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Department:
**Rural, Environment and Agricultural
Development**
North West Provincial Government
REPUBLIC OF SOUTH AFRICA



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Provincial Reference Number:
NEAS Ref 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:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications.
2. This report format is current as of **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
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. The use of "not applicable" in the report must be done with circumspection. An incomplete report or that does not meet the requirements in terms of Regulation 19 of the NEMA EIA Regulations, 2014, will be rejected to be revised and be resubmitted.
6. The report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The signature of the Environmental Assessment Practitioner (EAP) on the report must be an original.
9. The report must be compiled by an independent EAP.
10. 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.
11. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
12. 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.
13. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
14. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

1. PROJECT DESCRIPTION

a) Describe the project in association with the listed activities applied for

Vodacom intends to construct a 25m lattice mast with antennae mounted onto the mast, and container housing associated equipment. The size of the base station (fenced area) in which the mast and associated equipment will be placed will measure 8m x 10m (80m²).

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

Listed activity as described in GN R.983, 984 and 985	Description of project activity
Example: <i>GN R.983 Activity 12(iii): The development of a bridge exceeding 100 square metres where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such development will occur within existing roads or roads reserve.</i>	<i>A bridge measuring 10m in length, 12 metres wide will be built over the Crocodile river</i>
GN.R. 324, 7 April 2017 Activity 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.	This project will consist of an individual mast. The mast site will consist of the following components: * A site measuring approximately 8m x 10m in extent. * A lattice mast measuring approximately 25 meters in height. * A container housing electronic equipment surrounded by a steel palisade fence. The site is located on Erf 452, Ifafi which is zoned as "Public Open Space".



c) Property description/physical address

Province	North West
District Municipality	Bojanala Platinum
Local Municipality	Madibeng Local Municipality
Ward Number(s)	Ward 30
Farm name and number	Erf 452, Ifafi
Portion number	-
21 digit Surveyor General Code	T0JQ00140000045200000

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

2. 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 EIA Regulation, 2014 Appendix 1(h). 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.

Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds using the Hartebeeshoek94 WGS84 co-ordinate system.

a) Site alternatives

List alternative sites, if applicable.

Site Alternatives	Description
Alternative Site 1 (preferred or only site alternative)	Construction of a 25m lattice mast with antennae mounted onto the mast, and container housing associated equipment. The site is located on Erf 452, Ifafi which is zoned as "Public Open Space".
Alternative Site 2	Construction of a 25m lattice mast with antennae mounted onto the mast, and container housing associated equipment. The site is located on Erf 452, Ifafi which is zoned as "Public Open Space".
Alternative Site 3	

Site Co-ordinates

Latitude (S):

Longitude (E):

Alternative S1 (preferred or only site alternative)

Alternative S2 (if any)

Alternative S3 (if any)

25°	44'	42,8"	27°	53'	49,3"
25°	44'	44,6"	27°	53'	49,9"
°	'	"	°	'	"



In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

Alternative S1 (preferred or only route alternative)

- 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 metres 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.



b) Lay-out alternatives

Alternatives	Description
Alternative 1 (preferred or only alternative)	The site will measure approximately 8m x 10m in extent.
Alternative 2	The site will measure approximately 8m x 10m in extent.
Alternative 3	

c) Technology alternatives

Alternatives	Description
Alternative 1 (preferred or only alternative)	The proposed mast, in itself, represents an alternative to the conventional telephone lines. Cell phone networks reduce the number of poles significantly and circumvent the theft of copper wires.
Alternative 2	The proposed mast, in itself, represents an alternative to the conventional telephone lines. Cell phone networks reduce the number of poles significantly and circumvent the theft of copper wires.
Alternative 3	

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

Alternatives	Description
Alternative 1 (preferred or only alternative)	<p>It was decided that the mast must remain galvanised in order to minimize the visual impact of the mast. Vodacom will implement elements of good visual design. There are also several trees located next to the site which will assist to minimise the visual impact of the mast.</p> <p>The preferred alternative is therefore that of a galvanised lattice mast and it have the lowest visual impact.</p>
Alternative 2	<p>It was decided that the mast must remain galvanised in order to minimize the visual impact of the mast. Vodacom will implement elements of good visual design. There are also several trees located next to the site which will assist to minimise the visual impact of the mast.</p> <p>The preferred alternative is therefore that of a galvanised lattice mast and it have the lowest visual impact.</p>
Alternative 3	



e) No-go alternative

The cell phone coverage will remain problematic in the area should this activity not take place. Should the mast not be built on the proposed site, an alternative site must be planned.

f) Please motivate for preferred site, activity and technology alternative

The preferred site has trees which can “hide” the proposed mast and that will lessen the visual impact. Direct access can be obtained from the outside of the park erf.

The visual impact is less on a lattice mast versus a solid monopole. One can look “through” a lattice mast.

The preferred alternative is therefore that of a galvanised lattice mast and it will have the lowest visual impact.

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

3. 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 A1¹ (preferred activity alternative)

80m²

Alternative A2 (if any)

80m²

Alternative A3 (if any)

m²

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)

80m²

Alternative A2 (if any)

80m²

Alternative A3 (if any)

m²

4. SITE ACCESS

Does ready access to the site exist?

YES

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

No new access road is planned.

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.

5. 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);
- the accurate indication of the site in relation to closest protected environments or national parks (i.e. within 2.5 km)
- 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, minutes and seconds using the Hartebeeshoek94 WGS84 co-ordinate system)

6. 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 B 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.

7. 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 Department of Water and Sanitation);
- ridges;
- for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas and ecological support area.
- protected areas (e.g Magaliesberg Protected Environment, Pilanesberg National Park etc.)

The sensitivity map must also cover areas within 100m of the site and must be part of Appendix B.

8. 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 C to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.



9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix D 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.

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	YES	<input type="checkbox"/>	Please explain
A Land Use Application will be submitted to the Madibeng Local Municipality, once the Environmental Authorisation has been issued.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	<input type="checkbox"/>	Please explain
A Land Use Application will be submitted to the Madibeng Local Municipality, once the Environmental Authorisation has been issued.			
(b) Urban edge / Edge of Built environment for the area	YES	<input type="checkbox"/>	Please explain
A Land Use Application and building plans will be submitted to the Madibeng Local Municipality, once the Environmental Authorisation has been issued.			
(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	<input type="checkbox"/>	Please explain
A Land Use Application will be submitted to the Madibeng Local Municipality, once the Environmental Authorisation has been issued.			
(d) Approved Structure Plan of the Municipality	YES	<input type="checkbox"/>	Please explain
Building plans will be submitted to the Madibeng Local Municipality, once the Environmental Authorisation has been issued.			



(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		Please explain
A Land Use Application will be submitted to the Madibeng Local Municipality, once the Environmental Authorisation has been issued. The proposed lattice mast will be remained as a galvanised structure to lessen the visual impact.			
(f) Any other Plans (e.g. Guide Plan)	YES		Please explain
Building plans will be submitted to the Madibeng Local Municipality for approval, once the Environmental Authorisation has been issued.			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?		NO	Please explain
The Land Use Application can only be submitted to the Madibeng Local Municipality, once the Environmental Authorisation has been issued. No Land Use Application was submitted to the Madibeng Local Municipality for the proposed mast.			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES		Please explain
The proposed mast will enhance the Vodacom coverage in the area. The cell phone coverage will remain problematic in the area should this activity not take place. Should the mast not be built on the proposed site, an alternative site must be planned.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix E.)	YES		Please explain
The only service that the proposed mast requires is electricity. The proposed mast will connect to the existing power supply.			



<p>6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</p>	<p>YES</p>	<p></p>	<p>Please explain</p>
<p>The only service that the proposed mast requires is electricity. The proposed mast will connect to the existing power supply.</p>			
<p>7. Is this project part of a national programme to address an issue of national concern or importance?</p>	<p>YES</p>	<p></p>	<p>Please explain</p>
<p>The proposed mast will improve reception for Vodacom customers in the Ifafi area.</p>			
<p>8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)</p>	<p>YES</p>	<p></p>	<p>Please explain</p>
<p>The proposed position will not be a nuisance to anybody as the area is vacant and will not be used by anybody. The property belongs to the Madibeng Municipality and they gave permission that Tekplan Environmental may proceed with the Environmental Impact Assessment study for the proposed Vodacom mast.</p>			
<p>9. Is the development the best practicable environmental option for this land/site?</p>	<p>YES</p>	<p></p>	<p>Please explain</p>
<p>The area that is required for the proposed base station is only 80m². The property is big enough to accommodate the proposed Vodacom mast.</p>			
<p>10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The local community in general will benefit, as the cellular network (coverage and capacity) will be improved.</p>			
<p>11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?</p>	<p></p>	<p>NO</p>	<p>Please explain</p>
<p>It is only telecommunication companies who apply for the proposed land use at the local municipalities. These applications will only be lodged when there is a demand to improve telecommunication coverage in a specific area.</p>			
<p>12. Will any person's rights be negatively affected by the proposed activity/ies?</p>	<p></p>	<p>NO</p>	<p>Please explain</p>
<p>The area that is required for the proposed base station is only 80m². The property is big enough to accommodate the proposed Vodacom mast.</p>			



13. Will the proposed activity/ies compromise the “urban edge” as defined by the local municipality?		NO	Please explain
A Land Use Application will be submitted to the Madibeng Local Municipality, once the Environmental Authorisation has been issued.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES		Please explain
Expanding access to communication technology. Telecommunication will improve in the Ifafi area.			
15. What will the benefits be to society in general and to the local communities?	Please explain		
The local community in general will benefit, as the cellular network (coverage and capacity) will be improved. Internet connections will be faster and better.			
16. Any other need and desirability considerations related to the proposed activity?	Please explain		
No, the only benefit will be better reception; and faster and better internet connection.			
17. How does the project fit into the National Development Plan for 2030?	Please explain		
Telecommunication will improve in the Ifafi area.			
18. Please describe how the general objectives of Integrated Environmental Management as set out in Section 23 of NEMA as amended have been taken into account.			
The proposed impacts on the environment will be determined. Mitigation measures will be implemented to minimise the potential impact on the environment. Ensure that the effects of activities on the environment, receive adequate consideration before actions are taken in connection with them. The public participation process will be implemented. The registered Interested and Affected Parties will get the opportunity to comment on the Draft Basic Assessment Report.			
19. Please describe how the principles of environmental management as set out in Section 2 of NEMA as amended have been taken into account.			
Sustainable development requires the consideration of all relevant factors including the following: a) The disturbance of ecosystems and loss of biological diversity will be avoided. b) Pollution and degradation of the environment will be avoided. c) Negative impacts on the environment will be anticipated and prevented.			



11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998)	Integrated Environmental Management	Department of Environmental Affairs	2014
Constitution of South Africa Act No. 108 of 1996	The public participation process was followed to inform the residents of the proposed Vodacom mast.	National & Provincial	18 December 1996
National Environmental Management: Biodiversity Act No. 10 of 2004	The proposed Vodacom mast does not fall within an environmentally sensitive area.	National & Provincial	7 June 2004
Section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999)	No heritage sites were identified on site.	SAHRA	1999

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES

If YES, what estimated quantity will be produced per month?

5m³

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

Limited construction waste will be generated during the construction phase. Construction waste will be transported to the nearest suitable waste disposal site.

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

It is envisaged that all waste will be disposed of at the municipal waste disposal site.



Will the activity produce solid waste during its operational phase?

NO

If YES, what estimated quantity will be produced per month?

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

The activity will not produce any solid waste during its operational phase.

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

-

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

-

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?

NO

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

Is the activity that is being applied for a solid waste handling or treatment facility?

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?

NO

If YES, what estimated quantity will be produced per month?

Will the activity produce any effluent that will be treated and/or disposed of on site?

If YES, describe the type of effluent and the disposal mechanism/method



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:

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c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other than 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:

<p>Base stations transmit power levels from a few watts to 100 watts or more, depending on the size of the region or "cell" that they are designed to service.</p> <p>The South African Department of Health sets out safety guidelines for all emissions throughout the electromagnetic spectrum (including RF emissions from base stations). These guidelines were developed by the International Commission on Non-ionising Radiation Protection (ICNIRP). The ICNIRP guidelines were endorsed by the European Commission in July 1999. The World Health Organisation (WHO) also endorsed the use of ICNIRP as a suitable safety standard for Radio frequency. The World Health Organisation's position is that the radio frequency field around base stations are typically a fraction of the levels stated in the safety guidelines and therefore do not constitute a health risk.</p>



d) Waste Licence/Registration

Will any aspect of the activity produce waste that will require a waste licence/registration in terms of the NEM:WA?

	NO
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If YES, please submit evidence that an application for a waste licence/registration has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?

	NO
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If YES, is it controlled by any legislation of any sphere of government?

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

If NO, describe the noise in terms of type and level:

13. WATER USE

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

	The activity will not use water
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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:

	litres
--	--------

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water and Sanitation?

	NO
--	----

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

14. ENERGY EFFICIENCY

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

Municipal Electricity is already available in the vicinity of the site. Madibeng Local Municipality has confirmed that there is sufficient electricity for Vodacom to connect onto the existing power supply. See Appendix E.



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

Municipal Electricity is already available in the vicinity of the site. Madibeng Local Municipality has confirmed that there is sufficient electricity for Vodacom to connect onto the existing power supply. See Appendix E. Madibeng Local Municipality has confirmed that there is sufficient electricity for Vodacom to connect onto the existing power supply. See Appendix E.

Has a specialist been consulted to assist with the completion of this section?

NO

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



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, as it appears on the Site Plan.
- Paragraphs 1 - 6 below must be completed for each alternative.

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

The site is located on Erf 452, Ifafi which is zoned as "Public Open Space".

The current land-use is a park erf (public open space).

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

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

YES

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat

Alternative S2 (if any):

Flat

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
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2. LOCATION IN LANDSCAPE

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

2.1 Ridgeline	<input type="checkbox"/>	2.4 Closed valley	<input type="checkbox"/>	2.7 Undulating plain / low hills	<input type="checkbox"/>
2.2 Plateau	<input type="checkbox"/>	2.5 Open valley	<input type="checkbox"/>	2.8 Dune	<input type="checkbox"/>
2.3 Side slope of hill/mountain	<input type="checkbox"/>	2.6 Plain	<input checked="" type="checkbox"/>	2.9 Seafront	<input type="checkbox"/>

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

4. GROUNDCOVER

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

	Gardens
--	----------------



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.

5. SURFACE WATER

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

Perennial River	<input type="checkbox"/>	NO	<input type="checkbox"/>
Non-Perennial River	<input type="checkbox"/>	NO	<input type="checkbox"/>
Permanent Wetland	<input type="checkbox"/>	NO	<input type="checkbox"/>
Seasonal Wetland	<input type="checkbox"/>	NO	<input type="checkbox"/>
Artificial Wetland	<input type="checkbox"/>	NO	<input type="checkbox"/>

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

6. LAND USE CHARACTER OF SURROUNDING AREA

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

Low density residential



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

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:

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:

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

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

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix B (as part of sensitivity map).

7. 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 B 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	
	No Natural Area Remaining (NNR)	Transformed - Urban

- 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%	Park Erf (Public open space)



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)		Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)	
	Least Threatened		

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)

There are a few trees on site. No protected plant species occur on site.

No aquatic ecosystem is present on site.

8. 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:

	NO
--	----

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:

--



Will any building or structure older than 60 years be affected in any way?

	NO
	NO

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

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

1. 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:

47%

Economic profile of local municipality:

Madibeng is characterized by diverse economy sectors, i.e. agriculture, mining, manufacturing and tourism. Mining is predominant with Madibeng being the world's third largest chrome producer which also includes the richest Platinum Group Metals Reserve (situated on the Merensky Reef). Granite is another mining component.

The turf soil is ideally for vegetation and Brits is known for the big variety and quality of fruit and vegetables supplied to, amongst others, the Tshwane Market. Due to the industrial area, consisting of a wide variety of industries, manufacturing is viewed as one of the dominant sectors.

Level of education:

Quite a few number of people in the Madibeng Local Municipal area is not educated (did not finish school). Less than 50% has a senior certificate.

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

R1,5 million
Depends on the number of users

What is the expected yearly income that will be generated by or as a result of the activity?



Will the activity contribute to service infrastructure?

YES

Is the activity a public amenity?

YES

How many new employment opportunities will be created in the development and construction phase of the activity/ies?

Vodacom to sub-contract

What is the expected value of the employment opportunities during the development and construction phase?

Vodacom to sub-contract

What percentage of this will accrue to previously disadvantaged individuals?

Vodacom to sub-contract

How many permanent new employment opportunities will be created during the operational phase of the activity?

Vodacom to sub-contract

What is the expected current value of the employment opportunities during the first 10 years?

Vodacom to sub-contract

What percentage of this will accrue to previously disadvantaged individuals?

Vodacom to sub-contract

2. SPECIALIST(S) CONSULTATION

Has a specialist been consulted to assist with the completion of this section?

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 F. All specialist reports must be contained in Appendix G and must meet the requirement in Appendix 6 of EIA Regulations, 2014.



SECTION C: IMPACT ASSESSMENT

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

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

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

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
PLANNING AND DESIGN PHASE	<p>Direct impacts:</p> <ul style="list-style-type: none"> <u>Impact upon fauna and flora:</u> Due to the extremely limited extent of the proposed site (80m²), the impact upon fauna and flora will be minimal. During the project planning and design stages, Vodacom and its contractors, must take into account the recommendations of this Basic Assessment Report, so that it is positively utilised on a pro-active basis to aid in the mitigation of impacts. 	Medium - Low	Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided. Snaring and hunting of fauna by construction workers on or adjacent to the site are strictly prohibited and the Local Municipality shall prosecute offenders. It should also be a condition of employment that any employees/ workers caught poaching will be dismissed. Workers must be trained on how to deal with
	<ul style="list-style-type: none"> <u>Minimising of visual impact:</u> Due to the fact that the infrastructure in question will be a 25m high mast located among trees, it is deemed important that 	Medium - Low	Retain as many existing trees as possible to screen the proposed mast. The proposed mast will remain galvanised to minimise the visual



Activity	Impact summary	Significance	Proposed mitigation
	<p><i>the visual impact be minimized. The proposed mast will be a lattice mast and one can look “through” it. This will assist to lessen the visual impact. Vodacom will implement elements of good visual design.</i></p>		<p>impact.</p>
	<p>Indirect impacts:</p> <ul style="list-style-type: none"> Vodacom need to upgrade their network in the area. These network problems will be resolved after the mast has been erected 	<p>High - Medium (Positive)</p>	<p>Vodacom reception will improve in the Ifafi area.</p>
	<p>Cumulative impacts:</p> <ul style="list-style-type: none"> The size of the base station will measure approximately 8m x 10m (80m²) in extent and is located among trees. Limited natural vegetation will need to be disturbed. The residents in the area will benefit by this development as the cellular network in the area will be upgraded. 	<p>Low</p> <p>Medium to high - positive</p>	<p>Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided.</p> <p>Vodacom reception will improve in the Ifafi area.</p>
<p>CONSTRUCTION PHASE</p>	<p>Direct impacts:</p> <ul style="list-style-type: none"> Floral Disturbances 	<p>Low to medium</p>	<ul style="list-style-type: none"> Before any vegetation is removed, a suitably qualified person (i.e. on Environmental Control Officer request of a vegetation specialist) shall inspect the study area for any plant/ grass/tree species that could be transplanted to other similar/suitable areas. All invader or exotic plant species must be removed from the site and disposed of at a



Activity	Impact summary	Significance	Proposed mitigation
	<ul style="list-style-type: none"> Faunal Disturbances 	Low to medium	<ul style="list-style-type: none"> landfill site. Only indigenous floral species may be used during landscaping and rehabilitation. Snaring and hunting of fauna by construction workers on or adjacent to the site are strictly prohibited and the Local Municipality shall prosecute offenders. It should also be a condition of employment that any employees/ workers caught poaching will be dismissed. Workers must be trained on how to deal with fauna species as intentional killing will not be tolerated. Where possible, work should be restricted to one area at a time, as this will give the smaller birds, mammals and reptiles a chance to weather the disturbance in an undisturbed zone close to their natural territories.
	<ul style="list-style-type: none"> Visual Impact 	Low	<ul style="list-style-type: none"> The contractor shall comply with the visual requirements of the Environmental Authorization. The contractor shall ensure that the visual impact of the construction activities is minimised.
	<ul style="list-style-type: none"> Pollution 	Low	<ul style="list-style-type: none"> The liberation of dust into the surrounding environment shall be effectively controlled by water spraying. Machinery or equipment used on the site must not constitute a



Activity	Impact summary	Significance	Proposed mitigation
			<p>pollution hazard in respect of air pollution via excessive exhaust fumes. This shall be inspected regularly by the contractor and rectified immediately.</p> <ul style="list-style-type: none"> • No open fires will be allowed to be made on site.
	<p>Indirect impacts:</p> <ul style="list-style-type: none"> • Optimisation of the local economy 	Medium to high	Where appropriate, use should be made of labour intensive construction methods - local emerging contractors should be used if at all possible.
	<p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Safety on site 	Low	<p>The implementation of an Occupational Health and Safety management system should be required of all contractors. Safety measures and work procedures/instructions should be communicated to all construction workers. First aid facilities shall be on hand at all times. Medical screening of employees shall take place.</p> <p>The contractor shall implement adequate and mandatory safety precautions relating to all aspects of the operation. Warning and advisory signage should also be implemented (also with regards to vehicular movement along public roads).</p>
	<ul style="list-style-type: none"> • Cleanliness <p>Vodacom should monitor the site on a regular basis during the construction phase.</p>	Low	<p>The site is to be maintained in a sanitary condition and all toilet facilities shall be maintained in good order. Food cooking will only be permitted in designated areas.</p>



Activity	Impact summary	Significance	Proposed mitigation
Alternative 2			
PLANNING AND DESIGN PHASE	<p>Direct impacts:</p> <ul style="list-style-type: none"> <u>Impact upon fauna and flora:</u> Due to the extremely limited extent of the proposed site (80m²), the impact upon fauna and flora will be minimal. During the project planning and design stages, Vodacom and its contractors, must take into account the recommendations of this Basic Assessment Report, so that it is positively utilised on a pro-active basis to aid in the mitigation of impacts. 	Low	Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided. Snaring and hunting of fauna by construction workers on or adjacent to the site are strictly prohibited and the Local Municipality shall prosecute offenders. It should also be a condition of employment that any employees/ workers caught poaching will be dismissed. Workers must be trained on how to deal with
	<ul style="list-style-type: none"> <u>Minimising of visual impact:</u> Due to the fact that the infrastructure in question will be a 25m high mast located among trees, it is deemed important that the visual impact be minimized. The proposed mast will be a lattice mast and one can look "through" it. This will assist to lessen the visual impact. Vodacom will implement elements of good visual design. 	Low to moderate	Retain as many existing trees as possible to screen the proposed mast. The proposed mast will remain galvanised to minimise the visual impact.
	<p>Indirect impacts:</p> <ul style="list-style-type: none"> Vodacom need to upgrade their network in the area. These network problems will be resolved after the mast has been erected 	Medium to high - positive	Vodacom reception will improve in the Ifafi area.
	<p>Cumulative impacts:</p> <ul style="list-style-type: none"> The size of the base station 	Low	Existing indigenous trees should



Activity	Impact summary	Significance	Proposed mitigation
	<p>will measure approximately 8m x 10m (80m²) in extent and is located among trees. Limited natural vegetation will need to be disturbed.</p> <ul style="list-style-type: none"> The residents in the area will benefit by this development as the cellular network in the area will be upgraded. 	<p>Medium to high - positive</p>	<p>be retained where possible. Excessive loss of vegetation should be avoided.</p> <p>Vodacom reception will improve in the Ifafi area.</p>
<p>CONSTRUCTION PHASE</p>	<p>Direct impacts:</p> <ul style="list-style-type: none"> Floral Disturbances Faunal Disturbances 	<p>Low to medium</p> <p>Low to medium</p>	<ul style="list-style-type: none"> Before any vegetation is removed, a suitably qualified person (i.e. on Environmental Control Officer request of a vegetation specialist) shall inspect the study area for any plant/ grass/tree species that could be transplanted to other similar/suitable areas. All invader or exotic plant species must be removed from the site and disposed of at a landfill site. Only indigenous floral species may be used during landscaping and rehabilitation. Snaring and hunting of fauna by construction workers on or adjacent to the site are strictly prohibited and the Local Municipality shall prosecute offenders. It should also be a condition of employment that any employees/ workers caught poaching will be dismissed. Workers must be trained on how to deal with fauna species as



Activity	Impact summary	Significance	Proposed mitigation
	<ul style="list-style-type: none"> • Visual Impact • Pollution 	<p>Low</p> <p>Low</p>	<p>intentional killing will not be tolerated.</p> <ul style="list-style-type: none"> • Where possible, work should be restricted to one area at a time, as this will give the smaller birds, mammals and reptiles a chance to weather the disturbance in an undisturbed zone close to their natural territories. • The contractor shall comply with the visual requirements of the Environmental Authorization. • The contractor shall ensure that the visual impact of the construction activities is minimised. • The liberation of dust into the surrounding environment shall be effectively controlled by water spraying. • Machinery or equipment used on the site must not constitute a pollution hazard in respect of air pollution via excessive exhaust fumes. This shall be inspected regularly by the contractor and rectified immediately. • No open fires will be allowed to be made on site.
	<p>Indirect impacts:</p> <ul style="list-style-type: none"> • Optimisation of the local economy 	<p>Medium to high</p>	<p>Where appropriate, use should be made of labour intensive construction methods - local emerging contractors should be used if at all possible.</p>
	<p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Safety on site 	<p>Low</p>	<p>The implementation of an</p>



Activity	Impact summary	Significance	Proposed mitigation
	<ul style="list-style-type: none"> Cleanliness <p>Vodacom should monitor the site on a regular basis during the construction phase.</p>	Low	<p>Occupational Health and Safety management system should be required of all contractors. Safety measures and work procedures/instructions should be communicated to all construction workers. First aid facilities shall be on hand at all times. Medical screening of employees shall take place.</p> <p>The contractor shall implement adequate and mandatory safety precautions relating to all aspects of the operation. Warning and advisory signage should also be implemented (also with regards to vehicular movement along public roads).</p> <p>The site is to be maintained in a sanitary condition and all toilet facilities shall be maintained in good order. Food cooking will only be permitted in designated areas.</p>
Alternative 3			
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		



Activity	Impact summary	Significance	Proposed mitigation
No-go option			
	Direct impacts: Poor cell phone coverage in this area	Medium	The coverage and capacity problem will not be solved in the area should the mast not be erected.
	Indirect impacts: Due to the extremely limited extent of the proposed mast site (80m ²), the impact upon fauna and flora will be minimal.	Medium	No vegetation will be removed from the site.
	Cumulative impacts: The cell phone coverage and capacity will remain problematic in the area should this activity not take place.	Medium	Should the mast not be built on the proposed site, then an alternative site must be planned.

A complete impact assessment which include process undertaken to identify, assess and rank the impacts, the activity will impose on the site through the life of the activity in terms of EIA Regulation 2014, Appendix 1(i) and (j) of GN R.982 must be included as Appendix H.

2. ENVIRONMENTAL IMPACT STATEMENT

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

Alternative A (preferred alternative)

Concerns relating to the social impacts of a development such as this one could range around aspects such as dissatisfaction with the proposed infrastructure based on value judgements, e.g. perceptions that the “sense of place” could be disturbed.

It is recommended that possible negative impacts be mitigated through the implementation of the proposals contained in this report.

The writer came to the conclusion that, done in the right way the advantages of the proposed development, will outweigh the social disadvantages, which might result from the installation and existence of this infrastructure.



Alternative B

Concerns relating to the social impacts of a development such as this one could range around aspects such as dissatisfaction with the proposed infrastructure based on value judgements, e.g. perceptions that the “sense of place” could be disturbed.

It is recommended that possible negative impacts be mitigated through the implementation of the proposals contained in this report.

The writer came to the conclusion that, done in the right way the advantages of the proposed development, will outweigh the social disadvantages, which might result from the installation and existence of this infrastructure.

Alternative C

No-go alternative (compulsory)

The Department of Environmental Affairs stresses the consideration of the “no development/no-action” option in cases where a proposed development is envisaged to have significant negative environmental impacts, or where such impacts cannot be mitigated against effectively or satisfactorily. The IEM procedure suggests that the “no action” option should be considered as an alternative. This option is normally considered during a full EIA where significant negative environmental impacts are expected or if the proposed site is considered to be ecologically sensitive or unique.

Due to the extremely limited extent of the proposed mast site (80m²), the impact upon fauna and flora will be minimal.

The cell phone coverage and capacity will remain problematic in the area should this activity not take place. Should the mast not be built on the proposed site, then an alternative site must be planned.



SECTION D: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Kormorant	
Date published	27 July 2017	
Site notice position	Latitude	Longitude
	S 25° 44' 42,6"	E 27° 53' 49,4"
	S 25° 44' 49,4"	E 27° 53' 51,5"
Date placed	27 July 2017	

Include proof of the placement of the relevant advertisements and notices in Appendix I1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN R.982.

All adjacent landowners were informed of proposed Vodacom mast. Contact details were obtained via Windeed.

Key stakeholders (other than organs of state) identified in terms of Regulation 40(2)(d) of GN R.982:

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Mr. R.P.G. Prinsloo	Adjacent Landowner	P.O. Box 1371 WELKOM 9460
Mr. J.M.H. Becker	Adjacent Landowner	Windsorstraat 114 Gerdview FARRARMERE 1401
Mr. D. Janse Van Rensburg	Adjacent Landowner	P.O. Box 253 IFAFI 0260
Mr. J.H. Bothma	Adjacent Landowner	31 Rossouw Street



		LYDENBURG 1120
Mr. N.P. Kemper	Adjacent Landowner	P.O. Box 890 IFAFI 0260
Mr. S.V. Smith	Adjacent Landowner	55 Die Ou Wapad Street IFAFI 0260
Mr. J.W. Jacobs	Adjacent Landowner	16 Buskruit Avenue IFAFI 0260
Mr. P. Brand	Adjacent Landowner	P.O. Box 132 BROEDERSTROOM 0240
Mr. D. Mileham	Adjacent Landowner	P.O. Box 525 BRITS 0250
Mr. P.A. Opperman	Adjacent Landowner	P.O. Box 25 IFAFI 0260
Mr. R. du Toit	Adjacent Landowner	P.O. Box 404 SEDFIELD 6573
Ms. S.E.M. Hitge	Adjacent Landowner	P.O. Box 678 BRITS 0250
Mr. W.K. Moerane	Adjacent Landowner	P.O. Box 1118 IFAFI 0260
Ms. J.T. Pretorius	Adjacent Landowner	P.O. Box 1877 HARTBEESPOORT 0216



Include proof that the key stakeholder received written notification of the proposed activities as Appendix I2. 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.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Dr. S.V. Smith and Mr. P. Brand have registered as Interested and Affected Parties.

Summary of main issues raised by I&APs	Summary of response from EAP
<p>Dr. S.V. Smith:</p> <ol style="list-style-type: none"> 1. The dangers RF Waves. 2. Security concern. 3. Drop in property value. 4. Lightning risk. 	<ol style="list-style-type: none"> 1. Vodacom strives to provide its 33.3 million customers uninterrupted mobile connectivity without endangering their health. This is in line with their purpose, “to empower everyone to be confidently connected.” <p>The health and safety of Vodacom’s customers, employees, contractors and the public is very important to them. To this end, did they put in policies and procedures to govern the implementation of all radio base stations.</p> <p>Vodacom, like all Global network operators, ensures that all its radio base stations comply with internationally accepted standards and norms. Vodacom looks to the World Health Organisation (WHO) and the South African Department of Health for guidance on all health related items.</p> <p>Vodacom fully understands that some people have concerns about the potential for health effects from base stations and they respect these concerns. The WHO which looks at the totality of scientific evidence gathered from thousands of studies over more than 20 years has said that:</p> <p>“Despite extensive research, to date there is no evidence to conclude that exposure to low level electromagnetic fields is harmful to human health.”</p>



In relation to base stations and health, the conclusion from the WHO is “Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak Radio Frequency (RF) signals from base stations and wireless networks cause adverse health effects.”

A letter from the Department of Health on the subject is attached.

Mobile devices cannot work without radio base stations. Vodacom’s comprehensive network of radio base stations allows them to keep improving their coverage and to introduce new services such as video calling and faster internet connections. Most people welcome improved coverage and services, but Vodacom recognises that expanding their network can sometimes cause concern, usually about the visual impact of base stations or health issues concerning radio frequency (RF) fields.

Research into the possible health effects of radio frequency fields has been going on for almost 70 years, and there has been more specific research into mobile phones in the last few decades. This is a continuous process that considers all the available evidence. The majority of experts and national advisory boards say there is no scientific reason to distance base stations from places where people live and work, as long as the International Commission for Non-Ionizing Radiation Protection (ICNIRP) guidelines are adhered to.

All the Vodacom base stations are designed to comply with the limits of the ICNIRP guidelines for limiting exposure to RF fields. In fact, RF EMF measurements taken on Vodacom’s radio base stations are typically many times below the guideline limit in public accessible areas. An independent company (EMSS Consulting) is used for designing and verifying the ICNIRP exposure levels of all Vodacom’s radio base stations.

2. The proposed Vodacom site will be fenced with palisade. The entrance to the base station will be from the road (Ou



	<p>Wapad). The maintenance teams will only have access to the 80m² base station, they will not have access to the rest of the property.</p> <p>3. The proposed Vodacom mast will be an asset to the local community as it will improve the Vodacom coverage in the Ifafi area.</p> <p>The local community will benefit by the proposed development. Cell phone coverage in the Ifafi area will improve and internet access will also improve.</p> <p>4. The proposed Vodacom mast will be equipped with a lightning conductor. The aim of the lightning conductor is that a preferential point of discharge is provided for the lightning to strike.</p>
<p>Mr. P. Brand:</p> <ol style="list-style-type: none"> 1. Electromagnetic radiations. 2. Other health issues. 3. Impact on birds. 4. Children and unborn. 	<p>Due to the fact that the infrastructure in question will be a 25m high mast located among trees, it is deemed important that the visual impact be minimized. The proposed mast will be a lattice mast and one can look “through” it. This will assist to lessen the visual impact. Vodacom will implement elements of good visual design. The proposed mast will remain galvanised, which will assist to reduce the visual impact.</p> <p>1. Vodacom strives to provide its 33.3 million customers uninterrupted mobile connectivity without endangering their health. This is in line with their purpose, “to empower everyone to be confidently connected.”</p> <p>The health and safety of Vodacom’s customers, employees, contractors and the public is very important to them. To this end, did they put in policies and procedures to govern the implementation of all radio base stations.</p> <p>Vodacom, like all Global network operators, ensures that all its radio base stations comply with internationally accepted standards and norms. Vodacom looks to the World Health Organisation (WHO) and the South African Department of Health for guidance on all health related items.</p> <p>Vodacom fully understands that some people have concerns</p>



	<p>about the potential for health effects from base stations and they respect these concerns. The WHO which looks at the totality of scientific evidence gathered from thousands of studies over more than 20 years has said that:</p> <p>“Despite extensive research, to date there is no evidence to conclude that exposure to low level electromagnetic fields is harmful to human health.”</p> <p>In relation to base stations and health, the conclusion from the WHO is “Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak Radio Frequency (RF) signals from base stations and wireless networks cause adverse health effects.”</p> <p>A letter from the Department of Health on the subject is attached.</p> <p>Mobile devices cannot work without radio base stations. Vodacom’s comprehensive network of radio base stations allows them to keep improving their coverage and to introduce new services such as video calling and faster internet connections. Most people welcome improved coverage and services, but Vodacom recognises that expanding their network can sometimes cause concern, usually about the visual impact of base stations or health issues concerning radio frequency (RF) fields.</p> <p>Research into the possible health effects of radio frequency fields has been going on for almost 70 years, and there has been more specific research into mobile phones in the last few decades. This is a continuous process that considers all the available evidence. The majority of experts and national advisory boards say there is no scientific reason to distance base stations from places where people live and work, as long as the International Commission for Non-Ionizing Radiation Protection (ICNIRP) guidelines are adhered to.</p> <p>All the Vodacom base stations are designed to comply with the limits of the ICNIRP guidelines for limiting exposure to RF fields. In fact, RF EMF measurements taken on Vodacom’s</p>
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radio base stations are typically many times below the guideline limit in public accessible areas. An independent company (EMSS Consulting) is used for designing and verifying the ICNIRP exposure levels of all Vodacom's radio base stations.

2. A biological effect occurs when a change can be measured in a biological system in response to a stimulus or change in the environment. However, a biological effect is not the same as a health hazard. A biological effect only becomes a health hazard when it damages the health of an individual.

It has been known for many years that exposure to sufficiently high levels of radio signals can heat biological tissue and potentially cause tissue damage if the human body cannot cope with the extra heat. Studies have consistently shown that the radio signals routinely encountered by the public are far below the levels needed to produce significant heating and increased body temperature.

Much of the public concern relates to the possibility of health hazards from long term exposures at levels too low to produce measurable heating. There have been studies reporting biological effects but not health hazards at low levels. In many cases, the studies have not been subject to scientific peer review or the results have not been independently confirmed. The international consensus is that current limits are based on all the available scientific evidence, incorporate large safety factors and are highly protective of health.

"...Recent research on exposure from transmitters has mainly focused on cancer and symptoms, using improved study designs. These new data do not indicate health risks for the general public related to exposure to radiofrequency electromagnetic fields from base stations for mobile telephony, radio and TV transmitters, or wireless local data networks at home or in schools." SSMS Independent Expert Group on Electromagnetic Fields (Sweden), 2013.

"...no evidence has been found that exposure to radiofrequency electromagnetic fields has a negative



	<p><i>influence on the development and functioning of children's brains, not even if this exposure is frequent." Health Council of the Netherlands, 2011</i></p> <p>3. The proposed Vodacom mast will not be constructed nearby a roosting spot. Birds come in daily to the area to come and feed. Any other alternative location that will be identified by Vodacom will be in an area where birds do occur. It was observed in the past that birds make nests in cell phone towers.</p> <p>4. Some parents are concerned about whether there are health risks for children using mobile phones or where base stations are sited close to schools, day care centres or homes.</p> <p>National authorities in some countries have recommended precautionary restrictions on phone use by younger children due to concern about possible greater vulnerability and to limit longer lifetime exposures if there is an unrecognised health risk.</p> <p>The WHO has concluded that current scientific evidence does not justify specific measures and that international safety guidelines are protective of all persons, including children and pregnant women.</p>
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4. COMMENTS AND RESPONSE REPORT

The practitioner must make report (s) available to I&APs record all comments received from I&APs and respond to each comment before 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 I3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders. Key stakeholders identified in terms of Regulation 7(1) and (2) and Regulation 40(2) (a)-(c) of GN R.982:



Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Councillor - Ifafi		(012) 318 9100	(012) 318 9203		P.O. Box 106 BRITS 0250
Bojanala Platinum District Municipality	Mr. P. Shikwane	(014) 590 4502	(014) 597 0306	info@bojanala.gov.za	P.O. Box 1993 RUSTENBURG 0300
Madibeng Local Municipality	Ms. Grace Magole	(012) 318 9212	(012) 318 9203	customer care@madibeng.gov.za	P.O. Box 106 BRITS 0250

Include proof that the Authorities and Organs of State received written notification and draft reports of the proposed activities as Appendix I4.

6. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

A list of registered I&APs must be included as Appendix I5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix I6.



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

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).

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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.

The surrounding environment must not be disturbed and the site must be cleared of all waste after construction. The applicant must adhere to Section C of this report and attached EMPr.

The EMPr that meet the requirements of EIA Regulation, 2014, Appendix 4, must be attached as Appendix J.
Is an EMPr attached?

YES

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 K

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

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



SECTION F: AFFIRMATION BY EAP

I **Anton von Well** (name of person representing EAP) of **Tekplan Environmental** (name of company) declare that the information provided is correct and relevant to the activity/ project and that, the information was made available to interested and affected parties for their comments. All specialist (s) reports are relevant for the competent authority to make informed decision.

SIGNATURE OF EAP

DATE



SECTION F: APPENDICES

The following appendices must be attached:

Appendix A: A3 Locality Map

Appendix B: Layout Plan and Sensitivity Maps

Appendix C: Photographs

Appendix D: Facility illustration(s)

Appendix E: Confirmation of services by Municipality (servitude and infrastructure planning)

Appendix F: Details and expertise of Specialist and Declaration of Interest

Appendix G: Specialist reports (including terms of reference)

Appendix H: Impact Assessment

Appendix I: Public Participation

Appendix J: Environmental Management Programme (EMPr)

Appendix K: Details of EAP and expertise

Appendix L: Any other Information

Appendix M: Financial Provision (if applicable)

Appendix N: Closure Plan (where applicable) as described in Appendix 5 of EIA Regulations, 2014

