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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 interest" for the specialist appointed and attach in Appendix I.		

- **ACTIVITY DESCRIPTION**

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

<u>The proposed development of a 25m high telecommunications mast on Erf 2820, 41 Brisson Street, Matjieskloof, Springbok, Northern Cape</u>

The proposed development of a 25m high telecommunications mast and associated infrastructure located on Erf 2820, 41 Brisson Street, Matjieskloof, Springbok, Northern Cape. No new roads will be constructed as an existing access road will be utilised to gain access to the proposed site. Access to the site will be gained via Brisson Street. The total area of land to be cleared is (7m x 8m) 56m² to erect a 25m high monopole mast with antennas situated on the top of the proposed structures, and three future service provider equipment containers. The mast's base station will be closed with a steel palisade fence. Electricity to power the mast will be sourced from the land owner. The site has no slope and is located on a flat surface area. The site co-ordinates are **31°28'8.18"S 19°46'12.63"E**.

Figure 1: Google Earth arial image showing the location of the proposed site (yellow placemark) and the surrounding areas

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.

Site Description

The proposed development of a 25m high telecommunications mast and associated infrastructure located on Erf 2820, 41 Brisson Street, Matjieskloof, Springbok, Northern Cape. No new roads will be constructed as an existing access road will be utilised to gain access to the proposed site. Access to the site will be gained via Brisson Street. The total area of land to be cleared is (7m x 8m) 56m² to erect a 25m high monopole mast with antennas situated on the top of the proposed structures, and three future service provider equipment containers. There is no natural vegetation on site, and the site is totally transformed due to past development activities on the property. The proposed site is located to the north of a stormwater channel and there are no watercourses on site. The mast's base station will be closed with a steel palisade fence. Electricity to power the mast will be sourced from the land owner. The site has no slope and is located on a flat surface area. The site co-ordinates are **31°28'8.18"S 19°46'12.63"E**. Please refer to Appendix A1 for the locality map as well as Appendix C (site plans) and Appendix B for photographs of the proposed site.

Civil and Electrical Services

Electricity will be sourced from the land owner. The Proposed development of a telecommunication mast will not produce waste or use water during its operational phase.

Access

Access to the site will be gained off Brisson Street. No new road will be constructed. Please refer to figure 1 above.

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— (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.	The proposed development of a 25m high telecommunications mast and base station on Erf 2820, 41 Brisson Street, Matjieskloof, Springbok, Northern Cape. The proposed site is located within the urban area of Matjieskloof, and Erf 2820 is zoned Public Open Space Zone I.

• 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 proximity to existing masts, coverage needed and thus the coverage it can provide.

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 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 25m high telecommunications monopole mast on Erf 2820, 41 Brisson Street, Matjieskloof, Springbok, Northern Cape. Monopole Mast – (Preferred design) A monopole mast is the preferred design for the applicant, as it can hold more equipment than a tree mast but is less visually intrusive than a lattice mast. In summary: A monopole 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. • It will be less visually intrusive and more aesthetically pleasing.	**29°40' 16.10"S**	**17°51‘59.28“E.**
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
The proposed development of a 25m high telecommunications lattice mast on Erf 2820, 41 Brisson Street, Matjieskloof, Springbok, Northern Cape. Lattice Mast – (Alternative design) A lattice mast is a viable option for the applicant, as it is able to hold more equipment and is considered as an alternative. However, the construction of a lattice mast was not considered as the best practicable option as it would be more visually intrusive and less aesthetically pleasing. Due to the location of the communication mast,	**29°40' 16.10"S**	**17°51‘59.28“E.**

a lattice mast was not considered appropriate, as it would be out of context with the surrounding area and a more expensive design. In summary: A lattice mast was considered a viable option for the following reasons: • Able to hold more equipment if required; A lattice mast was rejected as the preferred alternative for the following reasons: • A lattice mast will not blend in with the surrounding area; and • Due to the nature of the surrounding area, visually, the lattice mast would be out of context with the surroundings; and • More expensive.		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
<u>The proposed development of a 25m high telecommunications tree mast on Erf 2820, 41 Brisson Street, Matjieskloof, Springbok, Northern Cape.</u> <u>Tree Mast – (Alternative design)</u> A tree mast is also considered as a viable option for the applicant. However, the mast cannot hold as much equipment as a lattice mast, and the tree mast will not blend in as well with the surrounding area as there are no other tall trees on the site and will therefore look out of place. In summary: A Tree mast was considered as an alternative design for the following reasons: • The design will be able to hold the necessary required equipment for now; and • The proposed mast will be less visually intrusive than a lattice mast, due to a lack of tall trees on site. However, the Tree mast design was rejected as the preferred alternative for the following reasons: • A tree mast will not blend in as well with the surrounding area as there are no other tall trees on the site; and • It is not able to hold as much equipment (for other service providers) as the monopole mast can, if required in future.	**29°40' 16.10"S**	**17°51‘59.28“E.**

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, would therefore not be achieved. The proposed activity is not expected to have any 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 56m^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~~
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

The proposed site will be accessed via Brisson Street. No roads will be constructed. Please refer to figure 2 below.

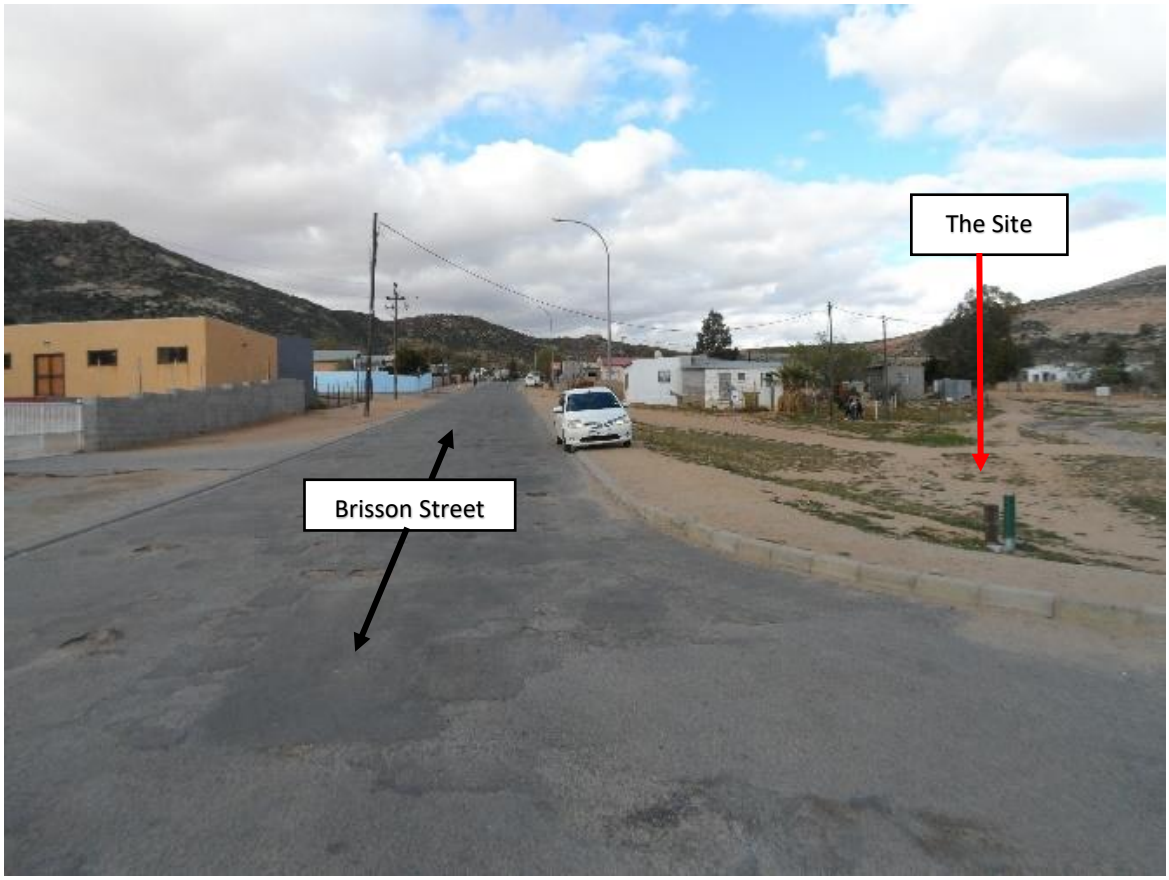

Figure 2: Access to the proposed site will be obtained via Brisson Street.

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 Public Open Space I, the proposed site is located on an undeveloped part of the property. 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 Framework (PSDF)	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	~~NO~~	~~Please explain~~
The proposed site is located within the urban area (built-up area) of Matjieskloof and is located on the premises of Nama Khoi Municipality. Please see figure 2 above.			
(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 proposed development is not considered to have a negative impact on Nama Khoi Municipality's IDP 2018 – 2019. According to the Nama Khoi Municipality's IDP 2018-2019, Spatial Objective 1 strives to *improve connectivity and linkages to the region as a whole and to specific areas of economic importance, in order to promote accessibility to opportunities and services*. In terms of its telecommunication networks, the municipality must strive *to* develop sufficient capacity and broadband in all regions, specifically in areas, to provide cyber connectivity and to improve communication. In many areas in the region this aspect has been neglected and in some areas no cell phone and internet access are possible. This not only creates limitations for communication, but it also hampers opportunities for people to access (on the net) other parts of the region, country and the world and the possible learning, recreation and work opportunities related to this. Goal 1 of the Nama Khoi SDF are to promote accessibility to opportunities and services in the towns and larger region through improved road infrastructure, public transport and communication networks. Looking at the larger regional context, it is obvious that the region is somewhat isolated, remote and inaccessible from the larger urban conurbations such as Gauteng, Cape Town, Bloemfontein and Kimberley. This not only hampers access to opportunities, but also makes it inaccessible for business and markets, including tourists and visitors. In addition to the above, the fragmented and scattered nature of the settlements (some of which are very remote such as Goodhouse) makes it difficult and expensive for people to commute and to access opportunities and often much needed services such as schools and clinics. 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	~~YES~~	~~NO~~	Please explain
Unknown			
(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~~
The Namakwa Environmental Management Framework (EMF) include the Nama Khoi Municipal area. The approval will not compromise the integrity of the existing environmental management priorities for the area, because the site is already completely transformed from its natural state.			
(f) Any other Plans (e.g. Guide Plan)	YES	~~NO~~	~~Please explain~~
According to the Namakwa District Municipality's Rural Development Plan (2017), access to technology throughout the district is limited to the urban areas and the National routs. Access is limited towards the eastern side with majority of the areas having no access to cell phone coverage. An alarming statistic is that the majority of the households on average does not have access to telecommunications. It is therefore imperative that telecommunication base stations be sustainably developed to cater for this specific need.			
• **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 proposed development of a 25m high telecommunications mast will have no impact on the Municipality's IDP or SDF. The property is zoned Public Open Space I, and a consent-use application will be submitted once an Environmental Authorization has been issued. The site is completely transformed from its natural state due to past development activities on the property. According to the Nama Khoi Municipality's IDP 2018-2019, Spatial Objective 1 strives to *improve connectivity and linkages to the region as a whole and to specific areas of economic importance, in order to promote accessibility to opportunities and services.* In terms of its telecommunication networks, the municipality must strive *to* develop sufficient capacity and broadband in all regions, specifically in areas, to provide cyber connectivity and to improve communication. In many areas in the region this aspect has been neglected and in some areas no cell phone and internet access are possible. This not only creates limitations for communication, but it also hampers opportunities for people to access (on the net) other parts of the region, country and the world and the possible learning, recreation and work opportunities related to this. Goal 1 of the Nama Khoi SDF are to promote accessibility to opportunities and services in the towns and larger region through improved road infrastructure, public transport and communication networks. Looking at the larger regional context, it is obvious that the region is somewhat isolated, remote and inaccessible from the larger urban conurbations such as Gauteng, Cape Town, Bloemfontein and Kimberley. This not only hampers access to opportunities, but also makes it inaccessible for business and markets, including tourists and visitors. In addition to the above, the fragmented and scattered nature of the settlements (some of which are very remote such as			

Goodhouse) makes it difficult and expensive for people to commute and to access opportunities and often much needed services such as schools and clinics. 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 modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. According to the Nama Khoi Municipality's IDP 2018-2019, Spatial Objective 1 strives to *improve connectivity and linkages to the region as a whole and to specific areas of economic importance, in order to promote accessibility to opportunities and services.* In terms of its telecommunication networks, the municipality must strive *to* develop sufficient capacity and broadband in all regions, specifically in areas, to provide cyber connectivity and to improve communication. In many areas in the region this aspect has been neglected and in some areas no cell phone and internet access are possible. This not only creates limitations for communication, but it also hampers opportunities for people to access (on the net) other parts of the region, country and the world and the possible learning, recreation and work opportunities related to this. The social benefits are considered to greatly outweigh any potential negative environmental impacts from the proposed activity. The activity would create a more efficient telecommunications service, considered as essential to the business and private sector. The construction of the telecommunications mast is therefore considered as part of the essential services for the greater community.			
• **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~~
The proposed activity will only require minimal amounts of power, which will be sourced directly from the land owner. The proposed activity will not require water, solid waste removal, storm water or sewerage services from the local municipality.			
• **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. The site is completely transformed from its natural state due to past development activities on the property.

• **Is this project part of a national programme to address an issue of national concern or importance?**	~~YES~~	NO	~~Please explain~~
No. However, the proposal might fall within the ambit of the Strategic Infrastructure Projects (SIPs) 15 as described in the National Development Plan, 2030. SIP 15 aims to ensure universal service and access to reliable, affordable and secure broadband services by all South Africans, prioritising rural and under-serviced areas and stimulating economic growth. SIP 15 is part of the PICC, a Presidency-led initiative to co-ordinate infrastructure projects (construction, fast-tracking of current projects and maintenance of existing infrastructure) across all spheres of government and state-owned enterprises. Expanding access to communication technology will be done primarily through broadband infrastructure roll-out. To this end, a national backbone infrastructure will be established which will inter alia include establishing core Points of Presence (POPs) in district municipalities, extending fibre networks across provinces linking districts and, rural and under-served areas. The coordination and integration of communications infrastructure activities within state-owned enterprises, private entities, provinces and local government will be critical in ensuring this is achieved. It is expected that the private sector and state-owned enterprises will play a significant role in expanding Access to Communication Technology. Connectivity to rural and under-serviced areas including e-health, e-schools and e-government will be prioritised.			
• **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. The proposed site has no natural vegetation cover present and is completely transformed from its natural condition due to past development activities on the property. Access to the site exists, therefore, no need to construct a road to access the site.			
• **Is the development the best practicable environmental option for this land/site?**	YES	~~NO~~	~~Please explain~~
The best practicable environmental option for the site would be the no-go option. However, any potential benefits would be considered minimal. Due to the nature of the activity, and the size and location of the site, any potential negative environmental impacts are expected to be negligible. The socio-economic benefits of the activity to the community are considered to greatly outweigh any environmental benefits of not implementing the activity.			
• **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 any potential negative environmental impacts from the activity. The activity would create a more efficient telecommunications service, considered as essential to the business and private sector. No significant negative environmental impacts are expected by the proposed development; therefore, the benefits of the development will outweigh the negative impacts of it. The implementation of the EMPr will manage any negative impacts and improve the positive impacts during its operational phase.			

• **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 precedent. However, 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 socio-economics of the surrounding area as it will also provide cellular users with the option of faster internet coverage and affordable cellular rates. A consent-use application will be lodge with the Nama Khoi Municipality after this NEMA Application has been finalised.			
• **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 a positive social impact on the community of Matjieskloof and surrounding areas. The proposed development will allow for improved network capabilities and communication within the community of Matjieskloof.			
• **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 of Matjieskloof. The site is located within the built-up / urban area of Matjieskloof, and access to the site exists.			
• **Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?**	YES	~~NO~~	~~Please explain~~
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". SIP 15 aims to ensure universal service and access to reliable, affordable and secure broadband services by all South Africans, prioritising rural and under-serviced areas and stimulating economic growth. SIP 15 is part of the PICC, a Presidency-led initiative to co-ordinate infrastructure projects (construction, fast-tracking of current projects and maintenance of existing infrastructure) across all spheres of government and state-owned enterprises. Expanding access to communication technology will be done primarily through broadband infrastructure roll-out. To this end, a national backbone infrastructure will be established which will inter alia include establishing core Points of Presence (POPs) in district municipalities, extending fibre networks across provinces linking districts and, rural and under-served areas. 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.			
• **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 socio-			

economics of the surrounding area as it will also provide cellular users with the option of faster internet coverage and affordable cellular rates.

• **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 National Development Plan (NDP) 2030, 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	Nama Khoi 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?	Unknown	m^3

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 registered landfill site will be used.	
N/A	
Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?	
N/A	
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.		
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 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:

N/A

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:		

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:		
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~~	The activity will not use water

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:	N/A	
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.		

• **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 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	Namakwa District Municipality
	Local Municipality	Nama Khoi Local Municipality
	Ward Number(s)	Ward 7
	Farm name and number	Erf 2820
	Portion number	Erf 2820
	SG Code	C05300000000282000000
	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:	Public Open Space I zoned
	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? A **consent-use** application will be submitted to the local municipality upon receipt of an environmental decision.	YES	~~NO~~

- **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~~

Alternative 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

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~~		~~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:			**Alternative S2 (if any):**			**Alternative S3 (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.

- **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~~

There are no watercourses on or within 32m of the proposed site. However, there is a formalised stormwater channel approximately 5m south of the proposed site. According to the SANBI BGIS National Wetland and NFEPA Map, the Eselfontein River is located approximately 2.3km north of the proposed site. The proposed site will have no impact on any surface water bodies or wetlands. Please refer to figure 3 below.

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. However, there is a formalised stormwater channel approximately 5m south of the proposed site. According to the SANBI BGIS National Wetland and NFEPA Map, the Eselfontein River is located approximately 2.3km North of the proposed site. Please see figure 3 below.

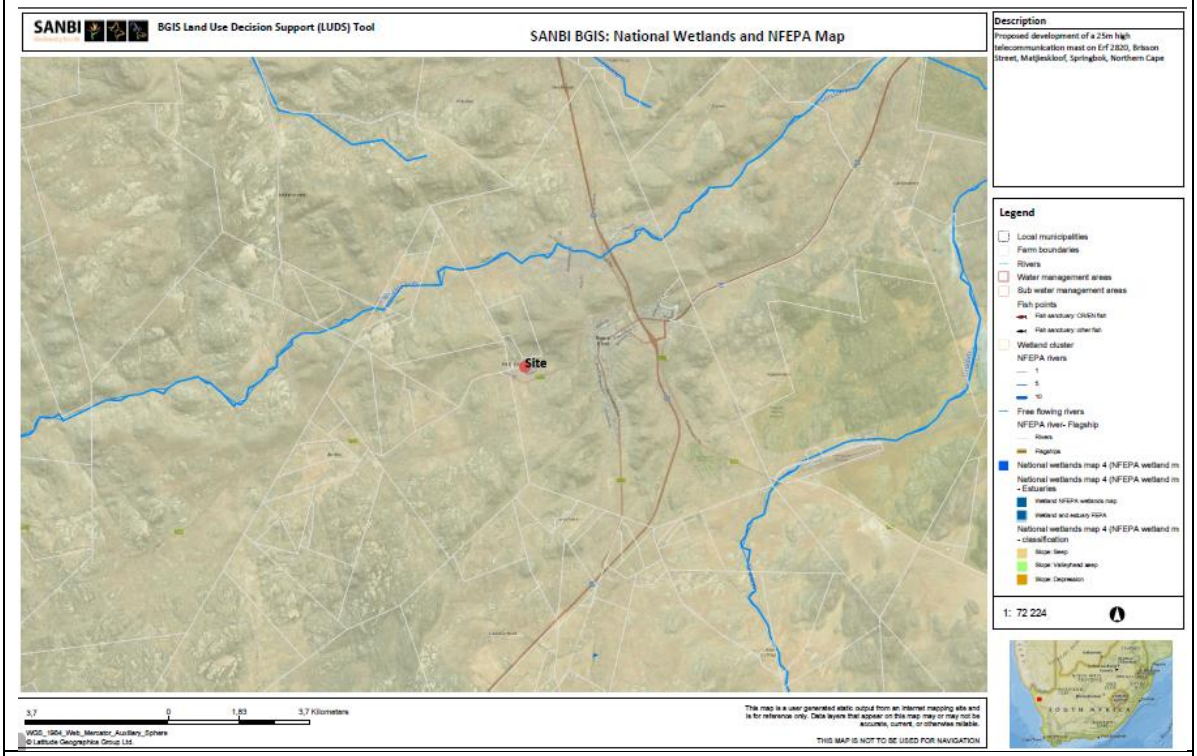

Figure 3: SANBI BGIS National Wetland and NFEPA Map: The proposed site is not located within 32m of any watercourse. Oorlogskloof river is approximately 2.3km North of the proposed site.

- **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 & 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)

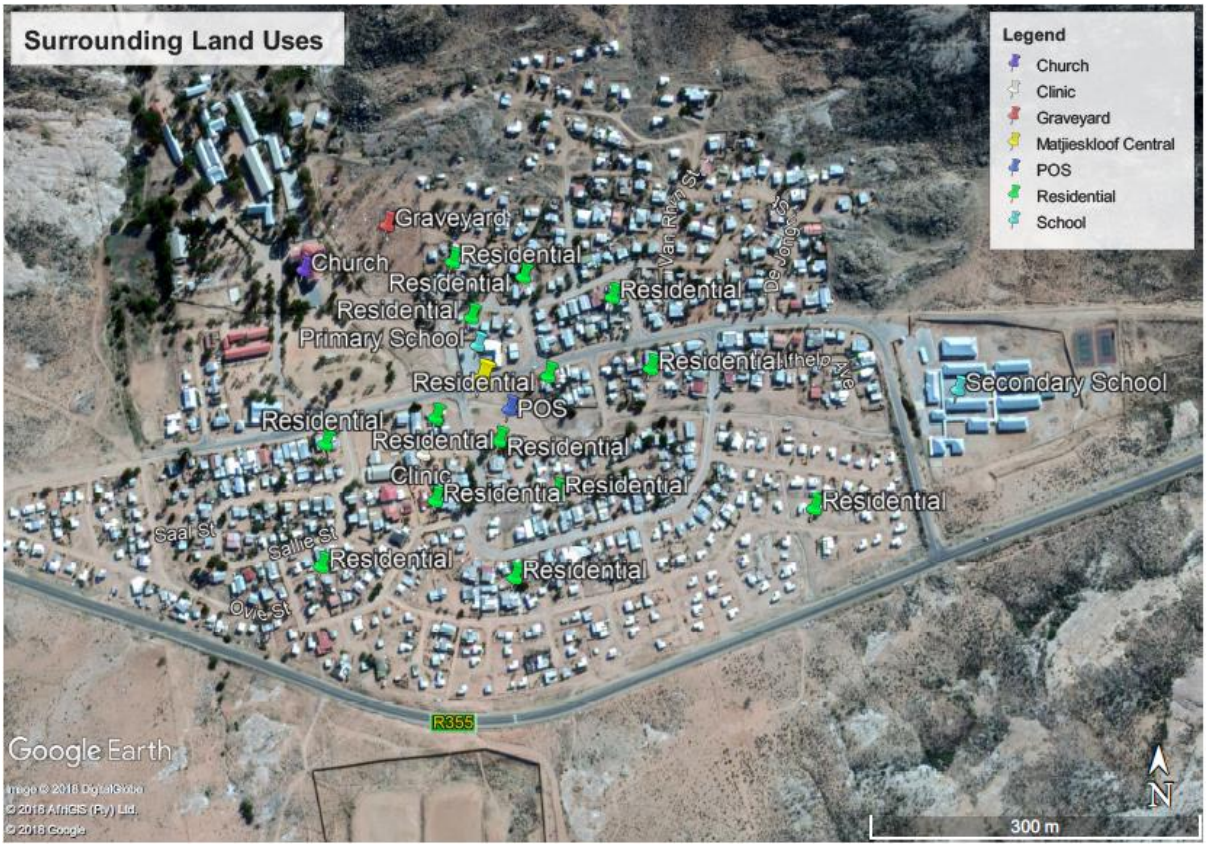

Figure 4: The site (yellow placemark) and surrounding land uses. The site is generally surrounded by residential land uses.

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

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

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 offs et 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 Appendix A2**.

According to SANBI BGIS Namakwa District Critical Biodiversity Areas (CBAs) Map, the proposed site is not located within an CBA or Ecological Support Area (ESA), and that an area to the north of the town of Matjiesfontein is characterised by a CBA. However, according to SANBI BGIS Northern Cape Critical Biodiversity Areas (2016) Map, the proposed site would be located within an CBA, with an ESA to the west of the proposed site (see Appendix A1 of the Post-Application BAR). Please note that the proposed site has no natural vegetation cover present and is completely transformed from its natural state due to past development activities on the property. No populations of threatened plant or animal species were observed on site. No cultural or historical aspects were identified on the site.

• 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	
No. Please see **Appendix D** for the Heritage Screener conducted by CTS Heritage.		

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:
Please see **Appendix D**.

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 permit application was lodge with the South African Heritage Resources Agency ("SAHRA"), with SAHRIS CaseID: 12271. Please refer to **Appendix J1**.

• 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:

The Nama Khoi Local Municipality is a Category B municipality situated within the Namakwa District in the Northern Cape Province. According to the 2011 Census, Nama Khoi Municipality has a total population of 47 041 people. Of the 16 016 economically active (employed or unemployed but looking

for work) population in the municipality, 22,9% are unemployed. Of the 7 216 economically active youth (15 – 34 years) in the municipality, 30,1% are unemployed.

According to Nama Khoi Municipality's IDP 2018 – 2019, in 2014 Nama Khoi made the largest contribution to employment in the following industries:
– Mining (65.6 per cent), Manufacturing (42.6 per cent), Electricity (45.7 per cent), Trade (42.0 per cent), Transport (46.0 per cent), Finance (35.4 per cent), Community Services (37.9 per cent) and Households (35.3 per cent).This municipality also employed the largest proportion of people in the district, accounting for 38.2 per cent of the people in formal employment.

Economic profile of local municipality:

According to the Nama Khoi Local Municipality IDP 2018-2019, agriculture and finance forms the backbone of the economy in the municipal area and this sector has the most employment opportunities. Despite the harsh climate and poor carrying capacity of the veld, it still offers opportunities for growth and employment creation. 58.1% of the GDP contribution in the Hantam Municipality is attributed to Mining.

Table 2.3: Contributions by Local Municipalities to Economic Industry Totals for Namakwa District Municipality, 2004 and 2014 (Constant 2010 Prices)

	Agriculture		Mining		Manufacturing		Electricity		Construction		Trade		Transport		Finance		Community Services		Total Industries	
	2004	2014	2004	2014	2004	2014	2004	2014	2004	2014	2004	2014	2004	2014	2004	2014	2004	2014	2004	2014
Richtersveld LM	3.6%	1.7%	23.7%	17.7%	14.1%	8.2%	6.8%	6.1%	11.8%	6.7%	9.0%	4.8%	10.1%	5.4%	9.6%	7.0%	10.6%	5.9%	17.4%	9.7%
Nama Khoi LM	6.2%	3.4%	52.7%	58.1%	33.8%	25.3%	48.5%	30.0%	38.1%	27.8%	33.2%	22.9%	38.2%	26.6%	46.1%	38.9%	35.2%	25.2%	44.1%	35.8%
Kamiesberg LM	3.7%	1.8%	10.9%	9.7%	6.5%	4.5%	9.9%	15.8%	8.5%	5.7%	6.3%	3.9%	8.7%	5.6%	8.3%	6.3%	8.8%	5.7%	9.4%	6.6%
Hantam LM	44.8%	43.7%	0.7%	1.3%	27.2%	39.6%	18.3%	26.0%	19.7%	26.9%	31.4%	39.8%	20.9%	28.4%	20.9%	28.0%	24.2%	32.6%	12.3%	22.6%
Karoo Hoogland LM	36.4%	46.4%	0.0%	0.1%	7.6%	14.2%	9.7%	17.8%	16.0%	28.6%	15.4%	25.2%	16.0%	29.4%	8.4%	14.5%	14.6%	25.8%	7.4%	17.9%
Khai-Ma LM	5.1%	2.9%	11.9%	13.1%	10.9%	8.2%	6.8%	4.2%	5.8%	4.3%	4.7%	3.4%	6.1%	4.5%	6.5%	5.3%	6.7%	4.8%	9.4%	7.5%
Namakwa DM	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

The sectors that contributed the most to the Nama Khoi Local Municipality, according to the Municipal IDP 2018 – 2019, are:

1) Mining with 58.1%;
2) Finance with 38.9%;
3) Electricity with 30.0%;
4) Construction with 27.8%;
5) Transport with 26.6%;
6) Manufacturing with 25.3%; and
7) Community Services with 25.2%
8) Trade with 22.9%; and
9) Agriculture with 3.4%.

The primary sector plays a key role in the economy of Namakwa.

- The agriculture industry of Namakwa was dominated by Hantam and Karoo Hoogland.
- Between 2004 and 2014 these two regions have maintained their lead, but interesting to note is that despite the dominance, Hantam's contribution to the agriculture industry has declined marginally between 2004 and 2014 and that of Karoo Hoogland has increased by 10.0 percentage points.
- In 2014, all of the local municipalities experienced positive growth in agricultural output.
- The mining industry in Namakwa was led by Nama Khoi, which accounted for 58.1 per cent of the industry in 2014.
- Richtersveld made the second largest mining contribution despite the 6.0 percentage point decline in contribution between 2004 and 2014, while Khai-Ma was the third largest contributor.

- All of the local municipalities recorded negative growth in mining output in 2014.
- Nama Khoi and Hantam were dominant in manufacturing, together accounting for more than 60 per cent of the total manufacturing output.
- In 2014, Hantam was also the leader in the trade and community services industries, Nama Khoi led in the electricity and finance industries and Karoo Hoogland led in construction and transport.
- In total over all the industries Nama Khoi, Karoo Hoogland and Hantam were the biggest contributors to the economy, together accounting for 76.2 per cent of economic activity.

Level of education:

According to the 2011 Census, Nama Khoi Municipality has a total population of 47 041 people of which 88,1% is coloured people ,6,6% white people, 4,2% black African, 0,5 % Indian/Asian and other consisting of 0,8%.Of those aged 20 years and older 20,0% have completed Grade 12, 7,9% has higher education, 43,6% has some secondary education, 10,6% completed primary, 15,7 has some primary and 2,2% of Nama Khoi has no schooling.

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	±R 500 000.00	
What is the expected yearly income that will be generated by or as a result of the activity?	Unknown	
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?	10	
What is the expected value of the employment opportunities during the development and construction phase?	±R 120 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	65%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	None	
What is the expected current value of the employment opportunities during the first 10 years?	Unknown	
What percentage of this will accrue to previously disadvantaged individuals?	Unknown	

- **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)~~	According to SANBI BGIS Namakwa District Critical Biodiversity Areas (CBAs) Map, the proposed site is not located within an CBA or Ecological Support Area (ESA), and that an area to the north of the town of Matjiesfontein is characterised by a CBA.
				However, according to SANBI BGIS Northern Cape Critical Biodiversity Areas (2016), the proposed site would be located within an CBA, with an ESA to the west of the proposed site (see **Appendix A1** of the Post-Application BAR).
				Please note that the proposed site has no natural vegetation cover present and is completely transformed from its natural state due to past development activities on the property. No populations of threatened plant or animal species were observed on site.

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	%	
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)	100 %	The entire site is completely transformed from its natural state due to past development activities on the property. The proposed site has no natural vegetation. The site would historically be covered with Namaqualand

		Klipkoppe Shrubland with threat status that is Least Threatened. See **Appendix B** for site photographs and **Appendix A1 - A2.**

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)

In accordance with the National Vegetation map 2012 beta2 of South Africa, the site would historically be covered by Namaqualand Klipkoppe Shrubland and this vegetation's ecosystem status is classified as Least Threatened. However, there are no natural vegetation left on the already transformed land. The site is completely transformed from its natural state due to past development activities on the property and has no natural vegetation remaining. Please see figure 5 below.

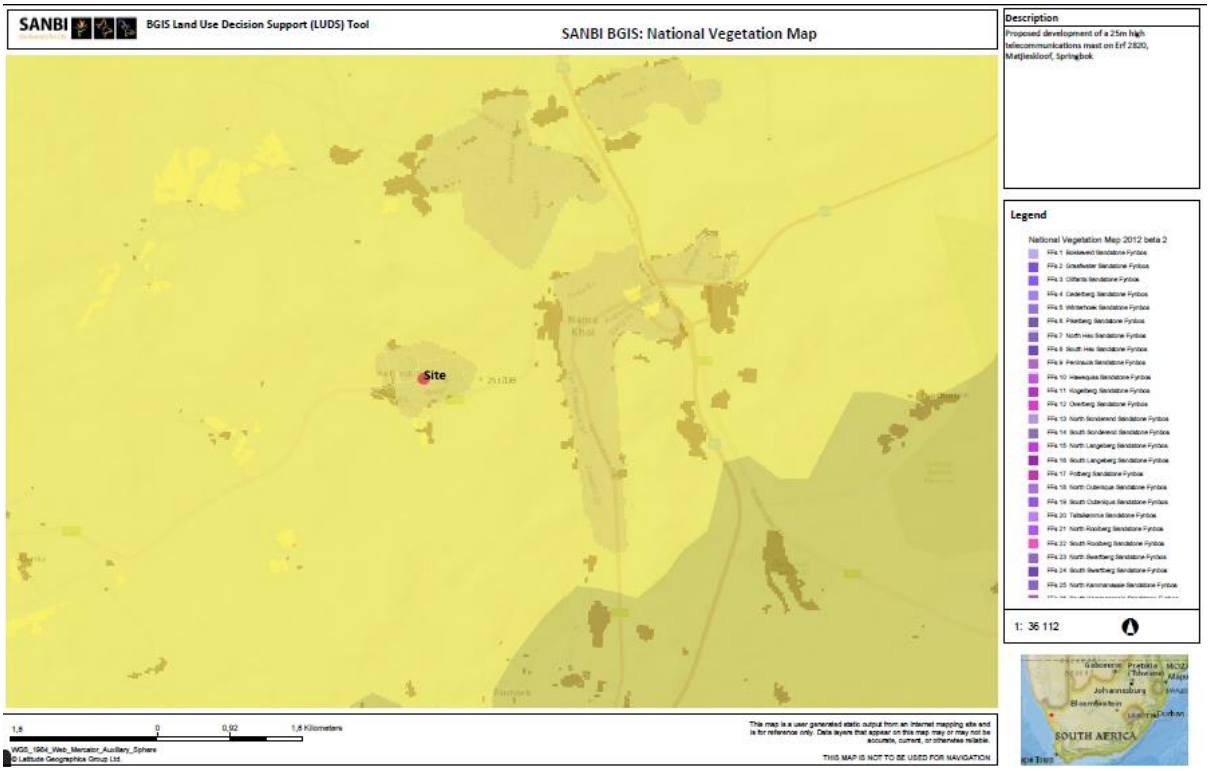

Figure 5: SANBI BGIS map showing the vegetation cover of the area. The site (red dot) would historically be covered with Namaqualand Klipkoppe Shrubland (Least Threatened).

SECTION C: PUBLIC PARTICIPATION

- **ADVERTISEMENT AND NOTICE**

Publication name	**Die Namakwalander**	
Date published	**17 August 2018**	
Site notice position	**Latitude**	**Longitude**
	See Appendix E	**See Appendix E**
Date placed	**01 August 2018**	

Include proof of the placement of the relevant advertisements and notices in Appendix E2 and Appendix E4.

- **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/ key stakeholder status**	**Contact details (tel number or e-mail address)**
Please refer to **Appendix E**		

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
Department of Water Affairs- Northern Cape	Ms. J. Van Wyk-Towell	053 338 5819	053 334 0205		Private Bag X5912, Upington, 8800
Department of Health (HOD)	Ms. Carla Engelbrecht	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
Namakwa District Municipality: Environmental Health	Mr. Christiaan Fortuin	027 712 8000	027 712 8040		Private Bag X20, Van Riebeeck Street, SPRINGBOK, 8240
Nama Khoi Local Municipality (Municipal Manager)	Ms. Samantha Titus	027 718 8100	(027)7121635		P. O. Box 17, Springbok, 8240
Nama Khoi Local Municipality	Mr. Lorenzo Faber	027 718 8100	(027) 712 1635		P. O. Box 17, Springbok, 8240
Nama Khoi Local Municipality	Mr. Deon Margerman	027 718 8100	(027) 712 1635		P. O. Box 17, Springbok, 8240

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: **Noise impact:** Noise from machinery on the property and neighbouring residential 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. • Compliance with the appropriate legislation with respect to noise shall be mandatory.
	Visual Impact: Unsightly views due to construction site.	High - Medium – 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 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. Please refer to **Appendix D** for the **Heritage Screener** compiled by CTS Heritage.	Negligible	• If any archaeological remains (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 construction, these should immediately be reported to the South African Heritage Resources Agency. The ECO and Engineer are also to be informed.
	Potential impact on biological / ecological aspects: • Direct loss of vegetation type and associated habitat due to construction and operational activities.	Negligible	• The proposed site is located within a CBA, according to SANBI BGIS Northern Cape Critical Biodiversity Areas (2016), with an ESA to the west of the proposed site (see Appendix A2 of the Post-Application BAR). • Indiscriminate clearing of areas must be avoided (all remaining areas to remain as natural as possible). • If required by the ECO, topsoil (at all excavation

			sites) must be removed and stored separately for re-use for rehabilitation purposes. The topsoil and vegetation should be replaced over the disturbed soil to provide a source of seed and a seed bed to encourage re-growth of the species removed during construction. • Once the construction is completed all further movement must be confined to the access tracks to allow the vegetation to re-establish over the excavated areas. • Rehabilitation must be done after construction. • All construction must be done in accordance with an approved construction and operational phase • Environmental Management Programme (EMPr), which must be developed by a suitably experienced Environmental Assessment Practitioner. • A suitably qualified Environmental Control Officer must be appointed to monitor the construction phase in terms of the EMPr as well as any other conditions which might be required by the Department: Environmental and Nature Conservation (DENC). • An integrated waste management system must be implemented during the construction phase. • All rubble and rubbish (if applicable) must be collected and removed from the site to a suitable registered waste disposal site. • All alien vegetation should be removed from all associated footprints within the various construction sites.

	Potential impact on freshwater ecosystems	Negligible	All construction must be done in accordance with an approved construction and operational phase EMPr. Particular importance must be given to emergency preparedness with regards to any spillages or leakage of hydrocarbons on site. The control of construction waste water, any contaminated water and/or stormwater must be properly controlled, as per the EMPr. No effluent waste water or contaminated water must enter the stormwater channel located to the south of the proposed site.
	Indirect impacts: **Socio-economic impact** Temporary jobs will be created in the construction industry during the construction phase.	Low-Positive	• No mitigation measures are required. • Temporary jobs will be created during the construction phase.
	Cumulative impacts:		
Alternative 2			
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
Alternative 3			
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
No-go option			
	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.

• 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 A (preferred alternative)

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

Construction phase.

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

Visual impact – High - Medium **(Negative), definite, during construction**

Loss of cultural or historic aspects – **Negligible, Possible**

Freshwater ecosystems **- Negligible, unlikely**

Loss of Vegetation - **Negligible, 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 - Low (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. Please see Appendix D of the BAR.**

Freshwater ecosystems **- No impact expected**

Loss of Vegetation - **No impact expected**

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 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).

N/A

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.

Compliance with the Environmental Management Programme ("EMPr") and appointment of an Environmental Control Officer during the construction phase.		
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.

_____

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