. Most households (62.9%) are headed by men and 37.1% are headed by women. 4% of the population live with disabilities. More than half of the population (57%) are employed. With this ratio, 69% of income is from wages and salary, 7% generated from farming, 5% from non-farming businesses and 6% from cash remittance and 10% from pension (NSA, 2011). The specific education and employment for the local settlements is poorly documented, therefore the section predominantly focuses on the regional profile.

6.7.4. LAND USE AND ECONOMIC ACTIVITIES

The region receives less amounts of rainfall country wide. Irrigation, game and livestock farming along the orange river and Naute Dam are common forms of farming in the region and have thus gained importance. The region is also known for its harbor town Lüderitz and its diamond mining areas along the coast from Lüderitz down to Oranjemund, as well as the fishing activities along the shore. Tourism is common in the region, due to its unique natural landscapes such as the Fish River Canyon, which is the second largest in the world, Hot Water springs (Ai-Ais), the Kokerboom Forest and former Volcano Mountain (Brukaros Mountain) (NSA, 2011).

The NSA, 2011 census results for the region show that 'Agriculture, Forestry and Fishing' was the main industry (32.4%) of the work force, followed by 'Mining and Quarrying' (8.9%). Wholesale and Retail Trade as well as construction companies each employed about 6 percent of the workforce.

The socio-economic characteristics of the area are continuously changing as more economic activities are established. The area is also known to be rich in minerals (gems/precious natural stones, copper and iron ore, and precious metals), which will hopefully be exploited and processed in order to create jobs for locals. The purchasing of consumables, spares and equipment will also stimulate the local economy. The surrounding communities to the KoBold Metals projects will benefit from employment opportunities and skills transfer during the exploration programs. The spending power of locals is likely to increase because of employment during the operations of the proposed activities.

6.7.5. ARCHAEOLOGICAL AND HERITAGE

The EPL and surrounding areas are not pristine and are disturbed through tourism, farming, and mining. A site heritage assessment was carried out for the larger KoBold exploration projects in the ||Karas region, **Appendix E**. The findings were compiled through ground survey, following standard and accepted archaeological procedures. The surface was assessed for possible Stone Age scatters, archeological buildings, as well as exposed Iron Age implements, and other archaeological resources. The survey followed investigation of the cultural resources onsite using the best possible technologies for archaeological field surveys. The EPL area was surveyed, and findings of graves heritage were documented through photographs. A Samsung GPS Logger (2018) was used to record heritage finds on site. The **TABLE 7** - SUMMARY OF THE IDENTIFIED HERITAGE RESOURCES/ SITES INSIDE AND OUTSIDE THE EPL AREA. (Nekare, 2023). Table below provides a summary of findings within EPL 9053.

TABLE 7 - SUMMARY OF THE IDENTIFIED HERITAGE RESOURCES/ SITES INSIDE AND OUTSIDE THE EPL AREA. (Nekare, 2023). *Table 1 of the Heritage Report in Appendix E*

Heritage Resources	Coordinate GPS	Status	Protection Afforded
Site 1 within EPL 9053: A family burial ground on the farm (Witkop), located in the same area as the farmhouses. The fence around the graveyard and tombstones are in good state and have clearly visible names. Since some persons were buried in the 1950s, this could be protected in terms NHC act.	S 28.2266 ° E 19.80596 °	Known to the owner, yet to be noted by the NHC and yet to feature on its NHR. Inside the EPL area.	Inactive, no statutory protection.
Site 2 within EPL 9053, built heritage in the form of contemporary farmhouse. Plus, two more houses for farm worker and related infrastructure.	S 28.22907° E 19.80142°	Listed by the local authority, not yet noted by the NHC and yet to feature on its NHR. Outside the EPL area, about 20+ km.	Inactive, no statutory protection.

A review of the National Heritage Council and the environmental information services databases were conducted, and some known heritage sites were identified in the project area as indicated in **Appendix E.** In cases where heritage sites are discovered, the chance finds procedure will be used, and where necessary measures will be undertaken upon discovering sites of archaeological importance (Appendix A of the Heritage report). All archaeological remains are protected under the National Heritage Act (2004) and will not be destroyed, disturbed, or removed.

7. STAKEHOLDER ENGAGEMENT

7.1. PUBLIC PARTICIPATION

Public participation is an important part of the Environmental Impact Assessment process. It includes an ongoing process of communication with Interested and Affected Parties (I&APs), providing them with sufficient information throughout the process (in a transparent manner). During the public participation process, I&APs are given the opportunity to comment on the findings of the EIA studies.

Good communication between the consultant, proponent, and the community helps to foster genuine and positive relationships. The public participation facilitator's role is to facilitate that process of dialogue to ensure there is transparency and accountability in decision-making and public confidence in the proposed project and its management. The following approaches were employed in an attempt to get in contact with the potential affected and interested parties around the project area.

This section will be combinedly discussed in consideration with the other 9 EPLs for KoBold in the region, which together forms the "KoBold Metals southern Namibia minerals exploration project".

7.1.1. BACKGROUND INFORMATION DOCUMENT

A Background Information Document (BID) was provided to the various I&APs through the public participation process. This document gives an overview and non-technical summary of the proposed development and acts as an ease of reference to the proposed project. The BID is included in **Appendix C**. The draft SR and EMP is circulated to the registered stakeholders in order to provide further input and comments to the process, before submission of the reports to the authorities.

7.1.2. NEWSPAPER ADVERTS

Public notices/invitations were placed in the following newspapers for two consecutive weeks (**23rd, 25th & 30th of October and 1st of November 2023)**: **Appendix D** provides Tear sheets of the adverts.

- The Republikein newspaper
- The Allgemeine Zeitung
- The Sun newspaper and;
- The Windhoek Observer newspaper (*23rd and 30th of October*)

7.1.3. SITE NOTICE

Site notices were placed around accessible places around the project area, at the closest towns/settlements to the EPL and where they could be easily accessible to the community . The notices are included in Appendix D. The site notices were place at the following locations and notice boards:

- Karasburg Town Council Office
- Karasburg East Constituency Office
- Warmbad Settlement Office
- Ariamsvlei Handelshuis
- Engen Service Station, Noordoerwer
- OK Supermarket, Noordoerwer
- Community library, Warmbad
- Warmbad Settlement Office
- Agra Store Notice Board, Karasburg
- Intersection of the D213 – B1 road
- Intersection of the D213 and D208 roads
- Ministry of Agriculture, Water & Land Reform – Karasburg

7.1.4. STAKEHOLDER ENGAGEMENT

Written notices/invitations were sent to several stakeholders including organizations/institutions and farmers to inform them about the proposed project and extend an invitation to the public engagement meetings. AEC visited the Directorate of Lands and Resettlement offices and community members for the same purpose of obtaining details to communicate with landowners. Two (2) radio announcements were made on the Nama National Radio, one made14 days prior to the meetings and the other 7-days prior to the dates of the meetings, to alert, remind, and invite the general public to these meetings.

An initial notification email and WhatsApp text were circulated and sent to all identified and registered stakeholders on 8th of November 2023 announcing the commencement of the EIA process and extending a formal invitation to the public to formally register as interested & affected parties (I&APs) as well as to attend and participate in the various public consultation meeting s which were scheduled between the 4th and 7th of December 2023. Included in the notification email and WhatsApp text were the Background Information Document (BID) and project site locality map which provided a high-level description of the proposed activities and where such activities will be undertaken. The proof of notice communication is attached under **Appendix D**

Five public engagement and information sharing meetings were held for this project as follows:

- Noordoewer, EHW BAARD P.S
- WarmBad, Church Hall
- Karasburg east constituency office (2 Sessions)
- Ariamsvlei settlement office

The minutes of all the meetings are contained in **Appendix D**. The draft scoping report and EMP will be shared with the identified and registered stakeholders for a period of 7-14 days to provide further input and comments on the proposed exploration project.

7.1.5. REGISTERED STAKEHOLDERS

A complete summary of all registered stakeholders identified and registered for the project is attached to this report in **Appendix D**. The pre-identified project stakeholders were notified about the planned exploration activities by means of electronic mail, advertisement in local newspapers, formal WhatsApp text, and display of printed notices at publicly accessible locations within the settlements/ towns of Noordoewer, Karasberg, Ariamsvlei and Warmbad.

Amongst key stakeholders identified and registered for this project were the (also in **Appendix D**):

- Central or national government: Ministry of Environment, Forestry & Tourism; Ministry of Agriculture, Water Affairs & Land Reform; Ministry of Industrialization and Trade.
- Regional government: ||Karas Regional Council including the Karasburg East and Karasburg West Constituencies
- Local authority and Parastatals: Karasburg Town Council; Ariamsvlei Settlement Office; Warmbad settlement office; Noordoewer settlement; the Roads Authority Network Planning division; the Local Authorities Body of Namibia; the National Heritage Council; the National Botanical Research Institute.
- Members of the public including landowners: Numerous commercial and resettled farm owners; the Namibia Irrigation Framers Association; the EIA Tracking and Monitoring body in Namibia; the Namibian Agricultural Union; the Verre Suide Farmers Union; the Orange River-Karoo Conservation Area; NAMWATER; local schools and numerous interested and affected members of the community.

7.1.6. STAKEHOLDER ENGAGEMENT OUTCOMES

Issues received were regarding the unemployment in the area, benefits to the community that may emanate from the proposed project, water issues currently faced by the community and possible conflicts regarding farming and the proposed minerals prospecting activities. The engagement trails can be found in **Appendix D** which contains the minutes of the meetings. Other correspondences of issues raised during the public engagement and information sharing sessions are included in the **TABLE 8** below:

TABLE 8 - SUMMARY OF ISSUES RAISED DURING THE PPP.

ISSUE/ CONCERN OR SUGGESTION	EAP'S RESPONSE
1. The ||Karas Region and specifically the settlement areas overlain by the 10 EPLs have some of the highest unemployment rates in the country, despite comprising a young population. What measures will KoBold Metals implement to contribute towards local employment?	– Where possible KoBold Metals will source local employment of unskilled, semi-skilled and skilled employees from the communities in the areas of exploration, or the region at large where such skills and individuals are available. Where such skills or individuals are not available locally, they will be sourced from other regions in Namibia. KoBold Metals will work with different representative of the communities which will include leaders, the youth, and jurisdiction offices in the affected areas.
2. The area overlain by the licenses is a highly drought prone area and is heavily reliant on groundwater. Groundwater in the area is known to be of low yield and is barely enough to support both farming and mineral prospecting and mining activities. What measures will KoBold Metals implement to ensure that groundwater abstraction to support exploration activities does not result in depressed borehole levels, groundwater contamination, and over-abstraction of water from groundwater sources?	– During the early exploration phases where water needs will be minimal KoBold Metals will source water from existing water supply sources, such as Namwater and farm boreholes. When exploration water needs increase, KoBold will investigate the amounts required and economics of likely sources of water. To ensure that over abstraction does not occur, a groundwater monitoring programme will be implemented to address exploration activities such as drilling and may include items such as water recycling. – As the exploration programme advances and the project's water demand increases a groundwater survey and study will be commissioned to inform the way forward with regards to any water requirements for the project.
3. Will landowners and communities be compensated for land access, possible loss of grazing ground or possible losses in income resulting from land uses with mineral exploration, and surety of KoBold employees on farmland?	– Before the exploration work commences, KoBold Metals will seek land access with all affected landowners. For private/commercial farmlands land access agreements will be entered into between KoBold Metals and the concerned farmer. On resettlement farms agreements will be entered into with the Ministry of Agriculture, Water and Land Reform and the resettled farmers. On communal areas such an agreement will be entered into between KoBold Metals and the affected communal area custodian/Traditional Authority. The

	agreements will address the concerns raised by the parties entering these agreements, and those raised during the Public Participation Process.
4. Concerns were raised that most EIA's conducted are primarily based on desktop studies. A concern was raised that EAP's do not consult the different land users (commercial livestock farmers and affected communities). The commercial farmers and affected communities emphasized that current land use should have the same consideration in EIA's as biodiversity, where focus is on wildlife and flora and not livestock farming. They furthermore wanted this reflected in the EIA and requested the to undertake ground surveys across the affected farms.	– The aim of the EIA process is to ensure that all potential impacts which could stem from the proposed exploration activities are identified, well understood and that all impact management measures are context specific. IAP's are encouraged to provide all concerns to the EAP, so that they are included and addressed in the EIA scoping and EMP reports.
5. Concerns were raised that KoBold Metals exploration activities may be in conflict with ongoing and planned land use activities such as livestock farming, artisanal mining, conservation, and development of infrastructure such as private lodging and solar power plants commissioned on some of the farms.	– Conflict with artisanal mining is unlikely to happen, as there are no mining claims registered on the applied EPL grounds. Conflict with infrastructure development projects is also unlikely at this stage as exploration is generally patchy and will be implemented in such a manner that buffer zones to any ongoing and/ or future infrastructure development projects are created to minimize such conflict. The land access agreements should address any future overlap in current and planned land use, to the planned exploration activities and how these should be resolved.

8. EVALUATION OF IMPACTS

8.1. ASSESSMENT PROCEDURE

The purpose of this section is to assess and identify the most pertinent environmental impacts by describing certain quantifiable aspects of these impacts and to provide possible mitigation measures to minimize the magnitude of the impacts that are possibly deriving from the various activities that constitute the proposed prospecting and exploration activities on EPL 9053 by the proponent.

The identification of potential impacts included impacts that may occur during the pre-operational, operational, and decommissioning phases of the project. The assessment of impacts includes direct, indirect as well as cumulative impacts. To identify potential impacts (both positive and negative) it is important that the nature of the proposed projects is well understood so that the impacts associated with the projects can be assessed.

The process of identification and assessment of impacts includes:

- Determining the current environmental conditions in sufficient detail to establish a baseline against which impacts can be identified and measured.
- Determining future changes to the environment that will occur in a case where the activity does not proceed.
- Develop an understanding of the activity in detail to understand its consequences; and
- The identification of significant impacts which are likely to occur if the activity is undertaken.

The following potential impacts on the environment during the different stages of the project have been identified:

Possible Positive Impacts

- Contributions to annual license fees to the government through the MME.
- Payments of lease agreements and services rendered.
- Provision of contractual employment opportunities and skills transfer.
- Increase in knowledge on the subsurface which then contributes to development, and geoscience research.
- Contribute to the socio-economic development of the local area and region,
- Direct capital investment into the ||Karas Region, and the country via rates and taxes.

Possible Negative Impacts

- **Ecological disturbances**

  Potential removal of vegetation to allow project activities and erect temporary site shade structures during field work and exploration operations. Habitat disturbance, especially reptile habitats due to drilling, and increased flow of traffic. Possible loss of flora, wildlife, and livestock to poaching.

- **Dust & Noise**

  Dust emanating from the increased movement of vehicles, trucks and other operational machinery may degrade the ambient air quality in the area. Potential increase in noise levels from project vehicles and machinery may be a nuisance to the locals.

- **Visual**

  Changes to the aesthetic appeal of the area due to the presence of people, vehicles, and machinery. Visible changes to habitats due to human activities.

- **Health & Safety**

  Safety in the handling of equipment and use of machinery. Potential health risks of contracting diseases, such as those linked to prolonged exposure to dust.

- **Waste**

  That may result from maintenance work performed on machinery, as well as from littering, such as waste from packaging of food or other products and consumables.

  Soil pollution may include petrochemical spills from vehicles (bakkies), water trucks, diesel operated generator as well as the trailer mounted diesel tank for fuel storage.

- **Groundwater and surface water**

  If there is inadequate management of waste, discharges, non-contained wastewater, spillages of drilling fluids lubrications, and fuel spills, they may penetrate the surface and ground water.

- **Topography**

  Possible disturbance of the topography due to clearing for drill pads, camp sites establishment, and by removal of bulk samples during exploration.

- **Heritage & Socio-Economic**

  Possible disturbance and damage to archaeological or heritage sites during project activities.

- **Impact of poor communication**

  Miscommunication may lead to negative reception of the project or frustration of the community towards the project. Increased movement in the surrounding area, inadequate delivery of notices for exploration and the operational activities, may result in conflicts with landowners and the affected communities.

The following methodology is applied to the prediction and assessment of impacts and risks. Potential impacts and risks have been rated in terms of the direct, indirect, and cumulative where:

Status	Whether the impact/risk on the overall environment will be
	• **Positive -** Environment overall will benefit from the impact/risk. • **Negative -** Environment overall will be adversely affected by the impact/risk. • **Neutral -** Environment overall not be affected.

Direct impacts	Impacts are directly caused by the activity and usually occur at the same time and place of the activity. These impacts are often related to the construction, operation or maintenance of an operation and are often obvious and quantifiable.
Indirect impacts	These types of impacts include all the potential impacts that are not evident immediately when the activity is carried out, or which occur at a different place due to the activity.
Cumulative impacts	Impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present, or reasonably foreseeable future activities.

In addition to the above, the impact assessment methodology includes the following aspects:

Spatial Extent	The size of the area that will be affected by the impact:
	Site specific - Only within the site boundaries **Local -** limited to within 15 km of the area. **Regional -** limited to ~100 km radius **National -** limited to within the borders of Namibia. **International -** extending beyond Namibia's borders

Consequence	The anticipated consequence of the impact:
	• **Extreme -** Environmental functions and processes are altered such that they permanently cease; • **Severe -** Environmental functions and processes are altered such that they temporarily or permanently cease. • **Substantial -** environmental functions and processes are altered such that they temporarily or permanently cease. • **Moderate -** Environment continues to function but in a modified manner; or • **Slight -** No natural systems/environmental functions, patterns, or processes are affected.

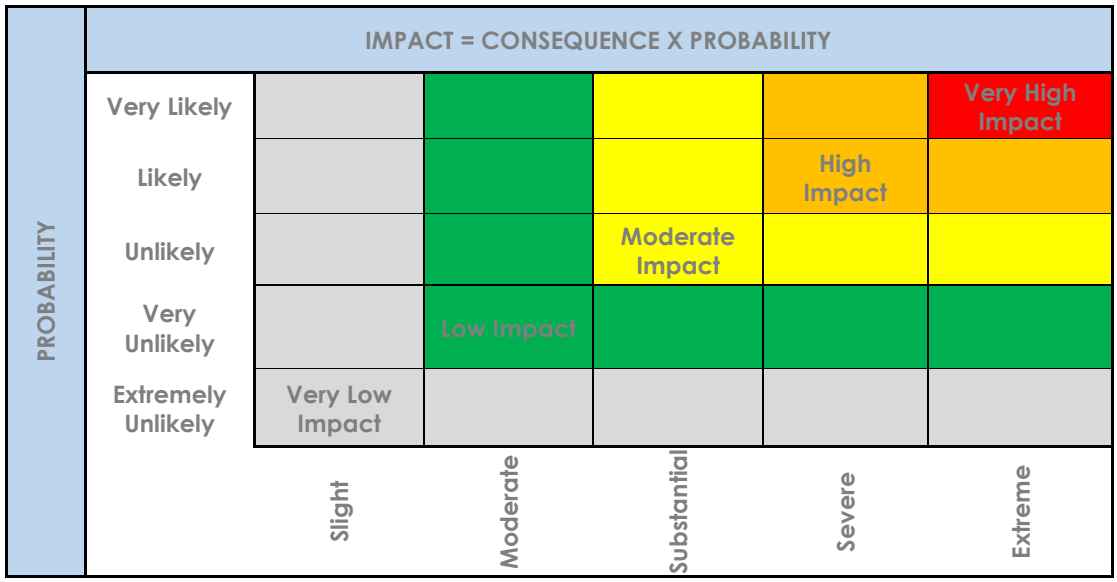
Duration	The timeframe during which the impact/risk will be experienced
	• **Very short term** – less than a month • **Short term** - less than 1 year. • **Medium term** - 1 to 10 years. • **Long term** - The impact will occur for the project duration. • **Permanent -** The impact will occur beyond the project decommissioning.

Reversibility of the Impacts	The extent to which the impacts/risks are reversible assuming that the project has reached the end of its life cycle (decommissioning phase)
	• **Yes** - High reversibility of impacts (impact is highly reversible at end of project life); • **Partially -** Moderate reversibility of impacts; or • **No -** Impacts are non-reversible (impact is permanent).

Using the criteria above, the impacts will further be assessed in terms of the following:

Probability	The probability of the impact/risk occurring
	• Very likely. • Likely. • Unlikely. • Very unlikely; and • Extremely unlikely.

To determine the significance of the identified impact/risk, the consequence is multiplied by probability. This approach incorporates internationally recognized methods from the IPCC (2014) assessment of the effects of climate change and is based on an interpretation of existing information in relation to the proposed activity. The significance is then rated qualitatively as follows against a predefined set of criteria (i.e., probability and consequence) as indicated below:



Where:

Significance	Will the impact cause a notable alteration of the environment? • **Very low (5) -** The risk/impact may result in very minor alterations of the environment and can be easily avoided by implementing appropriate mitigation measures and will not have an influence on decision-making. • **Low (4) -** The risk/impact may result in minor alterations of the environment and can be easily avoided by implementing appropriate mitigation measures and will not have an influence on decision making. • **Moderate (3) -** The risk/impact will result in moderate alteration of the environment and can be reduced or avoided by implementing the appropriate mitigation measures and will only have an influence on the decision-making if not mitigated. • **High (2) -** The risk/impact will result in major alteration to the environment even with the implementation on the appropriate mitigation measures and will have an influence on decision making; and • **Very high (1) -** The risk/impact will result in very major alteration to the environment even with the implementation on the appropriate mitigation measures and will have an influence on decision making.

Confidence	The degree of confidence in predictions based on available information and specialist knowledge • **Low -** Based on the availability of specialist knowledge and other information. • **Medium - B**ased on the availability of specialist knowledge and other information. • **High -** Based on the availability of specialist knowledge and other information

Impacts are evaluated for the different phases of the proposed project. Impacts have been evaluated with and without mitigation in order to determine the effectiveness of mitigation measures on reducing the significance of a particular impact. The Assessment is presented in the following section and further in the Environmental Management Plan (EMP).

9. IMPACTS ASSESSMENT

The purpose of this section is to assess and identify the most pertinent environmental impacts by describing certain quantifiable aspects of these impacts and to provide possible mitigation measures to minimize the magnitude of the impacts that are possibly deriving from the various activities that constitute the proposed minerals prospecting and exploration activities within EPL 9053. Comments and concerns raised during the public consultation process have been considered and included.

TABLE 9 – ECOLOGICAL/BIODIVERSITY IMPACT ASSESSMENT TABLE

Impact	Generally, minerals exploration activities such as drilling operations and advanced prospecting (as described in 3.1.4) pose impacts towards the diversity of species within the various habitats by reducing population numbers of certain species. A specialist fauna & flora study was commissioned for the EIA.
Nature of impact	Loss of Habitat and species during exploration activities such as drill rig preparation, tracks creation, and general movement in the area. The most vulnerable species are reptiles and birds. Some exploration activities such as tracks creation, drill site preparations, and camping area preparations require removal of some plants and may affect the flora status of the area. Taking into account that the EPL is over farmlands where commercial farming is practiced, the presence of project personnel and vehicles may disturb domestic animals and scare away the wild animals. The increase in people movement on the licenses could bring about livestock theft, illegal hunting, or poaching. Some affected farmers are registered at The Department of Veterinary Services as fit for exporting meat to the EU market. They operate under EU farming practice and veterinary regulations that should be adhered to maintain good standing status. Exploration may occur at designated sites throughout the EPL, but the total activity footprint of each habitat is estimated to be very low.
Status	Negative
Spatial Extent	Local

Duration	Long term
Consequence	Substantial
Probability	Very Likely
Reversibility	Partially
Mitigation Measures	– The habitats will remain relatively undisturbed due to the very low percentage footprint of activities planned, but without prior knowledge of the whereabouts of the vulnerable, threatened and critically endangered species and their preferred habitats in the area, it may not be possible to prevent an impact, regardless of how small it might be. – The planning of the project activities layout must endeavor to reduce the footprint on fauna and flora to a minimum, without compromising the realistic needs of the business operation and making decisions that will safeguard against indiscriminate habitat alteration. – KoBold metals should engage and enter into agreements with individual farmers including those that are registered with the Department of Veterinary Services to export meat to the EU and other national and internation markets. – The proponent should familiarize themselves with the EU farming practice and veterinary regulations and laws and where necessary should be taken into consideration during the planned exploration activities.. – Topsoil or grass should be stockpiled for use during rehabilitation after removal of samples. – Engage interested stakeholders to participate on site in the rescue and relocation of indigenous and protected flora. – Undertake Plant and animal Search and Rescue prior to the commencement of activities. – Driving on existing roads as far as practically possible. Creation of new tracks to consider existing biodiversity. – Habitat loss for fauna and flora species should be kept to a minimum with footprint areas being restricted to the direct operational areas only. – In addition, where possible, activities are to be aligned along previously disturbed areas. – Wandering around sites, collecting plants, or illegal hunting should not be allowed. – Rehabilitation must restore the disturbed sites, as far as is possible to their prior state to mitigate the visual impact and to allow for the best possible re-colonization of the site, by plants and animals. – Some ridges have protected or special plants, and the proponent is advised to seek a specialist opinion on how to preserve those plant species if in exploration targeted areas, and where vital for advanced exploration possible relocation of those plants.

		– Notice should be given at least two (2) weeks in advance to indicate the flying times for airborne geophysical surveys, to inform/advise the local communities on the surveys, and so that these surveys do not coincide with activities that may disturb other land use activities such hunting seasons on commercial farms. – Where activities coincide, such as clearing of vegetation for exploration activities and biomass or coal production they must be undertaken harmoniously, such that if there is sufficient cleared vegetation that may be used in coal production it can be handed over for coal production. – No onsite vegetation should be cut or used for firewood related to the project's operations. The Proponent should provide firewood for camps/accommodation from authorized firewood producers or sellers. – Working sites should be fenced off to keep wild and domestic animals out. – Environmental awareness on the importance of biodiversity preservation should be provided to the workers and contractors. – Further recommendations are provided in the biodiversity report presented in **Appendix F**
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (4)
Ranking of Impact		3
Confidence Level		Medium

TABLE 10 - NOISE IMPACT ASSESSMENT TABLE

Impact	Noise cause by project activities (drilling operations, machineries, and vehicular movements)
Nature of impact	Disturbance of sense of place and the effect on tranquil ambient noise levels. Hearing problems to operators if noise generation is prolonged and not managed. Potential noise sources during the exploration activities could originate from vehicles, hammers, powered hand tools, excavators, and drill rigs. The nuisance factor of these noise sources will depend on the proximity of the activities to the settlements, homesteads and sensitive animal habitats.
Status	Negative
Spatial Extent	Local
Duration	Temporary/ Permanent
Consequence	Substantial/Severe
Probability	Likely
Reversibility	Partially
Mitigation Measures	– The Occupational Safety and Health Administration (OSHA) guidelines set legal limits on noise exposure in the workplace. These limits are based on a worker's time weighted average over an 8-hour day. With noise, OSHA's permissible exposure limit (PEL) is 90dBA for all workers for an 8-hour day. The OSHA standard uses a 5dBA exchange rate. This means that when the noise level is increased by 5dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half. – The WHO guideline on maximum noise levels to prevent hearing impairment set noise level limits at an average of 70 dBA over a 24-hour period with maximum noise levels not exceeding 110 dBA during the period. These latter limits would apply if the daytime shift were prolonged beyond the 8-hour day. – The nuisance factor of these noise sources will depend on the proximity of the exploration activities to the settlement, homesteads, and sensitive animal habitats.

		– PPE such as earplugs is considered an acceptable mitigation of workers to noise exposure. Noise control measures should be in place for those that may be exposed to ambient noise levels. – Other mitigation measures would be to limit the amount of time a person spends at a noise source. – Machineries and vehicles (moving and stationed) should be serviced regularly. – Avoid generating unnecessary noise by making sure that equipment that is not in use are always turned off and by avoiding operations during odd hours. – Drilling schedules should be communicated in time with the landowners so that they are kept appraised especially when work may be at odd hours or over weekends. – It is recommended that any complaints regarding noise be recorded and included in the environmental reports. Should complaints persist this may require a separate study to identify noise levels and how they can be mitigated. Transportation routes should be planned for trucks such that they pass as far away as possible from noise sensitive receivers, a restriction of the hours of movement, e.g., not allowing the transport of material during the noise sensitive hours of the night can mitigate noise impacts.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (4)
Ranking of Impact		3
Confidence Level		Medium

TABLE 11 - DUST IMPACT ASSESSMENT TABLE

Impact	Dust generation during exploration activities (e.g., vehicular movement, drilling operation, drill rig preparation) may result in dusty conditions.
Nature of impact	Tempering of the ambient air quality in the surrounding area Fauna and flora could be impacted by an increase in dust levels. Negative effects of dust on personnel working at the drilling site are likely to occur if dust suppression techniques are not employed and personal protection equipment is not used to safeguard the health of personnel..
Status	Negative
Spatial Extent	Local
Duration	Medium term
Consequence	Substantial
Probability	Very Likely
Reversibility	Partially
Mitigation Measures	– Natural weather conditions can create very dusty atmospheric conditions. The exploration activities contribute very little to the widespread ambient conditions that often prevail. Cars travelling on the access roads can create dust plumes trailing behind them. – Dust suppression techniques should be employed where there is work with heavy machinery that may produce excess dust. – Avoid activities that create excessive dust on extremely windy days. – Personnel are required to wear personal protection equipment, such as dust masks, if excessive dust is created for prolonged working periods. – Employees should be made aware of the negative health effects from inhaled dust.

		– Water sprays at the various dust producing components in mineral exploration will effectively keep dust from blowing into the atmosphere. – The road network within the EPL site can be sprayed with water and other dust suppressants during dry dusty conditions. – To mitigate gaseous pollutants released from the combustion of hydrocarbons, use of high-quality fuels will ensure quantities released per unit weight of product are at levels within environmental limits. – Should exploration intensity, and where potential future mining activities are envisioned, the proponent should consider introducing dust monitoring techniques. This can be done by identifying areas around the project where there are possible receptors to dust. A dust monitoring unit e.g., dust bucket should be erected near each receptor area and should be sampled every month to compile a dust levels baseline before any mining activities commences.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (4)
Ranking of Impact		3
Confidence Level		Medium

TABLE 12 - WASTE IMPACT ASSESSMENT TABLE

Impact	Generation of waste during the proposed project activities.
Nature of impact	Domestic waste and waste from maintenance work performed on the machinery can potentially cause unpleasant odor, sight for the people in the surrounding as well as disturbance to surface and ground water. The dumping of general waste within the camp, drilling sites and surrounding areas could prove hazardous to wildlife and livestock. This could also lead to general environmental degradation.
Status	Negative
Spatial Extent	Local
Duration	Medium term
Consequence	Moderate
Probability	Likely
Reversibility	Partially
Mitigation Measures	– Waste generation is likely to be limited on site and will primarily be domestic waste. This material will be stored properly until its safe disposal off-site. – All domestic waste must be taken to the nearest official dumpsite. – Collection and disposal of waste must be effective to not have an impact on the environment. – Oil from the servicing of the vehicles and machines should be collected in drums and taken together with all other industrial waste that is generated on site, to the nearest hazardous waste site. – Personal protection equipment (PPE) can protect personnel from exposure to disease or toxic chemicals, and proper PPE must be worn at the different work sites. – Groundwater is a scarce and valuable resource in Namibia and must be protected. – The Water Act will guide the proponent so that there is no pollution to water resources. – Sewerage created at the camp or management offices either needs to be deposited directly into approved and permitted French drains or removed offsite. If the latter then sealed sewerage tanks are required. The regulations under

		the Water Resource Management Act need to be consulted with regards to the erection of French drains near water courses. They cannot be constructed within 100m of the banks of a water course. – Some wastes are dangerous to fauna and flora; Animals should not be able to access the waste management area; Waste must be contained so that it cannot enter the naturally vegetated areas beyond the accessory works area. – Storage of hazardous liquid waste must by law follow industry standards. It is unlikely that hazardous waste will be generated or stored at sites during mineral exploration. However, these standards will be communicated in fuller details by the fuel supplier. Ideally, self-110% bunded containers should be brought to site and placed upon sealed surfaces with waste collection sumps. – Soil which is contaminated by used hydrocarbons needs to be removed and taken to a remediation cell where it can be treated and made suitable for re-use. – Good housekeeping is vital in waste management. – Training and awareness of company personnel and the public will inform them of those wastes that may cause harm, pollute the soil, groundwater, or air (if particulate). – The practice of reusing and recycling products should be implemented.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Very low (5)
Ranking of Impact		4
Confidence Level		Medium

TABLE 13 - WATER IMPACT ASSESSMENT TABLE

Impact	Possible water resource pollution and overuse during the proposed project activities.
Nature of impact	Potential surface and ground water pollution. The general area has a number of river channels which could be potential pathways for pollution migration into groundwater, especially during the rainy season. Discharge of liquid or solid wastes including wastewater, chemical, fuels or oils into any public stream is prohibited and the Proponent must implement the provisions of the EMP on water and waste management. If exploration advances as a result of economic mineral discovery, it is suggested that a detailed site-specific hydrogeological specialist study which should include groundwater modelling as well as water sampling and testing, must be undertaken. This can be part of the detailed EIA and EMP that will support the feasibility study.
Status	Negative
Spatial Extent	Local
Duration	Long term
Consequence	Moderate
Probability	Unlikely
Reversibility	No
Mitigation Measures	– The Water Act will guide the proponent so that there is no pollution to water resources. – The Water Resource Management Act need to be consulted with regards to the erection of French drains near water courses. They cannot be constructed within 100m of the banks of a water course. – Always use as little water as possible. Reduce, reuse and re-cycle water where possible. – All leaking pipes / taps must be repaired immediately, and taps should not be left running. – The Proponent must obtain permission from the landowners before utilizing any water resources or any associated infrastructure.

		– Accidental spills that occur outside of the bund area must be contained and prevented from entering the stormwater system. – The site manager or the Environmental Control Officer must be notified when there is an oil spill, or a hazardous substance spill is noticed.. Spills must be treated with the appropriate spill absorbent. – Any significant spills or leak incidents must be reported in terms of the National Environmental Management Act and the Water Act. – If there is a need to drill a water borehole to support the proposed exploration programme the Proponent (Proponent) must obtain permission from the landowner and Department of Water Affairs in the Ministry of Agriculture Water and Land Reforms. – In an event of discovery of economic minerals resources, the sources of water supply for the mining related operations will be supplied by NamWater and the Proponent is advised to contact NamWater at the earliest stages of the development of any possible mining project, and. – In the event that the project advances to feasibility studies groundwater monitoring must be implemented and should include water level monitoring, and water sampling. For transparency on the water monitoring activities, the affected landowners / farmers should be informed and have access to the results on the water monitoring.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Very low (5)
Ranking of Impact		3
Confidence Level		Medium

TABLE 14 - VISUAL IMPACT ASSESSMENT TABLE

Impact	Visual impact caused by the operational activities
Nature of impact	Impact on visual resources would be considered unfavorable if the landscape were significantly degraded or modified. Changes to the aesthetic appeal of the area due to the presence of people, vehicles, and machinery. Visible changes to habitats due to human activities
Status	Negative
Spatial Extent	Local
Duration	Temporary
Consequence	Moderate
Probability	Very Likely
Reversibility	Yes
Mitigation Measures	– Domestic waste must be taken to the nearest official dumpsite. – As far as possible existing roads and tracks should be used to access target sites for exploration. New tracks must take into consideration visual impacts. – Personnel to be trained regarding the observable signs of faunal and floral biodiversity and the avoidance of habitat disturbance. – Minimize the footprint of personnel, vehicles, and machinery. – Where new roads are constructed, the methods should be low intensive and possibly use manpower and not machines. – The structures that may have been erected during exploration shall be demolished and removed on completion of the project.

		– Care must be taken to ensure that all rehabilitated areas are similar to the immediate environment in terms of visual character, vegetation cover and topography, and any negative visual impacts will be rectified to the satisfaction of the MEFT officials. – Overburden topsoil will be placed back into excavation as part of the rehabilitation programme. – Rehabilitate habitats through the removal of obvious signs of human presence. – Remove all waste daily and dispose of it in the appropriate manner. Removal of machinery from the sites if periods of inactivity are protracted.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (2)
Ranking of Impact		3
Confidence Level		Medium

TABLE 15 - HERITAGE IMPACT ASSESSMENT TABLE

Impact		Heritage sites destruction during prospecting and exploration activities
Nature of impact		Possible destruction to heritage sites. A Heritage Impact Assessment was conducted for this project and is presented in **Appendix E**.
Status		Neutral
Spatial Extent		Local
Duration		Long term
Consequence		Substantial
Probability		Unlikely
Reversibility		Partially
Mitigation Measures		– A 'chance find' of any potential heritage site should be communicated to the police and the National Heritage Council of Namibia. If activities occur at the location where a 'chance find' has been made, then the activities should cease until the necessary authorities have visited the site and provided the go ahead to proceed with activities. – A holistic precautionary measure must be taken to protect the identified heritage resources within the EPL area and promote documentation of all heritage resources and dissemination to relevant stakeholders. – The identified grave and built heritage resources should be mapped on the development map to reflect their existence. – Recorded heritage finds should be avoided with a 30 m buffer. – If there are known heritage sites on the EPL a heritage specialist should advise the proponent should exploration activities coincide in these areas, during all phases of the development and before prospecting/exploration drilling commencing. The final layout should be subjected to a heritage walkthrough.
Significance of Impact	Without Mitigation	Moderate (3)

= Consequence x Probability	With Mitigation	Low (4)
Ranking of Impact		4
Confidence Level		Medium

TABLE 16 - LANDUSE IMPACT ASSESSMENT TABLE

Impact		Possible conflict with land use in the area
Nature of impact		Possible conflict with the community or farmers during the implementation of the project (e.g., issues related to access and security)
Status		Negative
Spatial Extent		Local
Duration		Short term
Consequence		Substantial
Probability		Unlikely
Reversibility		Partially
Mitigation Measures		– The EMA requires that permission be provided by the competent authorities for the listed activity. – Update stakeholders register regularly. – Actively engage landowners regularly to maintain open channels of communication. – The proponent is subservient to the conditions laid down by the guidelines / conditions and the law that upholds it. The implementation of the exploration programme will be in accordance with the approved Environmental Management Plan (EMP). – The communities or neighboring farms have a claim to the grazing rights of the area. Good communication is important and should ease any conflicting land uses.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (4)
Ranking of Impact		3
Confidence Level		Medium

TABLE 17 - SOCIO ECONOMIC IMPACT ASSESSMENT TABLE

Impact		Socio economic activities related to the exploration project
Nature of impact		- Employment creation - Skills Transfer
Status		Positive
Spatial Extent		National
Duration		Long term
Consequence		Slight
Probability		Very Likely
Reversibility		Yes
Mitigation Measures		– Should the license be granted the project will promote local employment and procurement of goods and services.
Significance of Impact = Consequence x Probability	Without Mitigation	Low + (4)
	With Mitigation	Very low + (5)
Ranking of Impact		5
Confidence Level		Medium

10. DECOMMISSIONING AND REHABILITATION

Disturbance of the earth's surface by exploration activities may result in removal of existing vegetation and ecosystems within the disturbed area. The impacts are localized to the disturbed area, and the overall extent of the impact is determined by the concentration of the activity and the sensitivity of the disturbed ecosystems, which will be overall minimal in exploration. The impact on the environment can be lessened by planning with future closure in mind. When an exploration area is abandoned the infrastructure and altered landscape can affect the safe access of wildlife and public if not rehabilitated. The altered habitat may or may not promote the re-establishment of organisms that were once found there. Visual rehabilitation to the original state is not always practical.

The objectives of the closure and decommissioning are to:

- Provide a safe and stable landform compatible with the intended final use.
- Comply with relevant regulatory requirements and attain regulatory consensus on the successful closure and rehabilitation of the Project area.
- Complete the closure, decommissioning and rehabilitation works as quickly and cost effectively as possible whilst achieving primary objectives.

Produce a final "walk away" landform that is stable and that blends aesthetically into the surrounding landforms, yet as far as possible does not limit possible future land uses.

10.1. SITE REHABILITATION

The exploration sites should be rehabilitated to as near the original state as possible.

10.2. PLANNING FOR REHABILITATION

The proposed post exploration land-use will influence the procedure and the plant species used for rehabilitation.

The following are the basic rehabilitation practices as summarized after the Minerals Council of Australia (Allan, 1998), which with appropriate modifications, will apply to most disturbed areas.

1. Making Safe: After planning for rehabilitation, the first step is to clean up and make the area rehabilitated, safe. This involves the following:
    - Removal of infrastructure and unused or unwanted equipment. No facilities or equipment should remain on site unless with the written approval of the landowner or relevant authority.
    - Removal of rubbish for disposal at approved sites. Care is required with residual toxic or hazardous materials including contaminated packaging and containers.

- Restricting or preventing public access by removal or closure of access roads and tracks leading to high-risk explored areas until such a time that the area is clear of exploration activities induced ''risk or danger''

2. Erosion Control: Progressive rehabilitation will be undertaken to stabilize disturbed areas as quickly as practical and to limit erosion.
    - Restrict clearing to areas essential for the works.
    - Minimize length of time soil is exposed.
    - Divert run-off from undisturbed areas away from the works.
3. Topsoil Management: The rehabilitation strategy may include the following measures which are designed to minimize the loss of topsoil material, respread on rehabilitated areas and promote successful vegetation establishment.
    - Minimize the length of time that topsoil material is to be stockpiled.
    - Respread topsoil material in even layers at a thickness appropriate for the landform and land capability of the area to be rehabilitated.
    - Topsoil stockpiles are located in areas away from drainage lines or windy areas in order to minimise the risk of soil and wind erosion.
    - Rehabilitation areas of returned topsoil will be ripped, with care taken not to bring subsurface materials to the surface (e.g., large rocks). Ripping should only be sufficient to allow equipment to work efficiently. Ripping along slopes should be along contour.

It is anticipated that rehabilitation works will be marginal as most of the techniques to be employed in this exploration are minimally to non-invasive.

11. CONCLUSION AND RECOMMENDATION

The aim of this environmental scoping assessment was to identify the potential impacts associated with the proposed exploration activities on EPL 9053, to assess their significance and recommend practical mitigation measures. The public and all directly affected stakeholders are consulted as required by the EMA and its 2012 EIA Regulations (Section 21 to 24). The public is informed via the four (4) newspapers advertisement used for this assessment. Notices and emails were also shared with some identified stakeholders and general public. Furthermore, public engagement and information sharing meetings were conducted for this project.

Due to the limited scope of the proposed activities and the use of a step-by-step approach in advancing operations, the overall severity of potential environmental impacts of the proposed project activities on the receiving environment will be of medium magnitude, temporary duration, localized extent, and high probability of occurrence.

All impacts are provided with mitigation measures, minimized, or avoided to acceptable degrees provided that the measures are taken into consideration.

Overall, the area is prone to drought and water availability is an issue, and there are concerns on how the current land uses such as farming can successfully co-exist with the planned minerals prospecting activities. These concerns are addressed in the scoping and EMP reports and will furthermore be addressed in access agreements.

Based on the conclusions of this EIA Report, it is thus recommended that an Environmental Clearance Certificate (ECC) be issued for the planned project activities. When implementing the proposed program, the Proponent shall consider the following critical requirements:

- The Proponent will negotiate Access Agreements with landowners.
- The Proponent is responsible for obtaining all additional permits that may be required.
- The Proponent shall comply with all terms of the EMP..
- In cases where baseline information, national or international guidelines, or mitigation measures have not been supplied or do not adequately address the site-specific project effect, the Proponent must use the precautionary approach/principles.

There is little chance that the project's planned operations will significantly harm the area's social and biophysical surroundings. To preserve the environment and advance environmental sustainability, it is crucial that the Proponent and any contractors hired carry out and oversee the appropriate management procedures.

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APPENDIX A – ENVIRONMENTAL CONSULTANTS CV

APPENDIX B – ENVIRONMENTAL MANAGEMENT PLAN (EMP)

APPENDIX C – BACKGROUND INFORMATION DOCUMENT

APPENDIX D – ADVERTS, SITE NOTICES, STAKEHOLDER LIST, COMMUNICATION, MEETINGS MINUTES AND PRESENTATIONS

NEWSPAPER ADVERTS

The Republikein newspaper, The Allgemeine Zeitung, and The Sun newspaper, Wednesday 25th of October 2023

8 Market Watch WEDNESDAY 25 OCTOBER 2023

Republikein Sun Allgemeine Zeitung

CLOSING DATE: 27 October 2023 before 17H00 (Only short-listed candidates will be contacted)

VACANCY CRAN

Suitably qualified candidates are invited to apply for the following position at the Communications Regulatory Authority of Namibia (CRAN) in Windhoek, Namibia.

EXECUTIVE: COMMUNICATION AND CONSUMER RELATIONS (E3)

To view position specifications and to apply, please visit the CRAN website, www.cran.na, under the careers (vacancies) tab.

CRAN IS AN EQUAL OPPORTUNITY EMPLOYER. WOMEN AND PERSONS WITH DISABILITIES ARE ENCOURAGED TO APPLY.

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCEs (EPLs) 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 & 9064. !KARAS REGION

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 & 9064. !Karas Region.

Proponent: KoBold Metals Namibia (Pty) Ltd.
Commodities: Base and rare metals, industrial minerals, nuclear fuels, and precious metals.
Locality: Within the Karasburg West & East constituencies covering a total area of approximately 649,727 Hectares across private and government farmlands (Figure below).

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 November 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below. Public meeting date and venue will be shared to the registered I&APs in due course.

Email: info@enviro-aec.com
Cell: +264 81 298 9118 **OR** +264 81 435 1689

Alliance ENVIRONMENTAL CONSULTANCY

CGN Swakop Uranium

VACANCIES

Swakop Uranium, a Namibian world class uranium mining company, invites people who are self-motivated, energetic and wish to work in a High Performance Culture environment, to apply for the following roles:

Superintendent: Maintenance
Operator: Probe
Superintendent: HR Business Partnering
Senior Operator: Aggregate Crushing
Operator: Aggregate Crushing

To apply, please upload your CV and other **recently certified AND verified/ authenticated** relevant documents to https://swakopuranium.mcidirecthire.com/external/currentopportunities, or scan the QR code, and / or apply on the NIEIS platform by following this link https://nieis.namibiaotwork.gov.na.

NB: Please note that all relevant qualifications (Namibian qualifications included) must be recently **certified and verified** by the **institution** where it was obtained or the NQA. For more information regarding evaluation of qualifications, please visit www.namqa.org

SCAN ME

VACANCY NamPower

NamPower (Pty) Ltd, an equal opportunity employer invites candidates who are passionate about the Electricity Supply Industry and with uncompromising standard of excellence, to a career in the industry.

Position: **Executive: Transmission** (5 -Year Fixed Term Employment Contract)
Business Unit: **Transmission**
Closing date: **04 November 2023**
Job Grade: **3** (Peromnes)

For enquiries, contact:
Executive: **Human Capital**
Tel: **+264 61 205 2474**

If this vacancy is appealing to you, submit your application via NamPower's e-recruitment platform at **https://recruitment.nampower.com.na**

Only applications submitted via the e-recruitment platform will be considered. No e-mail or hand-delivered applications will be accepted.

In return for your skills, NamPower offers a generous remuneration package and attractive fringe benefits in line with the seniority of the position.

NB: FEMALE AND PREVIOUSLY DISADVANTAGED PERSONS ARE ENCOURAGED TO APPLY. ONLY SHORTLISTED CANDIDATES WILL BE CONTACTED.

FOR SALE

2020 Iveco Daily 72-150
N$500,000-00

+/- 375,000 km
New engine installed November 2022 (11,000 km with new engine)
Loading capacity of 3,5 – 4 tons.
In running condition
Vehicle is sold 'as is/ voetstoots'

Contact: Macbride Muundjua @ 081 631 9062

CLOSING DATE: 01 November 2023 before 17H00 (Only short-listed candidates will be contacted)

VACANCIES CRAN

Suitably qualified candidates are invited to apply for the following positions at the Communications Regulatory Authority of Namibia (CRAN) in Windhoek, Namibia.

MANAGER: LICENSING STANDARDS & REGULATORY COMPLIANCE (D4)

LEGAL ADVISOR: COMPLAINTS & ENFORCEMENT (D2)

RF SPECIALIST: BROADCASTING SPECTRUM (C4)

To view position specifications, please register on Direct Hire and apply online at:
https://cran.mcidirecthire.com/External/CurrentOpportunities

CRAN IS AN EQUAL OPPORTUNITY EMPLOYER. WOMEN AND PERSONS WITH DISABILITIES ARE ENCOURAGED TO APPLY.

Physical Address: Communications House, No.56 Robert Mugabe Avenue, Windhoek, Namibia
Postal Address: Private Bag 13309, Windhoek, Namibia Tel: +264 61 222 666 Fax: +264 61 222 790
Fax2Email: +264 088 642 748 Website: www.cran.na

The Republikein newspaper, The Allgemeine Zeitung, and The Sun newspaper, Wednesday 01st of November 2023

6 Republikein Sun Allgemeine Zeitung Market Watch WEDNESDAY 1 NOVEMBER 2023

035 Regskennisgewings Legal Notices

NOTICE OF INTENTION IN TERMS OF THE URBAN AND REGIONAL PLANNING ACT OF 2018 (ACT 5 OF 2018): REZONING OF ERF 2953, MONDESA,EXTENSION NO. 6, SWAKOPMUND, FROM SINGLE RESIDENTIAL WITH A DENSITY OF 1:300M² TO PARASTATAL.

Please take note that Van Der Westhuizen Town Planning and Properties CC, on behalf of our client, intends to apply to the Swakopmund Municipal Council for the Rezoning of Erf 2953, Mondesa, Extension No. 6, Swakopmund, from Single Residential with a density of 1:300m² to Parastatal.

Erf 2953, Mondesa, Swakopmund, currently measures approximately 327m² in extent and is located on the corner of Omenye Street and Onduno Street in Mondesa Extension No. 6. The property is currently being utilized for the purpose of Erongo Red Substation. It is the intention to rezone the property and transfer the property to Erongo Red Electrical Distributors. It is thus required and necessary to formally apply to the Local Authority and the Ministry of Urban and Rural Development for the proposed rezoning of the property.

Please further take note that -

(a) the plan of the erf can be inspected at the Public Notice Board of the Swakopmund Municipality located on the Corner of Rakotoka Street & Daniel Kamho Avenue.

(b) any person having objections to the proposed rezoning or who wants to comment thereon, may lodge such objections and comments, together with the grounds thereof, in writing to the Municipality and the applicant within 14days of the last publication of this notice.

Please be advised that the written objection must be forwarded within the prescribed time as required by the Urban and Regional Planning Act of 2018.Such written objection or comment must therefore be submitted by no later than17:00 on 22 November 2023.

Applicant: VAN DER WESTHUIZEN TOWN PLANNING & PROPERTIES CC
Contact Persons: A van der Westhuizen
Cell: 081 122 4661
Email: andrew@vdwtp.com
P.O. Box: 1598, Swakopmund, Namibia

DM0202300412856

IN THE High Court of Namibia (Main Division - Windhoek)
H C - M D - C I V - A C T - CON-2023/02222
In the matter between:
WITTRAN INVESTMENTS CC, Plaintiff and
TRANS KALAHARI GROUP (PTY) LTD, Defendant
NOTICE OF SALE OF MOVABLE PROPERTY
Pursuant to a Judgment of the above Honourable Court granted on the 13th July 2023 by honourable Justice Usiku, the following movableproperty will be sold in execution of the judgement debt by public auction at 10:00 from 6 to 8 November 2023 at Aucor Namibia, Corner of3rd Street East and 14th Road, Industrial Area, Walvis Bay, Namibia.
Participants can participate in the public auction at the address given above or participate online at: https://aucor.auction orhttps://aucornamibia.com/
MOVABLES:
1 x Iveco Truck N 175693 W
1 x Iveco Truck N 223979 W
1 x Three Axle Trailer: Paramount Trailer flat deck N 143198 W
1 x Three Axle Trailer: Paramount Trailer flat deck N 175861 W
1 x Three Axle Trailer: Paramount Trailer flat deck N 177094 W
Dated at Windhoek this 30th day of October 2023
FISHER, QUARMBY & PFEIFER
PER: KONRAD MARAIS
Legal Practitioners for Plaintiff
Corner Robert Mugabe Avenue & Thorer Street
Windhoek
251265

Market Watch
TO ADVERTISE CALL:
Classifieds
T: 061-297 2175

035 Regskennisgewings Legal Notices

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCES (EPLs) 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 & 9064. !KARAS REGION

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 & 9064. !Karas Region.

Proponent: KoBold Metals Namibia (Pty) Ltd.

Commodities: Base and rare metals, industrial minerals, nuclear fuels, and precious metals.

Locality: Within the Karasburg West & East constituencies covering a total area of approximately 649,727 Hectares across private and government farmlands (Figure below).

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 November 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below. Public meeting date and venue will be shared to the registered I&APs in due course.

Email:
info@enviro-aec.com
Cell: 081298 9118
081 435 1689

Alliance

LOSING CONTROL?

AA

ALCOHOLICS ANONYMOUS NAMIBIA

If you want to drink, that's your business.

If you want to stop, that's ours.

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081 379 6366
Swakopmund:
081 243 2649

E-MAIL:
alcoholicsanonymous-na@gmail.com

Multiple Sclerosis NAMIBIA

WHAT IS MULTIPLE SCLEROSIS?

A chronic disease of the brain and central nervous system

OFFICE HOURS:

Monday - Friday:

09h00 - 17h00

info@msnamibia.org

PROCUREMENT NOTICE

MTC hereby invites companies to participate in the following procurement opportunity:

MTC46-23-O:
REQUEST FOR PROPOSALS FOR THE SELECTION AND APPOINTMENT OF A FULL SERVICE ADVERTISING AGENCY FOR MTC

BRIEFING MEETING:
Tuesday, 24th October 2023 @ 10h00 (Namibian Time)

VENUE:
Microsoft Teams, link available in the RFP document

CLOSING DATE:
10th November 2023 by 14h30 (Namibian Time)

Tender documents are available at:
www.mtc.com.na/procurement

mtc

mtc.com.na

NamPower

INVITATION TO BID

SC/RP/NPWR-01/2024

PROVISION OF ADVERTISING AND RELATED SERVICES FOR NAMPOWER FOR A THREE (3) YEAR PERIOD

NamPower is seeking to enlist the services of a local advertising agency to provide advertising, creative and related services for three years. The services required will include:

- Creative services for integrated marketing communication programmes (development of creative brand campaigns and the execution/implementation thereof; amplification thereof on various communication mediums)
- Media planning and management - media buying for above & below line media (print, electronic, digital, outdoor advertising)
- Development of communication material (Integrated Annual Report, calendars, flyers/brochures, publications, etc.)
- Digital media advisory (drafting of social media plans for various platforms; development of content strategy thereof)
- Events management where required (development of themes/concepts; management of events on request)
- Production management (overseeing event set-ups; photography; videos, audio, quality control inspection; support on photography themes; printing services with third-party suppliers)
- Any other jobs within the ambit of the broad scope of work as outlined above (including advisory services where required)

Documents for these bids are available on the NamPower website (www.nampower.com.na)

Closing Date: 17 November 2023

Enquiries:
Tel.: +264 61 205 2312/2258/2703 | E-mail: bidclarifications@nampower.com.na

SAVE 12 LIVES IN A YEAR

Please Donate Blood 4 Times a Year!

All donors who commit to donating blood 4 times a year will receive a free Weekender Bag!

Qualifying period is from 1 April 2023 to 31 March 2024

Wednesday, 01 November 2023

Centre Tal Street (Windhoek)	07:00-16:00
Channel Life Centre (Windhoek)	08:30-16:00
Motovac Lafrenz caravan (Windhoek)	09:00-15:30
GIPF (Windhoek)	09:00-15:30
Welwitchia Health Training Centre (Outapi)	10:00-15:00
Windhoek Consulting Engineers (Walvis Bay)	10:00-15:00

NAMBTS donate life

t: 061 386 300 e: pro@bts.com.na www.bts.com.na

The Windhoek Observer, Monday, 23rd of October 2023

CALL FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED DEVELOPMENT OF NEW HOSTEL BLOCKS, KITCHEN AND DINING HALL AT OMAGALANGA VILLAGE, OSHIKUKU CONSTITUENCY

This notice serves to inform all interested and affected parties that an application for the environmental clearance certificate will be launched with the Environmental Commissioner in terms of the Environmental Management Act (No.7 of 2007) and the Environmental Regulations (GN 30 of 2012).

Project: The proponent intends to build new hostel blocks, kitchen and dining hall at the Millenium Vocational Training Institute.

Proponent: Millenium Vocational Digital Training Institute (Pty) Ltd

All interested and affected parties are hereby invited to register and submit their comments regarding the proposed project on or before **30/10/2023.** Contact details for registration and further information:

Impala Environmental Consulting
Mr. S. Andjamba
Email: eia@impalac.com, Tel: 0856630598

IMPALA ENVIRONMENTAL

OBSERVER PULSE

A supplement of the Windhoek Observer

SPECIAL SUPPLEMENT

CORPORATE SOCIAL INVESTMENT(CSI) 2ND EDITION

UNVEILING THE POWER OF COPORATE RESPONSIBILITY

Advertise your commitment to CSR and CSI and amplify your impact.
Showcase your organization's social initiatives and inspire others to take action.

RESERVE YOUR SPACE TODAY!

Deadline for Booking: 25 October 2023
Publication date: 31 October 2023

Contact:
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085 750 6616
advertise@observer.com.na

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WINDHOEK OBSERVER

ENVIRONMENTAL IMPACT ASSESSMENT

NOTICE FOR THE MINING OF PRECIOUS STONES GROUP OF MINERALS FROM EPL 3218 IN KARASBURG DISTRICT, KARAS REGION.

OUTRUN CONSULTANTS CC HEREBY GIVES NOTICE OF THE ENVIRONMENTAL IMPACT ASSESSMENT FOR THE MINING OF PRECIOUS STONES GROUP OF MINERALS FROM EPL3218. The Proponent is in the process of concluding the exploration phase on EPL3218 and wishes to apply for a mining license. An EIA is being commissioned as required under the Environmental Management Act, 7 of 2007 and Regulations of 2012. The exact location of EPL3218 is highlighted in the Background and Invitation to participate Document (BID).Interested and Affected Parties are invited to register and attend meetings as detailed below.

PROPONENT(S): Clear Sun NAFRIPP Mining (Pty) Ltd

PROJECT ACTIVITIES: Mining of Precious and Semi-Precious Stones

PROJECT LOCATION: Karasburg District –Karas Region – Map is provided in the BID.

PUBLIC PARTICIPATION: OUTRUN CONSULTANTS CC IS INVITING YOU FOR A STAKEHOLDER CONSULTATION DAY AS DETAILED BELOW:

Venue: Jan Plank Hall Date: Saturday 28 October 2023

Time: 1000hrs to 1300hrs And 1400hrs to 1600hrs

Contact Person: Josiah – 0812 683 578, E-Mail: outrungreeninfo@gmail.com

outrun consultants
"RESEARCH, TRAINING & CAPACITY BUILDING"

NOTICE FOR ENVIRONMENTAL IMPACT ASSESSMENT

Environclim Consulting Services cc hereby gives notice to all potentially Interested and Affected Parties (I&APs) that an application will be made to the Environmental Commissioner in terms of the Environmental Management Act (No 7 of 2007) and Environmental Impact Assessment Regulations (GN 30 of 6 February 2012) for the following:

PROJECT NAMES:

Environmental Impact Assessment (EIA) for the establishment of exploration activities of base and rare metals, dimension stone and industrial minerals on EPL 8852, Henties Bay District, Erongo Region.

PROJECT LOCATION: The EPL 8852 is situated approximately 65 Km North-west of Henties Bay, Henties Bay District, Erongo Region.

PROJECT DESCRIPTION:
The project involves conducting an Environmental Impact Assessments (EIA) for the establishment of exploration activities of base and rare metals, dimension stone and industrial minerals at the above EPL.

PROJECT INVOLVEMENT:

Proponent: Valmet Trading CC

Environmental Assessment Practitioner (EAP): Environclim Consulting Services cc

REGISTRATION OF I&APs AND SUBMISSION OF COMMENTS: In line with Namibia's Environmental Management Act (No. 7 of 2007) and LIA regulations (GN 30 of 6 February 2012), all I&APs are hereby invited to register and submit their comments, concern or questions in writing via Email: environclim@gmail.com on or before Friday 10th November 2023.

A public participation meeting will be held as follows:
Place: Community Hall, Henties Bay
Date: 21st October 2023
Time: 18:00
Contact: +264 815955643
Email: environclim@gmail.com

EnvironClim Consulting Services

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCEs (EPLs) 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 & 9064. IKARAS REGION

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 & 9064. IKaras Region.

Proponent: KoBold Metals Namibia (Pty) Ltd.

Commodities: Base and rare metals, industrial minerals, nuclear fuels, and precious metals.

Locality: Within the Karasburg West & East constituencies covering a total area of approximately 649,727 Hectares across private and government farmlands (Figure below).

All interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 November 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below. Public meeting date and venue will be shared to the registered I&APs in due course.

Email: info@enviro-aec.com
Cell: +264 81 298 9118
OR +264 81 435 1689

Alliance Environmental Consultancy

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCE (EPL) 9055 KUNENE REGION

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9055, Kunene Region.

Proponent: KoBold Metals Namibia (Pty) Ltd.

Commodities: Base and rare metals, industrial minerals, nuclear fuels, and precious metals.

Locality: Within the Khorixas constituency covering a total area of approximately 75,887 Hectares across the Torra and Doro !Nawas Area 1 communal conservancies (Figure below).

All interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 November 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below. Public meeting date and venue will be shared with the registered I&APs in due course.

Email: info@enviro-aec.com
Cell: +264 81 298 9118
OR +264 81 435 1689

Alliance Environmental Consultancy

The Windhoek Observer, Monday, 30th of October 2023

20 | MONDAY 30 OCTOBER 2023 www.observer.com.na

CLASSIFIEDS

CALL FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT FOR MINING CLAIMS 72850, 72851 and 72852 in the vicinity of Khorixas, Kunene Region

This notice serves to inform all interested and affected parties that an application for the environmental clearance certificate will be launched with the Environmental Commissioner in terms of the Environmental Management Act (No.7 of 2007) and the Environmental Regulations (GN 30 of 2012).

Project: The license area is located **35 kilometers south east of Khorixas, Kunene Region**, accessible along the D2743, gravel road which connects to the C39 tarred road. The proponent intends to mine on a small scale for industrial metals. Mining methods may include digging small pits, trenching and sampling.

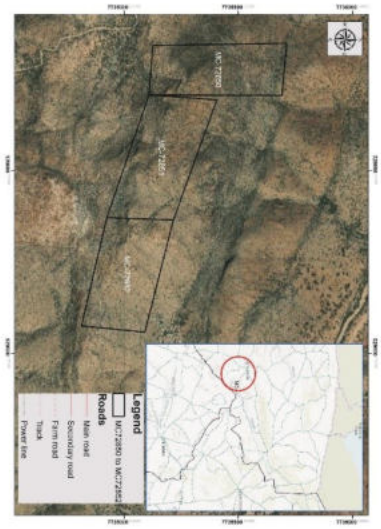
Proponent: Kairanderua Katjari

All interested and affected parties are hereby invited to register and submit their comments regarding the proposed project on or before 25/11/2023. Contact details for registration and further information:

Augite Environmental Consulting

Dr. K Kangueehi

Email: kkangueehi06@gmail.com, Cell number: 0817069027



A Call for Public Participation & Engagement on the Environmental Impact Assessment (EIA) Study: The Existing and Proposed Groundwater Abstraction and Use within the Omaruru Townlands of Omaruru Town in the Erongo Region

The public is hereby notified that an application for an Environmental Clearance Certificate (ECC) will be submitted to the Environmental Commissioner as per the Environmental Management Act No. 7 of 2007 and its 2012 EIA Regulations. Water resources development are listed activities in the EIA Regulations that cannot be undertaken without an ECC. Thus, the EIA Study is required to apply for and obtain the ECC.

Project Nature (Activities): The project activities entail the abstraction and use of groundwater from the Omaruru Municipality boreholes to supply water to its growing population (residents and business community). The Municipality currently abstracts water from nine production boreholes. To meet the water demands of the Town, the Municipality proposes to add two more boreholes to the abstraction scheme.

Proponent: Municipality of Omaruru

Appointed Environmental Consultant: Popeti Investment CC

Therefore, members of the public are invited to register as Interested and Affected Parties (I&APs) to submit comments, issues and or to receive further information on the EIA Study process. The request for registration as I&APs and to submit comments should be done in writing **before or on Friday, 24**

A Public Consultation Meeting will be held in Omaruru and meeting details will be shared in due time with all registered I&APs/stakeholders.

Contact Person: Ms. Fredrika Shagama

Mobile No.: +264 (0) 81 749 9223

Email: popeteias@gmail.com

CALL FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED DEVELOPMENT OF NEW HOSTEL BLOCKS, KITCHEN AND DINING HALL AT OMAGALANGA VILLAGE, OSHIKUKU CONSTITUENCY

This notice serves to inform all interested and affected parties that an application for the environmental clearance certificate will be launched with the Environmental Commissioner in terms of the Environmental Management Act (No.7 of 2007) and the Environmental Regulations (GN 30 of 2012).

Project: The proponent intends to build new hostel blocks, kitchen and dining hall at the Millenium Vocational Training Institute.

Proponent: Millenium Vocational Digital Training Institute (Pty) Ltd

All interested and affected parties are hereby invited to register and submit their comments regarding the proposed project on or before **30/10/2023.** Contact details for registration and further information:

Impala Environmental Consulting
Mr. S. Andjamba
Email: eia@impalac.com, Tel: 0856630598

IMPALA ENVIRONMENTAL

NOTICE FOR ENVIRONMENTAL IMPACT ASSESSMENT

Environclim Consulting Services cc hereby gives notice to all potentially Interested and Affected Parties (I&APs) that an application will be made to the Environmental Commissioner in terms of the Environmental Management Act (No 7 of 2007) and Environmental Impact Assessment Regulations (GN 30 of 6 February 2012) for the following:

PROJECT NAMES:

Environmental Impact Assessment (EIA) for the establishment of exploration activities of base and rare metals, dimension stone and industrial minerals on EPL 8852, Henties Bay District, Erongo Region.

PROJECT LOCATION: The EPL 8852 is situated approximately 65 Km North-west of Henties Bay, Henties Bay District, Erongo Region.

PROJECT DESCRIPTION:
The project involves conducting an Environmental Impact Assessments (EIA) for the establishment of exploration activities of base and rare metals, dimension stone and industrial minerals at the above EPL.

PROJECT INVOLVEMENT:

Proponent: Valmet Trading CC

Environmental Assessment Practitioner (EAP): Environclim Consulting Services cc

REGISTRATION OF I&APs AND SUBMISSION OF COMMENTS: In line with Namibia's Environmental Management Act (No. 7 of 2007) and EIA regulations (GN 30 of 6 February 2012), all I&APs are hereby invited to register and submit their comments, concerns or questions in writing via Email, environclim@gmail.com on or before Friday, 10th November 2023.

A public participation meeting will be held as follows:
Place: Community Hall, Henties Bay
Date: 31st October 2023
Time: 10h00
Contact: +264 813935643
Email: environclim@gmail.com

EnvironClim Consulting Services

PUBLIC NOTICE

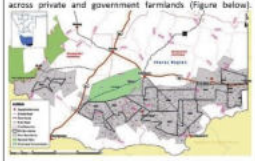
ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCES (EPLs) 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 & 9064. !KARAS REGION

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 & 9064. !Karas Region.

Proponent: Kolbold Metals Namibia (Pty) Ltd.

Commodities: Base and rare metals, industrial minerals, nuclear fuels, and precious metals.

Locality: Within the Karasburg West & East constituencies covering a total area of approximately 649,727 Hectares across private and government farmlands (Figure below).



All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 November 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below. Public meeting date and venue will be shared to the registered I&APs in due course.

Email: info@enviro-aec.com
Cell: +264 81 298 9118
OR +264 81 435 1689

Alliance Environmental Consultancy

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCE (EPL) 9055 KUNENE REGION

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9055, Kunene Region.

Proponent: Kolbold Metals Namibia (Pty) Ltd.

Commodities: Base and rare metals, industrial minerals, nuclear fuels, and precious metals.

Locality: Within the Khorixas constituency covering a total area of approximately 75,887 Hectares across the Torra and Doro !Nawas Area 1 communal conservancies (Figure below).

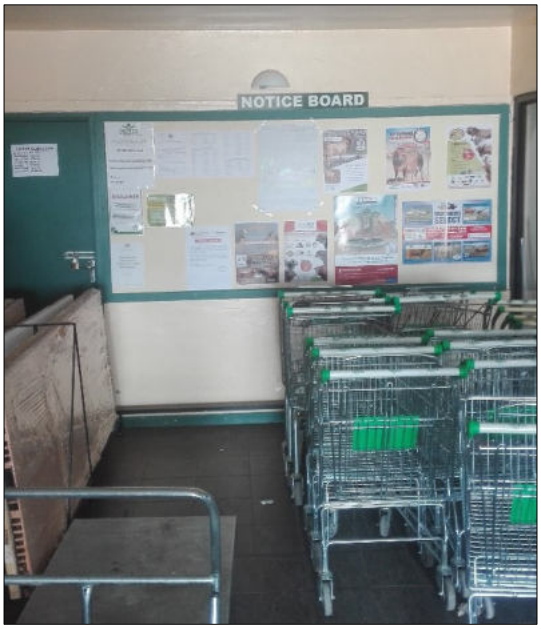
All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 November 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below. Public meeting date and venue will be shared with the registered I&APs in due course.

Email: info@enviro-aec.com
Cell: +264 81 298 9118
OR +264 81 435 1689

Alliance Environmental Consultancy

SITE NOTICES PLACED AT DIFFERENT PLACES AROUND THE EPL AREA

Agra Stores - Karasburg

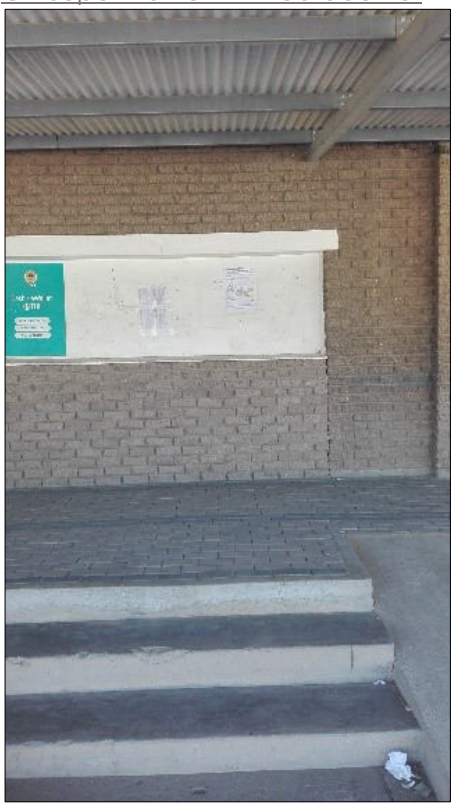


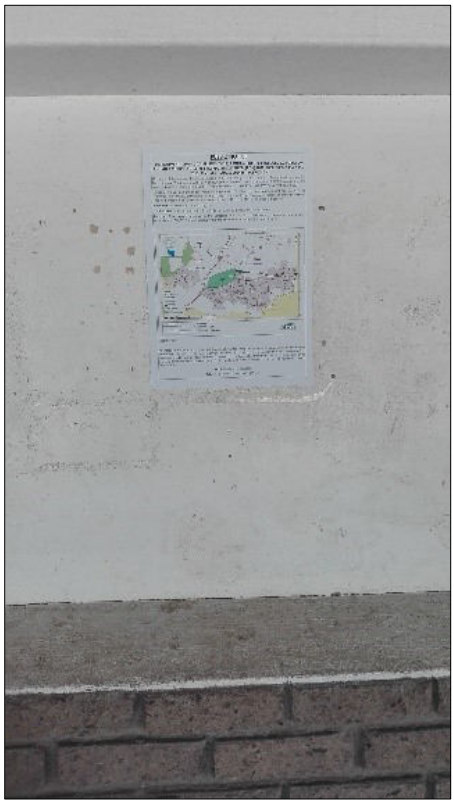
Ariamsvlei Handelshuis

D213/ B1 Intersection

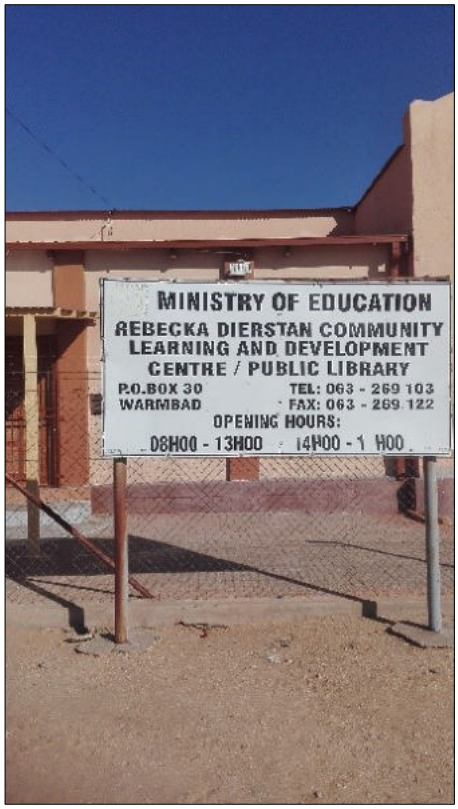
Engen Service Station – Noordoewer

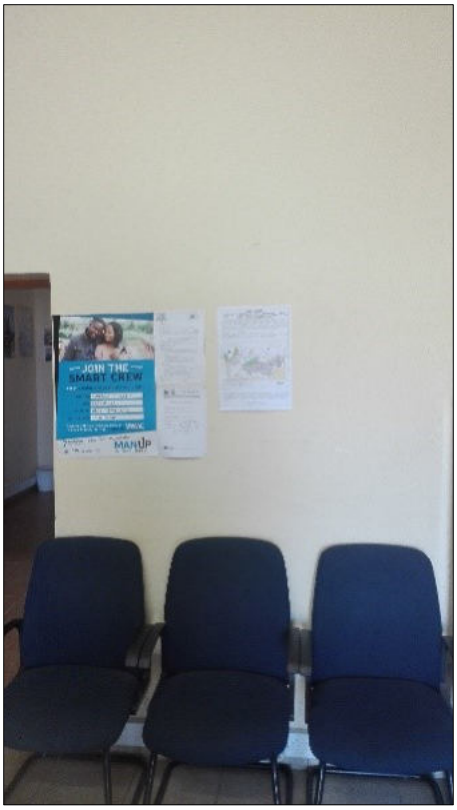
OK Supermarket - - Noordoewer





Community Library – Warmbad





Karasburg East Constituency Office - Karasburg


Ministry of Agriculture, Water & Land Reform Office - Karasburg

D213/ D208 Intersection

Warmbad Settlement Office – Warmbad

FORMAL INVITATION TO IDENTIFIED I&APS

Bcc

kanime.tuli273@gmail.com, nau@nau.com.na, ndeliimonachox@gmail.com, warrenkamwi@gmail.com, dennis.edmonds@kazeraglobal.com, rho1@nhc-nam.org, erica@nhc-nam.org, info@alan.org.na, AupokoloF@namwater.com.na, tkanyemba@karasrc.gov.na, avbeukes@karasrc.gov.na, techmanagerkrgtc@iway.na, karasburgm@iway.na, bendiergaardt@gmail.com, ed@mit.gov.na, niita.iipinge@mlr.gov.na, amakalim@mawf.gov.na, Paulina.Mufeti@mawf.gov.na, siegfried.gawiseb@meft.gov.na, macdolienrhoman@gmail.com, mariusadriaanse@gmail.com, c.vandermerwe@ymail.com, christiaanabraham048@gmail.com, cadriaanse42@gmail.com, wcsajl@gmail.com, wcsajl@gmail.com, adriaan@sandfontein.com, fmwetulundila@gmail.com, stones44@icloud.com, Frans.Akooko@mme.gov.na, fransakooko07@gmail.com, saamstaan@hotmail.com, tikketvwyk@gmail.com, bessieputs@gmail.com, tehillahboerdery@gmail.com, krugerplaas@gmail.com, bessieputs@gmail.com, bessieputs@gmail.com

Close

PUBLIC NOTICE - NEW APPLICATION for Environmental Clearance Certificate (ECC): Prospecting of minerals on EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 and 9064, //Karas Region

From ppp@enviro-aec.com
To Timoteus.Mufeti@meft.gov.na, Caroline.Garus-oas@meft.gov.na, kaarina.ndalulilwa@koboldmetals.com, info@enviro-aec.com
Bcc kanime.tuli273@gmail.com, nau@nau.com.na, ndeliimonachox@gmail.com, warrenkamwi@gmail.com, dennis.edmonds@kazeraglobal.com, rho1@nhc-nam.org, erica@nhc-nam.org, info@alan.org.na, AupokoloF@namwater.com.na, tkanyemba@karasrc.gov.na, 28 more...
Date 2023-11-10 07:54

Summary Headers

231107_KOB_SouthernEPLs_BID_CAC_LNA_TK_KN.pdf (~1.1 MB) Locality Map with Farms South.jpg (~2.9 MB)

Dear Interested & Affected Party (I&APs),

This email serves as an official notice and invitation to participate in the public input/ participation process for the ongoing Environmental and Social Impact Assessment study being undertaken by Alliance Environmental Consultancy CC (AEC) to support the application for Environmental Clearance for the proposed Prospecting of Nuclear Fuel Minerals, Base and Rare Metals, Industrial Minerals and Non-Nuclear Fuel Minerals on EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 and 9064 in the //Karas Region - southern Namibia. You are therefore receiving this email because you have been identified as a key I&Aps for this project, and we would therefore, require your inputs, contributions and involvement in the planning and execution of the proposed exploration activities that will be undertaken as part of this project.

In accordance with the Environmental Management Act of 2007 and its Environmental Impact Assessment (EIA) regulations of 2012, the proposed activities are classified as Listed activities which may not be undertaken without an Environmental Clearance Certificate (ECC). A Background Information Document (BID) on the project and locality map of the concerned license areas area attached to this email for your consideration and review, as well as for sharing with any affected parties you may know of. The BID provides an overview of the proposed activities. Please note that the BID is by no means an Environmental Impact Assessment report nor an Environmental Management and Rehabilitation Plan (EMRP), but is rather a high-level non-technical summary of the planned project's scope aimed at sensitizing the public about the project and its planned activities, and to encourage Interested and Affected Parties to formally register for their inclusion in the ongoing EIA process going forward. We have also included at the end of the BID a Comments Register form where you may populate your details to formally register as an I&AP for this project and to provide our office with any concerns, inputs or suggestions you may have on this project. Only once you have registered will we be able to add you to our database of I&Aps for this project, and you shall then receive all communications and documents relating to this project going forward for your review and inputs.

In order to ensure inclusivity and transparency, and to fulfil the requirements of Section 21 to 24 of the EIA regulations, we have made provision for all I&Aps to review the BID and provide their inputs by no later than 9th December 2023. In addition, we encourage you to please participate in the planned/ upcoming public consultation meetings which are scheduled to take place in Ariamsvlei, Karaburg, Warmbad and Noordoewer between 27th November 2023 and 3rd December 2023. The details of these meetings will be communicated with registered I&Aps only before 20th November 2023.

We look forward to you registration as an I&AP and forwarding all valuable inputs and contributions into this project.

Regards
Mr. Kanime
Alliance Environmental Consultancy
E: ppp@enviro-aec.com

Locality Map with Farms South.jpg ~2.9 MB

Bcc

jannie@orkca.org, nau@nau.com.na, ndeliimonachox@gmail.com, warrenkamwi@gmail.com, dennis.edmonds@kazeraglobal.com, rho1@nhc-nam.org, erica@nhc-nam.org, info@alan.org.na, AupokoloF@namwater.com.na, tkanyemba@karasrc.gov.na, avbeukes@karasrc.gov.na, techmanagerkrgtc@iway.na, karasburgm@iway.na, bendiergaardt@gmail.com, ed@mit.gov.na, niita.iipinge@mlr.gov.na, amakalim@mawf.gov.na, Paulina.Mufeti@mawf.gov.na, siegfried.gawiseb@meft.gov.na, macdolienrhoman@gmail.com, mariusadriaanse@gmail.com, c.vandermerwe@ymail.com, christiaanabraham048@gmail.com, j.clift@komsbergfarm.com.na, cadriaanse42@gmail.com, wcsajl@gmail.com, adriaan@sandfontein.com, fmwetulundila@gmail.com, stones44@icloud.com, fransakooko07@gmail.com, saamstaan@hotmail.com, tikketvwyk@gmail.com, bessieputs@gmail.com, tehillahboerdery@gmail.com, krugerplaas@gmail.com

NOTICE FOR PUBLIC CONSULTATION MEETINGS - NEW APPLICATION for Environmental Clearance Certificate (ECC): Prospecting of minerals on EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 and 9064, //Karas Region

From ppp@enviro-aec.com
To Kaarina Ndalulilwa, Info
Bcc jannie@orkca.org, nau@nau.com.na, ndeliimonachox@gmail.com, warrenkamwi@gmail.com, dennis.edmonds@kazeraglobal.com, rho1@nhc-nam.org, erica@nhc-nam.org, info@alan.org.na, AupokoloF@namwater.com.na, tkanyemba@karasrc.gov.na, 25 more...
Date 2023-11-16 11:40

Summary Headers

Dear Interested and Affected Parties

Following our earlier communication concerning the above mentioned mineral prospecting project, please note that public engagement/ consultation meetings are scheduled to take place as follows:

1. Meeting 1 - Noordoewer (4th Dec 2023 at 10h00 to 13h00)

2. Meeting 2 - Warmbad (5th December 2023 at 09h30 to 12h30)

3. Meeting 3 - Karasburg (6th December 2023 at 09h30 to 12h30)

4. Meeting 4 - Ariamsvlei (7th December 2023 at 09h30 to 12h30

The venue for each meeting shall be confirmed next week.

Your attendance and participation in these meetings will add great value in ensuring that any concerns/ suggestions/ etc are taken into consideration during the impact assessment process. You are welcome to attend anyone of the above meetings.

Regards,
Mr. Kanime
on behalf of Alliance Environmental Consultancy
E: ppp@enviro-aec.com

REGISTRATION EMAILS FROM TO THE PUBLIC

Environmental Impact Assessment process for the proposed minerals prospecting acti...

IN lipinge Ndelimona <ndeliimonachox@gmail.com>
To info@enviro-aec.com

Reply | Reply All | Forward | ...

Wed 11/1/2023 09:34

You forwarded this message on 11/9/2023 09:59.

Dear AEC

I hereby request to be registered as an I&AP for the EIA:
-Environmental Impact Assessment process for the proposed minerals prospecting activities within Exclusive Prospecting Licenses (EPLs) 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 and 9064, //Karas Region, as issued in your public notice in the Namibian Sun newspaper on the 25th of October 2023.
Kindly forward me the Background Information Documents (BID) and the site coordinates if not stated in the BID.

Regards

--
Ndelimona Iipinge
EIA Tracking and Monitoring in Namibia (EIA Tracker)
Namibian Environment and Wildlife Society
0814138822

The EIA Tracker Project keeps track and maps all EIAs countrywide with the aim of enhancing public access to EIA information and promoting transparency within the EIA sector. The information collected is only used for the public to access and the EIA Tracker has no intention and will not use these for financial or any other benefits.

ADD PROFILE

NI NAMIBIA IRRIGATION FARMERS ASSOCIATION <wa
To info@enviro-aec.com

Reply | Reply All | Forward | ...

Wed 11/8/2023 18:25

You forwarded this message on 11/9/2023 09:58.

Please add me to your database as an interested stakeholders in your exploration activities between Noordoewer and Grunau, for future opportunities that may arise in the future.

Registration as I&AP

TD Tanja Dahl <nau@nau.com.na>
To ppp@enviro-aec.com; info@enviro-aec.com

Reply | Reply All | Forward | ...

Thu 11/9/2023 14:46

You forwarded this message on 11/9/2023 14:50.

Dear Mr Kanime,

I herewith would like to register as I&AP (Interested and Affected Party) for the following EPL's:
9048, 9050, 9053, 9054, 9056, 9058,9061, 9064 plus any EPL's including Nuclear Fuels and handled by Alliance Environmental Consultancy or KoBold Metals.

I look forward to receiving your confirmation on the above.

Kind regards

Tanja Dahl
MARKETING | PUBLIC RELATIONS
NAMIBIA AGRICULTURAL UNION
nau@nau.com.na +264 61 237 838 www.nau.com.na

EPL - ELANDSDRAAI KARASBURG

CV CJ VAN DER MERWE <c.vandermerwe@ymail.com>
To info@enviro-aec.com; ppp@enviro-aec.com

Reply | Reply All | Forward | ...
Thu 11/9/2023 15:09

Dear Mr Kanime

iM AN INTERESTED / AFFECTED PARTY

Mr C J van der Merwe
PO Box 230
Karasburg

Farm Elandsdraai

I prefer Email correspondence

Thanking you

Chris

10 EPL minig project

JV Johannes Van De Merwe <jannie@orkca.org>
To ppp@enviro-aec.com; info@enviro-aec.com; Ed Barthorp; Andreia Pawel

Reply | Reply All | Forward | ...
Tue 11/14/2023 06:54

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Good day
I would like to be registered as an interested and effective party for your 10 EPL mining project i the south of Namibia.
We are a neighboring farm and would like to follow the project as it would impact us.
I prefer communications over email.
Regards

--

The linked image cannot be displayed. The file may have been moved. re...

Jannie van der Merwe
Assistant Reserve Manager
orkca.org

+264 812865868
Namibia

I&AP

T tat@wegkruip.com
To ppp@enviro-aec.com
Cc info@enviro-aec.com

Reply | Reply All | Forward | ...
Thu 11/16/2023 12:09

WhatsApp Image 2023-11-16 at 12.06.55_34241025.jpg
90 KB

Good day,

See attached request.

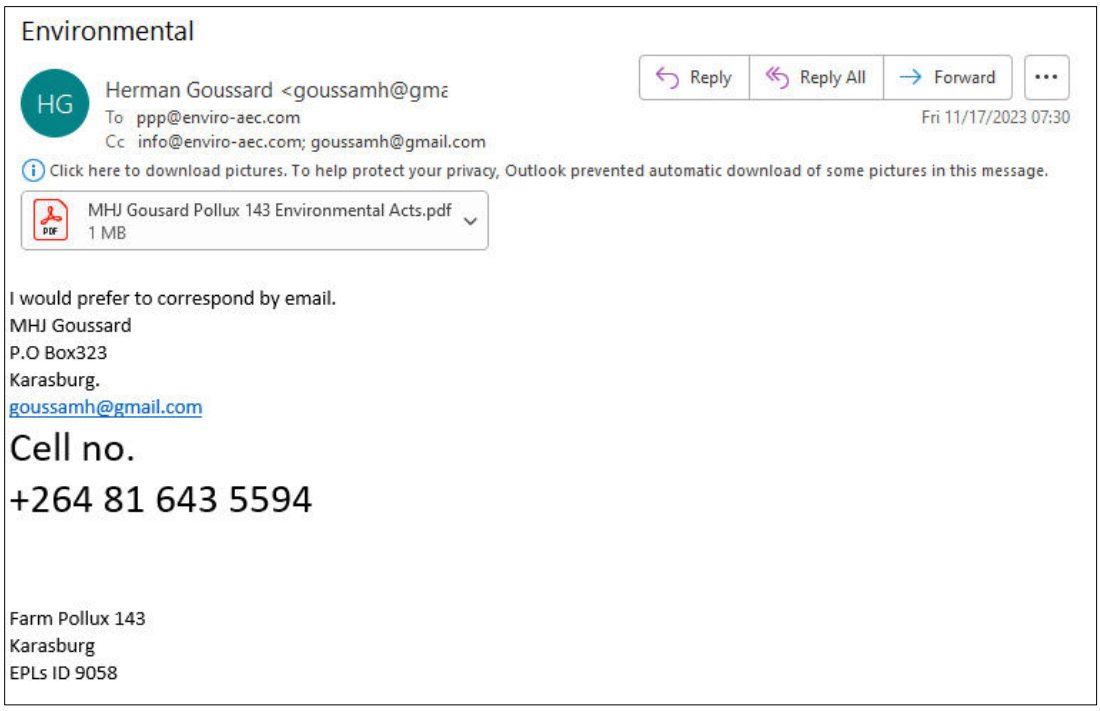
Groete

Thomas van Zyl

+264 81 603 2831

tat@wegkruip.com

Posbus 57,
Karasburg,
9000,
Namibië



Environmental

HG Herman Goussard <goussamh@gma

Reply | Reply All | Forward | ...

To ppp@enviro-aec.com

Cc info@enviro-aec.com; goussamh@gmail.com

Fri 11/17/2023 07:30

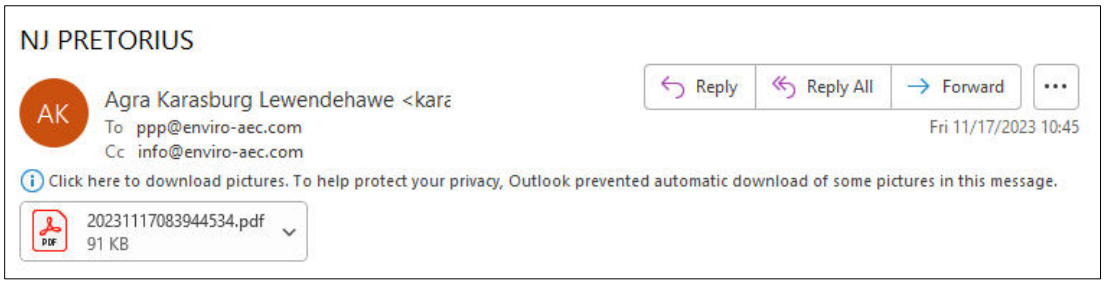
Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

MHJ Gousard Pollux 143 Environmental Acts.pdf
1 MB

I would prefer to correspond by email.
MHJ Goussard
P.O Box323
Karasburg.
goussamh@gmail.com

Cell no.
+264 81 643 5594

Farm Pollux 143
Karasburg
EPLs ID 9058



NJ PRETORIUS

AK Agra Karasburg Lewendehawe <kara

Reply | Reply All | Forward | ...

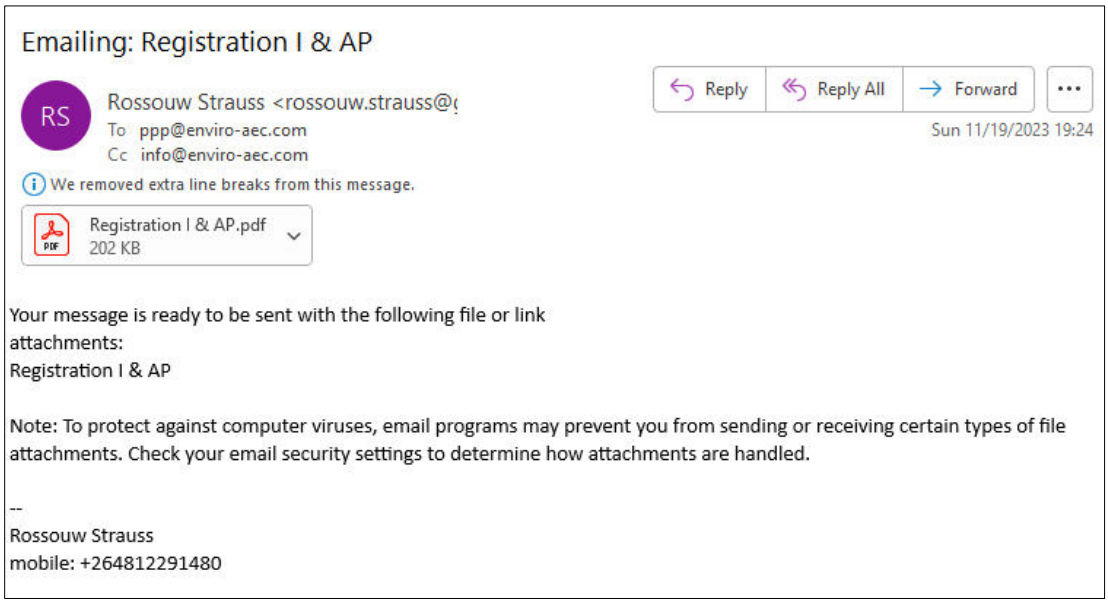
To ppp@enviro-aec.com

Cc info@enviro-aec.com

Fri 11/17/2023 10:45

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

20231117083944534.pdf
91 KB



Emailing: Registration I & AP

RS Rossouw Strauss <rossouw.strauss@(

Reply | Reply All | Forward | ...

To ppp@enviro-aec.com

Cc info@enviro-aec.com

Sun 11/19/2023 19:24

We removed extra line breaks from this message.

Registration I & AP.pdf
202 KB

Your message is ready to be sent with the following file or link attachments:
Registration I & AP

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--
Rossouw Strauss
mobile: +264812291480

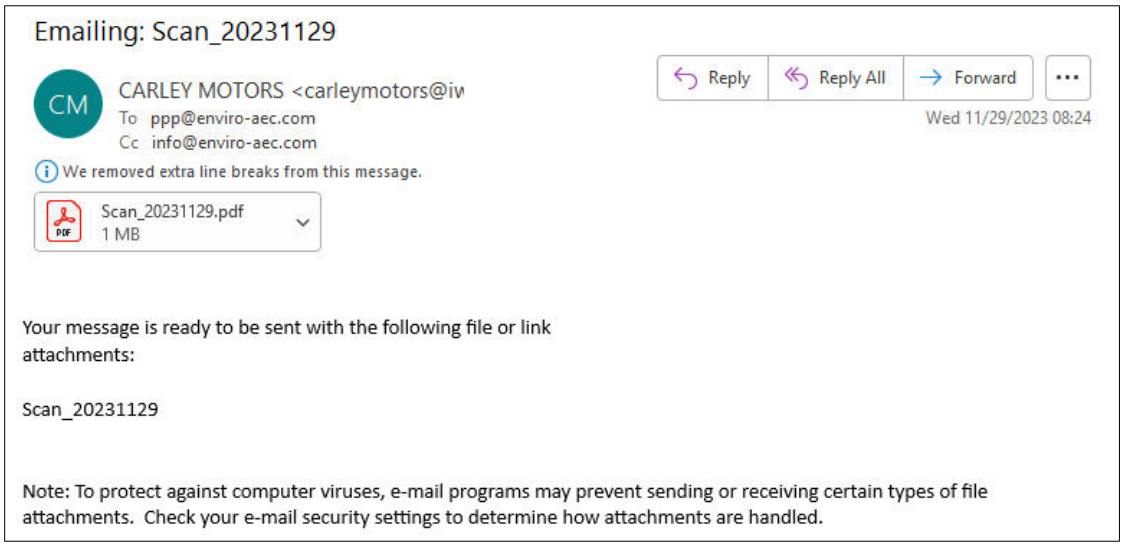
Re: 10 EPL minig project

JV Johannes Van De Merwe <jannie@orkca.org>
To ppp@enviro-aec.com; info@enviro-aec.com; Ed Barthorp; Andreia Pawel
Tue 11/21/2023 07:48

Reply | Reply All | Forward

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Good day
I tried to register for the project: ECC Prospecting of minerals on EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063, and 9064
But have not heard anything back.
Please confirm if I was registered.
Regards
Jannie



Emailing: Scan_20231129

CM CARLEY MOTORS <carleymotors@iv
To ppp@enviro-aec.com
Cc info@enviro-aec.com
Wed 11/29/2023 08:24

Reply | Reply All | Forward

We removed extra line breaks from this message.

Scan_20231129.pdf
1 MB

Your message is ready to be sent with the following file or link attachments:

Scan_20231129

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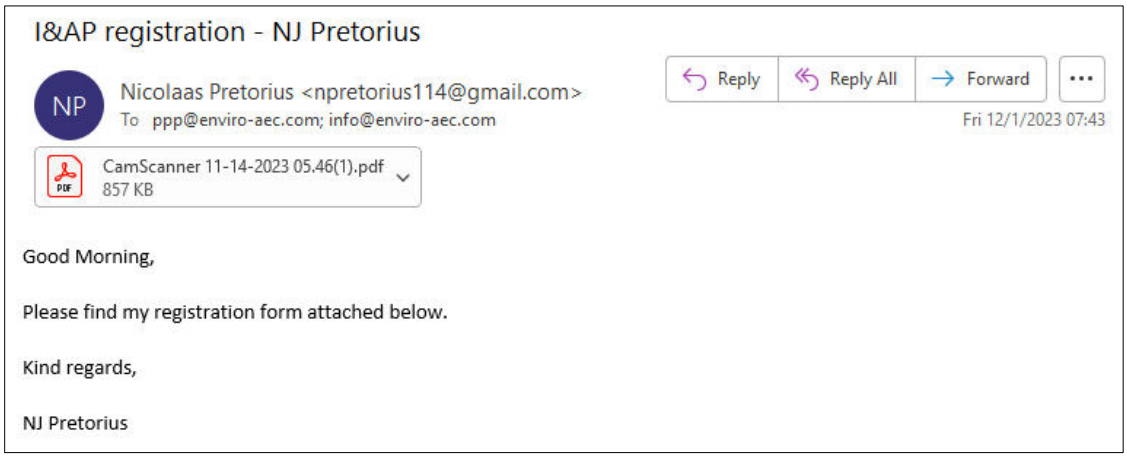


I&AP registration - NJ Pretorius

NP Nicolaas Pretorius <npretorius114@gmail.com>
To ppp@enviro-aec.com; info@enviro-aec.com
Fri 12/1/2023 07:43

Reply | Reply All | Forward

CamScanner 11-14-2023 05.46(1).pdf
857 KB

Good Morning,

Please find my registration form attached below.

Kind regards,

NJ Pretorius

6 December 2023

Velloor farm

Karasburg

To whom it may concern

KoBolt Metals Namibia [Pty] Ltd, EPL application for Farms Velloor and Naros.

Issues that must be resolved before any KoBolt Metals Namibia personal may enter farms Velloor or Naros, or any other actions by KoBold Metals Namibia can be taken.

As owner of Farms Velloor and Naros, I am automatically and interested and effected party.

Velloor and Naros are family farms. We are the 4th generation farmers on this successful commercial farms. [See article in the Landbou Weekblad 28 July 2022]. The farms are being farmed as a complete unit, from which no sections of land can be cut off or excluded. As we must adhere to EU Standards, we use every hectare of the land to produce free-range lamb that is being exported to Europe. Velloor and Hogeis are the only 2 farms in the Karas region that is already EU accredited and is already exporting free range lamb to Europe. We are currently in a drought situation, little grazing and few water installations means that there are no vacant camps our animals can be moved to. Dorper sheep roam alone and do not graze in a herd. They are sensitive to change and interference, especially when they have lambs. They cannot be moved to allow for scouting to begin. Thus, it is impossible to allow anyone on the land without supervision. Before anyone would be allowed on the land, dates, time, and compensation must be agreed on in advance.

The area is water scarce and therefor anything that may have a negative impact on the quality and or availability of water to people and animals, is out of the question. There are few boreholes and underground water sources. I want a guarantee that KoBolt Metals will be able to compensate me for any losses due to their presence on the farm. NO drilling will be allowed.

The buildings on the farm have heritage status and some was dated as far back as the year 1907. There are marked and unmarked graves on the farm.

Velloor is also home to special animal species including the Cape Vulture [Critically endangered] and the Lapped faced Vulture [endangered]. Both of whom lives and breeds in our area. Environmental scientists did research on this and their findings were published in the Roan news of Namibia [lanioturdus 37 [3+ 4] 2004], as this is very unusual for these vultures to breed so far south, [in Namibia]. At least a thousand Springbok naturally roam here, they are endemic to this area and continue to thrive due to careful management and good farming practices.

The black footed cat [Felis nigripes] also roams the whole area and is threatened with extinction.

KoBolt must give a guarantee that they are able to pay for any losses that might occur due to the scouting process.

It is clear that this farmland is not suitable for mining purposes.

Kind Regards

Nico Strauss [owner of Velloor farm] njl.strauss@gmail.com

Follow up and way forward - EIA for KoBold Metals x10 EPLs

Reply | Reply All | Forward | ...

PA ppp@enviro-aec.com
To njl.strauss@gmail.com; Bessieputs
Cc Info

Thu 12/14/2023 06:00

We removed extra line breaks from this message.

Good morning Nico and Phillip

I hope you have been well since we last met in Karasburg. Once again I did like to thank you for the highly constructive engagements and inputs you provided during the meeting.

As the custodian representatives of the farmer's union in this area, and as a follow up to our stakeholder engagement meeting, we did like to start planning for field/ on-the ground inspections and one-on-one engagements with various affected communities and farmers whose farms are overlain by the 10 EPLs concerned. As a start, can you kindly indicate (either by means of hand-marking on the attached map OR in the form of a list) the following:

- which of the farms are overlain by the EPLs are commercial cattle farms; which are commercial small stock farms; which farms are game farms; which farms are known to have any sensitive fauna/ flora and/ or heritage resources; which farms are communal farms

When would you be able to provide the above confirmations? Your assistance in this regard will be highly appreciated

Regards
Kanime
For Alliance Environmental Consultancy
Mobile: +264812989118

Update - KoBold Metals Namibia - Environmental Impact Assessment (EIA) public eng...

Reply | Reply All | Forward | ...

PA ppp@enviro-aec.com
To theomeyer1980@gmail.com
Cc Info

Thu 12/21/2023 12:49

We removed extra line breaks from this message.

KoBold Presentation_December 2023_TK_KN.pdf
1 MB

231204_Draft Meeting minutes Noordower_HE_rLNA.pdf
718 KB

Locality Map with Farms South.jpg

Dear Mr. Meyer,

Thank you for your attendance at our EIA public engagement meeting held on the 04th of December 2023 at the EHW BAARD P.S.
We acknowledge that due to unforeseen circumstances you could not be present for the presentation. We are hereby sharing with you the power point presentation and minutes of the meeting for your information.

Kindly provide us with your comments and or concerns regarding this project for consideration in the environmental scoping assessment and reporting process.
We took note that, you have mentioned the presence of sensitive areas that should not be considered for exploration on your farm/surrounding.
We will greatly appreciate if you indicate to us on the attached map or provide coordinates of the said areas for our consideration.

We look forward to your response, should you require any further information, please do not hesitate to contact us.

Many Thanks

Mr. Tulinayo Kanime
Alliance Environmental Consultancy
0812989118

EIA for proposed mineral exploration activities on 10 EPLs for koBold Metals Namibia

From ppp@enviro-aec.com
To Johannes Van De Merwe
Date 2023-12-25 16:27

Summary Headers

Good day Mr. van der Merwe

Let me use this opportunity to wish you and your family a merry christmas.

Following our consultative meeting on 5th December 2023 in Warmbad, I am writing to you sir to please provide us with the following information regarding the planned solar power plant on your farm:

- corner coordinates of the area where sensitive flora such as lithops are found in your area

Your feedback will be highly appreciated

Regards
Kanime
for Alliance Environmental Consultancy

EIA for proposed exploration activities on 10 EPLs for KoBold Metals Namibia

From ppp@enviro-aec.com
To benedictuskasimbingwe@gmail.com
Date 2023-12-25 16:17

Summary Headers

Good day Mr. Kasimbingwe

Let me use this opportunity to wish you and your family a merry christmas.

Following our consultative meeting on 5th December 2023 in Warmbad, I am writing to you sir to please provide us with the following information regarding the planned solar power plant on your farm:

- either a sketch on a satellite image background portraying the proposed location of the solar plant OR
- alternatively, corner coordinates of the area earmarked for the proposed solar power plant

Your feedback will be highly appreciated

Regards
Kanime
for Alliance Environmental Consultancy

Re: EIA for proposed Mineral Exploration on 10 EPLs in Southern Namibia

From ppp@enviro-aec.com
To theomeyer1980@gmail.com
Bcc Info
Date 2023-12-25 08:04

Summary Headers

231107_KOB_SouthernEPLs_BID_CAC_LNA_TK_KN.pdf (~1.1 MB)

On 2023-12-25 08:03, ppp@enviro-aec.com wrote:

> Dear Mr. Meyer
>
> We hope this email finds you well. Kindly find attached a Background Information Document and the Presentation given at the consultation meeting in Noordoewer. We would genuinely appreciate your input in so far as a any sensitive flora in your farm area (Farm Bloukranz 361) is concerned. You may do so by indicating the area comprising such flora on a satellite image or by providing corner coordinates of the polygon covering such area. We would also appreciate it if you can please send us the coordinates of the area were small scale mining is taking place
>
> We would greatly appreciate it if you can please send that yo us by 3rd January
>
> Regards
> for Alliance Environmental Consultancy

Re: EIA for proposed Mineral Exploration on 10 EPLs in Southern Namibia

From ppp@enviro-aec.com
To theomeyer1980@gmail.com
Bcc Info
Date 2023-12-25 08:04

Summary Headers

231107_KOB_SouthernEPLs_BID_CAC_LNA_TK_KN.pdf (~1.1 MB)

On 2023-12-25 08:03, ppp@enviro-aec.com wrote:

> Dear Mr. Meyer
>
> We hope this email finds you well. Kindly find attached a Background Information Document and the Presentation given at the consultation meeting in Noordoewer. We would genuinely appreciate your input in so far as a any sensitive flora in your farm area (Farm Bloukranz 361) is concerned. You may do so by indicating the area comprising such flora on a satellite image or by providing corner coordinates of the polygon covering such area. We would also appreciate it if you can please send us the coordinates of the area were small scale mining is taking place
>
> We would greatly appreciate it if you can please send that yo us by 3rd January
>
> Regards
> for Alliance Environmental Consultancy

PF Strauss

Hogeis 83

PO Box 32

Karasburg

29 January 2024

The Environmental Assessment Practitioner

Alliance Environmental Consultancy

Mr Kanime

Subject: Draft Environmental Impact Assessment and Environmental Management Plan on EPL No.9048 located near Karasburg and Velloorsdrift.

As the owner of farms Hogeis 83 and Bokkiesbank West 82 I want to raise the following concerns and questions:

1. A draft EIA was compiled after a public meeting on 06 December 2023 in Karasburg without any consultant visiting my farm. What kind of assessment is that? Nobody corresponded with me as the owner to arrange for a date and compensation for my time as discussed on the public meeting.
2. One of my biggest concerns namely the fact that I am a successful commercial farmer exporting meat to the European Union was nowhere mentioned in this draft EIA. My farm is registered at The Department of Veterinary Services as fit for exporting meat to the EU market and I stand under EU farming practice and veterinary regulations that I have to adhere to to maintain this status. I insist strongly that this must be included in this draft document.
3. 100% of my land is utilized for sheep farming by means of controlled flocks of free-ranging and breeding sheep. Prospecting and mining activities on my farm will render it impossible for me to utilize that parts of my farm that is exposed to these activities. This will have a major impact on my income and expenditure. It will result in loss of income and rise of expenditure because I will be forced to sell some sheep and put some in a kraal and feed them at great cost.
4. Any pollution on my farm will result in losing my EU veterinary status. Will there be any compensation for that and if, to what extent?
5. Underground water on my farms is extremely scarce and ANY risk of pollution or possible deterioration is too much risk. No drilling and mining activities can take place before all of my boreholes are tested properly for quantity and quality under my personal supervision and compensation for my time. This is the only way that I will have future proof if deterioration and pollution do take place. What will the compensation for that be?

6. We are in an extremely low rainfall area and any damage to our soil and flora takes years to recover, if ever. Our land is our only source of income and over four generations we maintained and looked after it with great responsibility. We are not prepared to let go of this responsibility.
7. If underground water in Namibia's commercial farming areas get radio-active polluted the whole of the country's EU veterinary status is at stake and it will be a catastrophic blow to agriculture and food security in Namibia.
8. The possible negative effects of this proposed exploration and mining activities outweighs the possible positive effects by far.
9. I insist that all my concerns are included in this draft EIA before making any recommendations to MEFT. I strongly believe that prevention is better than cure and I trust that your company has the integrity to serve the interest of the landowners too.
10. I want to emphasize my disgust in the fact that, after it was one of our main concerns on the public meeting, that this assessment must be done by physically visiting every farm at stake, a draft EIA was produced for submission to MEFT. Equasions were drawn with other mining activities in our region and you mentioned in your EMP that the environmental impact will be the same in some ways. That is far from the truth because none of the other major mining activities in our region is on commercial farmland.
11. Finally I insist on a hard copy of this draft EIA because the format in which you communicate is not readable to all IAP's and therefore I also insist on a postponement of the final date for all IAP's to raise their concerns.

Regards

Philip F Strauss

bessieputs@gmail.com

PRESENTATION - PUBLIC ENGAGEMENT & INFORMATION SHARING MEETINGS

Alliance ENVIRONMENTAL CONSULTANCY

KoBold Metals
Finding the materials of the future with AI

NEW ECC APPLICATION –
Proposed exploration for Base and rare metals, industrial minerals, nuclear fuels, and precious metals within EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 & 9064 !Karas Region – Namibia

December 2023

Presenters: T. Kanime and K. Ndalulilwa

Email: ppp@enviro-aec.com

PRESENTATION CONTENT

1. INTRODUCTIONS AND PROCESS BACKGROUND
2. ABOUT THE PROJECT PROPONENT
3. PLANNED EXPLORATION PROGRAM AND SCHEDULED ACTIVITIES
4. WAY FORWARD
5. OPEN DISCUSSION / INTERACTIVE SESSION/ QUESTIONS

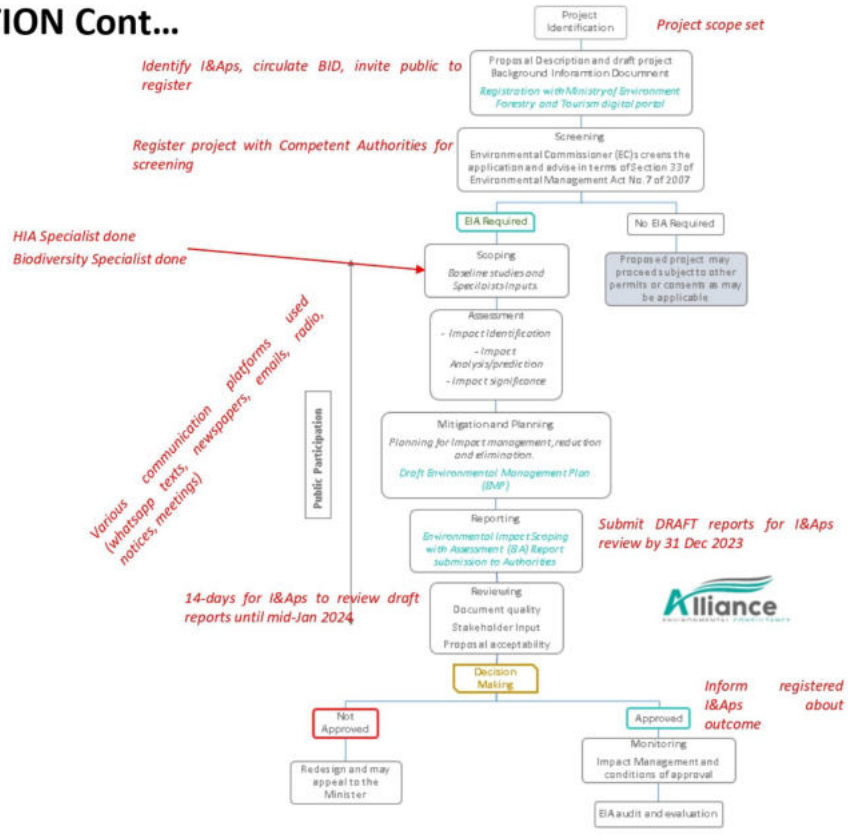
INTRODUCTION

Alliance Environmental Consultancy was appointed by KoBold Metals Namibia to:

- Undertake an Environmental Scoping/ Impact Assessment (ESA/EIA) for the proposed exploration activities
  - Establish baseline for the receiving environment (wrt: Flora, Fauna, topography, climatic conditions, water resources, land-use, social, economic, livelihood, heritage)
  - Engage I&APs for inputs on the above and for suggestions/ concerns relating to proposed activities
  - Systematically assess how proposed activities will interact with the environmental and identify potential impacts (triggering activities, type of impacts, consequences, likelihood, risk significance) – both negative & positive
- Develop a project and site-specific draft EMRP for the proposed project
- Have registered I&APs review the draft ESA/ EIA and EMRP reports before submission to authorities
- Incorporate final comments/ inputs from I&APs into the draft reports and finalize
- Submit reports to support application for Environmental Clearance to the relevant GRN authorities

INTRODUCTION Cont…

Our EIA approach



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KoBold Metals - the Company

KoBold Metals:

- A mineral exploration and mining company;
- Drives the clean energy future by accelerating the discovery of critical metals, with primary focus on battery metals (cobalt, nickel, lithium and copper);
- Leads one of the world's largest exploration research and development (R&D) effort, to advance the frontier of exploration technology with artificial intelligence (AI) and novel hardware;
- Invests around 60 million USD annually across more than 60 projects, on 4 continents; the largest project currently on the African continent – the Mingomba Project in Zambia.

KoBold Metals Namibia:

- Has received preparedness to grant eleven (11) Exclusive Prospecting Licences (EPLs) in areas of interest, in the Kunene and Karas Regions of Namibia.
- These EIA studies are to fulfil the Ministry of Mines and Energy (MME) obligations for granting of these licences.

5

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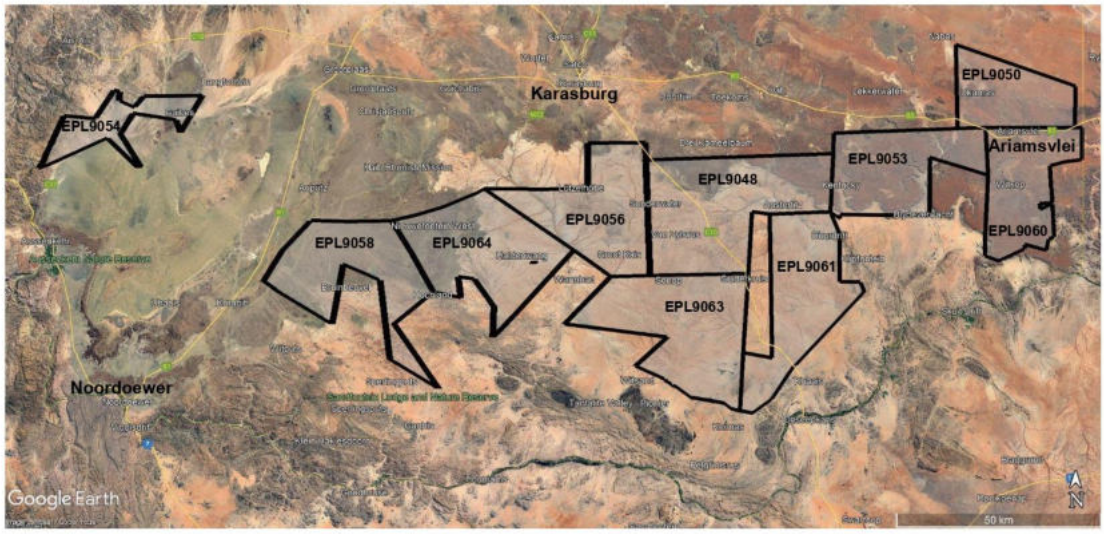
KoBold Ethics

CONFIDENTIAL

KoBold Namaqualand Licenses Overview



- Exclusive Prospecting Licences (EPLs) 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063, 9064.
- Cover 649,727 Ha of land
- Target 1: Ni-Cu-PGE mineralisation associated with mafic-ultramafic intrusives of the Tantalite Valley and Kum-Kum Complexes
- Target 2: Li mineralisation in pegmatites associated with intrusives of the Marshall Rocks - Pofadder Shear Zone

7

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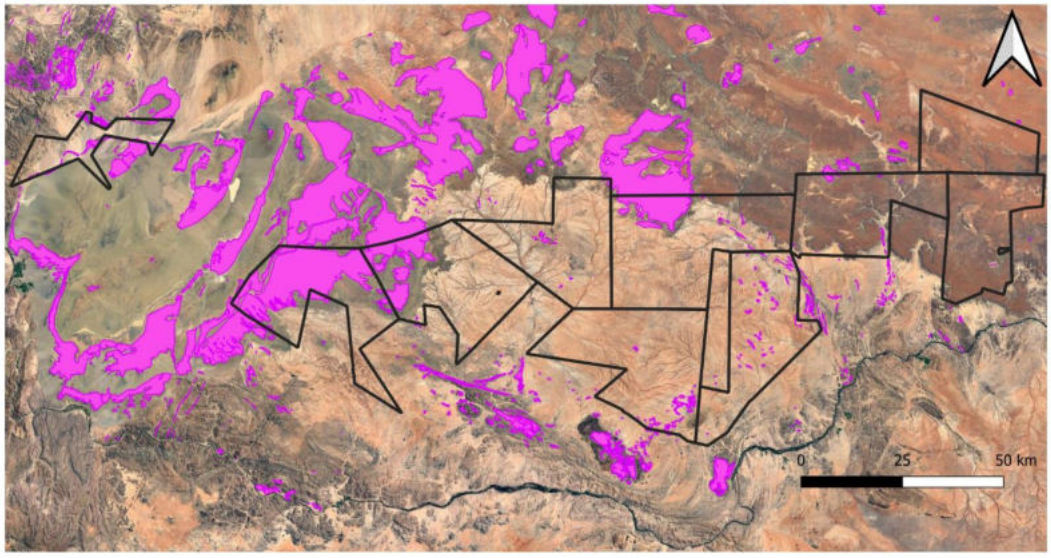
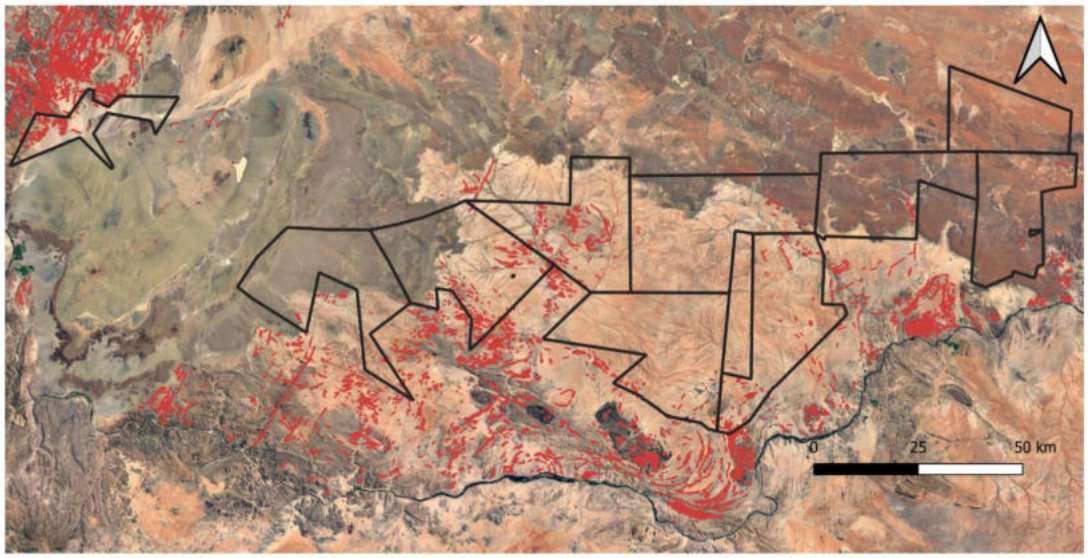
Exploration - mafic and ultramafic units - nickel-copper-PGE potential



8

CONFIDENTIAL

Exploration – Dykes and thin units - Pegmatites - lithium potential



9

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Planned exploration program across the licences - Year 1

Initial work pre granting of the licences:

- Purchasing, processing, integration and interpretation of Remote sensing, Geological and Geophysical data (started in 2021 and ongoing)
- Environmental Impact Assessment for ECC (this process)
- Target generation for all licences

Potential Adverse impacts: None

Potential Positive impacts: awareness raising & inclusive engagement of affected communities/ landowners; revenue to GRN

Year 1:

- Initial fieldwork which includes mapping, rock grab sampling, and possibly soil sampling on selected targets
- Geophysical surveys
- Geochemical analysis of collected samples
- Evaluation of fieldwork and geochemical results
- Project administration and management including reporting to the MME and MEFT

Potential Adverse impacts: none;

Potential Positive impacts: enhancement in geological knowledge; work + procurement + other income generating opportunities; revenue to GRN

10

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Planned exploration program across the licences - Year 2 to 3

Year 2:

- Dependent on results of first year exploration work, company to continue prospecting program from year 1
- Fieldwork - Detailed targeted geological mapping and sampling
- Geophysics - Ground and/or Airborne
- Evaluation of results, identifying of targets and prioritization for potential follow up
- Project administration and management including reporting to the MME and MEFT

Potential Adverse impacts: increased traffic, surface clearing; noise; limited disturbance to biophysical

Potential Positive impacts: enhanced local geological knowledge; work + procurement + other income generating opportunities; revenue for GRN;

Year 3:

- Drilling of valid targets, BHEM, geochemical and mineralogical analysis
- Evaluation of drill results
- Project administration and management including reporting to the MME and MEFT (including licence and ECC renewals)

Potential Adverse impacts: increased traffic, surface clearing for access; dust; noise; disturbance to biophysical; water abstraction; adverse impacts from camping

Potential Positive impacts: enhanced local geological knowledge; work + procurement + other income generating opportunities to communities/ landowners; revenue for GRN

11

CONFIDENTIAL

Proposed exploration methods, equipment, and technologies

Geological mapping and rock grab sampling

- Geologist and geo-technicians/assistants with rucksacks and geological hammers, using existing tracks and predominantly on foot to map and sample outcrops of interest

Soil Sampling

- Geologist and geo-technicians/assistants with rucksacks, geological hammers and soil sampling kits, using existing tracks and predominantly on foot, sampling along predetermined grids.

Geophysics

- Ground geophysics methods such as Gravity, Induced Polarisation and Electro-Magnetic could be used and may require laying out geophysical cables over identified targets.
- Airborne geophysical methods may be used (helicopter, hyperpod etc)

Drilling

- Drilling methods such as diamond drilling would likely be used with possibility of RC or RAB drilling. Drilling would be localised to discrete targets identified by geophysics and geological mapping. If the results are positive then more drilling would take place.

Geochemical analysis and **mineralogical** studies at ALS Laboratories

All above methods supported by R&D geared towards a successful exploration program.

12

TYPICAL PLANNED EXPLORATION ACTIVITIES

WAY FORWARD

- Continue to update the list of key stakeholders who may be interested or affected by this project and registering new ones (ongoing)
- Distribute/ share minutes of public engagement meetings by 15 December 2023 to registered I&Aps
- Continue to engage I&Aps and attend to queries until End of December 2023
- Capture and summarize all inputs from interested and affected parties into a comments and response trail document which will be submitted to MEFT with the ESA/ EIA and EMRP reports, and the ECC application
- Compile the draft ESA/ EIA and EMRP reports & circulate to I&Aps for their review End of December 2023 for a period of 14-days
- Finalize reports and submit to MEFT for final evaluation

OPEN DISCUSSION: INTERACTIVE SESSION

QUESTIONS, CONCERNS, COMMENTS, SUGGESTIONS, INPUTS, etc.

Email: ***ppp@enviro-aec.com***

MINUTES - PUBLIC ENGAGEMENT & INFORMATION SHARING MEETINGS (04.12.23)

MINUTES - PUBLIC ENGAGEMENT & INFORMATION SHARING MEETINGS (05.12.23)

MINUTES - PUBLIC ENGAGEMENT & INFORMATION SHARING MEETINGS (06.12.23)

MINUTES - PUBLIC ENGAGEMENT & INFORMATION SHARING MEETINGS (07.12.23)

REGISTERED AND IDENTIFIED STAKEHOLDER LIST

FARM NO	FARM NAME/ ORGANIZATION	CONTACT PERSON	CONTACT NO.	POSTAL ADDRESS	EMAIL
1	GAIBIS	Bruce Rush/Mackenzie Rush	813988647		
36	WITKOP	Johannes Smit	27609695852		
49	NARUCHAS	Korf Maritz	27656622925		
50	NARUCHAS EAST	Johan van Rooyen	813341782		
52	KLEIN AUB	John Cox	27832615493		
57	GROENDOORN	Andreas van Taak	814399722		
59	VLISSINGEN	Barney Boshof	812696119		
60	NEIKOP	Nick Kotze	27829099294		
61	NABAS	Jaco Swiegers	812770448		
66	NAKOP NOORD	Pieter Luttig	811481063		
68	NAKOP	A Sikopo	812955295		
69	UKAMAS	Rossouw Strauss	812291480		
70	NABABIS	Conrad du Preez	814245847		
71	ELANDS DRAAI	Chris Van der Merwe	812939678		
72	BLYDEVERWACHT	Marnus van Niekerk	27829482278		
75	ONDERMATJIE	Willie Loubscher	0817348756/063683656		
76	NAROS	Nico Strauss	27834591271		
77	UDABIS	Leo Brecher	818587099		
78	DUURDRIFT-SUID	Phillip Strauss	811270851	PO Box 32, Karasburg	bessieputs@gmail.com
79	BOKKIESBANK OST	JA van der Merwe	813443818		
80	LOSKOP	JA van der Merwe	813443818		
81	AUSTERLITZ	Anthony Duurgard	0813244949/0812224603		
82	BOKIESBANK WEST	Phillip Strauss	818360136	PO Box 32, Karasburg	bessieputs@gmail.com
83	HOGEIS	Phillip Strauss	818360136	PO Box 32, Karasburg	bessieputs@gmail.com
84	SWARTkop	E Ucham	812351877		

84	UHEIB	Piet Boshoff	811272476		
85	DRIE KAMEELBOOM	Rian van der Colff	811240600		
86	VANZYLRUST	Thomas van Zyl	814178688		
86	WELKOM	Thomas van Zyl	814178688		
86	PAAIE	Phillip Strauss	818360136	PO Box 32, Karasburg	bessieputs@gmail.com
86	HUNIAMS OOS	Hannetjie Van Zyl	814558914		
88	Strohoff	Thomas van Zyl	814178688		
89	VELLOOR	Nico Strauss	27834591271		
90	N/A				
91	VAALDOORN	Flip Strauss	63273327	call required	
92	NAUTSIS	Emile Kruger	812522972	Po box 130, Karasburg	krugerplaas@gmail.com
92	ROOIBERG	Hennie Bardenhorst	27737144490	P.O box 333, Karasburg	tehillahboerdery@gmail.com
93	VELLOORSDRIFT	Hennie Bardenhorst	27737144490	P.O box 333, Karasburg	tehillahboerdery@gmail.com
98	KEIMASMUND	Henry O'Conell	812706220		
99	KEIMAS	G Shaw			
106	PIONIER	Nico Pretoruis	63683666	call required	
111	WITZLAND	Boela Marais			
111	VALENCIA	Flip Strauss	63273327	call required	
112	HOCHFELD	Michael O'Conell	811274851		
113	NOGHOOP	Jan Boonzaier	63683657	call required	
113	JERICHO	Jan Boonzaier	63683657	call required	
114	VREDE	Nico Pretoruis	63683666	call required	
114	LUGECK	Erik Pretoruis	812431256		
115	MISPA				
115	SONOP				
115	SKOTLAND	Jannie Spangeberg	811271311		
115	KHAISNOORD	Koeroes Adriaanse	817160166		
116	KAIS S	Maritz	813026988		
117	LAGRATIA	Jannie Spangeberg	811271311		

117	SONDERWATER	Jannie Spangeberg	811271311		
117	HUNIAMS WES	Phillip Strauss	818360136	PO Box 32, Karasburg	bessieputs@gmail.com
118	GROSSAUB	Jan Adriaanse	814888509		
118	GROSSAUB	Tikket Van Wyk	852245122	P.O box 2, Karasburg	tikketvwyk@gmail.com
120	ORTMANSBAUM OOS	Matthew	814181658		
120	IRIS				
120	ORTMANSBAUM	Jan Adriaanse	814888509		
121	SWARTHUK	Matthew	814181658		
122	DABEGABIS	Fiela Steyn and Phillipus L. Steyn (Saamstaan Farming CC)	811245890	P.O. Box 249, Karasburg	saamstaan@hotmail.com
124	KIERIESVLEI	Kobus Steyn	811248860		saamstaan2@outlook.com
124	LUGINSLAND	Willem Claasens	814321199		
125	MIDDELPLAAS	Willie de Klerk	814789290		
125	WELKOM	Willie de Klerk	814789290		
125	HALDENWANGE	Kobus Steyn	811248860		saamstaan2@outlook.com
126	SCHONAU	Rama Kasimbingwe	811245589		
127	WITBERG	Willie de Klerk	814789290		
127	AUROS	Wynand Erasmus	811278582		
128	EUREKA	Erik Pretoruis	812431256		
129	NORECHAB	Adrian Mulder	818760838		adriaan@sandfontein.com
130	SWARTZEK	Norman Tjizoo	813990883		
131	SANDFONTEIN	Adrian Mulder	818760838		adriaan@sandfontein.com
134	BONDELSWARTS RESERVE	Hans Jossop	813185248		
138	VREDENDAL	F Akaooko	812593370		fransakooko07@gmail.com AND Frans.Akooko@mme.gov.na
138	GAOBIS				
139	BANKWASSER	Henk Wessels	811245996		
139	KLIPDAM	Mev Both	812345317		
139	MIDDELBURG Portion 1	Gerrit C Eiman	812479021		stones44@icloud.com

139	JAGKOP				
139	KLIPDAM	J Jahs	812920191		
141	NICO'SHOEK	Jan Schutte	816882237		
141	HOCHLAND	Jan Schutte	816882237		
142	HARIB	Andreas Josef	813267597		
143	POLLUX	Herman Gousard	27832321851		
144	GRASBULT	Jan Schutte	816882237		
144	NIEUWEFONTEIN WEST	Jan Schutte	816882237		
145	WARMBAD TOWNLANDS	Frieda	812775246		fmwetulundila@gmail.com
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151	KERELBAD	AJ Louw	27832505721		wcsajl@gmail.com
153	KHAAIS	Christo Adriaanse	812507471	P.O box 292, Karasburg	cadriaanse42@gmail.com
154	PLATRAND	Johannes Smit	27609695852		
154	TIERKLOOF	Johannes Smit	27609695852		
154	YSTERPLAAT	Johannes Smit	27609695852		
154	PLATRAND	Joris du Preez	816085441		
155	BORDER	Johan Hough			
156	KOMSBERG	Jacques Cliff	811457545		j.clift@komsbergfarm.com.na
160	SOEKWATER	Jeffrey Snyders	816873568		
250	LANGFONTEIN	Maria Keirabeb	813001860		
252	MIDDEL POS	F April	816869822		
256	RIVERSIDE	Augestines Heydt	812375837/0812783733		
257	BRUINHEUWEL	Imelda Getze	813207617		
258	WITPUTZ	Dirk Van Zyl	814398684		
304	KAIS	Koeroes Adriaanse	817160166		
305	WARMBAD TOWNLANDS	Frieda	812775246		
308	ALURIESFONTEIN	Fanie Hartebees	813612358		
309	MIDDEL POS/Heimat	Nel Oberholster	812937371		

329	BRUINLEEGTE	Danie Beets	813550535		
331	KANABEAM				
361	BELDA	M Christiaan	818879734		
363	BLOUKRANS				
404	EENDOORN	Henry Pretoruis	818515617		
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	National Heritage Council of Namibia	Mrs Erica Nalikokule			erica@nhc-nam.org
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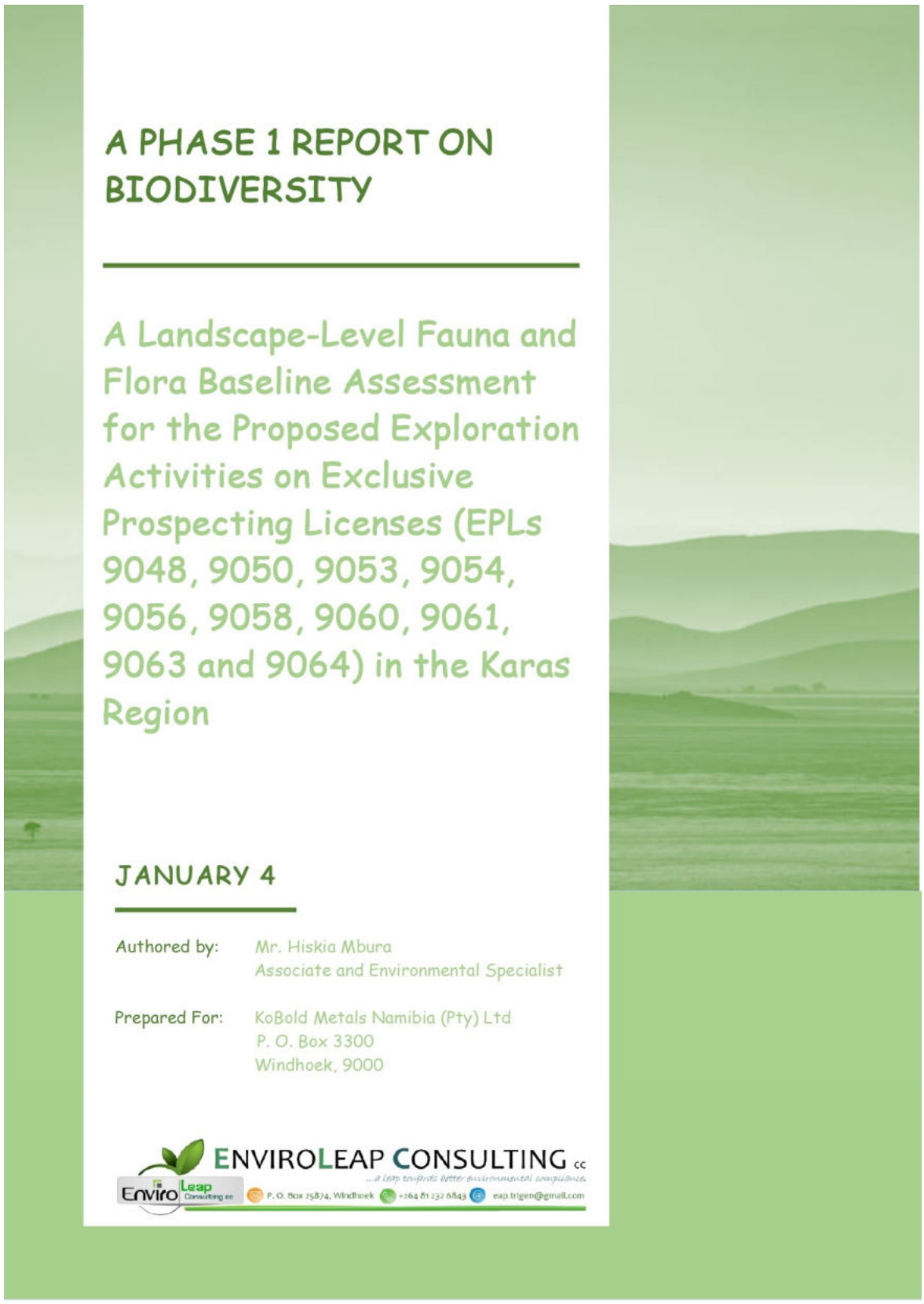
APPENDIX E – HERITAGE IMPACT ASSESSMENT

APPENDIX F – BIODIVERSITY IMPACT ASSESSMENT



A PHASE 1 REPORT ON BIODIVERSITY

A Landscape-Level Fauna and Flora Baseline Assessment for the Proposed Exploration Activities on Exclusive Prospecting Licenses (EPLs 9048, 9050, 9053, 9054, 9056, 9058, 9060, 9061, 9063 and 9064) in the Karas Region

JANUARY 4

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executive summary

Study Overview

The proponent, is a fully Namibian registered entity that ventures in minerals exploration and mining. Their aim is to take advantage of the opportunity for self-employment and job creation that exist in the mining sector of Namibia.

The proponent seeks to operate their business activities within their proposed Exclusive Prospecting Licenses in the Karas Regions. Principally, the proponent proposes to explore (desktop geological study, collection of bulk and or geological samples and identification of previous activity in the area where similar mineral mining were conducted) and to obtain bulk-samples for further laboratory analysis by use of hand-held equipment and to small degree drilling.

Meanwhile, Namibia recognises the value of its wildlife, flora and landscapes and strives to protect them through its constitution, a range of environmental legislation, 21 state-protected areas, 86 communal conservancies and several transboundary initiatives. Furthermore, many areas in Namibia are internationally recognised as special in one way or another, often because of the wildlife or ecosystems they support; these designated areas include four Ramsar sites, two world heritage sites, nineteen important bird areas (IBAs), four endemic bird areas (EBAs) and seven ecologically or biologically significant marine areas (EBSAs).

It is against this background that prior to undertaking any development, the proponents are required through Environmental Management Act No. 7 of 2007, that a baseline is established and potential impacts of the proposed development identified. In this particular study, we seek to document the biodiversity baseline in the area of the proposed The proponent's mineral exploration licenses taking a landscape-level assessment approach and taking into account the fact that at this stage the proposed activities are limited to non-invasive / non-consumptive practices.

Objective of the Study

In determining the best way to approach this biodiversity study, the following important differences between working with invertebrates in Namibia, compared to vertebrates and plants, were considered:

- *The difference in overall numbers.* The most complete available listing of Namibian life forms (Namibian Biodiversity Database 2009) lists 4468 plants and 2037 vertebrates. These lists are 99%+ complete. A total of 10470 invertebrates are also listed. This is considered to represent < 50% of described Namibian invertebrates.

- *The proportion of known species.* Most species of vertebrates and plants are already known, but most species of invertebrates remain unknown. New invertebrate species are continuously being described from Namibia: the 10470 species mentioned above is considered to be < 10% of the actual number occurring.

- *The reality of limits to expertise.* Even non-experts can know most key vertebrate or plant species, but even invertebrate specialists can know only a small part of this overwhelming diversity.

The aims of this study were to:

- Conduct landscape-level assessment in the designated study area (approximately 986 000 Hectares)
- Develop a Habitats map made up of landscape types / broad habitat map and at description of the relevant habitats within the study area
- Compile a habitats sensitivity map that indicate potential vulnerability and threats to each habitats in respect to the proposed exploration activities
- Compile a report that describes the basic ecosystem dynamics of these communities and outlines why some areas are more sensitive to disturbance than others.

Findings and Conclusions

The threat to the habitat extends beyond the area of immediate habitat destruction. Anything that is detrimental to groundwater flow will also be detrimental to tree survival, and hence habitat survival. The groundwater extraction may result in a draw down cone associated with the exploration will cause water stress, and possible death, in trees at a distance from the actual workings as well. Downstream, this effect will be total, and no trees are expected to survive.

The recommended management measures at this stage are subject to the most practically suitable measure of the hierarchy i.e. *"1. Avoidance, 2. Mitigation, 3. Restoration and where all else measures fails 4. Off-Set".*

While impacts mitigation in relation to recommendation of the Environmental Management Plan, is practically applicable to the *Schist, Quartzite* and *Granite Hills*, and the *Gravel Plains habitats,* it cannot be emphasised enough that the *Riparian and Valley Grass plains habitats* is one habit that provide the most ecosystem services and thus requiring careful monitoring and safeguarding.

Overall, ecological restoration requires methods to monitor the progress of such restoration towards whatever result is envisaged. Environmental indicators, including indicator species, are therefore recommended for use in this respect.

Since ecosystems recover from the bottom up, an ideal indicator species would be one at the top of the food chain, i.e. a predator. Even better would be a super-predator (one that preys on other predators), since its presence would imply that it's different prey species, or all their different prey species, and all their food sources, are present and presumably healthy Lindenmayer at al. (2000).

contents

1. INTRODUCTION

Namibia recognises the value of its wildlife, flora and landscapes and strives to protect them through its constitution, a range of environmental legislation, 21 state-protected areas, 86 communal conservancies and several transboundary initiatives. Furthermore, many areas in Namibia are internationally recognised as special in one way or another, often because of the wildlife or ecosystems they support; these designated areas include four Ramsar sites, two world heritage sites, nineteen important bird areas, four endemic bird areas and seven ecologically or biologically significant marine areas.

Terrestrial wildlife contributes significantly to Namibia's economy through its contribution to the tourism, hunting and farming sectors, in addition to providing obvious direct benefits such as meat. Wildlife also provides a variety of important indirect benefits to people – known as ecosystem services – which are less easy to quantify, such as the role of vultures in consuming carrion and preventing the spread of diseases; or the cultural and spiritual values gained by experiencing beautiful natural environments.

Equally, there would be little life without plants as plants convert solar energy into chemical energy, which they and all animals then use to grow and reproduce. They absorb nutrients from the soil and air, which are then used to make wood, leaves, flowers and fruit. Plants are thus the primary producers of energy and nutrients for life on Earth.

Often patterns of diversity in different animal groups are similar, and many show similarities to the patterns of diversity of plant groups. For instance, northern areas generally have the greatest numbers of species of mammals and birds because of the higher rainfall there and the presence of wetland and forest habitats not found elsewhere in Namibia.

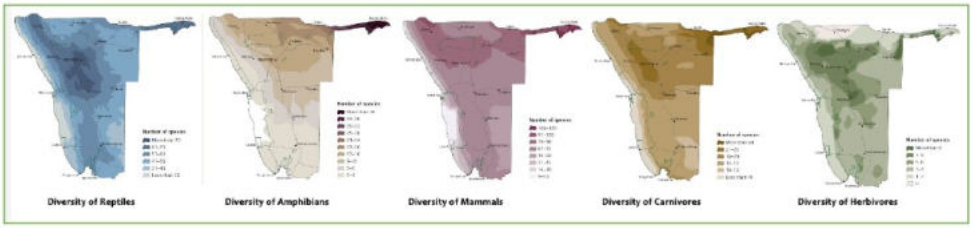

Figure 1: Illustration of Biodiversity / various species diversity across Namibia

The greatest diversity is found in north-eastern Namibia where there is the combination of wetlands, high rainfall and dense vegetation, and where a few tropical species find suitable habitat not available elsewhere in Namibia.

In this particular study, we seek to document the biodiversity baseline in the area of the proposed The proponent's mineral exploration licenses taking a landscape-level assessment approach and taking into account the fact that at this stage the proposed activities are limited to non-invasive / non-consumptive practices.

1.1. OBJECTIVES OF THE BIODIVERSITY ASSESSMENT

The aims of this study were to:

- Conduct landscape-level assessment in the designated study area (approximately 986 000 Hectares)
- Develop a Habitats map made up of landscape types / broad habitat map and at description of the relevant habitats within the study area
- Compile a habitats sensitivity map that indicate potential vulnerability and threats to each habitats in respect to the proposed exploration activities
- Compile a report that describes the basic ecosystem dynamics of these communities and outlines why some areas are more sensitive to disturbance than others.

1.2. STUDY AREA

The assessment for this study concentrated around the clustered (10 EPLs, herein referred to as the identified study area) core proposed exclusive prospecting licenses (***Figure 2***). The study area stretches across a land-scape level that extent over land area of 986 000 Hectares in the Karas Region.

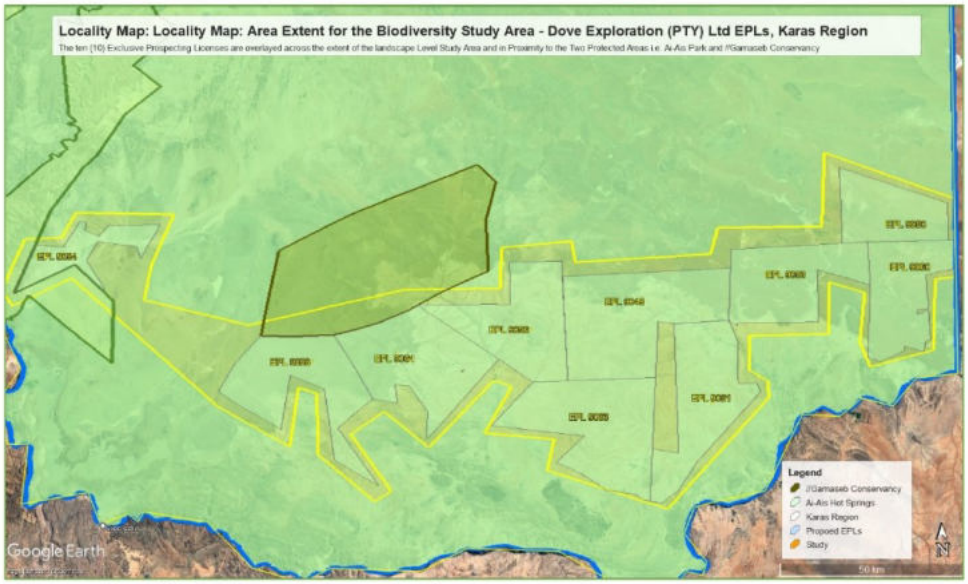

Figure 2: *Outline of the study area (yellow outlined) overlaid across the approximate10 EPLs.*

About one third of Namibia is covered in sand, most of which was deposited within the last few million years. What lies beneath the sand is generally poorly known. By contrast, geologists have done much to map, analyse, drill and understand the nature and history of the remainder of Namibia's land surface. Although the formation of Earth began over 4.5 billion years ago, events in Namibia are only traceable for the most recent half of this time.

What is known of Namibian geological history begins with material and evidence from about 2,650 million years ago. The oldest rocks are a mixture of both metamorphosed igneous and sedimentary rocks from about 2,650 million years ago. In particular to the study area, this is

banded gneiss of the Namaqua Metamorphic Complex near the Tantalite Valley, some 30 kilometres south of Warmbad.

The parent rocks of the Namaqua Metamorphic Complex are approximately 1,930 million years old, but the complex itself was formed around 1,200–1,000 million years ago when the Kalahari, Congo and Rio de la Plata cratons collided to form the supercontinent Rodinia (***Figure 3***). It is thought that the collision created the 1,400-kilometre-long and 400-kilometre-wide belt of the Namaqua Metamorphic Complex, which stretches from the Lüderitz area across the Orange River to KwaZulu-Natal in eastern South Africa.

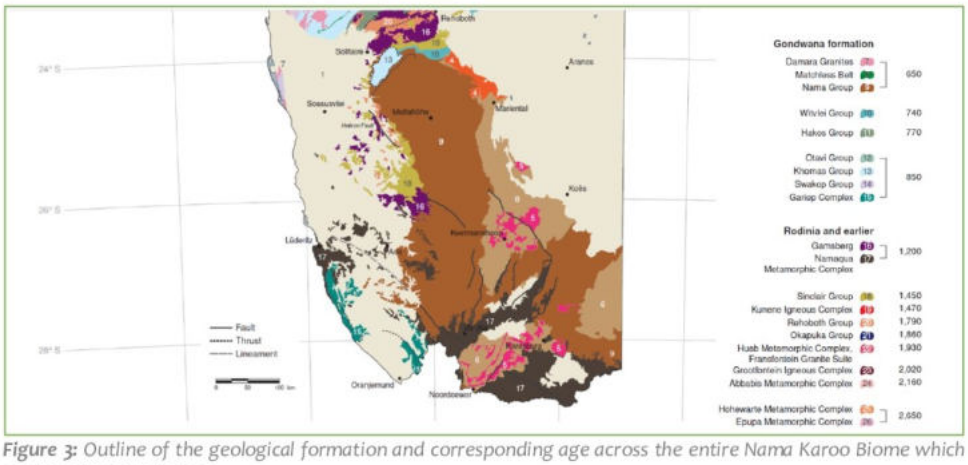

Figure 3: *Outline of the geological formation and corresponding age across the entire Nama Karoo Biome which consist of the study area*

1.3. MATERIALS AND METHODS

1.3.1 Field Assessment

The assessment was conducted according to the Braun-Blanquet approach (Mueller-Dombois and Ellenberger, 1974). For each site the estimated canopy cover of all species was recorded, also paying attention to the different layers (height-classes) of the species. Additionally, notes were taken on abiotic characteristics that could have a major influence on species survival or distribution, e.g. slope and substrate. These notes were used to derive the major habitat types.

1.3.2 Mapping and GIS

Google-earth and other images (The Namibian Atlas Data) for the area from April 2000 and April 2013 were both segmented into polygons with similar reflectance. Next, the locations of all survey sites were projected onto these segments, assigning each site to its respective association or community.

To map the approximate outline of the communities studied, a high resolution aerial photograph was used. The survey sites were projected onto this image. Based on observations during the survey, approximate outlines of the plant communities were digitised by hand, using Google-earth. This approach was only possible due to the small size

of the study area and the relatively detailed survey thereof, it will not be possible to map a larger area with such methodology

1.3.3 Data analysis

Biodiversity units are most commonly described as associations, which can be further divided into communities. Such associations and communities are defined based on a group of species of which at least 50% occur in every relevé belonging to that community or association. It may, however, also occur that within an association a community is defined in which a group of species it is totally absent. Associations usually contain one to several differential species that are either totally absent or at the most present in low numbers in less than 20% of the relevés not allocated to that association (Barbour et al. 1999).

Thus, some species are common throughout a study area, whilst other species do occur throughout the study area as well, but are typically denser and vigorous in certain habitats. Other species may be entirely restricted to a specific substrate or habitat, e.g. *Aloe erinacea, Faidherbia albida* or Acacia erioloba, whilst other species may be restricted to a specific type of habitat, but variable geology, e.g. *Euphorbia virosa*, found on both schist and quartzite slopes.

Sensitivity ratings:

1. least sensitive or of least concern
2. sensitive – mitigation measures to be implemented
3. highly sensitive – minimise disturbance as far as possible
4. NO GO area – very high conservation and ecological value

Four sensitivity categories have been used, and are defined as follows:

1: Least sensitive or of least concern

Criteria: relatively low availability of niches that are favourable for plant persistence, overall low species diversity, dominated by ephemeral plants, few or no perennial plants, and the habitat or growth conditions can be re-created to some degree, low conservation status. In addition, loss of such areas will not have a major detrimental impact on the functionality of surrounding ecosystem components.

Management implications: areas where such communities occur should be looked at first as sites for permanent dumps. It may be possible to re-create some ecological functionality of such dumps by landscaping and matching soil surface conditions to resemble the original. The area will need to be scouted prior to preparation for dumping, to remove perennial plants where necessary, possibly also look for bulbous plants on lower-lying areas by searching through topsoil.

2: Sensitive – mitigation measures need to be implemented

Criteria: moderate but patchy availability of niches suitable for plant persistence, moderate species diversity, may be very patchy due to a localised amount of suitable niches, low conservation status, but the available niches will be difficult or impossible to re-create.

Management implications: most of the areas where such communities occur are adjacent to areas that are more sensitive. Should such area be needed for mining operations, efforts should be made to utilise only some of these areas so that similar areas are made available as habitat for transplanted plants. Ideally, planning should be done for the entire life-of-mine, before such areas are sacrificed. This will ensure that the smallest area possible is sacrificed.

3: Highly sensitive – minimise disturbance as far as possible

Criteria: high diversity and number of plant-favourable niches, moderate to high species diversity, moderate conservation status. Many very slow-growing trees and shrubs are present in these areas. Habitat difficult to recreate once disturbed unless properly planned. Further, some aspects of this community play a central role within the entire Nama-Karoo ecosystem.

Management implications: Disturbance should only be allowed in these areas, where absolutely necessary, in this case only if sufficient ore has been identified below such communities. Even then, disturbance should be kept to a minimum. Key areas, e.g. patches of relatively dense trees should be demarcated as definite no-go areas, which should also not be disturbed by vehicle tracks or other side-line mining activities (e.g. construction of buildings). If these areas are disturbed, some patches must be left intact and sufficient amounts of topsoil should be stored from disturbed areas. Research on the regeneration and establishment potential of plants species affected shall need to be initiated as soon as possible to assist with restoration planning.

4: NO GO area – very high conservation and ecological value
Criteria: high species diversity, high conservation status, availability of many diverse niches for fauna and flora, habitat difficult or impossible to re-create once disturbed.

Management implications: areas where these communities are found occur on the absolute fringes of ore body and outside the ore deposits. There is thus no justification to disturb these sites. This also means that vehicle tracks and any kind of pollution must be prevented and possible impacts from slow-falling dust after blasts are minimised.

2. DESCRIPTION OF THE BIODIVERSITY BASELINE

In determining the best way to approach the current study, the following important differences between working with invertebrates in Namibia, compared to vertebrates and plants, were considered:

- *The difference in overall numbers.* The most complete available listing of Namibian life forms (Namibian Biodiversity Database 2009) lists 4468 plants and 2037 vertebrates. These lists are 99%+ complete. A total of 10470 invertebrates are also listed. This is considered to represent < 50% of described Namibian invertebrates.
- *The proportion of known species.* Most species of vertebrates and plants are already known, but most species of invertebrates remain unknown. New invertebrate species are continuously being described from Namibia: the 10470 species mentioned above is considered to be < 10% of the actual number occurring.
- *The reality of limits to expertise.* Even non-experts can know most key vertebrate or plant species, but even invertebrate specialists can know only a small part of this overwhelming diversity.

Hence in this study, Enviro-Leap opts to rather approach the biodiversity study by concentrating on ecosystem processes instead of species list. Consequently, we start by defining aggregates of species that share similar trophic resources, i.e. depend on the same food sources within a particular habitat. This seems to be an appropriate level to work at for current purposes, because:

- Food availability is a key determinant of diversity in most communities, therefore trophic guilds will reflect fundamental information about that community.

The following invertebrate trophic guilds were identified in the proponent's exploration licenses area:

- Herbivores – eating live plant matter
- Recyclers – eating dead plant or animal remains or products
- Predators – killing and eating other animals

The presence of a food source in a particular habitat can be used to infer the presence of the relevant trophic guild in that habitat, and vice versa. The results from the rapid assessment (determining the presence of different food sources in different habitats) and the subsequent collecting visit (determining the presence of different trophic guilds in each habitat) fed into each other in this way.

2.1. DESCRIPTION OF HABITATS BASELINE

Experience has shown that biodiversity communities in the Nama-Karoo Biome are largely determined by substrate differences. Therefore, during the field assessment of the study area, substrate were used as the initial basis for habitat discrimination. Four main landscape-level / crosscutting habitats were identified, investigated and are listed as follows, the approximate delineation of the communities is shown in ***Figure 4***:

- Riverine and Sandy Valley plains
- Schist, Quartzite and Granite hills
- Gravel plains
- Ephemeral aquatic systems

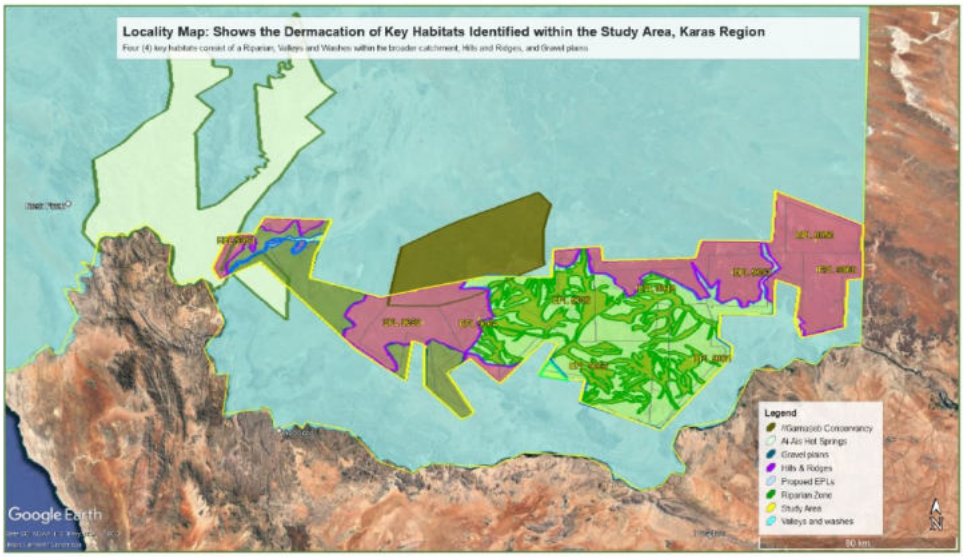

Figure 4: Distribution of the different habitats with the proposed licenses area /Study area.

2.2. NOTES ON THE HABITAT DESCRIPTIONS

Sensitivity rankings for each habitat have been listed in the initial discussion for the sake of convenience, even though the full calculation and explanation of their derivation only follows in the subsequent. Individual rankings that fall in the top 25% (the highest sensitivity ratings) of any considered factor have been marked in bold type.

3.2.1. *Riverine Tree-lines*

Description (***Figure 5***): A wide flat-bottomed wash, pre-dominantly occurs within four of the EPLs i.e. **EPL 9048**, **EPL 9050**, **EPL 9061** and **EPL 9063** of the Study Area and is characterised by the presence of numbers of large trees, particularly the *Faidherbia albida (Anna tree)* and *Acacia erioloba* (camel thorn). The substrate is sandy. Besides trees, the vegetation also consists of perennial grass.

Occurrence in the study area (***Figure 5***): Covers the western part of the main channel of the Nama-Karoo Biome, running from south-east to Northwest across the central part of the Study Area.

Trophic guilds:

- *Herbivores*. The trees in the Nama-Karoo Biome are a huge resource for leaf-eaters. Because the trees are sustained by groundwater, they bear leaves, flowers and fruit annually, in contrast to those in adjacent habitats that may only do so after irregular rain events. This makes them a dependable, annually available, resource.
- *Scavengers*. Where there is game, there will be carcases. Both Cape Mountain Zebra (*Equus zebra zebra*) and springbok (*Antidorcas marsupialis*) remains were observed in part of the river. The resource, and hence the guild, hence a key indicator of potential presence of scavenger species (although no siting were observed

- *Predators*. The large number of other guilds represented in the habitat ensures that sufficient prey resources are available for this guild.

***Figure 5**. The tree-lined channel of the riparian ecosystem along the wide flat-bottomed wash.*

Biodiversity potential:	Biodiversity sensitivity ranking: 10 out of 10.
Restoration potential:	Low; restoration sensitivity ranking: 6.5 out of 10.
Uniqueness:	Localized; uniqueness sensitivity ranking: 9 out of 10.
Overall sensitivity rating:	95%; overall sensitivity ranking: 10 out of 10.

Key ecological drivers: Groundwater is the key element that drives this ecosystem. It sustains the large trees, which are the primary biodiversity habitat determinants. Groundwater flow is enabled by the existence of a sandy / gravely substrate that holds moisture in a shallow aquifer for long periods following rainfall. The actual amount of groundwater flow is ultimately dependent upon rainfall in the upstream catchment.

Vulnerabilities and threats: The biggest threat to this habitat is hydrocarbons spillage and potential contamination of soils and groundwater. This habitat within the study area is often not the focus of exploration or mining but rather used for site access, base-camps or lodging and water extraction for mainly domestic consumption particularly during the exploration phase.

Secondary threats may relate to destruction of habitats in respect to vegetation clearance to pave way for the access routes and also potential poaching for firewood and wildlife.

3.2. Valley Sandy Grass plains

Occurrence in Study Area (***Figure 4***): This habitat as similar to the Riparian Habitat, it predominantly occurs within four of the EPLs i.e. **EPL 9048**, **EPL 9050**, **EPL 9061** and **EPL 9063** that makes up most of the Study Area, and it partially encloses the tree-lined channel habitat of the Nama-Karoo Biome in its western half.

Description (***Figure 6***): This habitat consists of levelled areas characterised by more or less sandy substrates, and the presence of perennial grass. Where it is found adjacent to the tree-lined channel of the Nama-Karoo Biome, it is distinguished from that by the absence of trees. Where it adjoins the surrounding hills, eroded rock from there results in a sandy scree substrate, but it can still be distinguished from the hill habitats by the presence of perennial grass.

Figure 6*. Sandy grass plain habitat of the Nama-Karoo Biome. Granite hills habitat in the background. Photo by C. Nekare*

Biodiversity potential:	Biodiversity sensitivity ranking: 8 out of 10.
Restoration potential:	High; restoration sensitivity ranking: 2 out of 10.
Uniqueness:	Widespread; uniqueness sensitivity ranking: 3 out of 10.
Overall sensitivity rating:	85%; overall sensitivity ranking: 8 out of 10.

Trophic guilds:

- *Herbivores.* Since trees and shrubs are a minor component of the vegetation, leaf eaters are not common.
- *Scavengers.* Expected seasonally, but also to decline in future, as for dung eaters.
- *Predators.* Perennial grass enables sufficient prey resources to sustain this guild.

Key ecological drivers: The sandy substrate determines the vegetation type that is possible under reigning climatic conditions. Sand has an excellent ability to retain water following rainfall events, and grasses are adapted to exploit that with their shallow lateral root systems and short life cycles. Ultimately rainfall therefore drives the seeding and growth of grass. The scarcity of trees indicates that, despite being part of the Nama-Karoo Biome catchment, groundwater plays little role in the maintenance of this habitat.

Vulnerabilities and threats: Similarly to Riparian habitat, potential threats for this habitat also relate hydrocarbons spillage and potential contamination of soils and groundwater. And, secondary threats being the destruction of habitats in respect to vegetation clearance to pave way for the access routes and also potential poaching for firewood and wildlife as well.

3.3. Schist, Quartzite and Granite hills

Occurrence in study area (***Figure 4***): *Schist hills* and *Quartzite* habitats forms the sides of the Riparian or Valley Grass Plains in the northern sections study area i.e. **EPL 9048** (particularly the norther sections), **EPL 9050**, **EPL 9053**, **EPL 9054**, **EPL 9058** and **EPL 9064**, predominantly the north-eastern parts of the study area, with isolated outcrops scattered elsewhere. The Habitats map shows another small quartzite outcrop in the southwest of the study area.

Description: The *Schist hills* habitat (***Figure 7***) consists of low, rounded hills, with parallel low and linear outcrops of Damara schists of the Namaqua Metamorphic Complex formation. The substrate is generally rocky and sparse vegetation, with the only larger perennial plants are the Commiphora *sp. (kanniedood)*, and grass species being *Stipagrostis uniplumis*.

While the *Quartzite* habitat (***Figure 8***) consists of very rugged hill slopes, interspersed with deep valleys. The substrate is very rocky, and rocks belong to the Etusis Formation. The vegetation is composed of a relatively large variety of single widely spaced small trees such as the *Aloe erinacea*, *Euphorbia virosa* or shrubs.

Figure 7*. Schist hills habitat in the near background. Photo by C. Nekare*

Biodiversity potential:	Biodiversity sensitivity ranking: 3 out of 10.
Restoration potential:	Medium; restoration sensitivity ranking: 4 out of 10.
Uniqueness:	Uniqueness sensitivity ranking: 3 out of 10.
Overall sensitivity rating:	30%; overall sensitivity ranking: 3 out of 10.

Figure 8. *Quartzite hills habitat, showing rugged terrain on the edges of the Valley/ Sandy grass plains. Photo by C. Nekare*

Biodiversity potential:	Biodiversity sensitivity ranking: 5 out of 10.
Restoration potential:	Zero; restoration sensitivity ranking: 9 out of 10.
Uniqueness:	Uniqueness sensitivity ranking: 4 out of 10.
Overall sensitivity rating:	45%; overall sensitivity ranking: 4.5 out of 10.

Trophic guilds:

- *Herbivores.* Since the few perennial plants in this habitat, like Commiphora sp. (kanniedood), only have leaves following rain, the leaf-eater guild is seasonally represented only.
- *Scavengers.* The most common species within the study area includes the *Lappet-faced vulture* (which is also an endangered species, IUCN Red-list) guild is expected to be unimportant in the absence of significant game populations in this habitat.
- *Predators.* The habitat includes sufficient rain-dependent and short-lived prey resources to sustain this guild during those times.

Key ecological drivers: Rainfall is the primary driver of the system. This is evidenced by the fact that only one trophic resource, detritus, is known with certainty to be permanently available in this habitat; all other trophic resources are seasonal and rain-dependent. It follows that seed banks are an essential component as well; rain per se, without seeds to grow, would not have a major effect on the habitat. Wind is an important secondary driver. Since relatively little old (previous season) ephemeral grass visibly remains in the habitat, the implication is that most is exported as windblown detritus. This means that maintenance of seed banks is important to the habitat.

Vulnerabilities and threats: This habitat within the study area is often the focus of exploration or mining, hence the biggest threat is particularly on the distribution of both slow moving invertebrate and vertebrate species such as reptiles and small mammals, as well as some endangered *Argyroderma delaetii (Aizoaceae),* and or *Fenestraria rhopalophylla* subsp. *Aurantiaca* (**Figure 9**). It was shown above that the determinants for this habitat are complex and interconnected, but are all routed in the physical complexity of the substrate. This

complex substrate is the result of processes spanning geological time-scales, and is not something that can be rebuilt after it has been destroyed or dumped on particularly during the actual mining phase.

Figure 9. *Quartzite hills habitat, two common lithops species found in the study / EPLs i.e. Fenestraria rhopalophylla (Left) and Argyroderma delaetii (Right),*

3.10. Ephemeral aquatic systems (not included on map)

Occurrence in Study Area (not shown on **Figure 4**): This habitat is a crosscutting one that can occur in any of the others, at unpredictable places depending on rainfall. Its potential for occurrence varies according to habitat.

- *Riparian and Valley Sandy Grass plains*. Aquatic habitats may occur following flood events.
- Ridges and hills, these permeable to water resulting salt crusts in the beds of watercourses in some deeper gullies in the schist indicate slow groundwater movement. Rainfall events may temporarily create open water conditions at these places.
- Gravel plains. Aquatic habitats are unlikely to occur naturally. However, the large borrow pit adjacent to the main road may hold water after rainfall events.

Description (***Figure 10***): These are short-lived ecosystems associated with open water following rainfall events. Their exact nature will depend on both the amount of rainfall and the habitat in which it occurs (see above). Their occasional presence is certain, but cannot be predicted in advance.

Key ecological drivers: Rainfall is the primary driver of the system. This is evidenced by the fact that only one trophic resource, detritus, is known with certainty to be permanently available in this habitat; all other trophic resources are seasonal and rain-dependent. It follows that seed banks are an essential component as well; rain per se, without seeds to grow, would not have a major effect on the habitat. Wind is an important secondary driver. Since relatively little old (previous season) ephemeral grass visibly remains in the habitat, the implication is that most is exported as windblown detritus. This means that maintenance of seed banks is important to the habitat.

Figure 10. *Ephemeral aquatic habitat Photo by C. Nekare*

Biodiversity potential:	7 out of 36; biodiversity sensitivity ranking: 1.5 out of 10.
Restoration potential:	Not evaluated due to spatio-temporal unpredictability.
Uniqueness:	Uniqueness sensitivity ranking: 3 out of 10.
Overall sensitivity rating:	15%; overall sensitivity ranking: 1 out of 10.

Vulnerabilities and threats: Aquatic habitats are incongruous in a desert environment, but they do occur and need to be considered. However, they do not lend themselves to discussion at the same level as more persistent habitats. Pollution is a potential threat.

3. FINDINGS AND RECOMMENDATIONS

3.1 FINDINGS OF THE ASSESSMENT

3.1.1 Overall habitat sensitivity index

The sensitivity rankings presented in Sections 2 above were combined in order to obtain a composite overall sensitivity ranking for all habitats. The three rankings were summed, and expressed as a percentage of the maximum possible sensitivity score, which is 90, or maximum sensitivity (ranking 10) for each factor. The sensitivity index gives an indication of how close the sensitivity a particular habitat is to this hypothetical maximum sensitivity level.

The habitats subsequently split into three groups on the basis of their sensitivity indices as follows (**Figure 11**), and an additional group representing the buffers:

- High sensitivity: sensitivity indices 50% represents the Riparian and Valley Grass plains habitats.
- Medium sensitivity: sensitivity indices 10% represents the Gravel Plains habitat.
- Least sensitivity: sensitivity indices 40% represents the Ridges and Hilly habitats
- The No-go Areas, although it falls well outside the proposed licenses area, this group is a crucial buffer and potentially a good Off-set environment for the protection of Biodiversity of the Nama Karoo.

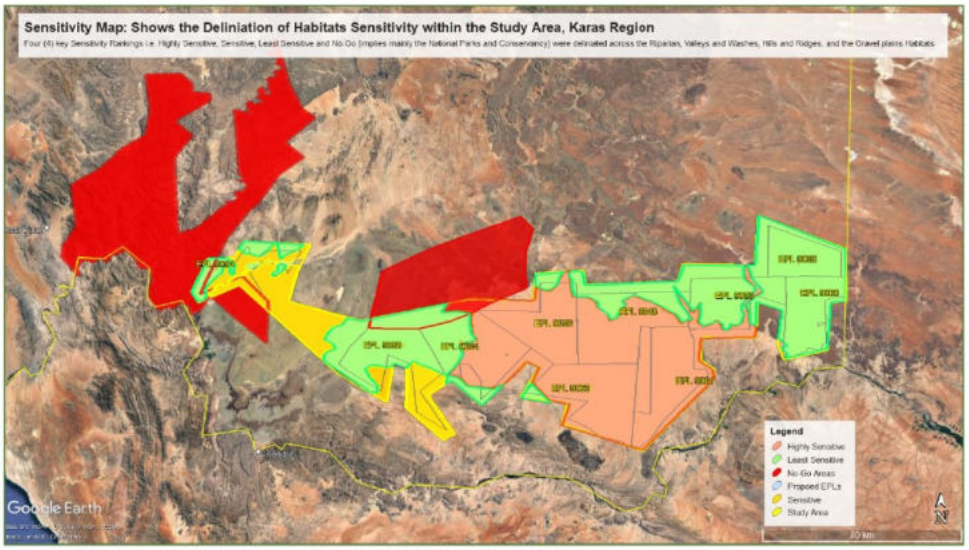

Figure 11: Habitats / Biodiversity sensitivity map for the proposed licenses Area

The Riparian and Valley Grass plains habitats has the highest overall sensitivity index, these are also the most vulnerable habitats treated here. Critically, these habitats has the potential to support the most biodiversity in that's they host the most resources i.e. water and browse material as well as the most suitable shelter. Although, it doesn't attained an absolute uniqueness rating any excessive disturbance to these habitats may result in greater ecosystem disruption and subsequently the greatest potential impacts on the biodiversity.

Therefore, it is highly recommended that priority mitigation measures aimed at particularly enforcing the primary component of the mitigation hierarchy which is "Avoidance" is adopted at any possible cost. This implies, that as much as practically possible the proposed exploration activities on EPLs 9048, 9050, 9061 and 9063 preserves these habitats.

3.1.2 *Exploration implications*

The threat to the habitat extends beyond the area of immediate habitat destruction. Anything that is detrimental to groundwater flow will also be detrimental to tree survival, and hence habitat survival. The groundwater draw down cone associated with the exploration will cause water stress, and possible death, in trees at a distance from the actual workings as well. Downstream, this effect will be total, and no trees are expected to survive.

The destruction of this habitat is all the more lamentable given the fact that some of the *Acacia erioloba* (camel thorn) trees in the Nama-Karoo Biome have trunks up to 3 m in diameter. These are large old trees on a national level. Elsewhere in Namibia, camel thorn trees of < 1 m in diameter have been dated as being up to 400 years old (Vogel 2003).

One cannot speculate how old the trees in this area may be, but what is certain is that they will not be naturally replaced quickly. Each one that is destroyed will have a very long-lasting effect on the entire habitat. They are unique examples of Namibian natural heritage that are in danger of being permanently lost.

Considerations of corridors are less relevant at this stage as activity tend to be limited in duration – because we are working at the level of trophic guilds, not species, the emphasis in planning for exploration impacts should be on habitat preservation. Habitat preservation automatically facilitates the survival of trophic guilds and hence individual species.

3.2 MANAGEMENT RECOMMENDATIONS

The threat to the habitat extends beyond the area of immediate habitat destruction. Anything that is detrimental to groundwater flow will also be detrimental to tree survival, and hence habitat survival. The groundwater extraction may result in a draw down cone associated with the exploration will cause water stress, and possible death, in trees at a distance from the actual workings as well. Downstream, this effect will be total, and no trees are expected to survive.

The recommended management measures at this stage are subject to the most practically suitable measure of the hierarchy i.e. *"1. Avoidance, 2. Mitigation, 3. Restoration and where all else measures fails 4. Off-Set"*. Thus recommendation is that appropriate management measures be associated to the respective sensitivity category listed below:

1. Least sensitive or of least concern – enhance potential positive impacts as much as practically possible while maintaining minimum disturbance.
2. sensitive – mitigation measures to be implemented to reduce potential negative impacts e.g. creation of awareness on sensitivity of sites, rehabilitation of surface scars, and or restriction against harvesting of poaching of natural resources such firewood / wildlife respectively

3. highly sensitive – minimise disturbance as far as possible e.g. prior identification and clear marking of these sites and reducing activity on them
4. NO GO area – very high conservation and ecological value, by strictly avoiding unauthorized access or entry to these area

While impacts mitigation in relation to recommendation of the Environmental Management Plan, is practically applicable to the *Schist, Quartzite* and *Granite Hills*, and the *Gravel Plains habitats,* it cannot be emphasised enough that the *Riparian and Valley Grass plains habitats* is one habit that provide the most ecosystem services and thus requiring careful monitoring and safeguarding.

Overall, ecological restoration requires methods to monitor the progress of such restoration towards whatever result is envisaged. Environmental indicators, including indicator species, are therefore recommended for use in this respect.

Since ecosystems recover from the bottom up, an ideal indicator species would be one at the top of the food chain, i.e. a predator. Even better would be a super-predator (one that preys on other predators), since its presence would imply that it's different prey species, or all their different prey species, and all their food sources, are present and presumably healthy Lindenmayer at al. (2000).

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