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Department: Environment & Nature Conservation NORTHERN CAPE PROVINCE REPUBLIC OF SOUTH AFRICA

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	(For official use only)
File Reference Number:	
Application Number:	
Date Received:	

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:

- 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.
- This report format is current as of 08 December 2014. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
- 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.
- Where applicable tick the boxes that are applicable in the report.
- An incomplete report may be returned to the applicant for revision.
- 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.
- This report must be handed in at offices of the relevant competent authority as determined by each authority.
- No faxed or e-mailed reports will be accepted.
- The signature of the EAP on the report must be an original signature.
- The report must be compiled by an independent environmental assessment practitioner.
- 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.
- A competent authority may require that for specified types of activities in defined situations only parts
 of this report need to be completed.
- 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	f interest"	for the specialist
appointed and attach in Appendix I.		•

ACTIVITY DESCRIPTION

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

The proposed development of a 55m high telecommunications mast on Remainder of Farm Elandsheuwel No. 146, Hanover, Northern Cape

The proposed development of a 55m high telecommunications mast and associated infrastructure located on Remainder of Farm Elandsheuwel No. 146, Hanover.

The total development footprint of the base station is approximately 100m² to erect a 55m high lattice mast with antennas situated on the top of the proposed structure. The mast's base station will be enclosed with a steel palisade fence. Electricity to power the mast will be sourced from an existing Eskom line.

A new 3m wide gravel access road will be constructed from the existing gravel road to gain access to the proposed site. Approximately 460m of the access road is an existing two-track path used occasionally by the land-owner. A new track of approximately 115m will need to be constructed from the two-track access road to the site.

A new overhead line of approximately 420m will be constructed from the Eskom line to the site.

The site co-ordinates are 31° 15' 19.72"S, 24° 45' 04.19"E.



Figure 1: Google Earth image showing the location of the proposed site (red placemark) and the surrounding areas. The proposed access road is indicated by the yellow line, and the proposed overhead electricity line is indicated by the green line.

Government Notice R324 (Listing Notice 3):

Activity No. 3: The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast or tower—

- (a) is to be placed on a site not previously used for this purpose; and
- (b) will exceed 15 metres in height-

but excluding attachments to existing buildings and masts on rooftops.

g. Northern Cape

i. In an estuary;

ii. Outside urban areas:

- (aa) A protected area identified in terms of NEMPAA, excluding conservancies;
- (bb) National Protected Area Expansion Strategy Focus areas;
- (cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority:
- (dd) Sites or areas identified in terms of an international convention;
- (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;
- (ff) Core areas in biosphere reserves;
- (gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve; or (hh) Areas seawards of the development setback line or within 1 kilometre from
- the high-water mark of the sea if no such development setback line is determined; or
- iii. Inside urban areas:
 - (aa) Areas zoned for use as public open space; or
 - (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose.

Activity No. 12: The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.

g. Northern Cape

- Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;
- ii. Within critical biodiversity areas identified in bioregional plans;
- iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuary, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas.
- iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.

Site Description

The proposed site is a greenfield site located on the top of a small koppie adjacent to the N10. The site is very rocky with grass cover, and very few trees, shrubs or other plants on site.

The site co-ordinates are 31° 15′ 19.72″S, 24° 45′ 04.19″E. Please refer to **Appendix A** for the locality map, **Appendix B** for photographs of the proposed site and **Appendix C** for the site plans.



Figure 2: Google Earth Street View from the N10 showing the approximate location of the telecommunications mast.



Figure 3: General view of the mast site

Civil and Electrical Services

Electricity will be sourced from an existing Eskom line. A 420m overhead line will be constructed from the existing Eskom line to the site.

The Proposed development of a telecommunication mast will not produce waste or use water during its operational phase.

<u>Access</u>

Access to the site will be gained via an existing gravel track. However, a 3m wide, approximately 125m long, access road, will need to be constructed from the existing gravel road to the site.

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
GN R. 324 – Item 3 : The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast or tower—	The proposed development of a 55m high telecommunications mast and base station on Remainder of Farm Elandsheuwel No. 146, Hanover, Northern Cape.
(a) is to be placed on a site not previously used for this purpose; and	The proposed site is located outside the urban area and is located within an area identified as a CBA.
(b) will exceed 15 metres in height—	
but excluding attachments to existing buildings and masts on rooftops.	
g. Northern Cape	
i. In an estuary;	
ii. Outside urban areas:	
(aa) A protected area identified in terms of NEMPAA, excluding conservancies;	
(bb) National Protected Area Expansion Strategy Focus areas;	
(cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;	
(dd) Sites or areas identified in terms of an international convention;	
(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;	
(ff) Core areas in biosphere reserves;	
(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve; or	

(hh) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined; or

iii. Inside urban areas:

- (aa) Areas zoned for use as public open space; or
- (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose.

GN R. 324 – Item 12: The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.

The construction of the access road and the development footprint is expected to exceed 300m².

The site is located inside a CBA.

g. Northern Cape

- Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;
- ii. Within critical biodiversity areas identified in bioregional plans;
- iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuary, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas.
- iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.

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

The current site is the only location considered. It is strategically placed due to its elevation, coverage needed and thus the coverage it can provide.

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The proposed development of a 55m high telecommunications lattice mast on Remainder of Farm Elandsheuwel No. 146, Hanover, Northern Cape	31º 15' 19.72"S,	24° 45' 04.19"E
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 S1 (preferred)		
Starting point of the activity		
Middle/Additional point of the activity		
End point of the activity		
Alternative S2 (if any)		
Starting point of the activity		
Middle/Additional point of the activity		
End point of the activity		
Alternative S3 (if any)		
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) Design or Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The proposed development of a 55m high telecommunications lattice mast on Remainder of Farm Elandsheuwel No. 146, Hanover, Northern Cape	31º 15' 19.72"S,	24° 45' 04.19"E
<u>Lattice Mast – (Preferred design)</u>		
A lattice mast is the preferred design for the applicant, as it can hold more equipment than a monopole mast but is less expensive than a monopole mast to achieve the heights (55m) required to provide sufficient coverage		
In summary:		
A lattice mast was considered the preferred alternative option for the following reasons:		
 It will be able to hold more equipment if required by other service providers. Achieve the required height of 55m. 		
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Various design alternatives were considered besides the preferred design of a lattice mast, including a monopole mast and a tree mast design. However, a height of 55m was required by the service providers to provide sufficient coverage, therefore limiting the design to only a lattice mast. A monopole and tree mast designs cannot be viably constructed to those heights and are therefore not viable and were not assessed.		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

c) Technology alternatives

No technology alternatives were considered.

Alternative 1 (preferred alternative)		
Alternative 2		

Alternative 3	

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives) No other alternatives were considered.

Alternative 1 (preferred alternative)		
Alternative 2		
Alternative 3		

e) No-go alternative

This is the option of not installing the proposed mast, and its associated infrastructure. Although this option would result in no potential negative environmental impacts, the social benefits from implementing the activity would not be achieved. A more efficient telecommunications service, considered as essential for the business sector and private/social communication, as well as rural safety, would therefore not be achieved. The proposed activity is not expected to have any significant negative environmental impacts; therefore, there are no environmental benefits from not implementing the activity.

Paragraphs 3 – 13 below should be completed for each alternative.

- 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)	Approximately 100m ²
Alternative A2 (if any)	
Alternative A3 (if any)	

or, for linear activities:

Alternative:	Length of the activity:
Alternative A1 (preferred activity alternative)	m
Alternative A2 (if any)	m
Alternative A3 (if any)	m

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

Alternative:	Size of the site/servitude:
Alternative A1 (preferred activity alternative)	m ²
Alternative A2 (if any)	m ²
Alternative A3 (if any)	m ²

SITE ACCESS

Does ready access to the site exist?	YES	NO
f NO, what is the distance over which a new access road will be built	Approxir	mately 125m

Describe the type of access road planned:

A 3m wide gravel road, approximately 125m long, will need to be constructed to provide access to the site from the existing gravel roads on the farm

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.

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;
- indication of all the alternatives identified;
- closest town(s;)
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- · a legend; and
- 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).

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.

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.

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.

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.

ACTIVITY MOTIVATION

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

 Is the activity permitted in terms of the property's existing land use rights? 	YES	NO	Please explain	
The property is zoned Agricultural. A consent-use application will be submitted once an Environmental Authorization has been issued.				
Will the activity be in line with the following?				
(a) Provincial Spatial Development YES NO Please explain				

The proposed activity is not considered to cause a negative impact on the Provincial Spatial Development Framework ("PSDF") of the Northern Cape Province. However, a consent use application will be lodged. This application is for the construction of a telecommunications mast, which is considered as part of the essential services for the greater community.

(b)	Urban edge / Edge of Built environment for the area	YES	Ю	Please explain	
The proposed site is located outside the urban edge (built-up area).					
(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 pro	The proposed development is not considered to have a negative impact on Umsobomvu Local				

The proposed development is not considered to have a negative impact on Umsobomvu Local Municipality IDP 2017-2022. According to the IDP 2017-2022, the Noupoort area has a high investment potential for infrastructure development, including communications.

This application is for the construction of a telecommunications mast, which is considered as part of the essential services for the greater community. A consent-use application will be submitted once an Environmental Authorization has been issued.

(d) Approved Structure Plan of the Municipality Unknown	YES	NO	Please explain		
(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?)					
No Environmental Management Framework (EMF)	dentifie	d.			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain		
None identified					
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)? VES NO					

The proposed development of a 25m high telecommunications mast will have no impact on the Municipality's IDP or SDF. A consent-use application will be submitted once an Environmental Authorization has been issued.

Due to the availability of cellular communication, and the data capabilities provided by the proposed telecommunication mast, it is considered to form part of the necessary communication service infrastructure of the greater community.

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
The benefits of telecommunications services in n proposed activity will increase the coverage of the providing a more reliable and wider coverage.				
The social benefits are considered to greatly outweight from the proposed activity. The activity would create considered as essential to the business and telecommunications mast is therefore considered as community.	a mor privat	e efficient to e sector.	elecommunicatio The construction	ns service, on of the
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	I NO I		Please explain
The proposed activity will only require minimal amorequire water, solid waste removal, storm water or se				
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
The proposed development is unlikely to have a negative impact on the municipality's infrastructure planning. A consent-use application will be submitted once an Environmental Authorization has been issued.				
Is this project part of a national programme to address an issue of national concern or importance?		YES	NO	Please explain
N/A				

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 site has been identified as an ideal location for the proposed project as it will provide the necessary coverage required.						
Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain			
The best practicable environmental option for the s potential benefits would be considered minimal. Due location of the site, any potential negative environmental socio-economic benefits of the activity to the commenvironmental benefits of not implementing the activity	to the nature of the ntal impacts are extunity are consider	ne activity, and the pected to be neg	ne size and ligible. The			
Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES	NO	Please explain			
The social benefits are considered to greatly outweigh from the activity. The activity would create a more eff as essential to the business and private sector. No sexpected by the proposed development; therefore, the negative impacts of it. The implementation of the improve the positive impacts during its operational plant.	icient telecommun significant negative the benefits of the EMPr will manag	ications service, e environmental i e development wi	considered mpacts are Il outweigh			
Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain			
The proposed activity is not expected to set a precedure more and more for data transfer and not only voice business, education and for the public/private user, and economic development. The proposed telecompute socio-economics of the surrounding area as it with faster internet coverage and affordable cellular rates	calls. Such data of and have thus be nunication mast w Il also provide cell	capabilities are in ecome paramour ill have a positive ular users with th	mportant in at for social at impact on			
Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO	Please explain			
The rights of residents, local farmers, the community etc. are not expected to be negatively impacted as the proposed activity is expected to have positive social impact on the community and surrounding areas, and travellers along the N10.						
Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain			
The activity is not expected to compromise the urban edge. The site is located outside the urban edge.						

а	Vill the proposed activity/ies contribute to ny of the 17 Strategic Integrated Projects SIPS)?	YES	NO	Please explain
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The project may contribute to SIP 15 - Expanding access to communication technology:

"Provide for broadband coverage to all households by 2020 by establishing core Points of Presence (POPs) in district municipalities, extend new Infraco fibre networks across provinces linking districts, establish POPs and fibre connectivity at local level, and further penetrate the network into deep rural areas. While the private sector will invest in ICT infrastructure for urban and corporate networks, government will co-invest for township and rural access, as well as for e-government, school and health connectivity".

What will the benefits be to society in general and to the local communities?

Please explain

The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. Cellular communication is used more and more for data transfer and not only voice calls. Such data capabilities are important in business, education and for the public/private user, and have thus become paramount for social and economic development. The proposed telecommunication mast will have a positive impact on the socioeconomics of the surrounding area as it will also provide cellular users with the option of faster internet coverage and affordable cellular rates, better coverage for travelers along the N10 and for better rural security.

Any other need and desirability considerations related to the proposed activity?

Please explain

N/A

How does the project fit into the National Development Plan for 2030?

Please explain

The NDP indicate that South Africa needs to maintain and expand its telecommunications infrastructure in order to support economic growth and social development goals. It is therefore imperative that local municipalities explore the option of developing more telecommunications infrastructure within their municipal boundaries in order to achieve the telecommunication ideals as captured in the NDP.

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

The general objectives of Integrated Environmental Management have been taken into account through the following:

- The actual and potential impacts of the activity on the environment, socio-economic conditions and cultural heritage have been identified, predicted and evaluated, as well as the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impact, maximizing benefits and promoting compliance with the principles of environmental management please refer to Section D below.
- The effects of the activity on the environment have been considered before actions taken in connection with them.
- Adequate and appropriate opportunity for public participation was ensured through the public participation process – please refer to Section C and Appendix E for the public participation information, including the list of identified Interested and Affected parties, as well as the methods for identifying and informing I&APs of the application and proposed activity.
- The environmental attributes have been considered in the management and decision-

making of the activity – an EMPr has been included (Appendix G) with the proposed activity and must adhere to the requirements of all applicable state Authorities.

Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.

The principles of environmental management as set out in section 2 of NEMA have been taken into account. The principles pertinent to this activity include:

- People and their needs have been placed at the forefront while serving their physical, psychological, developmental, cultural and social interests the proposed activity will have a significant beneficial impact on people, as it will provide much needed economic opportunities.
- Development must be socially, environmentally and economically sustainable. Where disturbance of ecosystems, loss of biodiversity, pollution and degradation, and landscapes and sites that constitute the nation's cultural heritage cannot be avoided, are minimised and remedied.
- Where waste cannot be avoided, it is minimised and remedied through the implementation and adherence of EMPr.
- The use of non-renewable natural resources is responsible and equitable no exploitation of non-renewable natural resources occurs with the proposed activity.
- The negative impacts on the environment and on people's environmental rights have been anticipated and prevented, and where they cannot be prevented, are minimised and remedied refer to Section D below.
- The interests, needs and values of all interested and affected parties have been taken into account in any decisions through the Public Participation Process please refer to Section C and Appendix E for the public participation information.
- The social, economic and environmental impacts of the activity have been considered, assessed and evaluated, including the disadvantages and benefits refer to Section B below.

The effects of decisions on all aspects of the environment and all people in the environment have been taken into account, by pursuing what is considered the best practicable environmental option – the proposed activity is expected to have minimal/negligible environmental impacts, especially after mitigation measures as described under Section D, Section E, and in the EMPr are implemented.

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, 1998 (Act 107 of 1998) ("NEMA")	Environmental Authorisation	Department of Environment and Nature Conservation ("DENC").	This EIA application for environmental authorisation.
National Heritage Resources Act, Act 25 of 1999	Commenting Authority	South African Heritage Resources Agency	Not yet
Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA)	Consent-use	Local Municipality	Not yet

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?	Unknow	n m³

Minimal amount of building rubble will be generated due to construction activities.

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

The general solid waste generated during construction will be consolidated on site during construction, and disposed of at the nearest approved municipal landfill site.

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

The general solid waste generated during construction will be consolidated on site during construction and disposed of at the nearest approved municipal landfill site.

Will the activity produce solid waste during its operational phase?	YES	NO
If YES, what estimated quantity will be produced per month?		m^3
How will the solid waste be disposed of (describe)?		
N/A		
If the solid waste will be disposed of into a municipal waste stream, indicate which is site will be used.	egistered	l landfill
N/A		
Where will the solid waste be disposed of if it does not feed into a municipal waste str	eam (des	cribe)?
N/A		
If the solid waste (construction or operational phases) will not be disposed of in a regis or be taken up in a municipal waste stream, then the applicant should consult wit authority to determine whether it is necessary to change to an application for scoping	h the cor	
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 scop application for a waste permit in terms of the NEM:WA must also be submitted with the	•	
N/A, the activity will not produce waste.		

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?		m^3
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	NO

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

N/A		
11/7		

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions	YES	NO
and dust associated with construction phase activities?		
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	t is neces	ssary to
change to an application for scoping and EIA.		·
If NO, describe the emissions in terms of type and concentration:		

d) Waste permit

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

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:		

The proposed communications mast is not expected to produce any noise or odours during the operational phase. Some noise can be expected during the construction phase, but this will be temporary and is expected to be negligible.

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		ivity will e water	
_								
	If water is to be extracted from groundwater, river, stream, dam, lake or any other N/A							
	natural feature, please indicate the volume that will be extracted per month:							
	Does the activity require a water use authorisation (general authorisation or water YES NO							
	use license) from the Department of Water Affairs?							
	If YES, please pro	ovide proof that th	e application has	been submitted to	the Department	of Water	Affairs.	

ENERGY EFFICIENCY

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

All equipment is ISO 14001 compliant.

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

N/A - All equipment is ISO 14001 compliant.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

• 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):	

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

 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 it	nterest" f	or each
specialist thus appointed and attach it in Appendix I. All specialist reports must	be conta	ined in
Appendix D.		

Property	Province	Northern Cape			
		•			
description/physical	District	Pixley ka Seme district municipality			
address:	Municipality				
	Local	Umsobomvu Local Municipality			
	Municipality				
	Ward Number(s)	Ward 1			
	Farm name and number	Remainder of Farm Elandsheuwel No. 146, Hanover			
	Portion number				
	SG Code	C0300000000014600000			
	Where a large nur	nber of properties are involved (e.g. linear activities)			
	please attach a full	ist to this application including the same information as			
	indicated above.	11 3			
Current land-use zoni local municipality IDP	·	cultural			
In instances where there is more than one current la zoning, please attach a list of current land use zoning also indicate which portions each use pertains to, application.					
Is a change of land-use	or a consent use ap	olication required?			
A consent-use application will be submitted to the local municipality upon receipt of an environmental decision.					

GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

	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
A	Iternative S2	(if any):					_
	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
A	Alternative S3 (if any):						
	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

LOCATION IN LANDSCAPE

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

2.1 Ridgeline	Х	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	X	2.9 Seafront	
2.10 At sea					

GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

	Alternative S1:		Α	lterna	tive S2	Alterna	tive S3
			(if	any):	i i	(if any):	
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.

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.

According to the SANBi BGIS Vegetation Map (2018), the site is covered in Eastern Upper Karoo, which is classified as Least Concern

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.

There are no watercourses on the site or within 32m of the proposed site. There is farm dam identified as an artificial wetland on the NFEPA maps approximately 510m north-west of the proposed site. No other watercourses were identified on the NFEPA map (Please see figure 4 below).

A small, non-distinct ephemeral stream, not identified on the NFEPA overlays, is located to the east of the site. The proposed development is not expected to impact on this watercourse.



Figure 4: SANBI BGIS NFEPA MAP: The proposed site (red dot) is not located within 32m of any watercourse according to the NFEPA Map.

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 ^A	Church	Agriculture
Retail commercial &	Old aga homa	Diver streem or wetland
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:

N/A		
. 4,7 (

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:

```
N/A
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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:

```
N/A
```

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

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A. Please refer to Appendices A1 and A2.

The proposed site is not located within a Critical Biodiversity Area (CBA). The site, however, is located within a degraded terrestrial Ecological Support Area ("ESA"). The site is totally transformed due to past development activities. There is no natural vegetation on site.

CULTURAL/HISTORICAL FEATURES

findings of the HIA:

Are there any signs of culturally or historically significant elements, as defined in	YES	NO
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:	Unce	ertain
A Heritage Impact Assessment (HIA) (Appendix D1) was conducted. The fo	llowing are	the key

- Four weathered hornfels flakes of mixed age were noted in a small clearing to the southeast
 of the mast footprint. Three other isolated artefacts were seen along the ridge to the
 southeast.
- The remains of a small, ruined stone structure, probably a kraal, was found at the base of the ridge in the powerline servitude. Many of its stones have been removed and no associated artefactual material was found.
- No rock engravings were found.

According to the Heritage Impact Assessment, the heritage resources have been graded as having low (GPC) significance. No significant archaeological impacts are expected from the proposed development.

The overall impact significance of the proposed project on heritage resources is therefore assessed as LOW.

The Heritage Impact Assessment (**Appendix D1**) concluded that the construction of the proposed telecommunications mast, including construction of a 420m long new powerline, and 120m long access road, is not likely to impact on important archaeological heritage. The few isolated tools recorded most likely represent discarded flakes. A ruined kraal in the powerline servitude will not be impacted.

Therefore, there are no objections to the proposed project proceeding.

The following impact mitigation measures are made.

- 1. No archaeological mitigation is required.
- 2. The Environmental Control Officer (ECO) must be briefed in the event of any archaeological resources being uncovered or disturbed during construction activities.

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:

A Heritage Impact Assessment (Appendix D1), was conducted.

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)?	YES	NO

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

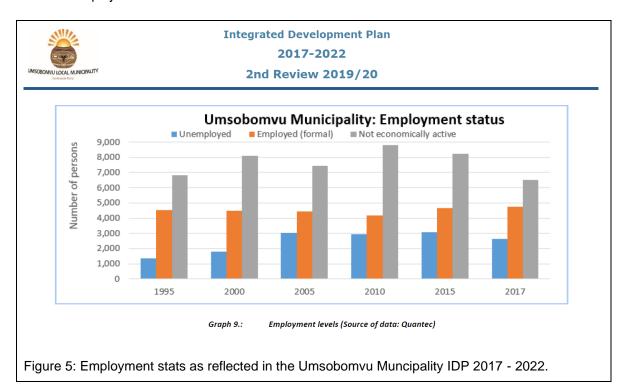
A copy of the Basic Assessment Report ("BAR") will be provided to the South African Heritage Resources Agency ("SAHRA") to provide comment.

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:

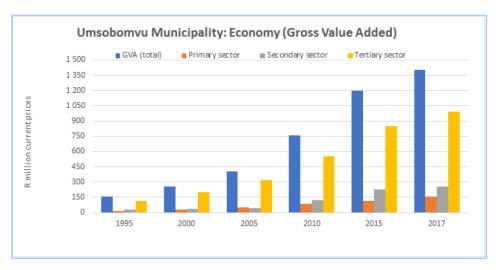


Economic profile of local municipality:



Integrated Development Plan 2017-2022





Graph 8.: State of the economy (Source of data: Quantec)

Figure 6: Umsobomvu Muncipality IDP 2017 – 2022 showing the state of the economy.

The table below provides a summary of the municipality's GDP in 5-year increments from 1995.5

Industry	Sector	1995	2000	2005	2010	2015	%change (2000 to 2015)	2016	2017	%change (2016 to 2017)
Agriculture, forestry and fishing	Primary	13	26	46	84	115	342%	127	154	21%
Mining (and quarrying)	Primary	0.2	0.1	0.3	0.6	1.2	782%	1.4	1.6	11%
Manufacturing	Secondary	3	5	8	10	11	120%	11	10	-6%
Electricity, gas and water	Secondary	18	19	18	65	136	616%	149	150	1%
Construction	Secondary	6	8	13	47	82	925%	85	91	7%
Wholesale and retail trade, catering and accommodation	Tertiary	25	42	66	126	180	329%	196	208	6%
Transport, storage and communication	Tertiary	23	32	57	78	133	316%	137	142	3%
Finance, insurance, real estate and business services	Tertiary	20	32	58	119	180	463%	187	208	11%
General government	Tertiary	30	57	82	172	275	382%	299	336	12%
Community, social and personal services	Tertiary	19	35	58	55	86	146%	90	101	11%

Table 34: GD

GDP of the municipality

Figure 7: Umsobomvu Muncipality IDP 2017 – 2022 showing the GDP of the municipality.

Level of education:

Indicator	2001	2011	2017	%change (2011 to 2017)		
No schooling	4 433	4 142	4 300	3.8%		
Matric	2 243	3 694	4 239	14.8%		
Higher education (certificate with Grade 12 or better)	831	1 006	1 149	14.2%		
Source of data: Quantec						

Table 30: Education Levels

Figure 8: Umsobomvu Muncipality IDP 2017 – 2022 showing the education levels of the municipality.

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	±R 750	000.00
What is the expected yearly income that will be generated by or as a result of	Unkr	own
the activity?		
Will the activity contribute to service infrastructure?	YES	OH
Is the activity a public amenity?	YES	OH
How many new employment opportunities will be created in the development	1	0
and construction phase of the activity/ies?		
What is the expected value of the employment opportunities during the	±R 120 000.00	
development and construction phase?		
What percentage of this will accrue to previously disadvantaged individuals?	Undete	rmined
How many permanent new employment opportunities will be created during the	No	ne
operational phase of the activity?		
What is the expected current value of the employment opportunities during the	Unkr	iown
first 10 years?		
What percentage of this will accrue to previously disadvantaged individuals?	No	ne

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			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)	According to the SANBI BGIS website, the proposed site is located within a Critical Biodiversity Area ("CBA").

According to the SANBI BGIS website, the proposed site is located within a Critical Biodiversity Area (CBA). The site, however, is located within Eastern Upper Karoo vegetation type, which is neither Critically Endangered or Endangered, but classified as "Least Threatened".



Figure 9: SANBI BGIS Critical Biodiversity Areas Map. The proposed site (red dot) is located within an CBA.

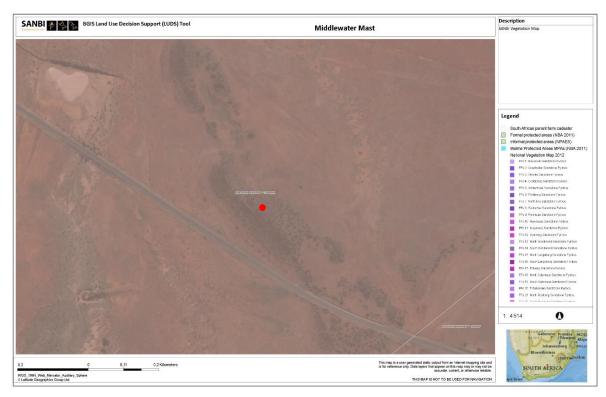


Figure 10: SANBI BGIS National Vegetation Map 2012 beta2. The proposed site is located within an area that would be covered with Eastern Upper Karoo (Least Threatened).

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	100 %	The site general natural, with very little to no disturbance. The site is located on top of a koppie, which is very rocky with mostly dominated by grass cover, and very little other vegetation.
		The proposed track to the mast is also mostly undisturbed, and covered in grass.
Near Natural (includes areas with low to moderate level of alien invasive plants)	%	
Degraded (includes areas heavily invaded by alien plants)	%	
Transformed	%	

(includes cultivation,	
dams, urban,	
plantation, roads, etc)	

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 Ecos	Aquatic Ecosystems							
Ecosystem threat	Critical	Wetland (including rivers,						
status as per the	Endangered	depressions, channelled and						
National	Vulnerable	unchanneled wetlands, flats,			Estuary		Coas	tline
Environmental		seeps pans, and artificial						
Management:	Least	wetlands)						
Biodiversity Act (Act	Threatened	YES NO UNSURE			YES	NO	YES	NO
No. 10 of 2004)		120	110	ONOONE	120	NO	120	IVO

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)

According to the National Vegetation map 2012 beta2 of South Africa, the site would historically be covered by Eastern Upper Karoo (*least threatened*). The site is on top of a koppie, which is relatively rocky and mostly dominated by grass, with very little other vegetation.

This includes the proposed route of the access road, which is mostly grass cover.

SECTION C: PUBLIC PARTICIPATION

ADVERTISEMENT AND NOTICE

Publication name	De Aar Echo	
Date published	31 January 2020	
Site notice position	Latitude	Longitude
	See Appendix E	See Appendix E
Date placed	30 January 2020	

Include proof of the placement of the relevant advertisements and notices in Appendix E1 and Appendix E2.

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.

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

Title, Name and Surname	Affiliation/ status	key	stakeholder	Contact details (tel number or e-mail address)

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E5. 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.

ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
Please refer to Appendix E	

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**.

AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Department of Agriculture, Forestry & Fisheries	Ms. J. Mans	054 338 5909	054 334 0030		P.O. Box 2782, Upington, 8800
Northern Cape Department: Agriculture, Land Reform and Rural Development	Wonders Mothibi	(053) 838 9100		synthiafortune@ncpg.gov.za	Private Bag X5018 Kimberley, 8300
Department of Water and Sanitation - Northern Cape	Vhonani Ramugondo	053 836 7600	053 334 0205	ramugondov@dws.gov.za	Private Bag X6101, Kimberley, 8301
South African Civil Aviation Authority	L. Stroh	(011) 545 1232		StrohL@caa.co.za	
Department of Roads and Public Works	K. Nogwili	027 712 1601	027 712 3421		7 Rivier Street, Springbok, 8240
SAHRA	Ms. N. Higgitt	021 462 4502	021 462 4509		P.O. Box 4637, Cape Town, 8000
SANRAL	Nicole Abrahams	021 957 4602		AbrahamsN@nra.co.za	
Umsobomvu Municipality (Municipal Manager)	A. Mpela	(051) 753 0777	(051) 753 1918	mpela@umsobomvumun.co.za	Private Bag X6, Colesberg, 9795
Pixley Ka Seme District Municipality	Ms. H. Greef			received written netification of	Private Bag X1012, De Aar, 7000

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

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

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.

 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.

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1	(preferred alternative)		
	Direct impacts:		
	Loss of Vegetation: Clearance of vegetation for the construction of the access road and base station	Low -Negative	 All invasive alien plant species encountered on the property should be removed responsibly and follow-up work must be done during the construction period. Clearance of vegetation to be limited to the development footprint and required work area as per the EMP and in consultation with the ECO prior to vegetation removal. Areas to be cleared to be appropriately demarcated. The flat-rock area identified to the north-east of the site, adjacent to the access road, to be used as a laydown area and for stockpiling of equipment, material etc. (see Figure 11 below)
	Noise impact: Noise from machinery on the property and neighbouring properties during construction	Low-Negative	The following measures should be implemented amongst others: The Contractor shall endeavour to keep noise generating activities to a minimum. Construction only to take place during normal working hours.

I		- Compliance with the
		 Compliance with the appropriate legislation with respect to noise shall be mandatory.
Visual Impact: Unsightly views due to construction site.	Medium – Low Negative	Visual impact mitigation measures will be dealt with in the EMPr The EMPr must be enforced and monitored by the ECO.
		 The Contractor shall restrict all his activities, materials, equipment and personnel to within the area specified. Construction material must be stored in areas designated by the site agent and in a neat and orderly manner and must not damage natural vegetation. The Contractor must ensure that all structures, equipment, materials and facilities used or created on site for or during construction activities are removed once the project has been completed. The construction site must be cleared and cleaned to the satisfaction of the ECO. Immediately after the demolition of the camp site, the contractor shall restore the site to its original state, paying particular attention to its appearance relative to the general landscape.
The loss of cultural or historic	Low	If any archaeological remains
aspects during construction: Due to the site location and nature of the activity, the activity is not expected to have any impacts on heritage, cultural-historical aspects.		(including but not limited to fossil bones and fossil shells, coins, indigenous and/or colonial ceramics, any articles of value or antiquity, stone artefacts and bone remains, structures and other built features, rock art and rock engravings) are discovered during construction and operational phase they must immediately be reported to SAHRA and must not be disturbed further until the necessary approval has been obtained from SAHRA. Should any human remains/burial or archaeological material be disturbed, exposed or uncovered during

	I		construction those should
			construction, these should immediately be reported to the South African Heritage Resources Agency. The ECO and Engineer are also to be informed. The Environmental Control Officer (ECO) must be briefed in the event of any archaeological resources being uncovered or disturbed during construction activities The above recommendations must be included in the Environmental Management Plan (EMP) for the proposed project.
	Indirect impacts:	Low-Positive	NI
	Socio-economic impact Temporary jobs will be created in the construction industry during the construction phase. The proposed activity will increase the coverage of telecommunications services, including providing a more reliable and wider coverage. The proposed mast will have a positive impact on the socio-economics of the surrounding area as it will provide communication users with the option of faster internet coverage, cheaper cellular rates and available, stable coverage which could be critical in the case of an emergency.	Low-i ositive	 No mitigation measures are required. Temporary jobs will be created during the construction phase.
	Cumulative impacts:		
Alternative 2	<u>.</u>		
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
Alternative 3			
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts:		
<u> </u>	I		<u> </u>

	Indirect impacts:		
	Cumulative impacts:		
No-go option	1	ı	,
	Direct impacts: No development of the proposed mast and its associated infrastructure is undertaken.	Low-negative	N/A
	Indirect impacts:		
	Cumulative impacts:		

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

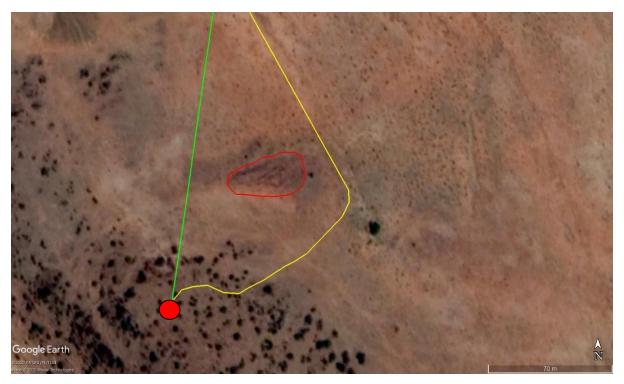


Figure 11: Google Earth image showing the location of the "flat-rock" area to be used for stockpiling (red polygon) in relation to the site and access road. The proposed site is indicated by the red dot, the access road is indicated by the yellow line, and the proposed overhead electricity line is indicated by the green line.

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 <u>after</u> 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 A (preferred alternative)

The following is a summary of the potential impacts, and their ratings after mitigation, and probability of occurrence:

Construction phase.

Loss of vegetation - Low (Negative), definite, only during construction phase

Noise impact - Low (Negative), definite, only during construction phase

Visual impact - Low (Negative), definite, during construction

Loss of cultural or historic aspects - Low, Unlikely

Socio-economic (Job creation) - Low (Positive), definite

Operational Phase

Noise impact – The activity is not expected to have noise impacts during the operational phase

Visual impacts - Medium (Negative), definite, during operational phase

Loss of cultural or historic aspects —The activity is not expected to have any impact on cultural or heritage aspects on the site.

Socio-economic - Increased coverage of telecommunications services and its associated benefits - Medium (Positive)

Decommissioning

The project as proposed does not require 'decommissioning' or 'closure', as such the potential impacts thereof is considered irrelevant.

Alternative B

Alternative C

No-go alternative (compulsory)

No development of the proposed telecommunications mast and its associated infrastructure will be undertaken - **Low-Negative**, **probable**

SECTION E: RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the sufficient to make a decision in respect of the a the environmental assessment practitioner)?		YES	NO
If "NO", indicate the aspects that should be assessed a decision can be made (list the aspects that require		EIA proce	ess before
N/A			
If "YES", please list any recommended condition considered for inclusion in any authorisation that no fithe application.			
Compliance with the Environmental Manageme Environmental Control Officer during the constr	. , ,	ointment c	of an
ls an EMPr attached?		YES	NO
The EMPr must be attached as Appendix G.			
The details of the EAP who compiled the BAR and Assessment process must be included as Appendi	•	perform	the Basic
If any specialist reports were used during the cominterest for each specialist in Appendix I.	pilation of this BAR, please attacl	h the decl	aration of
Any other information relevant to this application Appendix J.	n and not previously included m	ust be at	tached in
NAME OF EAP			
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