

**APPLICATION FOR AUTHORISATION  
IN TERMS OF THE  
NATIONAL ENVIRONMENTAL  
MANAGEMENT ACT, 1998  
(ACT 107 OF 1998)**

**CONSULTATION  
BASIC ASSESSMENT REPORT**

**PROJECT:**

**VODACOM BASE STATION:  
MONOTWANE  
(BS 143429)**



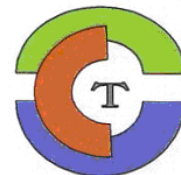
**vodacom**

**Environmental Consultant:**

***TEKPLAN***

(Reg. No. 2000/019116/23)

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**APRIL 2018**



# LIMPOPO

PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

## DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

### BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2014

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.

File Reference Number:

|  |
|--|
|  |
|--|

NEAS Reference Number:

(For official use only)

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

|  |
|--|
|  |
|  |
|  |
|  |
|  |

Kindly note that:

1. The report must be compiled by an independent Environmental Assessment Practitioner.
2. 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.
3. Where applicable **tick** the boxes that are applicable in the report.
4. 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 Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.
5. An incomplete report may be returned to the applicant for revision.
6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.
8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.
9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.
10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

|   |  |
|---|--|
| <p><b><u>Postal Address:</u></b><br/> Central Administration Office<br/> Environmental Impact Management<br/> P. O. Box 55464<br/> <b>POLOKWANE</b><br/> 0700</p>   | <p><b><u>Physical Address:</u></b><br/> Central Administration Office<br/> Environmental Affairs Building<br/> Cnr Suid and Dorp Streets<br/> <b>POLOKWANE</b><br/> 0699</p> |
| <p><b>Queries should be directed to the Central Administration Office: Environmental Impact Management:-</b></p> <p><b>For attention:</b> Mr E. V. Maluleke</p> <p><b>Tel:</b> (015) 290 7138/ (015) 290 7167</p> <p><b>Fax:</b> (015) 295 5015</p> <p><b>Email:</b> <a href="mailto:malulekeev@ledet.gov.za">malulekeev@ledet.gov.za</a></p> |  |

View the Department's website at [http://www.ledet.gov.za/](http://www.ledet.gov.za) for the latest version of the documents.

## SECTION A: ACTIVITY INFORMATION

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" or appointment of a specialist for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

### 1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail<sup>1</sup>:

**Vodacom intends to construct a 55m 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 12m x 12m (144m<sup>2</sup>).**

### 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. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity 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 Department 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. **The Reader is referred to Appendix G (Assessment of Alternatives) for a description of the identified alternatives that have been investigated.**

<sup>1</sup> Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

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

### 3. ACTIVITY POSITION

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 Hartebeeshoek94 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

**Alternative:**

**Latitude (S):**

**Longitude (E):**

Alternative S1<sup>2</sup> (preferred or only site alternative)

|     |     |       |     |     |       |
|-----|-----|-------|-----|-----|-------|
| 24° | 33' | 44,9" | 30° | 15' | 48,9" |
| °   | '   | "     | °   | '   | "     |
| °   | '   | "     | °   | '   | "     |

Alternative S2 (if any)

Alternative S3 (if any)

**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 meters along the route for each alternative alignment.

### 4. PHYSICAL SIZE OF THE ACTIVITY

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

<sup>2</sup> "Alternative S.." refer to site alternatives.

**Alternative:**

Alternative A1<sup>3</sup> (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

or,

for linear activities:

**Size of the activity:**

|                   |
|-------------------|
| 144m <sup>2</sup> |
| m <sup>2</sup>    |
| m <sup>2</sup>    |

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

**Length of the activity:**

|   |
|---|
| m |
| m |
| m |

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

**Size of the site/servitude:**

**Alternative:**

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

|                   |
|-------------------|
| 144m <sup>2</sup> |
| m <sup>2</sup>    |
| m <sup>2</sup>    |

**5. SITE ACCESS**

**Does ready access to the site exist?**

|     |                                     |
|-----|-------------------------------------|
| YES | <input checked="" type="checkbox"/> |
|     | m                                   |

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

**Describe the type of access road planned:**

**The existing access road (used to access the existing masts) will be used.**

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.

<sup>3</sup> "Alternative A.." refer to activity, process, technology or other alternatives.  
LEDET BA Report, EIA 2014: Project Name: Vodacom Base Station: Monotwane

## 6. SITE OR 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:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
  - rivers;
  - the 1:100 year flood line (where available or where it is required by Department of Water Affairs);
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.10 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
- 6.11 the positions from where photographs of the site were taken.

## 7. 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 form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

## 8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 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.

## 11. ACTIVITY MOTIVATION

### 9(a) Socio-economic value of the activity

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

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

|                                       |
|---------------------------------------|
| <b>R2 million</b>                     |
| <b>Depends on the number of users</b> |

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 phase of the activity?

Vodacom to sub-contract

What is the expected value of the employment opportunities during the development 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

**9(b) Need and desirability of the activity**

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

|              |  |     |
|--------------|--|-----|
| <b>NEED:</b> |  |     |
| i.           | Was the relevant municipality involved in the application?                                       | YES |
| ii.          | Does the proposed land use fall within the municipal Integrated Development Plan?                | YES |
| iii.         | If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation: |     |
|              |  |     |
|              |  |     |

|                      |   |     |
|----------------------|---|-----|
| <b>DESIRABILITY:</b> |   |     |
| i.                   | Does the proposed land use / development fit the surrounding area?  | YES |
| ii.                  | Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area? | YES |
| iii.                 | Will the benefits of the proposed land use / development outweigh the negative impacts of it?   | YES |
| iv.                  | If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:  |     |
|                      |   |     |
|                      |   |     |
| v.                   | Will the proposed land use / development impact on the sense of place?  | NO  |



|       |  |  |    |
|-------|--|--|----|
| vi.   | Will the proposed land use / development set a precedent?  |  | NO |
| vii.  | Will any person's rights be affected by the proposed land use / development?                       |  | NO |
| viii. | Will the proposed land use / development compromise the "urban edge"?                              |  | NO |
| ix.   | If the answer to any of the question 5-8 was YES, please provide further motivation / explanation. |  |    |
|       |  |  |    |
|       |  |  |    |

|                  |   |     |  |
|------------------|---|-----|--|
| <b>BENEFITS:</b> |   |     |  |
| i.               | Will the land use / development have any benefits for society in general?   | YES |  |
| ii.              | Explain: <b>The society in general will benefit, as the cellular network (coverage and capacity) will be improved. The proposed mast will also improve the transmission link between the base stations in the surrounding area.</b> |     |  |
|                  |   |     |  |
| iii.             | Will the land use / development have any benefits for the local communities where it will be located?   | YES |  |
| iv.              | Explain: <b>The local community (surrounding villages) in general will benefit, as the cellular network (coverage and capacity) will be improved.</b>   |     |  |
|                  |   |     |  |
|                  |   |     |  |

## 10. 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:

| <b>Title of legislation, policy or guideline:</b>                                     | <b>Administering authority:</b>                     | <b>Date:</b> |
|---|---|--------------|
| <b>Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998)</b> | <b>Department of Environmental Affairs</b>          | <b>2014</b>  |
| <b>Constitution of South Africa (Act 108 of 1996)</b>                                 | <b>Department of Environmental Affairs</b>          | <b>1996</b>  |
| <b>National Heritage Resources Act (Act 25 of 1999)</b>                               | <b>SAHRA</b>  | <b>1999</b>  |
| <b>Occupational Health and Safety Act (Act 85 of 1993)</b>                            | <b>Department of Health</b>                         | <b>1993</b>  |
| <b>Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)</b>            | <b>Fetakgomo-Greater Tubatse Local Municipality</b> | <b>2013</b>  |

## 11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

### 11(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?

5m<sup>3</sup>

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

**Limited construction waste will be generated during the construction phase as most of the parts are premanufactured and only being re-assembled on site. Any 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)?

N/A

Where will the solid waste be disposed 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 department 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 relevant legislation?

NO

If yes, inform the department and request a change to an application for scoping and EIA.

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 Department to determine whether it is necessary to change to an application for scoping and EIA.

### 11(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?  YES  NO

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

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

If yes, provide the particulars of the facility:

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

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

|  |
|--|
|  |
|--|

### 11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?  YES  NO

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

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

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

**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.**

**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 (See Appendix G - Information regarding Electromagnetic Radiation from Base Stations).**

### 11(d) Generation of noise

Will the activity generate noise?  YES  NO

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:

-

### 12. 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

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 permit from the Department of Water Affairs?

NO

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

### 13. ENERGY EFFICIENCY

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

**Eskom Electricity is already available in the vicinity of the site. Vodacom will make use of the most energy efficient components for the base station.**

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

**Eskom Electricity is already available in the vicinity of the site.**

## SECTION B: SITE/AREA/PROPERTY DESCRIPTION

#### Important notes:

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

Section C Copy No.   
(e.g. A):

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

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

NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Property description/physical address:

**The site is located on the Farm Rooiboklaagte 259 KT, on a mountain adjacent to a Sentech mast, near Ga-Riba Village, within the Fetakgomo-Tubatse Municipality area.**

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:

**Agricultural**

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

Must a building plan be submitted to the local authority?

YES

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 indication of the project site position as well as the positions of the alternative sites, if any;
- 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. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

## 1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

1:15 – 1:10

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 |
|------|-------------|-------------|-------------|--------------|-------------|------------------|

## 2. LOCATION IN LANDSCAPE

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

|                                 |   |                                  |  |
|---------------------------------|---|----------------------------------|--|
| 2.1 Ridgeline                   | √ | 2.6 Plain                        |  |
| 2.2 Plateau                     |   | 2.7 Undulating plain / low hills |  |
| 2.3 Side slope of hill/mountain |   | 2.8 Dune                         |  |
| 2.4 Closed valley               |   | 2.9 Seafront                     |  |
| 2.5 Open valley                 |   |                                  |  |

## 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

|  | Alternative S1: | Alternative S2 (if any): | Alternative S3 (if any): |
|--|-----------------|--------------------------|--------------------------|
| Shallow water table (less than 1.5m deep)                  | NO              | YES NO                   | YES NO                   |
| Dolomite, sinkhole or doline areas                         | NO              | YES NO                   | YES NO                   |
| Seasonally wet soils (often close to water bodies)         | NO              | YES NO                   | YES NO                   |
| Unstable rocky slopes or steep slopes with loose soil      | NO              | YES NO                   | YES NO                   |
| Dispersive soils (soils that dissolve in water)            | NO              | YES NO                   | YES NO                   |
| Soils with high clay content (clay fraction more than 40%) | NO              | YES NO                   | YES NO                   |
| Any other unstable soil or geological feature              | NO              | YES NO                   | YES NO                   |
| An area sensitive to erosion                               | YES             | 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).

## 4. GROUNDCOVER

Indicate the types of groundcover present on the site:

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

|  |  |
|--|--|
| Natural veld - good condition <sup>E</sup> |  |
|--|--|

|  |                             |           |
|--|-----------------------------|-----------|
|  | 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.

**5. LAND USE CHARACTER OF SURROUNDING AREA**

**Indicate land uses and/or prominent features that does 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:**

|  |   |  |   |
|--|---|--|---|
| 5.1 Natural area                             | √ | 5.22 School  |   |
| 5.2 Low density residential                  |   | 5.23 Tertiary education facility   |   |
| 5.3 Medium density residential               |   | 5.24 Church  |   |
| 5.4 High density residential                 |   | 5.25 Old age home  |   |
| 5.5 Medium industrial <sup>AN</sup>          |   | 5.26 Museum  |   |
| 5.6 Office/consulting room                   |   | 5.27 Historical building   |   |
| 5.7 Military or police base/station/compound |   | 5.28 Protected Area  |   |
| 5.8 Spoil heap or slimes dam <sup>A</sup>    |   | 5.29 Sewage treatment plant <sup>A</sup>                                   |   |
| 5.9 Light industrial                         |   | 5.30 Train station or shunting yard <sup>N</sup>                           |   |
| 5.10 Heavy industrial <sup>AN</sup>          |   | 5.31 Railway line <sup>N</sup>   |   |
| 5.11 Power station                           |   | 5.32 Major road (4 lanes or more)  |   |
| 5.12 Sport facilities                        |   | 5.33 Airport <sup>N</sup>  |   |
| 5.13 Golf course                             |   | 5.34 Harbour   |   |
| 5.14 Polo fields                             |   | 5.35 Quarry, sand or borrow pit  |   |
| 5.15 Filling station <sup>H</sup>            |   | 5.36 Hospital/medical centre   |   |
| 5.16 Landfill or waste treatment site        |   | 5.37 River, stream or wetland  |   |
| 5.17 Plantation                              |   | 5.38 Nature conservation area  |   |
| 5.18 Agriculture                             | √ | 5.39 Mountain, koppie or ridge   | √ |
| 5.19 Archaeological site                     |   | 5.40 Graveyard   |   |
| 5.20 Quarry, sand or borrow pit              |   | 5.41 River, stream or wetland  |   |
| 5.21 Dam or Reservoir                        |   | 5.42 Other land uses (describe)<br><b>Existing telecommunication masts</b> | √ |

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

|   |
|---|
| - |
|---|

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

|                              |   |
|------------------------------|---|
| If YES, specify and explain: | - |
| If NO, specify:              | - |

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

|                              |   |
|------------------------------|---|
| If YES, specify and explain: | - |
| If NO, specify:              | - |

**6. 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

|           |
|-----------|
| <b>NO</b> |
|-----------|

Archaeological or palaeontological sites, on or close (within 20m) to the site?

If YES, explain:

|  |
|--|
|  |
|--|

If uncertain, conduct a specialist investigation by a recognised specialist in the field 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?

|           |
|-----------|
| <b>NO</b> |
| <b>NO</b> |

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

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.



## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the department) at a place conspicuous to the public at the boundary or on the fence of—
  - (i) the site where the activity to which the application relates is or is to be undertaken; and
  - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
  - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  - (v) the municipality which has jurisdiction in the area;
  - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
  - (vii) any other party as required by the department;
- (c) placing an advertisement in—
  - (i) one local newspaper; or
  - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the department, in those instances where a person is desiring of but unable to participate in the process due to—
  - (i) illiteracy;
  - (ii) disability; or
  - (iii) any other disadvantage.

## **2. CONTENT OF ADVERTISEMENTS AND NOTICES**

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
  - (i) that the application has been submitted to the department in terms of these Regulations, as the case may be;
  - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
  - (iii) the nature and location of the activity to which the application relates;
  - (iv) where further information on the application or activity can be obtained; and
  - (v) the manner in which and the person to whom representations in respect of the application may be made.

## **3. PLACEMENT OF ADVERTISEMENTS AND NOTICES**

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the department in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these Regulations.

Advertisements and notices must make provision for all alternatives.

## **4. DETERMINATION OF APPROPRIATE MEASURES**

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the department to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

## **5. COMMENTS AND RESPONSE REPORT**

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in

these Regulations and be attached to this application. The comments and response report must be attached under Appendix E.

## 6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

| <b>Name of Authority informed:</b>            | <b>Comments received (Yes or No)</b> |
|---|--------------------------------------|
| Sekhukhune District Municipality              | No                                   |
| Fetakgomo-Tubatse Local Municipality          | No                                   |
| Limpopo Heritage Resources Authority          | No                                   |
| Department of Mineral Resources               | No                                   |
| Department of Rural Development & Land Reform | No                                   |
| Sentech (Pty) Ltd                             | No                                   |

### 1. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the department.

Proof of any such agreement must be provided, where applicable.

**Has any comment been received from stakeholders?**

|  |           |
|--|-----------|
|  | <b>NO</b> |
|--|-----------|

**If “YES”, briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):**

**No comments / objections were received from stakeholders.**

## SECTION D: IMPACT ASSESSMENT

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

### 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

**No comments / objections were received from stakeholders.**

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

**Copies of the Consultation Basic Assessment Report (BAR) were sent to the following I&AP's to comment on:**

- Sekhukhune District Municipality
- Fetakgomo-Tubatse Local Municipality
- LIHRA
- SAHRA
- Sentech

### 2. 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

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) 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.

#### Alternative (preferred alternative)

##### PLANNING AND DESIGN PHASE

###### **Direct impacts:**

- Impact upon fauna and flora:

*Due to the extremely limited extent of the proposed site (144m<sup>2</sup>), the impact upon fauna and flora will be minimal. The identified site was chosen as it is located on a flat open area, adjacent to existing masts, and limited natural vegetation will need to be cleared. 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.*

- Minimising of visual impact:

*Due to the fact that the infrastructure in question will be a 55m high mast located on a mountain, 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 mast will be painted red and white (as per Civil Aviation Authority specification). The visual impact created by the existing telecommunication masts (especially the high Sentech mast) located in the vicinity of the proposed mast will also assist to lessen the visual impact of the new proposed mast.*

**Indirect impacts:**

- Vodacom need to upgrade their network in the area. These network problems will be resolved after the mast has been erected:

*The proposed infrastructure will improve the cellular coverage and capacity in the area and will also improve the transmission link between the base stations in the surrounding area.*

**Cumulative impacts:**

- *The size of the base station will measure approximately 12m x 12m (144m<sup>2</sup>) in extent and is located on a flat open area, adjacent to existing masts. Limited natural vegetation will need to be disturbed, except for grass. There is an existing access road to the proposed site that will be used.*
- *The residents in the area will benefit by this development as the cellular network in the area will be upgraded.*

**CONSTRUCTION PHASE**

**Direct impacts:**

- Earthworks:

*All excavation activities for any purpose whatsoever should be preceded by selective stripping and stockpiling of vegetative (humus) and soil materials in the order of their horizons as found on site, for the purpose of replacement in the appropriate horizon order, after the completion of construction. These activities should include:*

- *trenching for the installation of services (e.g. electricity),*
- *foundations,*
- *access road construction,*
- *site clearance,*
- *borrow pits, and*
- *yards or lay-down areas or any other areas affecting the natural environment.*

*Replacement and rehabilitation should be progressive with construction and not left until the end. Temporary topsoil stockpiles should be seeded, or protected in a manner acceptable to the environmental planner, so as to avoid erosion by rain or wind.*

*Stockpiled topsoil and sub-soils should be protected from contamination e.g. by fuel spillages etc.*

- Vehicular access and movement of construction vehicles:

*The following mitigatory measures are deemed necessary to ensure safe and efficient traffic flow to and from the mast site, during construction:*

- *Posting of relevant traffic signage where construction will take place (to inform motorists/residents of construction vehicles).*
- *Adequate parking shall be provided on site, to accommodate construction vehicles - no vehicles should be parked in any public road reserve, at any time.*
- *The existing access road to the proposed site that must be used.*
  
- Contractors' yards:  
*A material delivery and storage area should be demarcated in co-ordination with the contractor. Material should not be brought onto a site prematurely, which could result in additional areas being cleared or affected.*
  
- Rehabilitate compacted soils:  
*Soils compacted by construction activity shall be deep ripped to loosen compacted layers and graded evenly. Topsoil shall be re-spread upon completion of construction activities.*
  
- Impacts on the biological environment:
  - *Due to the extremely limited extent of the proposed activity (144m<sup>2</sup>), the impact upon the biological environment will be minimal. Limited natural vegetation will need to be disturbed, except for grass.*
  
- *Capture or snaring of birds or other fauna must be strictly prohibited on site - especially w.r.t. contractors' employees. Fauna may be temporarily displaced from the area during construction due to the noise and activity. The immediate proximity of other available habitat means that this impact is of moderate significance. There is an existing access road to the proposed site that will be used.*
  
- Toilet facilities:  
*The use of portable chemical toilets for use by the labour force is essential to avoid pollution and attraction of vermin and flies (which could become a nuisance or a health hazard).*
  
- Waste handling:  
*Contractors should remove all waste generated by themselves during construction and it should be disposed of at a suitable solid waste disposal venue. Waste material will be kept in designated areas.*
  
- Mixing cement:  
*Where cement and concrete, etc. is mixed on site, this shall be done in specified areas on concrete aprons or on protected plastic linings and provision shall be made to contain spillage or overflows onto soils.*
  
- Mixing of chemicals:  
*The mixing of any paints, solvents, sealants, adhesives, chemicals or other noxious materials shall only be undertaken in designated areas on concrete aprons that have spillage control channels and separate storage areas. The mixing of materials shall not be permitted in the general areas of the site. All surplus or waste materials are to be removed from the site. All these operations shall only be allowed on site under strict observations of the manufacturers' instructions.*

- Silencing of plant:  
*All plant and vehicles on the site will be equipped with noise suppressing measures and kept in proper working order. Where working at the site, noise levels must be within ambient noise level. Excessive noise from the labour force should be avoided, as this may cause a nuisance to adjacent areas.*
- Maintain vehicles:  
*Vehicles and equipment shall be maintained in proper working order, in order to limit gaseous emissions, pollution and should be free from oil and hydraulic fluid leaks, etc.*
- Fires:  
*No fires will be permitted on site without the authority of the resident engineer or project manager.*

**Indirect impacts:**

- Optimisation of the local economy:  
*Where appropriate, use should be made of labour intensive construction methods - local emerging contractors should be used if at all possible.*

**Cumulative impacts:**

- Safety on site:  
*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.*

*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).*

- Cleanliness:  
*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.*

Vodacom should monitor the site on a regular basis during the construction phase.

**OPERATIONAL PHASE**

**Direct impacts:**

- Handling of objections:  
*In cases where inhabitants of the surrounding areas have objections to the infrastructure, Vodacom should meet with such persons in order to discuss and address their concerns. Records of such deliberations to be circulated to all parties involved (including relevant provincial departments/authorities).*
- Minimising of visual impact  
*Due to the fact that the infrastructure in question will be a 55m high mast located on a*

mountain, 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 mast will be painted red and white (as per Civil Aviation Authority specification). The visual impact created by the existing telecommunication masts (especially the high Sentech mast) located in the vicinity of the proposed mast will also assist to lessen the visual impact of the new proposed mast.

**Indirect impacts:**

- Maintenance of the site:

*Employees of Vodacom will visit the site on a regular basis to do routine maintenance to keep all the components in good working order.*

**Cumulative impacts:**

- Cell phone coverage and capacity will improve:

*The residents of the area will benefit by the proposed project as the cellular network coverage and capacity will be improved.*

*The residents in the area are dependent on good telecommunication networks.*

**DECOMMISSIONING OF EXISTING MAST**

- All infrastructure will be removed

*The site should be rehabilitated to the state it was prior to the installation of the infrastructure.*

**Indirect impacts:**

- Poor cell phone coverage in this area

*The coverage and capacity problem will not be solved in the area should the mast be demolished and the transmission link between the base stations in the surrounding area will also remain problematic.*

**Cumulative impacts:**

- The coverage problem will remain in the area should the mast be demolished

*The cell phone coverage and capacity (including the transmission link between base stations in the area) is currently not reliable and the problem will remain should the mast be demolished. The residents in the area are dependent on good telecommunication networks.*

### 3. 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.

### 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 (144m<sup>2</sup>), the impact upon fauna and flora will be minimal.

The cell phone coverage and capacity (including the transmission link between base stations in the area) 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.

### Alternative B

### Alternative C

For more alternatives please continue as alternative D, E, etc.

## 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):

|   |
|---|
| - |
|---|

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 department in respect of the application:

|   |
|---|
| <b>The surrounding environment must not be disturbed and the site must be cleared of all waste after construction. The applicant must adhere to Section D of this report and attached EMPr.</b> |
|---|

Is an EMPr attached?  
The EMPr must be attached as Appendix F.

|     |  |
|-----|--|
| YES |  |
|-----|--|

## SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

- **Assessment of Alternatives**
- **CAA Approval**
- **Owner's Consent Letter**
- **Information regarding Electromagnetic Radiation from Base Stations**

## SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, **Danie Combrink**, declare that I –

- (a) act as the independent environmental practitioner in this application;
- (b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;
- (c) do not have and will not have a vested interest in the proposed activity proceeding;
- (d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
- (e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- (f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- (g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;
- (h) will keep a register of all interested and affected parties that participated in a public participation process; and
- (i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.



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**Signature of the Environmental Assessment Practitioner:**

**Tekplan**

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**Name of company:**

**17 March 2018**

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**Date:**