DRAFT BASIC ASSESSMENT REPORT

for

ELECTRICAL GRID INFRASTRUCTURE TO SUPPORT THE MOGOBE BATTERY ENERGY STORAGE SYSTEM (BESS)

on

The Portion 1 of the Farm Legoko Nr. 460 and Portions 2, 10 & Remaining Extent of Farm Sekgame Nr. 461

In terms of the

National Environmental Management Act (Act No. 107 of 1998, as amended) & 2014 Environmental Impact Regulations

Prepared for Applicant: **Mogobe EGI (Pty) Ltd**

Date: **13 June 2024**

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Report Reference: GAM364c/07
Department Reference: To be allocated.
Case Officer: To be allocated.

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PURPOSE OF THIS REPORT:

Stakeholder Review and Comment

APPLICANT:

Mogobe EGI (Pty) Ltd

CAPE EAPRAC REFERENCE NO:

GAM364c/07

SUBMISSION DATE

13 June 2024

PUBLIC PARTICIPATION

By participating in this environmental process, whether it be through written submissions, telephonic enquiries, registrations or attendance of meetings, you are automatically giving consent for your full contact details and/or any submissions/inputs to be used and published in all matters pertaining to this application i.e. reports/notifications/communication for review or decision-making.

DOCUMENT TRACKING

DOCUMENT HISTORY

DOC REF	REVISION	DATE	AUTHOR
GAM364c/07	Application form	2024-06-13	Mr Dale Holder
GAM364c/08	Draft Basic Assessment Report	2024-06-13	Mr Dale Holder
GAM364c/09	Draft Environmental Management Programme Substation Infrastructure	2024-06-13	Mr Dale Holder
GAM364c/10	Draft Environmental Management Programme Powerline Infrastructure	2024-06-13	Mr Dale Holder

APPROVAL FOR RELEASE

NAME	TITLE	SIGNATURE
Mr Dale Holder	Senior Consultant: Cape EAPrac	

DISTRIBUTION

DESIGNATION	NAME	EMAIL / FAX
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BASIC ASSESSMENT REPORT

in terms of the
National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended &
Environmental Impact Regulations 2014

Electrical Grid Infrastructure to support the Mogobe Battery Energy Storage System (BESS)

Portion 1 of the farm Legoko Nr. 460 and Portions 2, 10 & Remaining Extent of Sekgame Nr. 461, near Kathu in the Northern Cape Province

Submitted for:
Departmental Compliance

Report Issued by:
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ORDER OF REPORT

Draft Basic Assessment Report

Appendix A	:	Maps – Location Plan, Topographical Map, Biodiversity Overlays
Appendix B	:	Site Photographs
Appendix C	:	Facility illustration(s)
Appendix D	:	Specialist and Technical Reports
Appendix D1	:	Terrestrial Biodiversity Compliance Statement (Biodiversity Africa, 2024)
Appendix D2	:	Heritage Impact Assessment (Orton, 2024)
Appendix D3	:	Palaeontology Impact Assessment (Orton, 2024)
Appendix D4	:	Visual Impact Assessment (VRMA, 2024)
Appendix D5	:	Aquatic Biodiversity Compliance Statement (EnviroSci, 2024)
Appendix D5	:	Geotechnical Assessment (SMEC, 2024)
Appendix D6	:	Agricultural Compliance Statement (Lanz, 2024)
Appendix E	:	Public Participation
Appendix E1	:	I&AP Register
Appendix E2	:	Adverts and Site Notices (to be included in Final Basic Assessment Report)
Appendix E3	:	Comments and Responses Report (to be included in Final Basic Assessment Report)
Appendix E4	:	Notification of Availability of Draft Basic Assessment Report (to be included in Final Basic Assessment Report)
Appendix E5	:	Proof of Availability of Draft Basic Assessment Report (to be included in Final Basic Assessment Report)
Appendix E6	:	Comments received (to be included in Final Basic Assessment Report)
Appendix F	:	Impact Assessment
Appendix G1	:	Environmental Management Programme (EMPr) Powerline Infrastructure.
Appendix G2	:	Environmental Management Programme (EMPr) Substation Infrastructure.
Appendix H	:	Details of EAP and expertise
Appendix I	:	Specialist's declaration of interest
Appendix J	:	Additional Information
Appendix J1	:	Landowner Consent
Appendix J2	:	Title Deed

Appendix J3	:	Screening Tool Report and Site Sensitivity Verification Report
Appendix J4	:	Environmental Authorisations for PV facility, BESS and associated infrastructure
Appendix K	:	Application Form

TABLE OF CONTENTS

FIGURES

Tables

1. CONTENT OF BASIC ASSESSMENT REPORTS

Appendix 1 of the 2014 EIA Regulations (as amended) contains the required contents of a Basic Assessment Report. The checklist below serves as a summary of how these requirements were incorporated into this Basic Assessment Report.

Requirement	***Details***
(a) Details of - *(i) The EAP who prepared the report; and* *(ii) The expertise of the EAP, including, curriculum vitae.* *(iii) Applicant Details*	(i) Mr Dale Holder (ii) Ndip NatCon, 20 years' experience in Environmental Management, CV attached in Appendix H. EAPASA Registration Nr: 2019/301. (iii) Mogobe EGI (Pty) Ltd
(b) The location of the activity, including – *(i) The 21 digit Surveyor General code of each cadastral land parcel;* *(ii) Where available, the physical address and farm name;* *(iii) Where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties.*	(i) C04100000000046000001 C04100000000046100002 C04100000000046100010 C04100000000046100000 (ii) Portion 1 of the Farm Legoko 460 and Portions 2, 10 & Remaining Extent of Farm Sekgame 461, near Kathu in the Northern Cape Province.
(c) a plan which locates the proposed activity or activities applied for as well as the associated structures and infrastructure at an appropriate scale, or, if it is *(i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or* *(ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken.*	(i) Please refer to layout plans in Appendices A and C.
(d) a description of the scope of the proposed activity, including - *(i) All listed and specified activities triggered and being applied for; and* *(ii) A description of the activities to be undertaken including associated structures and infrastructure.*	(i) Please refer to Section A2 of this report (ii) Please refer to Section A2 of this report
(e) A description of the policy and legislative context within which the development is proposed, including – *(i) An identification of all legislation, policies, plans, guidelines, spatial tools, municipal development*	(i) Please refer to Section A11 of this report. (ii) Please refer to Section A11 of this report

Requirement	***Details***
planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report; and *(ii) How the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks and instruments.*	
(f) A motivation for the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred location.	Please refer to Section A3 of this report
(g) A motivation for the preferred site, activity and technology alternative.	Please refer to Section A3 of this report

(h) A full description of the process followed to reach the proposed preferred alternative within the site, including - *(i) Details of all alternatives considered;* *(ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;* *(iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;* *(iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;* *(v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts:* *(aa) can be reversed;* *(bb) may cause irreplaceable loss of resources; and* *(cc) can be avoided, managed or mitigated.* *(vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;* *(vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;* *(viii) The possible mitigation measures that could be applied and level of residual risk;* *(ix) The outcome of the site selection matrix;* *(x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and* *(xi) A concluding statement indicating the preferred alternatives, including preferred location of the activity.* *(i) A full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including –* *(ii) A description of all environmental issues and risks that were identified during the environmental impact assessment process; and* *(iii) An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.*	(iv) Section A3 (v) Section C and Appendices E1 to E6 (vi) Section C3 (vii) Section B (viii) Section D1 (ix) Section D1 (x) Appendix F (xi) Appendix F and Section D1 (xii) Section A3 (xiii) Section A3 (xiv) Section E (xv) Appendix F

Requirement	***Details***
(j) An assessment of each identified potentially significant impact and risk, including - *(i) Cumulative impacts;* *(ii) The nature, significance and consequences of the impact and risk;* *(iii) The extent and duration of the impact and risk;* *(iv) The probability of the impact and risk occurring;* *(v) The degree to which the impact and risk can be reversed;* *(vi) The degree to which the impact and risk may cause irreplaceable loss of resources; and* *(vii) The degree to which the impact and risk can be mitigated.*	Appendix F and Section D1 and D2
(k) Where applicable, a summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 to these Regulations and an indication as to how these findings and recommendations have been included in the final assessment report.	Section D1
(l) An environmental impact statement which contains: *(i) A summary of the key findings of the environmental impact assessment;* *(ii) A map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and* *(iii) A summary of the positive and negative impacts and risks of the proposed activity and identified alternatives.*	Section D2
(m) Based on the assessment, and where applicable, impact management measures from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr.	Appendix G
(n) Any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation.	Section E
(o) A description of assumptions, uncertainties and gaps in knowledge which relate to the assessment and mitigation measures proposed.	Section D
(p) A reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation.	Section E
(q) Where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded and the post construction monitoring requirements finalised.	It is requested that the Environmental Authorisation be valid for the full 10 year period contemplated in the regulations. Construction should be completed within 5 years of commencement. The activity does not include any operational activities.
(r) An undertaking under oath or affirmation by the EAP in relation to:	Appendix H

Requirement	***Details***
(i) The correctness of the information provided in the reports; *(ii) The inclusion of comments and inputs rom stakeholders and I&APs;* *(iii) The inclusion of inputs and recommendations from the specialist reports where relevant; and* *(iv) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.*	
(s) Where applicable, details of any financial provisions for the rehabilitation, closure and ongoing post decommissioning management of negative environmental impacts.	Not Applicable
(t) Any specific information that may be required by the competent authority.	The competent authority will be provided with an opportunity to comment on the Draft Basic Assessment Report. Any additional information requested by the competent authority will be included in the Final BAR that will be submitted for decision making.
(u) Any other matters required in terms of section 24(4)(a) and (b) of the Act.	None to date.

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(For official use only)

Basic Assessment Report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of 07 April 2017. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	✓YES	~~NO~~

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

2. ACTIVITY DESCRIPTION

a) Describe the project associated with the listed activities applied for

Mogobe EGI (Pty) Ltd ('the Applicant') is proposing the construction of up to 132 kV Electrical Grid Infrastructure (EGI) to support the Mogobe BESS project located on Portion 1 of the Farm Legoko 460, south east of the town of Kathu within the Gamagara Local Municipality in the Northern Cape Province. The EGI will traverse Portion 1 of the Farm Legoko 460 and Portions 2, 10 & Remaining Extent of Farm Sekgame 461. The site is accessible via the existing farm access from the N14.

The Mogobe EGI will comprise of the following:

- A 132 kV double circuit monopole and/or lattice tower overhead power line, approximately 9.0 km in length and 30 m in height to connect to the Existing Eskom Ferrum Substation located within an approved corridor of approximately 200 m wide. The power line will be constructed within an approximately 31 m wide servitude.
- A service road of approximately 4 m wide below the power line.
- An on-site switching station, with an estimated footprint of 1.0 ha and up to 5 m in height, at the Mogobe BESS facility. This refers specifically to Eskom's section of the on-site substation, planned to be at 132 kV, which will be transferred from the IPP to Eskom. Lightning masts of up to 21 m will be installed within the substation yard, and
- Associated electrical infrastructure at the Eskom Ferrum Substation. This will include but not limited to a new feeder bay which comprises of the extension to the existing platform and busbars of the 132 kV yard inside Eskom Ferrum Substation.

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN 327, 325 and 324	Description of project activity
GNR 983 Item 11 (i): The development of facilities or infrastructure for the transmission and distribution of electricity— (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts;	The Mogobe BESS Electrical Grid Infrastructure will have a capacity of up to 132 kilovolts.

GNR 983 Item 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation	The non-linear components of the Mogobe BESS Electrical Grid Infrastructure (i.e. the on-site switching station and infrastructure at the existing Ferrum MTS) will require the removal of more than 1 ha of indigenous vegetation.
GNR 983 Item 28 (ii): Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare;	The Mogobe BESS Electrical Grid Infrastructure situated outside of the Kathu Urban Edge is considered industrial use and will have a total project footprint exceeding 1ha.

3. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;

(b) the type of activity to be undertaken;

(c) the design or layout of the activity;

(d) the technology to be used in the activity;

(e) the operational aspects of the activity; and

(f) the option of not implementing the activity.

Describe alternatives that are considered in this application as required by Appendix 1 (3)(h), Regulation 2014. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Kindly note that site alternatives are not under consideration as part of this Application and Basic Assessment Process. The proposed Mogobe EGI is specifically required to evacuate power from the Authorised Mogobe BESS

(Preferred Bidder under the Battery Energy Storage Independent Power Producers Procurement Programme (BESIPPPP)) to the National Grid via the Existing Ferrum Major Transmission Substation (MTS).

~~Alternative 1 (preferred alternative)~~		
~~Description~~	~~Lat (DDMMSS)~~	~~Long (DDMMSS)~~
~~Alternative 2~~		
~~Description~~	~~Lat (DDMMSS)~~	~~Long (DDMMSS)~~
~~Alternative 3~~		
~~Description~~	~~Lat (DDMMSS)~~	~~Long (DDMMSS)~~

~~In the case of linear activities:~~

~~Alternative:~~	~~Latitude (S):~~	~~Longitude (E):~~
~~Alternative C (preferred)~~		
~~• Starting point of the activity~~		
~~• Middle/Additional point of the activity~~		
~~• End point of the activity~~		
~~Alternative A~~		
~~• Starting point of the activity~~		
~~• Middle/Additional point of the activity~~		
~~• End point of the activity~~		
~~Alternative B~~		
~~• Starting point of the activity~~		
~~• Middle/Additional point of the activity~~		
~~• End point of the activity~~		

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A of this form.

b) Lay-out alternatives

Please note: On the 16 February 2018 Minister Edna Molewa published Government Notice No. 113 in Government Gazette No. 41445 which identified 5 strategic transmission corridors important for the planning of electricity transmission and distribution infrastructure as well as procedure to be followed when applying for environmental authorisation for electricity transmission and distribution expansion when occurring in these corridors.

In March 2019, a generic environmental management programme (EMPr) relevant to an application for environmental authorisation for substations and overhead transmission and distribution electricity transmission infrastructure was published in Government Notice No. 435 in Government Gazette No, 42323. The EMPr is relevant to substations or overhead transmission and distribution infrastructure when developed within or outside of the strategic transmission corridors.

On 29 April 2021, Minister Barbara Dallas Creecy published Government Notice No. 383 in Government Gazette No. 44504, which expanded the eastern and western transmission corridors and gave notice of the applicability of the application procedures identified in Government Notice No. 113, to these expanded corridors.

In Terms of these regulations, an application for Electrical Grid Infrastructure within these Strategic Corridors must include a pre-negotiated route and as such cannot further assess alignment alternatives

Alternative C (preferred alternative)		
Description	Lat [1] (DDMMSS)	Long (DDMMSS)
The preferred alternative, hereafter referred to as EGI alternative C starts at the position of the switching station adjacent to the Mogobe BESS. The powerline then runs in an easterly direction for approximately 2.5km before turning north towards the existing Ferrum MTS situated approximately 5km further North.	27° 45' 55.76"	23° 04' 07.98"

[1] The proposal is linear and the co-ordinates reflected in this table constitute the approximate middle point of the preferred alternative.

		
~~Alternative A~~		
~~Description~~	~~Lat (DDMMSS)~~	~~Long (DDMMSS)~~
~~Alternative B~~		
~~Description~~	~~Lat (DDMMSS)~~	~~Long (DDMMSS)~~

c) Technology alternatives

Alternative 1 (preferred alternative)
Only a single technology alternative is under consideration. This includes A 132 kV double circuit monopole and/or lattice tower overhead power line, a service road of approximately 4 m wide , an on-site switching station, at the Mogobe BESS facility and associated electrical infrastructure at the existing Eskom Ferrum Substation as per the project description. The technology in this case is pre-defined by the need – i.e. the infrastructure that is needed to evacuate electricity from the Mogobe BESS to the National Grid.

The preferred pylon type is monopoles, however Lattice structures are considered as an alternative. The main difference between the Monopole and Lattice pylons is usually associated with visual impact. The visual specialist has found both to be acceptable.
Alternative 2
None
Alternative 3
None

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternative 1 (preferred alternative)
None
Alternative 2
None
Alternative 3
None

e) No-go alternative

The no-go alternative (i.e. the option of not proceeding with the activities in this environmental process) in this instance would be to not develop the proposed Electrical Grid Infrastructure to support the Mogobe BESS (preferred bidder under the BESIPPPP). In such an instance, the Social and Economic benefits associated with the Mogobe BESS (A Strategic Integrated Project identified in the Integrated Resource Plan) would not be realised.

Without this grid infrastructure upgrades, the ability to integrate the proposed Mogobe BESS into the National grid would be restricted, hindering the transition to a low-carbon energy system.

The no go alternative, even though less desirable from an economic and social point of view, will be used as a baseline against which impacts will be assessed.

Paragraphs 4 – 13 below should be completed for each alternative[2].

[2] As outlined above, the proposed Mogobe EGI falls within a Strategic EGI Corridor and as such, the BA needs to assess a pre-negotiated route and not alignment alternatives.

4. PHYSICAL SIZE OF THE ACTIVITY

a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

~~Alternative:~~	~~Size of the activity:~~
~~Alternative A1 (preferred activity alternative)~~	~~m^2~~
~~Alternative A2 (if any)~~	~~m^2~~
~~Alternative A3 (if any)~~	~~m^2~~

or, for linear activities:

Alternative:	**Length of the activity:**
Alternative C (preferred alternative)[3]	±9000m
~~Alternative A (if any)~~	
~~Alternative B (if any)~~	

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude[4]:**
Alternative C (preferred alternative)	Up to a maximum of 289000m^2
~~Alternative A (if any)~~	
~~Alternative B (if any)~~	

5. SITE ACCESS

Does ready access to the site exist?	~~YES~~	✓NO

[3] The non-linear components associated with the Mogobe EGI include a Switching station of approximately 1ha and works within the existing Ferrum MTS.

[4] The figures in this table depict the full extent of the 31m wide servitude within which all infrastructure will be contained. The physical transformation associated with the project will be far less, as the full extent of the servitude will not be transformed for the installation of the works.

If NO, what is the distance over which a new access road will be built	A construction and maintenance track of up to 4m wide will be constructed within the powerline servitude. This will have a approximate length of 9km.

Describe the type of access road planned:

An access track under a power line, also known as a (transmission line right-of-way), will be a designated path that allows for the construction of the pylons and stringing of conductors. This same track will also be utilised by Eskom maintenance personnel to access the power line and its associated infrastructure.

Construction methodology

- The construction of the access track will begin with the surveying and pegging of the extent of the track. Construction and fauna and flora rescue will take place within the extent of this demarcation.
- The site camp for the access road construction will be established as in the authorised laydown for the Mogobe BESS.
- No clear and grub will take place for the majority of the route and the road will just be in the form of a Jeep Track.
- Gravel or wearing course will only be utilised in selected areas where existing substrate hinders suitable access.

The following key Environmental Impact Management Actions are required in this regard[5].

1. **Materials supply**

Any gravel / Wearing course must come from existing lawful commercial sources.

2. **Topsoil management**

In areas where gravel must be placed, the topsoil shall be removed to a depth of 300 mm.

3. **Drainage and stormwater management**

No major cut and fill activities will take place and the road must remain as a track. The developer will however implement measures as contained in the EMPr to control stormwater, where necessary.

4. **Erosion control and management**

The developer shall follow all erosion control and management guidelines as per the EMPr.

5. **Dust control and management**

The developer shall undertake every effort to minimise dust pollution on the site and shall implement the dust control measures as required in the EMPr.

[5] Further details on the required environmental impact management actions and outcomes for the access track are included in the EMP attached in Appendix G1.

6. Procedures for containment of leaks and spills emergency plans

This will be implemented as per the approved EMPr in respect of the project.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

6. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any; ✓These are shown on the locality plans attached in appendix A
- indication of all the alternatives identified; ✓These are shown on the locality plans attached in appendix A
- closest town(s;) ✓The closest town to the site is Kathu as shown on the Locality Plan in Appendix A
- road access from all major roads in the area; ✓All existing main and secondary roads are shown on the Locality Plan attached in appendix A
- road names or numbers of all major roads as well as the roads that provide access to the site(s); ✓The road names of all main roads are shown on the locality plans attached in appendix A.
- all roads within a 1km radius of the site or alternative sites; and ✓ All main and secondary roads are within the total extent of the map area are shown in the locality plans attached in appendix A.
- a north arrow; ✓The locality plans attached in Appendix A include a North Arrow
- a legend; and ✓The locality plans attached in Appendix A include a legend.
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection). ✗ The locality plan attached in Appendix A does not include as activity is linear in nature. Co-ordinates of all bend points within the proposed powerline are shown in the table below.

Table 1: Approximate co-ordinates of centre line bend points of the Mogobe EGI corridor

#	Latitude (S) (DDMMSS)			Longitude (E) (DDMMSS)		
A	27°	46'	43.41"S	23°	5’	15.94"E

#	Latitude (S) (DDMMSS)			Longitude (E) (DDMMSS)		
B	27°	46'	43.46"S	23°	5'	14.38"E
C	27°	46'	38.36"S	23°	5'	5.76"E
D	27°	46'	38.00"S	23°	4'	1.09"E
E	27°	44'	15.01"S	23°	4'	10.87"E
F	27°	43'	38.90"S	23°	3’	52.22"E
G	27°	43'	39.01"S	23°	3'	21.40"E
H	27°	43'	45.45"S	23°	3'	18.68"E

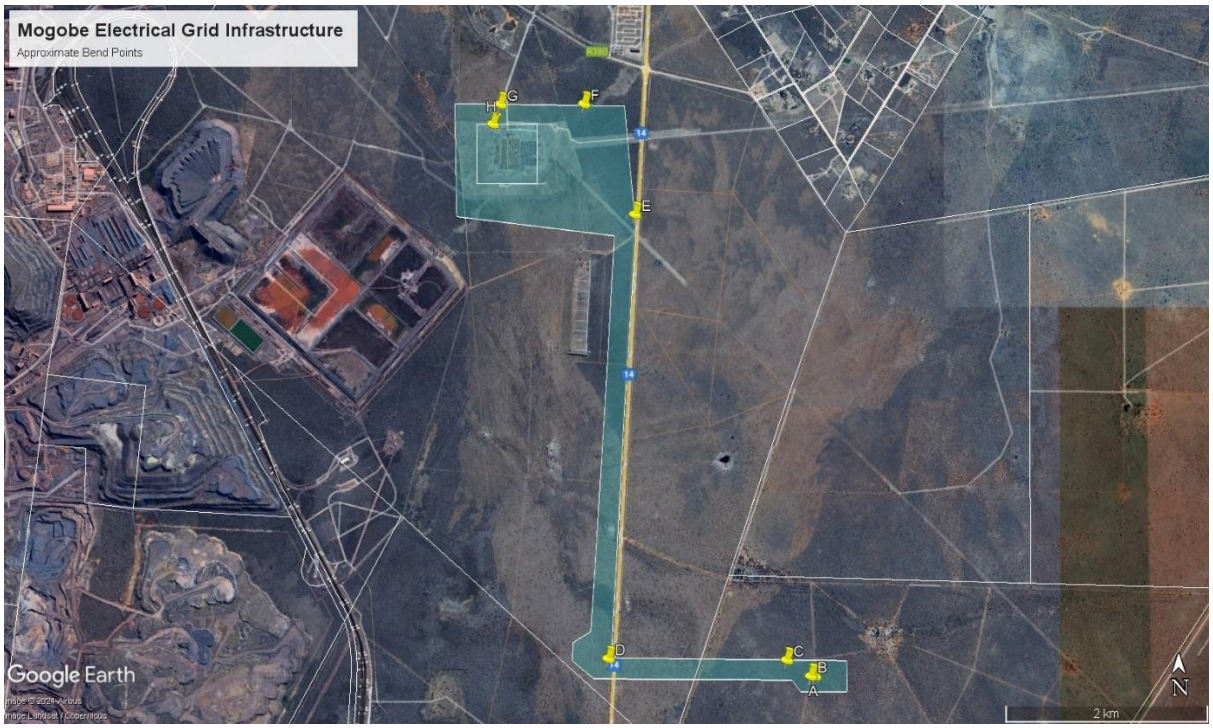

Figure 1: Proposed EGI Bend Points. Please Refer to Appendix A for a full scale copy of the plan

7. LAYOUT/ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

A location and topographical plan is attached in Appendix A. The Layout and Route Plan that complies with the above is attached in Appendix C.

8. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWS);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

Appendix A contains all the relevant Biodiversity overlays, including:

- Freshwater Ecosystems;

- Vegetation Types;

9. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report**.** It must be supplemented with additional photographs of relevant features on the site, if applicable.

The site photographs are attached in Appendix C. Since the activity is linear in Nature, the photographs are taken sequentially along the EGI corridor and not from the centre of the site. Other than the photographic record attached in Appendix C, please also refer to the photographs in the report where specific environmental aspects are discussed.

As can be seen in the photographs below, the landscape is fairly typical along the alignment of the proposed Mogobe EGI, with no outstanding landscape features.

Looking west from the south-eastern end of the proposed corridor (Orton, 2024).

Looking west in the southern part of the corridor (Orton, 2024).

Looking east in the southern part of the corridor towards the N14 (Orton, 2024).

Looking north along the corridor parallel to the N14 (Orton, 2024).

Looking south along the corridor parallel to the N14 (Orton, 2024).

Looking south along the corridor parallel to the N14 (Orton, 2024).

Looking south along the corridor parallel to the N14 (visible at left) and from very close to the north end of the corridor (Orton, 2024).

Looking southwest towards the Ferrum Substation (Orton, 2024).

Looking west towards the Ferrum Substation (Orton, 2024).

10. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

The Facility Illustrations in the form of an alignment plan are attached in appendix C. The applicant is considering two alternative pylon types for the proposed powerline. Typical cross sections of these are included below.

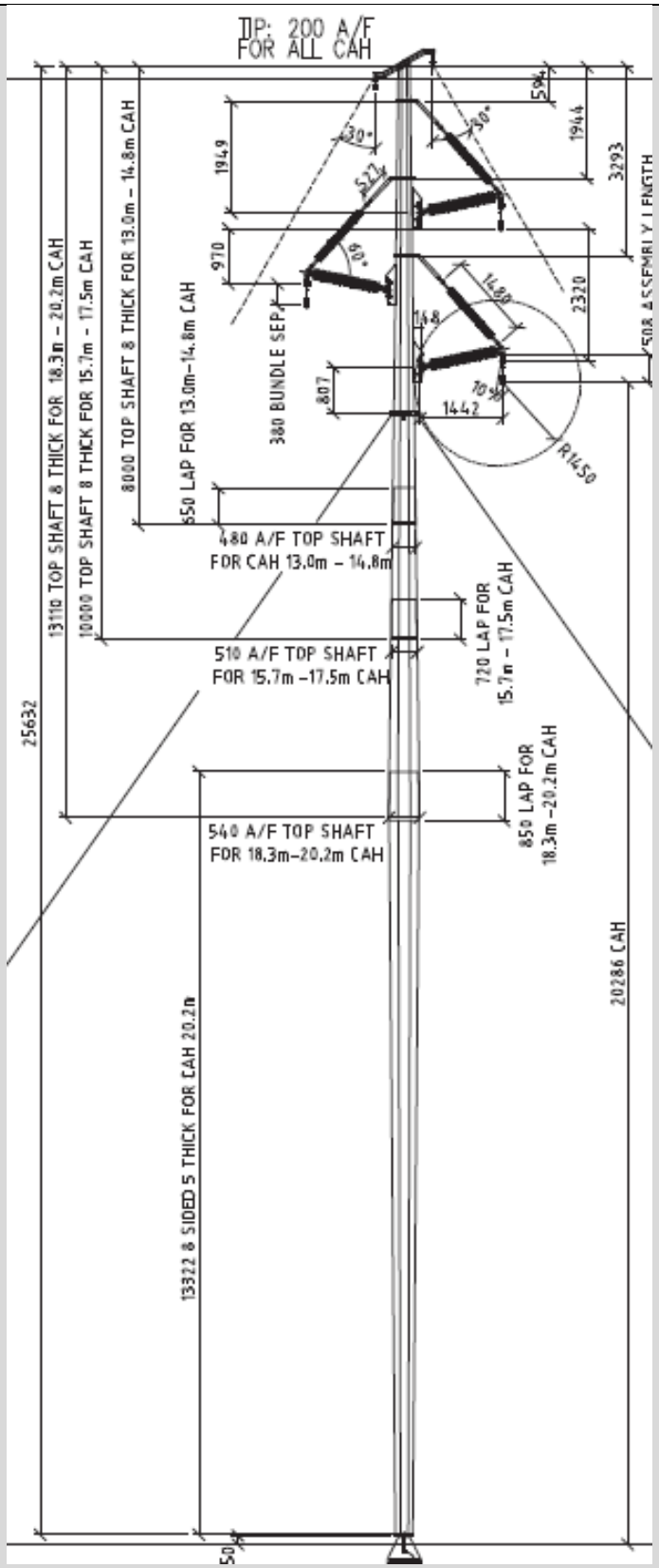

Figure 2: Typical Cross Section of a Monopile Pylon (Preferred Pylon Technology)

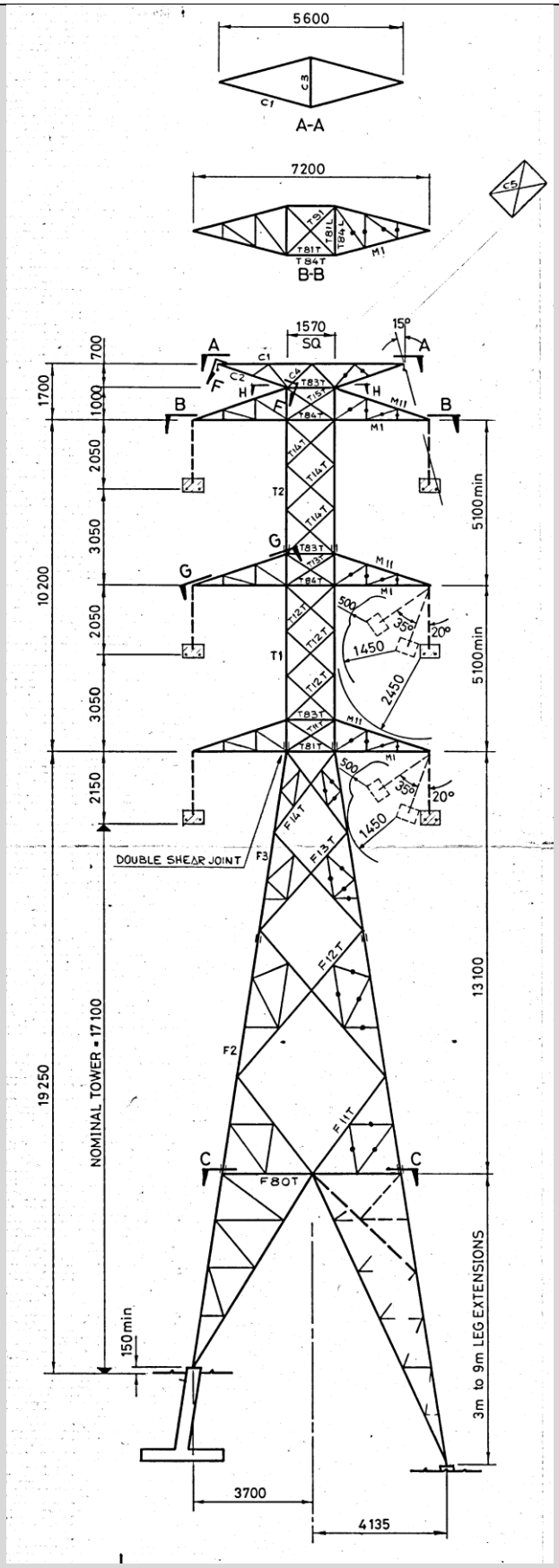

Figure 3: Typical Cross Section of a Lattice Pylon (Alternative Pylon Technology)

1. ACTIVITY MOTIVATION

Motivate and explain the need and desirability of the activity (including demand for the activity):

1. Is the activity permitted in terms of the property's existing land use rights?	✓YES	~~NO~~	Please explain
The proposed activity entails the construction of grid connection infrastructure as such does not require the change in land use rights of the properties in question. A servitude over the affected properties will need to be registered for the purposes of the overhead powerline.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	✓YES	~~NO~~	Please explain
According to the Northern Cape Provincial Development Plan 2030, alternative energies, will play an increasingly important role in the following two decades and will contribute a much greater share of provincial energy consumption. In terms of Electricity infrastructure related to forms of energy, the spatial distribution of supply should aim to follow clearly defined corridors, with electricity services being highly concentrated close to the major routes and high capacity electricity infrastructure (PSDF, 2011). The project for which this EGI is proposed aims to link to existing and approved BESS and the Eskom national grid network (via the Ferrum substation). One of the sustainable development objectives of the PSDF is to utilize renewable resources as opposed to non-renewable resources. This Electrical Grid Infrastructure is associated with the provision electricity from a BESS. It also promotes the concept of Bioregionalism as enshrined in the PSDF. Furthermore, The Northern Cape Provincial Development Plan 2030 prioritizes the development of electrical grid infrastructure to support economic growth and social development. Key aspects include: • **Grid expansion and upgrade:** The plan seeks to expand and upgrade the existing grid infrastructure to ensure reliability, efficiency, and capacity to meet growing demand. • **Energy storage and backup:** The plan recognizes the importance of energy storage and backup systems to ensure grid stability and reliability. • **Private sector investment:** The plan encourages private sector investment in grid infrastructure development to leverage resources and expertise. • **Skills development and job creation:** The plan aims to develop skills and create jobs in the energy sector, particularly in renewable energy and grid maintenance. • **Grid resilience and security:** The plan prioritizes the improvement of grid resilience and security to minimize the risk of power outages and ensure a reliable supply of electricity. The proposed Mogobe EGI also aligns with the National Integrated Resource Plan (IRP) for electricity and the provincial government's commitment to sustainable development and economic growth.			
(b) Urban edge / Edge of Built environment for the area	✓YES	~~NO~~	Please explain
The proposed access road is outside of the Urban Edge of Kathu, however, the nature of Electrical Grid Infrastructure dictates that they need not be situated within an urban edge or within the edge of built up areas.			

(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	✓YES	~~NO~~	Please explain
The IDP defines public infrastructure development such as energy security (and associated infrastructure) as a critical action within the municipal area. This proposed EGI is directly linked to the authorised Mogobe BESS.			
(d) Approved Structure Plan of the Municipality	✓YES	~~NO~~	Please explain
To the best of our knowledge, there is no specific structure plan adopted for the Gamagara local municipality. The project is however compliant with other relevant planning policies.			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	✓YES	~~NO~~	Please explain
According to the screening tool report, the proposed Mogobe EGI does not intersect with any Environmental Management Framework. The Gamagara Municipality's Integrated Development Plan (IDP) for 2017-2022 identifies the need for an environmental management framework that aims to address environmental threats and promote sustainable development and address the following key objectives: • Promote the development of renewable energy sources • Implement waste management and recycling programs • Protect and conserve natural resources • Mitigate the impacts of climate change • Ensure environmental justice and equity • Promote sustainable land use planning and management • Protect biodiversity and ecosystems • Implement environmental education and awareness programs • Ensure compliance with environmental legislation and regulations			
(f) Any other Plans (e.g. Guide Plan)	✓YES	~~NO~~	Please explain
To the best of our knowledge, there is no specific guide plan adopted for the Gamagara local municipality. The project is however compliant with other relevant planning policies			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	✓YES	~~NO~~	Please explain
The spatial development framework defines the energy sector (to which this EGI directly relates) as a focus area for this municipal district.			

4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	✓YES	~~NO~~	Please explain
This proposed Mogobe EGI provides a means for the approved Mogobe BESS to connect to the National Energy Grid. Given the context of Energy Developments in the local context, the proposed Mogobe EGI can be considered to be in-line / associated with the local investment already placed in this emerging energy landscape. Care has been taken to avoid significantly impacting ecological pattern and process by minimising the distance of the proposed Gridline, while avoiding highly significant Biophysical and Heritage Features. On a strategic level, the proposed EGI aligns with the regional, national and international need for the load balancing and distribution of energy in support of Socio-Economic Development.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	✓YES	~~NO~~	Please explain
This activity is considered in support of a primary service, i.e. the provision of electricity. No additional services are required to support the activity. The construction of the EGI may generate minimal amount of organic waste in the form of vegetation generated from clear and grub of the Switching Station (and to a lesser degree the pylon positions). This vegetation from the clear and grub activities will be utilised as part of the rehabilitation of the greater site, in compliance with the Environmental Management Plan. Any excess spoil material from pylon excavations will be required to be spoiled at a registered landfill or where appropriate and allowable in terms of the EMPR, utilised during the construction activities for the overall PV facility.			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	✓YES	~~NO~~	Please explain
Not Applicable. The activity in itself is infrastructure development			
7. Is this project part of a national programme to address an issue of national concern or importance?	✓YES	~~NO~~	Please explain
The balancing of energy demand (by technologies such as BESS) forms part of a national programme to ensure energy stability. The proposed EGI will connect the approved Mogobe BESS to the National Grid and will thus support this notion. Securing a greater energy sources into the overall energy matrix has been highlighted as a priority by the Department of Energy in the IRP.			

8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	✓YES	~~NO~~	Please explain
The proposed EGI falls within a Strategic EGI Corridor (Northern Corridor) and as such is deemed favourable for the development of Large Scale Electrical Transmission and Distribution infrastructure. These corridors aim to reduce transmission losses, improve grid resilience, and enable the integration of multiple energy sources, ultimately promoting a more sustainable and efficient energy system for South Africa.			
9. Is the development the best practicable environmental option for this land/site?	✓YES	~~NO~~	Please explain
The target property already has an authorised PV and BESS facility. The EGI proposed as part of this environmental process provides the most practical environmental option to evacuate power from the proposed Mogobe BESS. All participating specialists (please refer to appendices D1 – D6) have confirmed that no high post mitigation impacts are likely to result from the construction and operation of the Mogobe EGI.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	✓YES	~~NO~~	Please explain
The potential negative impacts associated with the Mogobe EGI were found to be generally low (with mitigation), and thus acceptable, given the context. Aside from the employment benefits associated with the construction and operation / maintenance of the EGI, the benefit of allowing the input of electricity from the BESS into the national grid is considerable.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	~~YES~~	✓NO	Please explain
A number of other Renewable Energy and BESS developments been approved for development in this area. All of these facilities will be required to evacuate their electricity into the National Grid. Considering the manner in which the EGI has been designed to avoid impacting on the landuse and sensitive features (environmental and heritage/cultural) as far as possible, it can be argued that it will set a positive precedent for any future Grid connection Infrastructure in the area.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	~~YES~~	✓NO	Please explain
Detailed public participation processes took place as part of the EIA (for the PV/BESS facilities) and no major objection was raised nor significant impacts Identified. This BAR will include further detailed public participation.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	~~YES~~	✓NO	Please explain
Although falling outside of the developed areas of Kathu, as a linear activity, the proposed EGI will not compromise the urban edges of the Gamagara Local Municipality.			

14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	✓YES	~~NO~~	Please explain
The Mogobe BESS was selected as a preferred bidder in the Department of Energy's BESIPPP and as such is classified as a SIP. Please refer to the application form in Appendix A for a copy of the SIP confirmation.			

15. What will the benefits be to society in general and to the local communities?	Please explain
Addition of much needed electricity stability into the national grid as well as the provision of socio-economic act benefits for the local area.	

16. Any other need and desirability considerations related to the proposed activity?	Please explain
The studies undertaken as part of this environmental process, as well as those associated with the PV energy facility / BESS contribute to a greater understanding of the landscape and context and the sensitive elements within it (e.g. remnant natural vegetation and watercourses, cultural heritage areas, archaeological and palaeontological resources, avifaunal species and populations etc.), as well as the protection and rehabilitation of these elements (e.g. implementation of buffers, removal and monitoring of alien vegetation etc.).	

17. How does the project fit into the National Development Plan for 2030?	Please explain
Contribution to the provision of electricity to the nation, and investment in electrical infrastructure for its distribution (as part of the strategy to remedy the electricity crisis of 2008 and that associated with the future demands). This EGI is part of a number of projects that align with the one of the prioritised infrastructure investments listed in the NDP: "Procuring at least 20 000MW of renewable electricity by 2030, importing electricity from the region, decommissioning 11 000MW of ageing coal-fired power stations and stepping up investments in energy-efficiency", as well as one the key proposals to "Implement the 2010 Integrated Resource Plan (procuring at least 20 000MW of electricity from renewables) to reduce carbon emissions from the electricity industry from 0.9kg per kilowatt-hour to 0.6kg per kilowatt-hour.	

18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.

(1) The purpose of this Chapter is to promote the application of appropriate environmental management tools in order to ensure the integrated environmental management of activities,

(2) The general objective of integrated environmental management is to:

(a) promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment:

(b) *identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impacts, maximizing benefits and promoting compliance with the principles of environmental management set out in section 2;*

The assessment of impacts is included in Part D of this Basic Assessment Report. These potential impacts were determined with input from specialists with the following disciplines:

- **Terrestrial Ecology**
- **Heritage and Archaeology**
- **Palaeontology**
- **Aquatic**
- **Visual**
- **Geotechnical**

(*c) ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them*;

The baseline sensitivities as determined in the previous environmental processes (and further refined through the current environmental process) were explicitly used to inform the positioning of the proposed EGI in such a way that potential impacts on the receiving environment were avoided as far as possible. This risk adverse approach has resulted in generally low significance of all impacts assessed.

(d) *ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment*;

The Draft Basic Assessment Report is subjected to Public Participation as outlined in Part c of this report.

(e) *ensure the consideration of environmental attributes in management and*

The environmental attributes as determined by the participating specialists and as outlined in Part B of this report have been used to determine the additional environmental management outcomes of the EMPr (Appendix G1 and Appendix G2).

(f) *decision-making which may have a significant effect on the environment; and identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2*.

All State Departments and Organs of State who may have jurisdiction in respect of this activity have been given an opportunity to provide comment on the Draft Basic Assessment Report. All comments received from these parties will be included in the Final Basic Assessment Report.

(3) *The Director-General must coordinate the activities of organs of state referred to in section 24(1) and assist them in giving effect to the objectives of this section and such assistance may include training, the publication of manuals and guidelines and the co-ordination of procedures*.

The State Departments who were consulted are listed in Part C, Section 5. In order to give effect to Section 24(1), the Competent Authority should engage directly with those parties listed.

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Environmental Management Act (Act 107 of 1998)	Competent authority for activities triggered by the 2014 EIA Regulations	Northern Cape Department Environmental Affairs, Rural Development and Land Reform	Pending (this application)
National Environmental Management Laws Amendment Act (Act 25 of 2014)	Public participation as part of the Environmental Authorisation.	Northern Cape Department Environmental Affairs, Rural Development and Land Reform	Pending
National Environmental Management: Biodiversity Act (Act 10 of 2004)	Competent authority in respect of permit applications for threatened and protected species.	Northern Cape Department Environmental Affairs, Rural Development and Land Reform	Pending
National Forest Act (Act 84 of 1998)	Competent authority in respect of permit applications for species protected in terms of the National Forest Act.	Department of Forestry, Fisheries and the Environment.	Pending
National Spatial Biodiversity Assessment	Critical Biodiversity Areas & Ecological Support Areas across alignment	Northern Cape Department Environmental Affairs, Rural Affairs and Land Reform	Integrated into this application.
Conservation of Agricultural Resources Act (Act 43 of 1983	Agricultural land traversed by the EGI Alien vegetation in and surrounding site	Department of Agriculture	Authorisation not required
National Veld and Forest Fire Act (Act 101 of 1998)	Land owners responsibility to ensure that activities on site do not pose additional fire risk to adjacent properties.	Department Agriculture	Authorisation not required
National Heritage Resources Act (Act 25 of 1999_	Linear activity greater than 500m in length extent.	SAHRA	Application in terms of NHRA to run parallel with this BA process.

All aspects of this environmental process are under the competence of the Northern Cape Department Environmental Affairs, Rural Affairs and Land Reform. The National Department of Forestry, Fisheries and the Environment will serve a commenting role in respect of this environmental process.

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	✓YES	~~NO~~
If YES, what estimated quantity will be produced per month?	±30m^3	

How will the construction solid waste be disposed of (describe)?

The amount of waste generated during construction will be extremely limited and likely to include the following:

- General Domestic Waste.
- Biomass from vegetation clearing (to be used for rehabilitation.
- Overburden from Pylon Excavations.

Where will the construction solid waste be disposed of (describe)?

- Biomass from vegetation clearing will be stockpiled for utilisation during rehabilitation of the overall Facility.
- General waste to be disposed of at Kathu Municipal Landfill (Licence number: B33/2/4441/15/P116).
- Overburden from excavations to be disposed of at Kathu Municipal Landfill (Licence number: B33/2/4441/15/P116) or utilised as backfill material on the greater project.

Will the activity produce solid waste during its operational phase?	~~YES~~	✓NO
If YES, what estimated quantity will be produced per month?	0m^3	

How will the solid waste be disposed of (describe)?

No solid waste will be generated during the operational phase of the activity.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

Kathu Municipal Landfill. The Kathu Municipal Landfill is a licenced Landfill (Licence number: B33/2/4441/15/P116) and is permitted to accept general waste as per the licence issued by the Department of Water Affairs and Forestry on 28 March 1994.

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

All waste generated during both construction and operation will be disposed of into the Municipal Waste Stream.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?	~~YES~~	✓NO

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?	~~YES~~	✓NO

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	~~YES~~	✓NO
If YES, what estimated quantity will be produced per month?	0m^3	
Will the activity produce any effluent that will be treated and/or disposed of on site?	~~YES~~	✓NO

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	~~YES~~	✓NO

If YES, provide the particulars of the facility:

~~**Facility name:**~~			
~~**Contact person:**~~			
~~**Postal address:**~~			
~~**Postal code:**~~			
~~**Telephone:**~~		~~**Cell:**~~	
~~**E-mail:**~~		~~**Fax:**~~	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

The activity will not generate any waste water. In terms of the EMPr (Appendix G1 and G2) normal Domestic Effluent (Sewerage) will be collected and disposed of at a licenced Waste Water Treatment Works. The closest licenced Waste Water Treatment Works is in Kathu (Licence Number: 12/9/11/L1034/8).

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?	~~YES~~	✓NO
If YES, is it controlled by any legislation of any sphere of government?	~~YES~~	✓NO

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the emissions in terms of type and concentration:

The applicant will be responsible for ensuring compliance with the National Dust Control Regulations (Regulation 827). According to the regulations, any person conducting any activity in such a way as to give rise to dust in quantities and concentrations that exceeded the dustfall standard set out in the regulation are, upon receipt of a notice from an air quality officer, impelled to, upon receipt of a notice from an air quality officer, implement a dustfall monitoring programme.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	~~YES~~	✓NO

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	✓YES	NO
If YES, is it controlled by any legislation of any sphere of government?	YES	✓NO

Describe the noise in terms of type and level:

Noise generated by the activity will be limited to noise generated by construction machinery during the construction phase and noise levels will comply with SANS 10103:2008. The impact of this is deemed to be very low, with mitigation as outlined in the Generic EMPr for Substation and powerline Infrastructure (Appendix G1 and G2).

13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

✓Municipal	~~Water board~~	~~Groundwater~~	~~River, stream, dam or lake~~	~~Other~~	✓The activity will not use water (after construction)

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	0 litres	
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	~~YES~~	✓NO

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

The EGI construction would form a small component of the overall Mogobe BESS development construction. This water would be procured by the Engineer Procure Contract (EPC) Contractor appointed to construct the project and would be sourced either from the municipality or from an external service provider. The Municipality has confirmed the availability of water for construction of the PV / BESS Facility.

14. ENERGY EFFICIENCY

Describe the design measures, if any, which have been taken to ensure that the activity is energy efficient:

None – The activity is of such a nature that it does not utilise energy.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

None - The activity is of such a nature that it does not utilise energy

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A): ☐

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section? ✓YES ~~NO~~

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Northern Cape
District Municipality	John Taolo Gaetsewe
Local Municipality	Gamagara Local Municipality
Ward Number(s)	1
Farm name and number	1. Legoko Nr. 460 2. Sekgame Nr. 461
Portion number	1. Portion 1 2. Portion 2, Portion 10 and Remaining Extent
SG Code	C04100000000046000001 C04100000000046100000 C04100000000046100002 C04100000000046100010

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

- Portion 1 of the Farm Legoko 460 is Zoned for Agricultural Purposes
- Portion 2 of the Farm Sekgame 461 is Zoned for Industrial Use
- Portion 10 of the Farm Sekgame 461 is Zoned for Transport
- The Remaining Extent of the Farm Sekgame 461 is Zoned for Industrial Use.

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required?

~~YES~~	✓NO

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative C (Preferred)

✓Flat	✓1:50 – 1:20	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~1:7,5 – 1:5~~	~~Steeper than 1:5~~

~~Alternative A~~

~~Flat~~	~~1:50 – 1:20~~	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~1:7,5 – 1:5~~	~~Steeper than 1:5~~

~~Alternative B~~

~~Flat~~	~~1:50 – 1:20~~	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~1:7,5 – 1:5~~	~~Steeper than 1:5~~

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

~~2.1 Ridgeline~~		~~2.4 Closed valley~~		~~2.7 Undulating plain / low hills~~	
~~2.2 Plateau~~		~~2.5 Open valley~~		~~2.8 Dune~~	
~~2.3 Side slope of hill/mountain~~		2.6 Plain	✓	~~2.9 Seafront~~	
~~2.10 At sea~~					

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following?

Alternative C (Preferred):	**Alternative B:**	**Alternative A:**

Shallow water table (less than 1.5m deep)	~~YES~~	✓NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dolomite, sinkhole or doline areas	~~YES~~	✓NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Seasonally wet soils (often close to water bodies)	~~YES~~	✓NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Unstable rocky slopes or steep slopes with loose soil	~~YES~~	✓NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dispersive soils (soils that dissolve in water)	~~YES~~	✓NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Soils with high clay content (clay fraction more than 40%)	~~YES~~	✓NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Any other unstable soil or geological feature	~~YES~~	✓NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~
An area sensitive to erosion	~~YES~~	✓NO	~~YES~~	~~NO~~	~~YES~~	~~NO~~

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

SMEC consulting engineers undertook a Geotechnical Assessment of the proposed Mogobe EGI (Please Refer to Appendix D5. The Geotechnical specialist confirmed the following regarding Groundwater and the Geological Stability of the site.

Generally, the grid infrastructure is located on a flat topography, and no natural slope instabilities.

The following ground units can be expected on site:

- **Aeolian sands**: silty sands (possibly collapsible) are expected to be predominant at the site from the surface up to depths exceeding 3.5 m.
- **Hardpan calcrete**: gravel (strongly cemented) expected towards the northern parts of the grid corridor, underlying transported sand or from surface to the depths exceeding 10.0 m.
- **Gravel and cobbles** are expected to occur from surface to the depths of 0.6 m, overlying the calcrete layer.
- **BIF/ shale bedrock**: Medium hard to hard rock expected to occur from 10 m, but may outcrop to the surface or be shallower in parts of the corridor.

Groundwater is expected from 4.0 m below existing ground level. However, occurrence of perched water table is expected due to impervious strata.

4. GROUNDCOVER

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

✓Natural veld - good condition[E]	✓Natural veld with scattered aliens[E]	~~Natural veld with heavy alien infestation[E]~~	~~Veld dominated by alien species[E]~~	~~Gardens~~
~~Sport field~~	~~Cultivated land~~	✓Paved surface	~~Building or other structure~~	✓Bare soil

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

Please refer to the Terrestrial Biodiversity Specialist Assessment attached in Appendix D1 (Biodiversity Africa, 2024) from which the following summary on the Groundcover is provided.

Vegetation Types

The Terrestrial Biodiversity Specialist identified three main habitat types within the Mogobe EGI corridor, namely.

1. Vachellia eriolobe thornveld,
2. Tarconanthus veld, and
3. Secondary Vegetation.

Figure 4: Example of *Vachelia erioloba* Thornveld along the Mogobe EGI (Biodiversity Africa, 2024).

Figure 5: Example of Tarconanthus Veld along the Mogobe EGI (Biodiversity Africa, 2024).

Figure 6: Example of Secondary vegetation along the Mogobe EGI (Biodiversity Africa, 2024).

Figure 7: Delineation of the vegetation types along the Mogobe EGI (Biodiversity Africa, 2024).

Species of Conservation Concern

The DFFE screening tool report lists the Plant Species Theme as low Sensitivity and does not identify any plant SCC that could occur within the project area. However, previous studies conducted in the area identified two NT species, one Rare species, two protected tree species and one protected species that could occur within the project area. Of these, *Vachellia erioloba* (protected tree species with a conservation status of least concern) was confirmed to occur within the project area. *Boophone disticha* (protected species on the Northern Cape Nature Conservation Act with a conservation status of least concern) has a high likelihood of occurrence while *Vachellia haematoxylon* (protected tree species with a conservation status of least concern) and *Antimima lawsonii* have a medium likelihood of occurrence. *Asparagus stipulaceus* and *Gnaphalium declinatum* have a low likelihood of occurrence.

Table 2: Species of Conservation Concern that could occur within the project area.

Family	Species	Conservation Status	Likelihood of Occurrence
FABACEAE	*Vachellia erioloba*	Least Concern, Protected Tree Species	**Confirmed**
AMARYLLIDACEAE	*Boophone disticha*	LC, Protected Species on the Northern Cape Nature Conservation Act	**High** Confirmed by previous study to occur within the PAOI.
FABACEAE	*Vachellia haematoxylon*	Least Concern, Protected Tree Species	**Medium** Confirmed by previous study to occur within the PAOI but no individuals recorded within the project area.
MESEMBRYANTHEMACEAE	*Antimima lawsonii*	Rare	**Medium** Associated with limestone soils in Ghaap Plateau Vaalbosveld and only known from three locations.

ASPARAGACEAE	*Asparagus stipulaceus*	NT	**Low** This species does not occur in the area and is listed as a result of outdated historical records for the area.
ASTERACEAE	*Gnaphalium declinatum*	NT	**Low** This species does not occur in the area and is listed as a result of outdated historical records for the area.

Alien Invasive Plant Species

Two exotic species were recorded within the project area and were typically found within disturbed sites, such as along road verges and in secondary vegetation. Both species are listed alien invasive plant species (category 1b) on the National Environmental Management: Biodiversity Act (NEM:BA) (Act No. 10 0f 2004) and both are listed as a Category 1 species on the Conservation of Agricultural Resources Act (CARA) (Act No. 43 of 1983).

Under the NEM: BA act, Category 1b species must be eradicated and under CARA, Category 1 plant species must be removed & destroyed immediately. No trade in these plants is permitted.

Table 3: List of exotic plant species recorded on site.

Family	Species	NEM:BA Alien	CARA
PAPAVERACEAE	Argemone ochroleuca	Category 1b	Category 1
SOLANACEAE	Datura ferox	Category 1b	Category 1

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	~~YES~~	✓NO	~~UNSURE~~
Non-Perennial River	~~YES~~	✓NO	~~UNSURE~~
Permanent Wetland	~~YES~~	✓NO	~~UNSURE~~
Seasonal Wetland	✓YES	~~NO~~	~~UNSURE~~
Artificial Wetland	~~YES~~	✓NO	~~UNSURE~~
Estuarine / Lagoonal wetland	~~YES~~	✓NO	~~UNSURE~~

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

A specialist Aquatic Biodiversity, site sensitivity verification and compliance statement was underdaken by Dr Brian Colloty for the proposed Mogobe EGI (Please refer to Appendix D5).

The specialist confirmed that the study area is located within the D41J Subquaternary Catchment of the Ga-Mogara River a tributary of the Kuruman River, located within the Molopo River Catchment.

The study area however showed no evidence of any water courses or drainage lines that occurred within the site. However, the National Wetland Inventory does indicate several endorheic pans within the study area and some located within 500m of the proposed corridor.

The pans are typical of this flat landscape where runoff accumulates in these depressions. The depressions have formed through the dissolution of the underlying limestone creating these endorheic systems (i.e. inflow but no visible surface outflow) and are thus karst (lime) related systems. This was confirmed by the agricultural specialist that indicated that large areas within the study area were covered by hard pan carbonates

Figure 8: Overall aquatic sensitivity rating for the wetland depressions identified by the Aquatic Specialist

Although these fall within the Assessment corridor, the outcome of this environmental assessment process requires that these be avoided by all physical infrastructure.

The Aquatic Biodiversity Specialist concluded that with suitable mitigation and avoidance of the pans (incl of the 50m no-go buffer), the development should have no direct impact on the overall status of the aquatic systems and within the study area.

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

✓Natural area	~~Dam or reservoir~~	~~Polo fields~~
~~Low density residential~~	~~Hospital/medical centre~~	~~Filling station~~ [H]
~~Medium density residential~~	~~School~~	~~Landfill or waste treatment site~~
~~High density residential~~	~~Tertiary education facility~~	~~Plantation~~
~~Informal residential~~	~~Church~~	✓Agriculture
~~Retail commercial & warehousing~~	~~Old age home~~	✓River, stream or wetland

~~Light industrial~~	~~Sewage treatment plant[A]~~	~~Nature conservation area~~
~~Medium industrial [AN]~~	~~Train station or shunting yard [N]~~	~~Mountain, Koppie or ridge~~
✓Heavy industrial [AN]	~~Railway line [N]~~	~~Museum~~
~~Power station~~	~~Major road (4 lanes or more) [N]~~	~~Historical building~~
~~Office/consulting room~~	~~Airport [N]~~	~~Protected Area~~
~~Military or police base/station/compound~~	~~Harbour~~	~~Graveyard~~
~~Spoil heap or slimes dam[A]~~	~~Sport facilities~~	~~Archaeological site~~
~~Quarry, sand or borrow pit~~	~~Golf course~~	~~Other land uses (describe)~~

If any of the boxes marked with an "N "are ticked, how this impact will / be impacted upon by the proposed activity? Specify and explain:

None.

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

The Heavy Industrial Activities associated with the Sishen Iron Ore Facility are unlikely to be affected by the proposed Electrical Grid Infrastructure. Portions of the Mogobe EGI fall on the same land portion as the Sishen Iron Ore Company (Remaining Extent of Farm Sekgame 461), they however fall outside of the operational area of the mine.

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

None

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	~~YES~~	✓NO
Core area of a protected area?	~~YES~~	✓NO
Buffer area of a protected area?	~~YES~~	✓NO
Planned expansion area of an existing protected area?	YES	✓NO
Existing offset area associated with a previous Environmental Authorisation?	YES	✓NO
Buffer area of the SKA?	YES	✓NO

The proposed Mogobe EGI is not within or in close proximity to any protected areas, nor any designated expansion areas. The Northern Cape Critical Biodiversity Area (CBA) map is included in the Biodiversity Overlays attached in Appendix A. This map indicates that almost the entire area falls within an area designated as "other natural areas". A very small section of Ecological Support Area is situated in the Northern Extent of the assessment corridor, this will however not be affected by the proposed infrastructure.

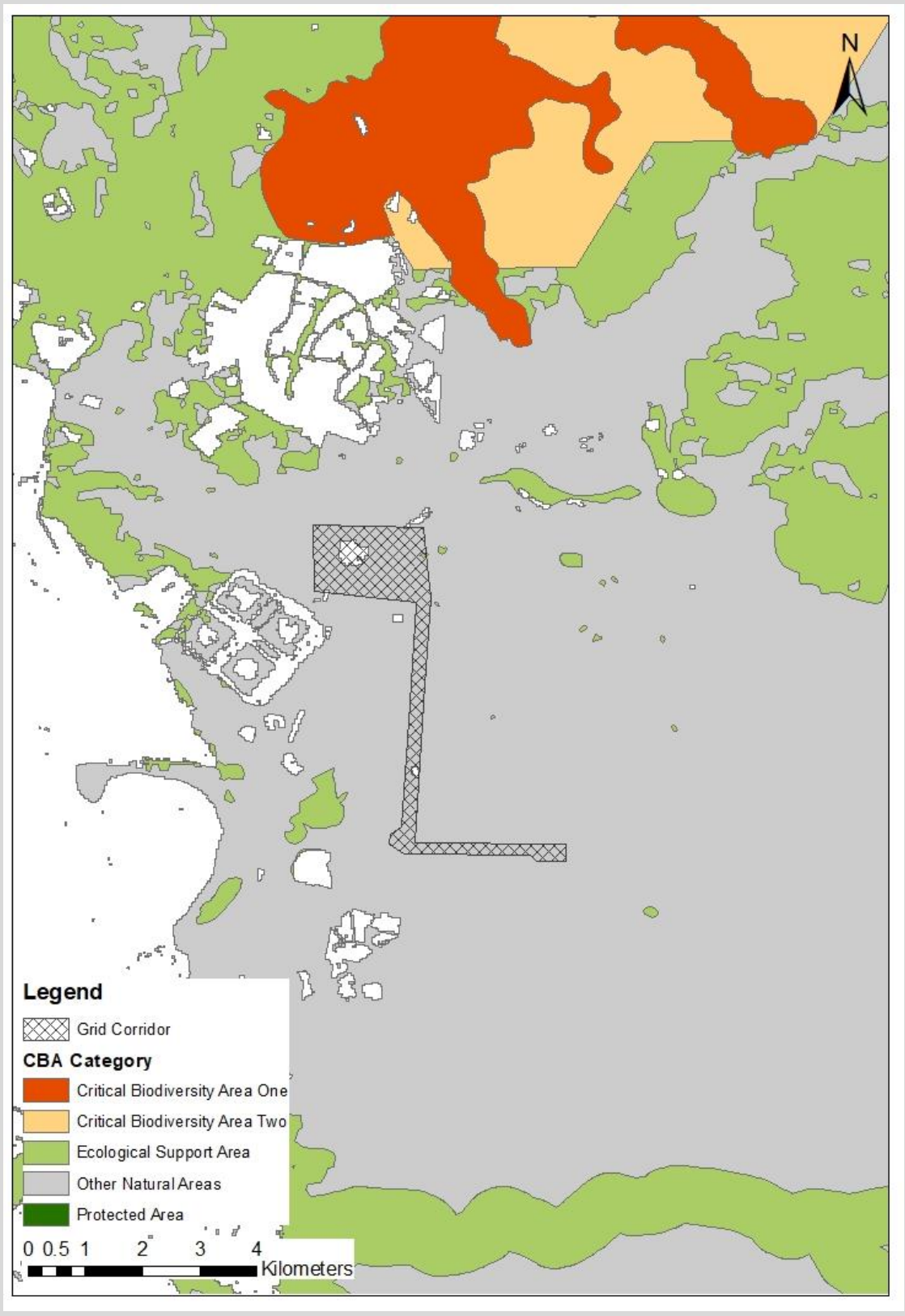

Figure 9: Map image showing Northern Cape CBA data (Biodiversity Africa, 2024).

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:	~~YES~~	✓NO
	~~Uncertain~~	

A heritage impact assessment was undertaken as part of this Basic Assessment Process. This assessment was undertaken by Dr Jayson Orton of ASHA Consulting and is attached in Appendix D2

Dr Orton found that no significant heritage impacts are expected to be impacted by the proposed Mogobe EGI.

He furthermore confirmed that the development is in keeping with the surrounding land uses which already include many powerlines and that there are no areas requiring avoidance for heritage reasons.

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

The Heritage Specialist described the following Heritage Resources associated with the proposed Mogobe EGI.

Palaeontology

The SAHRIS Palaeosensitivity Map shows the site to be of largely moderate palaeontological sensitivity but with an area of high sensitivity in the north at the Ferrum Substation.

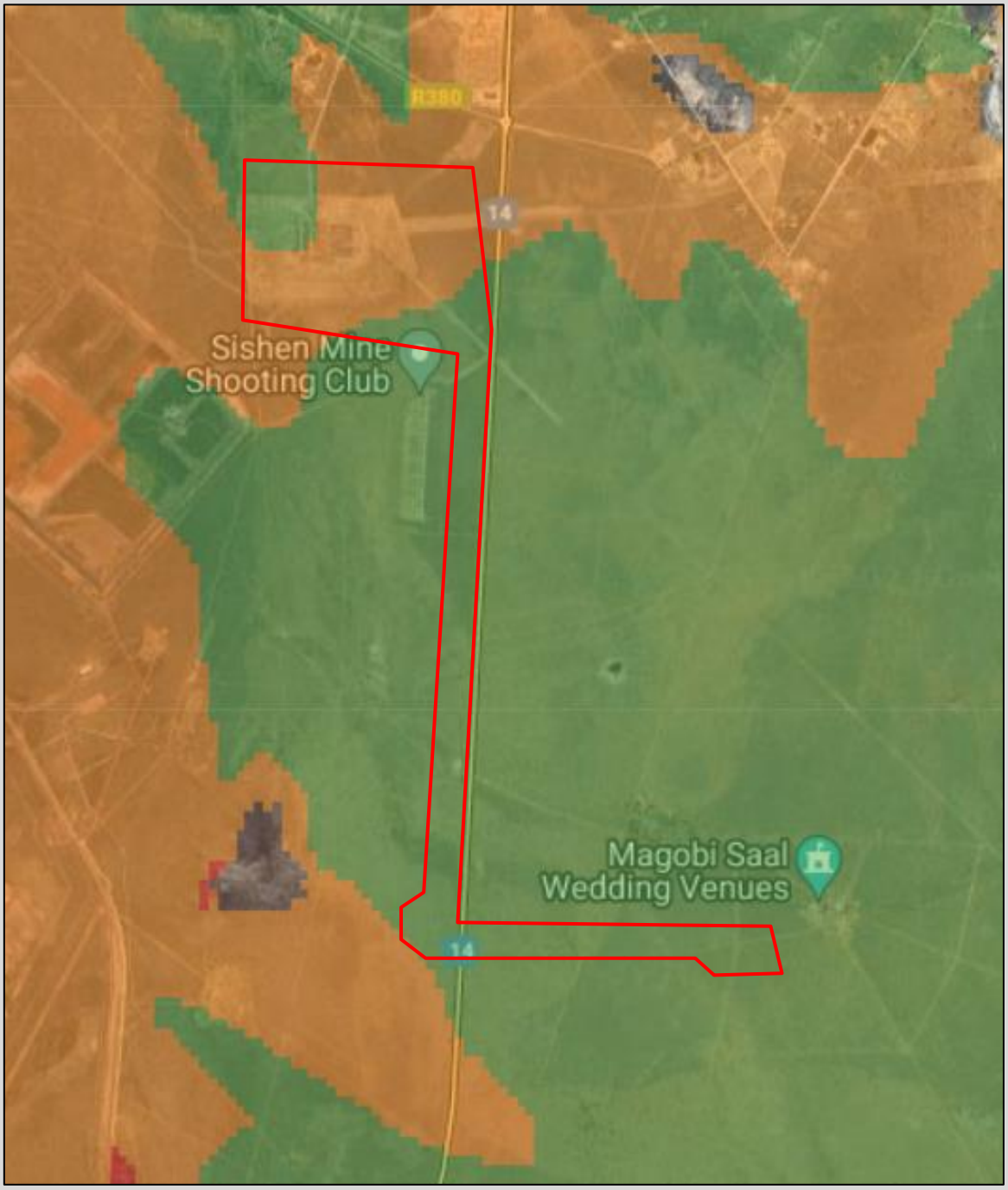

Figure 10: *Extract from the SAHRIS Palaeosensitivity Map showing the site to be of medium (green shading) and high (orange shading) sensitivity.*

Archaeology

As part of the desktop study, the Archaeology specialist identified a number of recorded archaeological occurrences to the North of the Mogobe EGI.

Figure 11: *Aerial view of the Kathu area showing the locations of previously recorded archaeological occurrences (Orton, 2024).*

The specialist did however confirm that no archaeological sites were found in the Mogobe EGI corridor. Very ephemeral background scatters of stone artefacts were seen in the central part of the corridor but these were found to have no cultural significance.

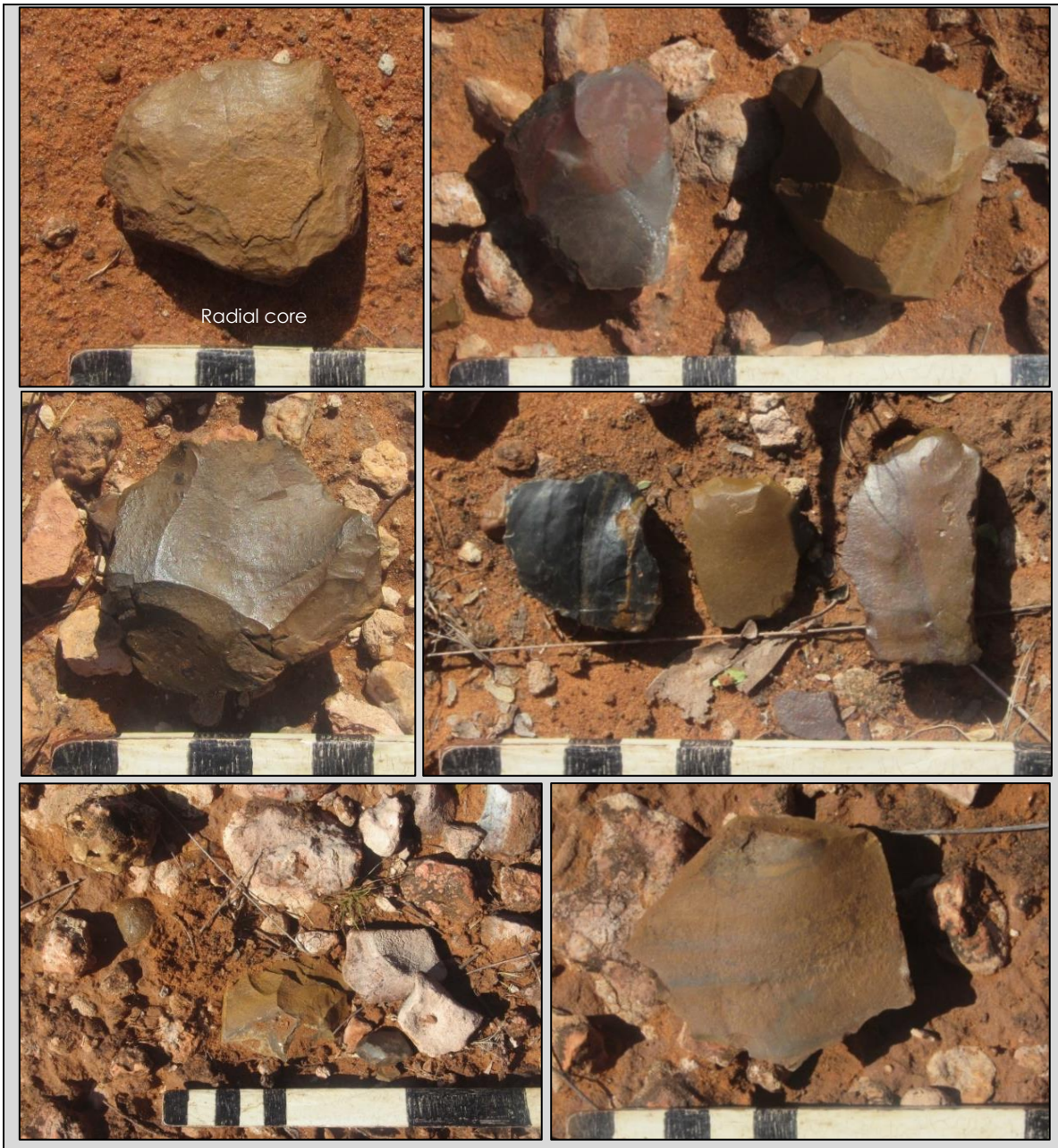

Figure 12: Stone artefacts found in the central section of the powerline corridor (Orton, 2024).

Graves

Historical and recent graves have been reported from a few places around Kathu while one cluster of stones on the sandy bank of the Vlermuisleegte to the north of Kathu was suspected by Orton to potentially be a grave. It is possible that Stone Age or even Iron Age graves could be found in the area but the chances are small.

No graves or possible graves were noted by the specialist in the study area.

Historical aspects and the Built environment

Aerial photographs from 1957 show no mining and no development of any sort in the current town area. The historical maps in the figure below show the massive development related to mining activities between the early 1970s and 2001. The Ferrum Substation was already present in 2001.

Figure 13: *Comparative 1972/4 and 2001 topographic maps showing the massive amount of modern development in the area.*

The specialist confirmed that no historical resources of any sort were found along the corridor.

Cultural landscapes and scenic routes

The specialist confirmed that the archaeological resources are deemed to have very low cultural significance at the local level for their scientific value and can be graded GPC.

The cultural landscape is a combination of a natural landscape (largely to the east of the N14) and a mining/industrial landscape (largely to the west of the N14). The natural components of the landscape have aesthetic value but, due to the modern industrial development in the area, the overall landscape was rated as being of low cultural significance.

Will any building or structure older than 60 years be affected in any way?	~~YES~~	✓NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?[6]	~~YES~~	✓NO

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

According to the Integrated Development Plan for the Gamagara Local Municipality for 2017-2022, the unemployment rate in the municipality was 17.7% in 2011, with youth unemployment at 22.4%. The report also states that despite retrenchments at Sishen Mine and Khumani, the population continued to grow, increasing the demand for housing and services. .

Economic profile of local municipality:

According to the IDP, The economic profile of the Gamagara Local Municipality is characterised by the following key sectors and features.

- **Mining:** The area is renowned for its iron ore and manganese deposits, with mines operated by companies like Anglo American and Assmang.
- **Agriculture**: The region is suitable for livestock farming and limited crop production, with a focus on sheep and goat farming.
- **Small-scale industries**: -

The municipal area does have High unemployment rates, with a significant proportion of the population relying on social grants.

The economy is heavily reliant on mining, making it vulnerable to fluctuations in global commodity prices.

Level of education:

According to the Integrated Development Plan (IDP) for the Gamagara Local Municipality (2017-2022), the education levels in the municipality are as follows:

[6] In terms of section 38(8) of the NHRA, Sahra will provide comment in terms of this BA process. The application will be lodged on the SAHRIS system in parallel to the submission of the Draft BAR.

No formal education	12.1%
Grade 1-7	23.4%
Grade 8-11	26.5%
Grade 12	21.1%
Higher education (Diploma/Degree)	10.4%

These figures indicate that a significant portion of the population has some form of education, but there is still a need to improve access to quality education, particularly at the higher education level. The IDP aims to address this through various education-related initiatives and strategies.

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R50 000 000	
What is the expected yearly income that will be generated by or as a result of the activity?	R0	
Will the activity contribute to service infrastructure?	✓YES	~~NO~~
Is the activity a public amenity?	~~YES~~	✓NO
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	12 Full time employees	
What is the expected value of the employment opportunities during the development and construction phase?	R4 000 000	
What percentage of this will accrue to previously disadvantaged individuals?	60%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	1	
What is the expected current value of the employment opportunities during the first 10 years?	R4 000 000	
What percentage of this will accrue to previously disadvantaged individuals?	60%	

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
~~Critical Biodiversity Area (CBA)~~	✓Ecological Support Area (ESA)	✓Other Natural Area (ONA)	~~No Natural Area Remaining (NNR)~~	Please refer to appendix A which shows the proposed access road in relation to the Critical Biodiversity areas. The Northern Cape Critical Biodiversity Area (CBA) map for the region indicates that the vast majority of the Mogobe EGI is situated in an .area designated as "other natural area". As very small Ecological support area is situated in the Northern section of the proposed grid corridor, but this will not be impacted upon by the proposed infrastructure. Please also see the map in Figure 7 above.

b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	0%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	80%	The project area occurs within the Savanna Biome. The Savanna Biome of South Africa and Swaziland constitutes the southernmost extent of the most widespread biome in Africa. SANBI (2021) has subdivided the Savanna Biome into eight (8) ecosystem groups, including Kalahari Duneveld, Kalahari Bushveld, Central Plains Bushveld, Mopane Bushveld, Arid Lowveld Bushveld, Moist Sour Lowveld Bushveld, Subescarpment Savanna and Inland Aquatic Ecosystems. Within each ecosystem group is a number of different vegetation types. The project area falls within the Kalahari Bushveld ecosystem group. The Kalahari Bushveld is characterised by open tree savanna and palatable (sweet) grasses which support animal production throughout the year. The distribution, structure and species composition of this ecosystem group and its associated vegetation types is determined by a complex set of environmental factors, also termed 'ecological drivers', including climate (rainfall and temperature), soils, grazing and browsing, and fire. The specialist has noted that the natural vegetation is not in a pristine condition and has been impacted upon by the various land use activities.

Degraded (includes areas heavily invaded by alien plants)	10%	There are sections of the proposed Mogobe EGI corridor near the ferrum substation that have been previously transformed and covered with secondary vegetation.
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	10%	Portions of the Mogobe EGI can be described as "transformed". Existing roadways and fences associated with the operations of the farm have served to alter bio physical states along the proposed EGI. Portions of the corridor are also transformed by the construction of the Ferrum MTS.

c) Complete the table to indicate:

(i) the type of vegetation, including its ecosystem status, present on the site; and

(ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		**Aquatic Ecosystems**						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	~~Critical~~ ~~Endangered~~ ~~Vulnerable~~ ✓Least Threatened	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
		~~YES~~	✓NO	~~UNSURE~~	~~YES~~	✓NO	~~YES~~	✓NO

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

Please refer to the Ecological Impact Assessment Report attached in Appendix D1 for further details of the ecosystems present on site.

According to the National Vegetation Map (2018), the project infrastructure occurs within Kathu Bushveld as per the figure below.

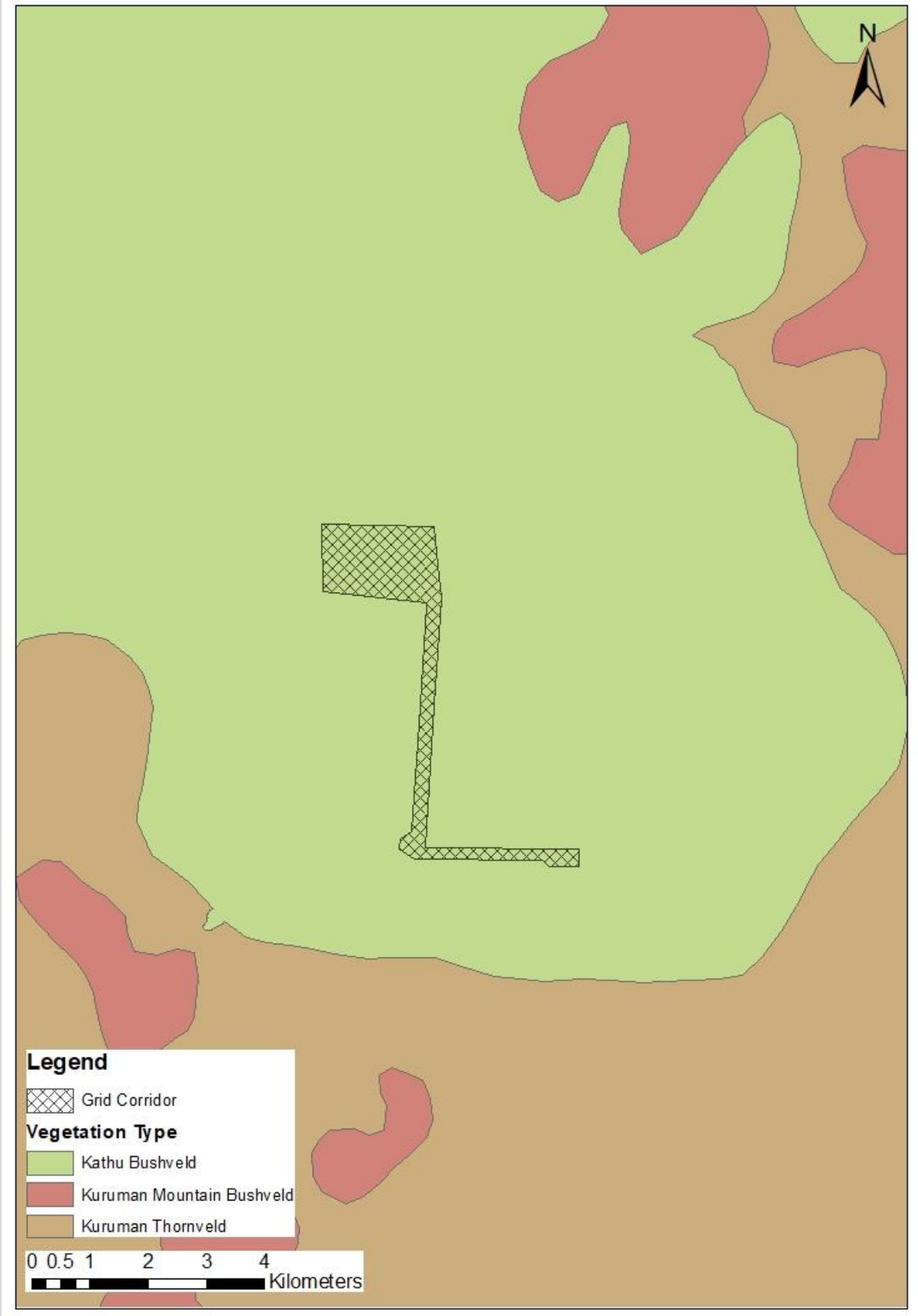

Figure 14: National Vegetation Map for the Proposed Mogobe EGI (Biodiversity Africa, 2024).

Kathu Bushveld occurs in the Northern Cape Province and is characterised as having a medium-tall tree layer, a shrub layer and a variable grass layer. *Vachellia erioloba* is present within this vegetation type in places and the shrub layer is typically dominated by species such as *Vachellia mellifera*, *Diospyros lycoides and Lycium hirsutum*.

The Karoo Bushveld vegetation type is listed as Least Concern with 98% of the remaining extent intact. The conservation target for this vegetation type is 16% and none is statutorily conserved.

Within this broad vegetation unit, the Terrestrial Biodiversity Specialist identified three distinct plant communities as follows:

- **Tarchonanthus Veld**. This community was dominated by *Tarchonanthus camphoratus*, *Grewia flava, Zizuphus mucronata subsp. mucronata, Gymnosporia buxifolia, Senegalia mellifera* and *Lycium hirsutum*. There was an understory of grasses comprised of *Aristida* and *Eragrostis* species
- **Vachellia erioloba Thornveld**. This community is dominated by an open canopy of tree species dominated by *Vachellia erioloba* and an understorey of grasses dominated by the genera *Aristida* and *Eragrostis*. Trees in these areas typically have a high density and are between 2 and 4m in height.
- **Secondary Vegetation**. This community is associated with areas under existing powerlines and around the substation and were previously cleared but have regenerated. The vegetation that has returned is secondary in nature and representative of degraded Tarchonanthus Veld with an open canopy dominated by ruderal grasses and some shrubs.

The site ecological importance of Tarconanthus veld and Vachelia Erioloba thornveld was found to be low, and the Site Ecological Importance of the secondary vegetation was found to be very low.

Figure 15: Habitat units along the Mogobe EGI (Biodiversity Africa, 2024).

Vegetation impacted by linear infrastructure is likely to return to a functional state within two years of completion of construction activities. However, given the dry nature of the environment, it is likely to take five to ten years for the species composition to return >70% of the original species.

The Terrestrial Biodiversity specialist determined the following Site Ecological Importance to be applicable to each of the 3 identified habitat types.

Table 4: Sensitivity assessment for each vegetation type within the project area.

Habitat Type	Conservation Importance	Functional Integrity	Biodiversity Importance	Receptor Resilience	Site Ecological Importance
Kathu Bushveld: Vachellia erioloba Thornveld	Low	Medium	Low	Medium	**Low**
Kathu Bushveld: Tarchonanthus Veld	Low	Medium	Low	Medium	**Low**
Secondary Vegetation	Low	Medium	Low	High	**Very Low**

This Site Ecological Importance is depicted spatially in the figure below.

Figure 16: Site Ecological Importance of the Mogobe EGI (Biodiversity Africa, 2024).

The Terrestrial Biodiversity Specialist identified the following Species of Conservation concern that occur or are likely to occur on site.

Table 5: Species of Conservation Concern that could occur within the project area.

Species	Conservation Status	Likelihood of Occurrence
Vachellia erioloba	Least Concern, Protected Tree Species	**Confirmed**
Boophone disticha	LC, Protected Species on the Northern Cape Nature Conservation Act	**High** Confirmed by previous study to occur within the PAOI.
Vachellia haematoxylon	Least Concern, Protected Tree Species	**Medium** Confirmed by previous study to occur within the PAOI but no individuals recorded within the project area.
Antimima lawsonii	Rare	**Medium** Associated with limestone soils in Ghaap Plateau Vaalbosveld and only known from three locations.
Asparagus stipulaceus	NT	**Low** This species does not occur in the area and is listed as a result of outdated historical records for the area.
Gnaphalium declinatum	NT	**Low** This species does not occur in the area and is listed as a result of outdated historical records for the area.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	The Kathu Gazette – Kathu Gazette is a local newspaper reaching approximately 88200 readers in an area stretching from Kuruman to Postmasburg.	
Date published	14 June 2024.	
Site notice position	**Latitude**	**Longitude**
	27°45'56.08"S	23° 4'7.33"E

	27°43'47.10"S	23° 4'13.13"E
Date placed	16 May 2024	

Figure 17: Site Notices placed along the N14.

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 733.

Considering the extensive engagement that has taken place with I&APs over the years regarding the PV Projects / BESS and Grid connection on the property (as well as those on the adjacent properties, it is safe to assume that members of the public and stakeholders have had ample opportunity to provide comments associated with this proposed development as a whole. The extent of comments has decreased over time with each additional report where comment has been requested and this can be attributed to stakeholder fatigue. However, all registered I&APs from the previous environmental process on this property and adjacent properties will be given the opportunity to comment on this current environmental process for the Mogobe EGI.

The public participation will be undertaken in compliance with the EIA regulations.

Section 40(2) in Chapter 6 of regulation 982 requires that the public participation process contemplated in this regulation must provide access to all information that reasonably has or may have the potential to influence any

decision with regard to an application unless access to that information is protected by law and must include consultation with—

(a) the competent authority;

(b) every State department that administers a law relating to a matter affecting the environment relevant to an application for an environmental authorisation;

(c) all organs of state which have jurisdiction in respect of the activity to which the application relates; and

(d) all potential, or, where relevant, registered interested and affected parties.

In order to comply with this requirement, the proposal is to provide all parties, listed in subsections a, b and c above, with full digital copies of the Draft Basic Assessment Report (DBAR), Draft Environmental Management Programme and all specialist studies and plans. Such digital copies will be provided to the competent authority, organs of state and state departments by means of website and other direct download portals. Where such parties do not have access to such internet portals, digital copies of documentation will be provided by courier service.

In terms of point d above, all Interested & Affected Parties (I&APs) that are identified or register as part of the process will be provided access to the Draft BAR via the following:

1. The digital copy of the documentation that will be on the Cape EAPrac website as well as a direct download link (dropbox and sharepoint).
2. I&APs that do not have access to digital platforms will be provided with physical copies of the report. Such copies will be provided by courier or postal service.
3. Potential and registered I&APs will be informed that copies of the documentation can be provided via postal or courier services.

Section 41 in Chapter 6 of regulation 982 details the public participation process that has to take place as part of an environmental process. The table below lists these requirements along with the proposed actions in order to comply with both section 41 in regulation 982 as well as well as section 5.1 and annexure 2 of regulation 660.

Regulated Requirement	**Proposed Actions**
(1) If the proponent is not the owner or person in control of the land on which the activity is to be undertaken, the proponent must, before applying for an environmental authorisation in respect of such activity, obtain the written consent of the landowner or person in control of the land to undertake such activity on that land. (2) Subregulation (1) does not apply in respect of-. (a) linear activities;	A landowner consent for the non-linear components development has been obtained in terms of this requirement.

The person conducting a public participation process must take into account any relevant guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of an application or proposed application which is subjected to public participation by -	
(a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of - (i) the site where the activity to which the application or proposed application relates is or is to be undertaken; and (ii) any alternative site;	A site notice has been placed at the boundary of the property along the N14.
(b) giving written notice, in any of the manners provided for in section 47D of the Act, to -	
(i) the occupiers of the site and, if the proponent or applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	There are no tenants on the affected portions, other than the landowner who has provided consent for the development.
(ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	Owners of adjacent properties will be notified of this environmental process and will be provided with digital copies of the documents via postal or courier services (where available), if they do not have access to online platforms. Such owners have been requested to inform the occupiers of the land of this environmental process and the process to obtain copies of the relevant reports.
(iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;	The ward councillor will be notified of this environmental process and will be provided with a digital copy of the documentation via postal or courier services.
(iv) the municipality which has jurisdiction in the area;	The Gamagara local Municipality (Planning and Technical Services) will be notified of this environmental process and will be provided with digital copies of all documentation via postal or courier service if they do not have access to the various digital download platforms.
(v) any organ of state having jurisdiction in respect of any aspect of the activity; and	All organs of state that have jurisdiction in respect of the activity will be notified of this environmental process and will be provided with digital copies of all documentation via postal or courier service (where available), if they do not have access to the digital download platforms.
(vi) any other party as required by the competent authority;	DENC will be given an opportunity to comment on the Draft BAR and EMPr. Should they identify additional parties that need to provide comment, copies of the documentation and opportunity to comment will be provided to such parties.
(c) placing an advertisement in -	An advert calling for registration of I&APs will be placed in Kathu Gazette local newspaper.

(i) one local newspaper; or (ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;	There is currently no official Gazette that has been published specifically for the purpose of providing public notice of applications.
(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official Gazette referred to in paragraph (c)(ii);and	Adverts will not be placed in provincial or national newspapers, as the potential impacts will not extend beyond the borders of the municipal area.
(e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desirous of but unable to participate in the process due to - (i) illiteracy; (ii) disability; or (iii) any other disadvantage.	Notifications will include provision for alternative engagement in the event of illiteracy, disability or any other disadvantage. In such instances, Cape EAPrac will engage with such individuals in such a manner as agreed on with the competent authority.
(3) A notice, notice board or advertisement referred to in subregulation (2) must - (a) give details of the application or proposed application which is subjected to public participation; and (b) state - (i) whether basic assessment or S&EIR procedures are being applied to the application; (ii) the nature and location of the activity to which the application relates; (iii) where further information on the application or proposed application can be obtained; and (iv) the manner in which and the person to whom representations in respect of the application or proposed application may be made.	All notification and adverts will comply with this requirement.
(4) A notice board referred to in subregulation (2) must - (a) be of a size at least 60cm by 42cm; and (b) display the required information in lettering and in a format as may be determined by the competent authority.	The notice board which has been placed on the site boundary does comply with this requirement.
(5) Where public participation is conducted in terms of this regulation for an application or proposed application, subregulation (2)(a), (b), (c) and (d) need not be complied with again during the additional public participation process contemplated	This will be complied with if final reports are produced later in the environmental process.

in regulations 19(1)(b) or 23(1)(b) or the public participation process contemplated in regulation 21(2)(d), on condition that - (a) such process has been preceded by a public participation process which included compliance with subregulation (2)(a), (b), (c) and (d); and (b) written notice is given to registered interested and affected parties regarding where the - (i) revised basic assessment report or, EMPr or closure plan, as contemplated in regulation 19(1)(b); (ii) revised environmental impact report or EMPr as contemplated in regulation 23(1)(b);or (iii) environmental impact report and EMPr as contemplated in regulation 21(2)(d); may be obtained, the manner in which and the person to whom representations on these reports or plans may be made and the date on which such representations are due.	
(6) When complying with this regulation, the person conducting the public participation process must ensure that - (a) information containing all relevant facts in respect of the application or proposed application is made available to potential interested and affected parties; and (b) participation by potential or registered interested and affected parties is facilitated in such a manner that all potential or registered interested and affected parties are provided with a reasonable opportunity to comment on the application or proposed application. (7) Where an environmental authorisation is required in terms of these Regulations and an authorisation, permit or licence is required in terms of a specific environmental management Act, the public participation process contemplated in this Chapter may be combined with any public participation processes prescribed in terms of a specific environmental management Act, on condition that all relevant authorities agree to such combination of processes.	All reports that are submitted to the competent authority will be subject to a public participation process. These include: - Draft BAR - Draft EMPr - All specialist reports that form part of this environmental process.

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 733[7]

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Birdlife Africa	NGO. Automatically registered	See attached I&AP Register
Gamagara Local Municipality	Local Authority. Automatically registered	See attached I&AP Register
Department of Agriculture,	National Department. Automatically registered	See attached I&AP Register
Department of Water Affairs	National Department. Automatically registered	See attached I&AP Register
Square Kilometre Array / SARAO	Implementing Agent for National Authority. Automatically registered	See attached I&AP Register
Department of Environment and Nature Conservation	Provincial Authority. Automatically registered	See attached I&AP Register
Eskom	State Owned Enterprise. Automatically registered	See attached I&AP Register
Sentech	Implementing Agent for National Authority. Automatically registered	See attached I&AP Register
Department of Communications	National Department. Automatically registered	See attached I&AP Register
Department of Roads and Public Works	Provincial Authority. Automatically registered	See attached I&AP Register
Department of Energy	National Authority. Automatically registered	See attached I&AP Register
Department of Rural Development and Land Reform	National Authority. Automatically registered	See attached I&AP Register
SAHRA	Implementing Agency. Automatically registered	See attached I&AP Register
Transnet	State Owned Enterprise. Automatically registered	See attached I&AP Register
SANRAL	State Owned Agency. Automatically registered	See attached I&AP Register

[7] Due to the requirements in terms of the Protection of Personal Information Act, the contact details of the Key Stakeholders are not included in this report.

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

Proof of correspondence with stakeholders will be included in Appendices E1 – E6 of the Final Basic Assessment Report, on completion of the public participation process.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
Issues raised by I&AP's will be included in the Final Basic Assessment Report, on completion of the public participation process.	Responses to issues raised by I&AP's will be included in the Final Basic Assessment Report, on completion of the public participation process.

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

A comments and responses report will be included in Appendix E3 of the Final Basic Assessment Report, on completion of the public participation process.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

First Name	Surname	Company/ Organisation	Position/Interest
Thulisile	Nyalunga	National Department of Forestry, Fisheries and the Environment: Integrated Environmental Authorisations	Competent Authority for the Mogobe PV/BESS. Commenting Authority in Respect of this Application

First Name	Surname	Company/ Organisation	Position/Interest
Muhammad	Essop	National Department of Forestry, Fisheries and the Environment: Integrated Environmental Authorisations	Competent Authority for the Mogobe PV / BESS. Commenting Authority in Respect of this Application
Seoka	Lekota	National Department of Environment, Forestry and Fisheries: Biodiversity	Commenting National Authority
A	Yaphi	Provincial Department of Environment and Nature Conservation: Northern Cape	Provincial Environmental Authority
M	Mathews	Provincial Department of Environment and Nature Conservation: Northern Cape	Provincial Environmental Authority
Samantha	De la Fontaine	Provincial Department of Environment and Nature Conservation: Northern Cape	Provincial Environmental Authority (District Ecologist (Candidate Scientist)
Elsabe	Swart	Provincial Department of Environment and Nature Conservation: Northern Cape	Provincial Environmental Authority Deputy Director: Research & Development Support
Mashudu	Randwedzi	Department of Water Affairs	National Authority
Melinda	Mei	Department of Water Affairs	National Authority
Shaun	Cloete	Department of Water Affairs	National Authority
Chantèl	Schwartz	Department of Water Affairs	National Authority
Mandla	Ndzilili	Ministry of Environment and Nature Conservation	Provincial Authority
Sibonelo	Mbanjwa	Provincial Department of Environment and Nature Conservation: Northern Cape	Provincial Authority
Luzane	Tools-Bernado	Provincial Department of Environment and Nature Conservation: Northern Cape	Provincial Authority
Mashudu	Marubini	Department of Agriculture, Land Reform and Rural Development - Delegate of the Minister (Act 70 of 1970)	Delegate of the Minister (Act 70 of 1970)
Thoko	Buthelezi	Department of Agriculture, Land Reform and Rural Development - AgriLand Liaison office	National Authority
D	Nhlakad	Department of Agriculture, Land Reform and Rural Development - AgriLand Liaison office	National Authority

First Name	Surname	Company/ Organisation	Position/Interest
Anneliza	Collett	Department of Agriculture, Land Reform and Rural Development - AgriLand Liaison office	National Authority
Jacoline	Mans	Department of Agriculture, Land Reform and Rural Development - Chief Forester: NFA Regulation	National Authority
Ali	Diteme	Agriculture, Land Reform & Rural Development	National Authority
Pieter	Buys	National Energy Regulator of South Africa (NERSA)	Regulatory Agency
IA	Bulane	Department of Public Works, Roads and Transport	Provincial Authority
Denver	Van Heerden	Department of Public Works, Roads and Transport	Provincial Authority
Rene	de kock	South African Roads Agency Limited (SANRAL) Northern Cape (Western Region)	National Authority
Nicole	Abrahams	South African Roads Agency Limited (Western Region)	National Authority
M	Lepheane	Department of Labour	National Authority
A	Botes	Department of Social Development	National Authority
Riaan	Warie	Northern Cape Economic Development Agency	National Authority
Andrew	Timothy	Directorate Heritage, Department - Sports, Arts and Culture	National Authority
Lizell	Stroh	South African Civilian Aviation Authority	Regulatory Agency
John	Geeringh	ESKOM	Commenting authority
Kevin	Leask	ESKOM	Commenting authority
The Director		Department of Energy Northern Cape	Provincial Authority
Natasha	Higget	SAHRA	Regulatory Agency
Kgauta	Mokoena	Department of Mineral Resources	National Department
Elliot	Sibeko	Department of Telecommunication & Postal Services	National Department
Raoul	Van den Berg	Southern African Large Telescope (SALT) Sutherland	SALT Project Manager

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

Proof of notifications to all organs of state and state departments will be included in Appendix E4 of the Final Basic Assessment Report on completion of the Public Participation Process.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014 and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

The full assessment of Impacts in terms of Regulation 19(3) of GN 733 is included in **Appendix F** of this Draft Basic Assessment Report. The Impact Summary is included in the table below.

Table 6: Summary of Status and Significance of Impacts Associated with the Mogobe EGI and mitigation measures.[8]

Nature of Impact	Status	Significance after Mitigation	Mitigation Measures.
Impact on Plant Species of Conservation Concern.	Negative	Low	- Construction vehicles and machinery must not encroach into identified 'no-go' areas or areas outside the project footprint. - Topsoil (20 cm, where possible) must be collected and stored in an area of low (preferable) and medium sensitivity and used to rehabilitate impacted areas that are no longer required during the operational phase (e.g. laydown areas). - Only indigenous species must be used for rehabilitation. - Where possible, lay down areas must be located within previously disturbed sites. - Laydown areas that are not required once construction has ceased, must be rehabilitated back to their natural state using indigenous vegetation.

[8] This must be read in conjunction with the complete impact assessment tables contained in Appendix f as well as the Environmental Impact Management Outcomes and Actions outlined in the EMPR's in Appendices G1 and G2.

Nature of Impact	Status	Significance after Mitigation	Mitigation Measures.
			- Employees must be prohibited from making open fires during the construction phase to prevent uncontrolled run-away fires. - Employees must be prohibited from collecting plants. It is recommended that spot checks of pockets and bags are done on a regular basis to ensure that no unlawful harvesting of plant species is occurring. - The site must be checked regularly for the presence of alien invasive species. When alien invasive species are found, immediate action must be taken to remove them. - An Alien Invasive Management Plan for the site must be created. - The ECO must create a list with accompanying photographs of possible alien invasive species that could occur on site prior to construction. This photo guide must be used to determine if any alien invasive species are present. - Although there are no SCC present within the project area, there are protected species that will require a permits for their removal. An ecological walkthrough of the project area was completed for the area at the same time that the field survey was completed. The Ecological Walkthrough report identified two species (Boophone disticha and Vachellia erioloba) that will require permit for their removal and/or destruction. Comment on the number of individuals that will be impacted has been provided in the report. - Boophone disticha is a species that can be successfully transplanted. This species should be moved to areas within the property that will not be affected by project infrastructure. - Where feasible, existing access roads must be used and upgraded
Impact on Animal Species of Conservation Concern	Negative	Low	- The development must consolidate road networks to minimise the loss of faunal habitat. - A walk through to determine the unlikely, but potential occurrence of secretary bird nests must take place prior to commencement of construction. Any nests found may not be disturbed by construction activities. - All construction and construction related activities (including parking of vehicles and machinery) must remain within the approved project footprint. - No construction and construction related activities are permitted within identified 'no-go' areas and a fine system must be put in place

Nature of Impact	Status	Significance after Mitigation	Mitigation Measures.
			for transgressions by the developer and included in contractual agreements with all staff and contractors. - Microhabitats (e.g. rock stacks and logs) in the clearing footprint must be relocated to the same habitat immediately adjacent to the removal site. E.g. Rock stacks should be restacked. - Rehabilitation efforts must provide habitat for faunal species by placing logs and rocks at strategic sites to provide shelter for small mammals and reptiles. - A clause must be included in contracts for ALL construction personnel working on site stating that: "no wild animals will be hunted, killed, poisoned or captured. No wild animals will be imported into, exported from or transported in or through the province. - The ECO should appoint a member of staff to walk ahead of construction machinery directly prior to vegetation clearance. Should any faunal species be identified during the walk through, these should be allowed to move out of harm's way prior to vegetation clearance. - Dust suppression measures must be implemented in the dry and/or windy months. - All machinery, vehicles and earth moving equipment must be maintained and the noise these create must meet industry minimum standards. e.g. the sound generated by a machine must be below a certain decibel as prescribed in the relevant noise control regulations. - No construction night lighting must be allowed. If required, minimise lighting in open space areas within development and any external lights must be down lights placed as low as possible and installation of low UV emitting lights, such as most LEDs. - Development must be designed to allow unencumbered movement, especially of small faunal species. e.g. - Speed restrictions must be implemented on all vehicles within the development footprint (40km/h is recommended) to reduced faunal mortalities on the project roads. - No night driving should be permitted, if unavoidable, this must be restricted, and speed limits adhered to. - Any faunal species that may die as a result of construction must be recorded (i.e. be

Nature of Impact	Status	Significance after Mitigation	Mitigation Measures.
			photographed, GPS co-ordinates taken) and the records uploaded to iNaturalist. - A trained snake handler must be onsite during construction to remove any snakes within construction areas. - A clause relating to fines, possible dismissal and legal prosecution must be included in all contracts for ALL personnel (i.e. including contractors) working on site should any speeding or persecution of animals occur. - All decommissioning related activities (including parking of vehicles and machinery) must remain within the approved project footprint. - No decommissioning related activities are permitted within identified 'no-go' areas and a fine system must be put in place for transgressions by the developer and included in contractual agreements with all staff and contractors.
Combined Impact on Terrestrial Biodiversity	Negative	Low	Implement the mitigation measures identified for plant and animal species outlined above.
Impact on pan systems due to hydrological changes.	Negative	Low	Any stormwater within the site must be handled in a suitable manner with no discharge being allowed near or into any of the observed systems
Increase in sedimentation and erosion within the development footprint	Negative	Low	Any stormwater within the site must be handled in a suitable manner to capture large volumes of run-off, trap sediments and reduce flow velocities.
Potential water quality impacts[9]	Negative	Low	All liquid chemicals including fuels and oil, must be stored in with secondary containment (bunds or containers or berms) that can contain a leak or spill. Such facilities must be inspected routinely and must have the suitable PPE and spill kits needed to contain likely worst-case scenario leak or spill in that facility, safely. Washing and cleaning of equipment must be done in designated wash bays, where rinse water is contained in evaporation/sedimentation ponds (to capture oils, grease cement and sediment). Mechanical plant and bowsers must not be refuelled or serviced within 100m of a river channel.

[9] The propose alignment has been developed to avoid the identified wetland depression features as well as their buffers.

Nature of Impact	Status	Significance after Mitigation	Mitigation Measures.
			All construction camps, lay down areas, wash bays, batching plants or areas and any stores should be more than 50 m from any demarcated water courses.. Littering and contamination associated with construction activity must be avoided through effective construction camp management; No stockpiling should take place within or near a water course All stockpiles must be protected and located in flat areas where run-off will be minimised and sediment recoverable;
Construction Phase Archaeological Impacts associated with the damage to or destruction of archaeological sites.	Negative	Low	Report any chance finds of dense accumulations of stone artefacts.
Heritage Impacts associated with the alteration of and intrusion into the cultural landscape	Negative	Low	Ensure that all construction areas are suitably rehabilitated.
Short-term landscape change from the current rural/ mining sense of place due to the OHPL construction.	Negative	Medium - Low	- Wind blown dust mitigation. - Dust mitigation for moving vehicles. - 50m setback from N14 Highway for the placement of monopoles at the road crossing and the routing located outside of the 70m (centreline) buffer). - Should the two Eskom 132kV OHPLs not be constructed, the same 50m buffer from the road reserve should be followed.
Permanent landscape change from the current rural agricultural and mining sense of place to the semi-industrial Energy landscape	Negative	Low	None
Impact on Agricultural Resources	Negative	Low	There are no additional mitigation measures required, over and above what has already been included in the Generic Environmental Management Programme (EMPr) For The Development And Expansion For Overhead Electricity Transmission And Distribution Infrastructure and the Generic Environmental Management Programme (EMPr) For Substation Infrastructure For The Transmission And Distribution Of Electricity, as per Government Notice 435, which was published in Government Gazette 42323 on 22 March 2019.

A complete impact assessment in terms of Regulation 19(3) of GN 733 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative C (preferred alternative)

As can be seen in the summary table above, the overall negative impacts associated with the proposed Mogobe EGI range from medium-low to low , with cumulative impacts ranging from medium to negligible.

Due to the generally low environmental impact and ease of mitigation as well as the benefits of being able to access all six PV sites via a single access road, it is Cape EAPrac's reasoned opinion that the Mogobe EGI (Alternative C – Preferred) be considered for Authorisation subject to the outcome of the public participation process, compliance with all other legislation and the strict implementation of the EMPR's for Substation and Powerline Infrastructure attached in Appendices G1 and G2.

Alternative B

None

Alternative A

None

No-go alternative (compulsory)

The no go alternative would mean that the Authorised Mogobe BESS (A preferred Bidder under the Department of Energy's BESIPPPP) would not be able to evacuate much needed energy into the National Grid. In addition, the benefits of energy storage and grid stability as well as the significant socio-economic benefits of the Mogobe BESS (a Nationally Strategic Project) would be lost should the no go alternative be considered.

The no go alternative is thus not deemed reasonable, nor feasible but has been used as a baseline against which impacts were assessed.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	✓YES	~~NO~~

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

- Full implementation of the mitigation measures identified by all participating specialists (as summarised in Table 6 Above)
- Full implementation of the EMPr for Powerline Infrastructure attached in Appendix G1.
- Full implementation of the EMPr for Substation Infrastructure attached in Appendix G1.
- Compliance with all other regulatory requirements.

Is an EMPr attached?	✓YES	~~NO~~

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

Dale Warren Holder – EAPASA Reg#: 2019/301

NAME OF EAP

13 June 2023

SIGNATURE OF EAP DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information