

ATLAS TOWER (PTY.) LTD: PROPOSED DEVELOPMENT OF A 25M HIGH TELECOMMUNICATIONS MAST

on remainder of Portion 112 of the Farm Hans Moes Kraal No.
202, George, Western Cape

FINAL BASIC ASSESSMENT REPORT FOR DECISION

IN TERMS OF NEMA & THE EIA REGULATIONS 2014 (AS AMENDED)

05 MARCH 2020



DEADP REF: 16/3/3/1/D2/19/0015/19

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**FINAL BASIC ASSESSMENT REPORT
IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107
OF 1998) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS
AMENDED)**

October 2017

PROJECT TITLE

**ATLAS TOWER (PTY) LTD: PROPOSED DEVELOPMENT OF
A 25m HIGH TELECOMMUNICATION MAST, PORTION 112
OF THE FARM HANS MOES KRAAL NO. 202, GEORGE,
WESTERN CAPE**

March 2020

REPORT TYPE CATEGORY	REPORT REFERENCE NUMBER	DATE OF REPORT
Pre-Application Basic Assessment Report (if applicable) ¹	16/3/3/6/7/1/D2/19/0222/18	February 2019
Draft Basic Assessment Report ²	16/3/3/1/D2/19/0015/19	July 2019
Final Basic Assessment Report² or, if applicable Revised Basic Assessment Report⁴ (strikethrough what is not applicable)	16/3/3/1/D2/19/0015/19	November 2019
Final Basic Assessment Report¹ or, if applicable Second Revised Basic Assessment Report² (strikethrough what is not applicable)	16/3/3/1/D2/19/0015/19	January 2020
Final Basic Assessment Report ¹ or, if applicable Revised Basic Assessment Report ² (strikethrough what is not applicable)		March 2020

Notes:

1. In terms of Regulation 40(3) potential or registered interested and affected parties, including the Competent Authority, may be provided with an opportunity to comment on the Basic Assessment Report prior to submission of the application but must again be provided an opportunity to comment on such reports once an application has been submitted to the Competent Authority. The Basic Assessment Report released for comment prior to submission of the application is referred to as the "Pre-Application Basic Assessment Report". The Basic Assessment Report made available for comment after submission of the application is referred to as the "Draft Basic Assessment Report". The Basic Assessment Report together with all the comments received on the report which is submitted to the Competent Authority for decision-making is referred to as the "Final Basic Assessment Report".
2. In terms of Regulation 19(1)(b) if significant changes have been made or significant new information has been added to the Draft Basic Assessment Report, which changes or information was not contained in the Draft Basic Assessment Report consulted on during the initial public participation process, then a Final Basic Assessment Report will not be submitted, but rather a "Revised Basic Assessment Report", which must be subjected to another public participation process of at least 30 days, must be submitted to the Competent Authority together with all the comments received.

DEPARTMENTAL REFERENCE NUMBER(S)

Pre-application reference number:	16/3/3/6/7/1/D2/19/0222/18
File reference number (EIA):	16/3/3/1/D2/19/0015/19
NEAS reference number (EIA):	
File reference number (Waste):	
NEAS reference number (Waste):	
File reference number (Air Quality):	
NEAS reference number (Air Quality):	
File reference number (Other):	
NEAS reference number (Other):	

CONTENT AND GENERAL REQUIREMENTS

Note that:

1. The content of the Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), any subsequent Circulars, and guidelines must be taken into account when completing this Basic Assessment Report Form.
2. This Basic Assessment Report is the standard report format which, in terms of Regulation 16(3) of the EIA Regulations, 2014 (as amended) must be used in all instances when preparing a Basic Assessment Report for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the EIA Regulations, 2014 (as amended) and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) ("NEM:WA"), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA") when the Western Cape Government: Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority/Licensing Authority.
3. This report form is current as of October 2017. It is the responsibility of the Applicant/ Environmental Assessment Practitioner ("EAP") to ascertain whether subsequent versions of the report form have been released by the Department. Visit the Department's website at <http://www.westerncape.gov.za/eadp> to check for the latest version of this checklist.
4. The required information 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 tables may be expanded where necessary.
5. The use of "not applicable" in the report must be done with circumspection. All applicable sections of this report form must be completed. Where "not applicable" is used, this may result in the refusal of the application.
6. While the different sections of the report form only provide space for provision of information related to one alternative, if more than one feasible and reasonable alternative is considered, the relevant section must be copied and completed for each alternative.
7. Unless protected by law, all information contained in, and attached to this report, will become public information on receipt by the competent authority. If information is not submitted with this report due to such information being protected by law, the applicant and/or EAP must declare such non-disclosure and provide the reasons for believing that the information is protected.
8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this report must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.
9. This Report must be submitted to the Department and the contact details for doing so are provided below.
10. Where this Department is also identified as the Licensing Authority to decide applications under NEM:WA or NEM:AQA, the submission of the Report must also be made as follows, for-
 - Waste management licence applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (tel: 021-483-2756 and fax: 021-483-4425) at the same postal address as the Cape Town Office.
 - Atmospheric emissions licence applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (tel: 021 483 2798 and fax: 021 483 3254) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE		GEORGE REGIONAL OFFICE
REGION 1 (City of Cape Town & West Coast District)	REGION 2 (Cape Winelands District & Overberg District)	REGION 3 (Central Karoo District & Eden District)
<p>Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000</p> <p>Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town</p> <p>Queries should be directed to the Directorate: Development Management (Region 1) at: Tel.: (021) 483-5829 Fax: (021) 483-4372</p>	<p>Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 2) Private Bag X 9086 Cape Town, 8000</p> <p>Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town</p> <p>Queries should be directed to the Directorate: Development Management (Region 2) at: Tel.: (021) 483-5842 Fax: (021) 483-3633</p>	<p>Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530</p> <p>Registry Office 4th Floor, York Park Building 93 York Street George</p> <p>Queries should be directed to the Directorate: Development Management (Region 3) at: Tel.: (044) 805-8600 Fax: (044) 805 8650</p>

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ACRONYMS USED IN THIS BASIC ASSESSMENT REPORT AND APPENDICES:

BAR	Basic Assessment Report
CBA	Critical Biodiversity Area
DEA	National Department of Environmental Affairs
DEA&DP	Western Cape Government: Environmental Affairs and Development Planning
DWS	National Department of Water and Sanitation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESA	Ecological Support Area
HWC	Heritage Western Cape
I&APs	Interested and Affected Parties
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM:ICMA	National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
PPP	Public Participation Process

DETAILS OF THE APPLICANT

Applicant / Organisation / Organ of State:	Atlas Tower (Pty) Ltd		
Contact person:	Cornelis Wessels		
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E-mail:	cwessels@atlastowers.com		

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Name of the EAP organisation:	EnviroAfrica CC		
Person who compiled this Report:	Inge Erasmus/Vivienne Thomson		
EAP Reg. No.:	I.A.I.A. (S.A.) Membership Number: 219 (Bernard de Witt, Owner, EnviroAfrica)		
Contact Person (if not author):	Vivienne Thomson (or Bernard De Witt)		
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E-mail:	vivienne@enviroafrica.co.za bernard@enviroafrica.co.za		
EAP Qualifications:	<p><u>Inge Erasmus</u>: BA Honours, Geography and Environmental Studies (SU)</p> <p><u>Vivienne Thomson</u>: BSc, Zoology (UCT); EIA short course (PU), Environmental Law (PU), Advanced Environmental Law (Mandela Institute School of Law, Wits), ISO 14001 Lead Auditors Course (WTH Management and Training), Root Cause Analysis Technique (IRCA), Environmental Performance Measurement Workshop (African Centre for Energy and Environment), Basic Principles of Ecological Rehabilitation and Mine Closure (PU), Member: National Association for Clean Air; South African Coal Ash Association</p> <p><u>Bernard de Witt</u>: BSc Forestry (SU); BA (Hons) Public Administration (Stellenbosch); National Diploma in Parks and Recreation Management; EIA Short course (UCT); ISO 14001 Auditors course (SABS); Member: IAIA-SA</p>		

Please provide details of the lead EAP, including details on the expertise of the lead EAP responsible for the Basic Assessment process. Also attach his/her Curriculum Vitae to this BAR.

Inge completed her BA Honours Degree in Geography and Environmental Studies at Stellenbosch University in 2016. Before completing her honours degree Inge gained practical experience as a junior environmental consultant at Hatch Goba in Johannesburg from 2014 until 2015. Inge acted as an environmental control officer on a variety of projects in the Northern Cape, conducting environmental compliance audits, as well as being part of a project team working on a major resettlement project for Kumba Iron Ore.

Inge joined EnviroAfrica in February 2017, generally performing duties as an environmental assessment practitioner with regards to NEMA EIA applications. Inge is currently busy with a variety of projects of which include Basic Assessments and Waste License Applications for mining and development related projects in the Northern Cape. She is also in the process of conducting a variety of Scoping and Environmental Impact Assessments for projects in the Western Cape, obtaining Environmental Authorisation for new storage dams as well as new agricultural developments.

Vivienne holds a BSc in Zoology from the University of Cape Town (1995) and has over twenty years industry experience in the construction, power generation and mining sectors. She has completed an ISO 14001 Lead Auditors course, as well as several environmental short courses and has guest lectured for the MSc in Environmental Science Environmental Impact Assessment (EIA) course at the University of the Witwatersrand.

Vivienne is a member of the National Association for Clean Air (NACA) and has served as NACA National Council Member. She is a member of the South African Coal Ash Association and an affiliate of the Institute of Innovators and Inventors. She was also a member of the Committee of Interested Parties which acted as an independent, advisory body to ensure impartiality of Pricewaterhouse Coopers' Certification Body in their governance and sustainability division.

Since 2004, Vivienne has been involved in environmental consulting with experience in EIAs, establishing and implementing ISO 14001 EMSs, contract management, legal compliance evaluations, as well as developing, implementing and assessing environmental management plans and monitoring programmes.

Bernard qualified with a B. Sc. in Forestry and a B. A. (Hons) in Public Administration at the University of Stellenbosch. Bernard then joined the Department of Forestry as an Indigenous Forest Planner in 1983, going on to become Manager of the Table Mountain Reserve with the Cape Town Council. He then joined Cape Nature Conservation (CNC) and headed its Conservation Planning Section before taking up the position of District Manager of the Boland area (incl. the Hottentots Holland and Kogelberg). As a Regional Ecologist, he co-ordinated managerial and scientific inputs into Provincial Nature Reserves in the Boland, Overberg and West Coast regions. For the last four years of his employment he assessed and evaluated development applications, from an environmental perspective, on behalf of CNC (now DEA&DP). Since he left DEA&DP 10 years ago he has been involved in environmental consulting in the private sector as a member of **EnviroAfrica**.

CVs of the EAP Appendix L.

EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:

Proposed Activity

It is proposed that a 25m high telecommunications mast with a 10m x 10m base station be constructed on a flat surface area on Portion 112 of the Farm Hans Moes Kraal No. 202, George, Western Cape.

The base station and mast will be enclosed with a 2.4m high palisade fence with an access gate. Please refer to **Appendix A** for locality maps **Appendix B** for site plans.

The area is zoned for agriculture and Site coordinate for the proposed mast are: 34°02'35.27"S 22°27'08.90"E.

Environmental Requirements

The National Environmental Management Act (NEMA, Act 107 of 1998), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority based on the findings of an Environmental Assessment. NEMA is a national act, which is enforced by the Department of Environmental Affairs (DEA). In the Western Cape, these powers are delegated to the Department of Environmental Affairs & Development Planning (DEA&DP).

According to the regulations of Section 24(5) of NEMA, authorisation is required for the following:

Government Notice R324 (Listing Notice 3):

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

(a) is to be placed on a site not previously used for this purpose; and

(b) will exceed 15 metres in height-

but excluding attachments to existing buildings and masts on rooftops".

i. Western Cape:

"i. All areas outside urban areas;

ii. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose, within urban areas; or

iii. Areas zoned for use as public open space or equivalent zoning within urban areas".

Site Description:

The proposed site is currently zoned Agriculture on Portion 112 of Fam Hans Moes Kraal. 202, George, Western Cape. The proposed site appears to be transformed from its natural state due to past development activities on the property. The site is located adjacent to tall *Pinus spp.* trees. Two residential buildings are situated on the property.

The property directly east of the site also belongs to the land owner. The property to the west, south and north is also zoned agriculture. Lalavuge Coastal Reserve is located further East of the property with Le Grand George Golf Estate to the West. Surrounding agricultural activities included planted pastures and the sea is located more than 1km south of the property. Please refer to Appendix A for Locality Maps and Appendix D for Crop Census Map.

Environmental considerations:

The proposed site has no natural vegetation. Grass species dominate the site which is a clear sign that the site is previously disturbed. Please refer to Figure 1 below and site photographs **Appendix C**.

According to the vegetation map (**Appendix D**) the vegetation that would have been present on the site is Groot Brak Dune Strandveld. This type of vegetation is classified as Endangered in the Western Cape in terms of *NEMBA National list of Ecosystems that are threatened and in need of protection*. The site is transformed and disturbed due to previous developments with no natural habitat remaining. Refer to site photos (**Appendix C**). Tall Pine Trees are also located on the site.

The Biodiversity overlay map from Cape Farm Mapper (**Appendix D**) indicate that the proposed site does not fall within any Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs).

The Water Resources Map (**Appendix D**) shows that the proposed site does not fall within or near any wetlands/ watercourses on rivers. The sea is located more than 1km south of the property.

Due to the proposed locality of the mast, a Visual Impact Assessment was conducted (**Appendix G2**). The cumulative impact of the proposed mast within the existing landscape is considered low.

Civil and Electrical Services

Electricity supply source from George Municipality. Electricity supply is available an existing transformer will need to be upgraded (**Appendix F1.10.1**). This should be a condition of the EA. The Proposed development of a telecommunication mast will not produce waste or use water during its operational phase.

Access

Access will be gained from an existing road on the property (See **Appendix B**). No roads will be constructed.

Conclusion

The proposed 25m high telecommunication mast will allow for multiple service providers/ mobile network operators to attach and house their equipment (antennas) on the mast, decreasing the need for additional communications masts to be erected in the area. The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. The activity would create a more efficient telecommunications service, considered essential to the business and private sector. The data capabilities provided by the proposed mast are also important in business, education and for the public, and has thus become paramount for social and economic development.

The construction of the telecommunications mast is therefore considered as part of the essential services for the greater community. The proposed communications mast is not expected to have any adverse effects on people's health and well-being. It is also not expected to produce any noise or odours during the operational phase. Some noise can be expected during the construction phase, but this will be temporary, and the impact is expected to be negligible.

Due to the design and location of the proposed telecommunications mast, the activity is expected to have a low-medium impact on the visual character of the area. It is proposed the mast be located adjacent to tall pine trees, thereby blending in with the natural environment.

The proposed site is not located within a CBA or ESA. The proposed site has no natural vegetation. No cultural or historical aspects were identified on the site.

The VIA conducted (Appendix G2) concludes that the scenario where the existing pine trees remain on the site, will provide the best visual absorption for the proposed development and hence the lowest visual impact, regardless of the mast type. The removal of the trees will have a medium- to high visual impact which can be

further reduced by applying additional mitigation measures such to apply a dark green or dark grey/brown colour which will compliment similar coloured landscape elements.

From the original VIA (Appendix G2) and consultation with George Municipality (Appendix F10.2), the proposed 25m tree mast design, with the trees remaining on site is considered the most preferred alternative if the existing trees remain on site.

However, in the long term, the lattice mast is the most preferred alternative with or without existing trees remaining on site since the longevity of the trees (despite being demarcated) cannot be guaranteed. The lattice mast being the best alternative irrespective of the presence of the surrounding tall trees or not, is confirmed by the impact assessment rating of the various design alternatives (as per Appendix J2, D. Aspect/Activity: Operation and Maintenance) in the context of the geographical and biological sensitivities of the proposed site (i.e. with and without the presence of the existing pine trees on site) **and** confirmed by the VIA Specialist's Opinion Statement found in Appendix G2.2.

Any potential negative impacts during the construction phase are expected to be adequately mitigated through the implementation of the Environmental Management Programme ("EMPr") and the appointment of an Environmental Control Officer ("ECO") during the construction phase.

Considering all the information, it is not envisaged that this proposed development will have a significant negative impact on the environment.

It is therefore recommended that this application be authorised with the necessary conditions of approval as described throughout this BAR.

SECTION A: PROJECT INFORMATION

1. ACTIVITY LOCATION

Location of all proposed sites:	Portion 112 of Farm Hans Moes Kraal No. 202, George Western Cape
Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site:	Portion 112 of Farm Hans Moes Kraal No. 202, George Western Cape
Property size(s) in m ² for each proposed site:	30400 m ² (3.04 ha)
Development footprint size(s) in m ² :	Approximately 64m ²
Surveyor General (SG) 21 digit code for each proposed site:	C02700000000020200112

2. PROJECT DESCRIPTION

(a) Is the project a new development? If "NO", explain:

YES

NO

This application is for the installation of a 25m high lattice mast with 10m x 10m base station on Portion 112 of the Farm Hans Moes Kraal No. 202, George, Western Cape.

(b) Provide a detailed description of the scope of the proposed development (project).

It is proposed that a 25m high mast with 10m x 10m base station be constructed on Portion 112 of the Farm Hans Moes Kraal No. 202, George, Western Cape. The base station and mast will be enclosed with a 2.4m high palisade fence with an access gate. Please refer to **Appendix A** for locality maps **Appendix B** for site plans. The total area of land to be cleared is approximately 68m² to erect a 25m high mast with antennas.

Site coordinates for the proposed mast is: 34°02'35.27"S 22°27'08.90"E. The area is zoned agriculture. The site is located adjacent to tall trees, two residential buildings are situated on the property. Lalavuga Coastal Reserve lies further west of the property and Le Grand George Golf Estate to the east.

Electricity supply from George Municipality. Electricity supply is available but application will have to be submitted for the upgrade of an existing transformant (Appendix F1.10.1 for communication with the municipality. This should be a condition of the EA. No new roads will be constructed as an existing access road will be utilised to gain access to the proposed site.

Environmental considerations:

The site is transformed from its natural state, with no natural vegetation remaining. Grass species dominate the site. Please refer to the site photographs (**Appendix C**) and Figure 1.



Figure 1: Photograph indicating that the site selected is disturbed and dominated by grass species

According to the vegetation map (**Appendix D**) the vegetation that would have been present on the site is Groot Brak Dune Strandveld. This type of vegetation is classified as Endangered in the Western Cape in terms of *NEMBA National list of Ecosystems that are threatened and in need of protection*. The site is transformed and disturbed due to previous developments with no natural habitat remaining. Refer to site photos (**Appendix C**). Tall Pine Trees are also located on the site.

The Biodiversity overlay map from Cape Farm Mapper (**Appendix D**) indicate that the proposed site does not fall within any Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs).

The Water Resources Map (**Appendix D**) shows that the proposed site does not fall within or near any wetlands/ watercourses on rivers. The sea is located more than 1km south of the property.

The Visual Impact Assessment was updated (**Appendix G2**) to investigate the visual significance in a scenario where the cluster of trees adjoining the proposed mast site will be removed and retained. According to the VIA, the scenario where the trees are retained provide the lowest visual impact as the trees provide the best visual absorption, regardless of the mast type. The removal of the trees will have a medium-high visual impact. Please refer to the VIA (**Appendix G2.2**) report for more detail as well as illustrations. Alternative mast designs were also investigated and are discussed in Section E of the BAR.



Figure 2: Locality Map

Please note: This description must relate to the listed and specified activities in paragraph (d) below.

(c) Please indicate the following periods that are recommended for inclusion in the environmental authorisation:

(i)	the period within which commencement must occur,	Construction is expected to take a period of 4 months. Commencement must begin within 5 years from the granting of the EA.
(ii)	the period for which the environmental authorisation should be granted and the date by which the activity must have been concluded, where the environmental authorisation does not include operational aspects;	Construction is expected to take a period of 4 months. The EA should be valid for 5 years.
(iii)	the period that should be granted for the non-operational aspects of the environmental authorisation; and	The EA should be valid for 5 years.
(iv)	the period that should be granted for the operational aspects of the environmental authorisation.	Approximately 30 years

Please note: The Department must specify the abovementioned periods, where applicable, in an environmental authorisation. In terms of the period within which commencement must occur, the period must not exceed 10 years and must not be extended beyond such 10 year period, unless the process to amend the environmental authorisation contemplated in regulation 32 is followed.

(d) List all the listed activities triggered and being applied for.

Please note: The onus is on the applicant to ensure that all the applicable listed activities are applied for and assessed as part of the EIA process. Please refer to paragraph (b) above.

EIA Regulations Listing Notices 1 and 3 of 2014 (as amended):

Listed Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1 (GN No. R. 983)	Describe the portion of the development that relates to the applicable listed activity as per the project description.	Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.
N/A			
Listed Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 3 (GN No. R. 985)	Describe the portion of the development that relates to the applicable listed activity as per the project description.	Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.
3	<p><i>"The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast or tower-</i></p> <p><i>(a) is to be placed on a site not previously used for this purpose; and</i></p> <p><i>(b) will exceed 15 metres in height-</i></p> <p><i>but excluding attachments to existing buildings and masts on rooftops".</i></p>	<p>The proposed development of a 25 high telecommunications mast that is located outside the urban area (Agricultural Zoned).</p>	Development and Operational

	<p>i. <u>Western Cape:</u> “i. All areas outside urban areas; ii. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose, within urban areas; or iii. Areas zoned for use as public open space or equivalent zoning within urban areas”.</p>		

Waste management activities in terms of the NEM: WA (GN No. 921):

Category A Listed Activity No(s):	Describe the relevant Category A waste management activity in writing as per GN No. 921	Describe the portion of the development that relates to the applicable listed activity as per the project description
N/A		

Note: If any waste management activities are applicable, the **Listed Waste Management Activities Additional Information Annexure** must be completed and attached to this Basic Assessment Report as **Appendix I**.

Atmospheric emission activities in terms of the NEM: AQA (GN No. 893):

Listed Activity No(s):	Describe the relevant atmospheric emission activity in writing as per GN No. 893	Describe the portion of the development that relates to the applicable listed activity as per the project description.
N/A		

- (e) Provide details of all components (including associated structures and infrastructure) of the proposed development and attach diagrams (e.g., architectural drawings or perspectives, engineering drawings, process flowcharts, etc.).

Buildings Provide brief description below:	YES	NO
No buildings required. There will only be a steel palisade fence (2.4m high) and access gate around the mast for safety and security reasons. Please refer to Appendix B for site plans including conceptual plans of the various design alternatives considered.		
Infrastructure (e.g., roads, power and water supply/ storage) Provide brief description below:	YES	NO
No roads required, existing roads to be utilised. Electricity supply from George Municipality. No water required. (Refer to Appendix B - Site Plans).		
Processing activities (e.g., manufacturing, storage, distribution) Provide brief description below:	YES	NO
N/A		
Storage facilities for raw materials and products (e.g., volume and substances to be stored) Provide brief description below:	YES	NO
N/A		
Storage and treatment facilities for effluent, wastewater or sewage: Provide brief description below:	YES	NO
N/A		
Storage and treatment of solid waste Provide brief description below:	YES	NO
N/A		
Facilities associated with the release of emissions or pollution. Provide brief description below:	YES	NO
N/A		

Other activities (e.g., water abstraction activities, crop planting activities) – Provide brief description below:	YES	NO
N/A		

3. PHYSICAL SIZE OF THE PROPOSED DEVELOPMENT

(a) Property size(s): Indicate the size of all the properties (cadastral units) on which the development proposal is to be undertaken	30400	m ²
(b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken	68	m ²
(c) Development footprint: Indicate the area that will be physically altered as a result of undertaking any development proposal (i.e., the physical size of the development together with all its associated structures and infrastructure)	68	m ²
(d) Size of the activity: Indicate the physical size (footprint) of the development proposal	68	m ²
(e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal	(L)	m
	(W)	m
(f) For storage facilities: Indicate the volume of the storage facility	N/A	m ³
(g) For sewage/effluent treatment facilities: Indicate the volume of the facility (Note: the maximum design capacity must be indicated)	N/A	m ³

4. SITE ACCESS

(a) Is there an existing access road?	YES	NO
(b) If no, what is the distance in (m) over which a new access road will be built?	m	

(c) Describe the type of access road planned:

Existing access roads to be used.

Please note: The position of the proposed access road must be indicated on the site plan.

5. DESCRIPTION OF THE PROPERTY(IES) ON WHICH THE LISTED ACTIVITY(IES) ARE TO BE UNDERTAKEN AND THE LOCATION OF THE LISTED ACTIVITY(IES) ON THE PROPERTY

- 5.1 Provide a description of the property on which the listed activity(ies) is/are to be undertaken and the location of the listed activity(ies) on the property, as well as of all alternative properties and locations (duplicate section below as required).

The proposed site is currently zoned Agriculture on Portion 112 of Fam Hans Moes Kraal. 202, George, Western Cape.

The proposed site appears to be transformed from its natural state due to past development activities on the property. The site is located immediately adjacent to tall pine trees. Two residential buildings are situated on the property.

The property directly east of the site also belongs to the landowner. The property to the west, south and north is also zoned agriculture. Lalavuge Coastal Reserve is located further East of the property with Le Grand George Golf Estate to the West. Surrounding agricultural activities included planted pastures and the sea is located more than 1km south of the property. Please refer to Appendix A for Locality Maps and Appendix D for Crop census map.



Figure 3: Map indicating the proposed site and surrounds

Coordinates of all the proposed activities on the property or properties (sites):	Latitude (S): (deg.; min.; sec)			Longitude (E): (deg.; min.; sec.)		
	34°	02'	35.27"	22°	27'	08.90"
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"

Note: For land where the property has not been defined, the coordinates of the area within which the development is proposed must be provided in an addendum to this report.

- 5.2 Provide a description of the area where the aquatic or ocean-based activity(ies) is/are to be undertaken and the location of the activity(ies) and alternative sites (if applicable).

N/A

Coordinates of the boundary /perimeter of all proposed aquatic or ocean-based activities (sites) (if applicable):	Latitude (S): (deg.; min.; sec)			Longitude (E): (deg.; min.; sec)		
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"

- 5.3 For a linear development proposal, please provide a description and coordinates of the corridor in which the proposed development will be undertaken (if applicable).

N/A

For linear activities:	Latitude (S): (deg.; min.; sec)			Longitude (E): (deg.; min.; sec)		
• Starting point of the activity	°	'	"	°	'	"
• Middle point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"

Note: For linear development proposals longer than 1000m, please provide an addendum with co-ordinates taken every 250m along the route. All important waypoints must be indicated and the GIS shape file provided digitally.

- 5.4 Provide a location map (see below) as **Appendix A** to this report that shows the location of the proposed development and associated structures and infrastructure on the property; as well as a detailed site development plan / site map (see below) as **Appendix B** to this report; and if applicable, all alternative properties and locations. The GIS shape files (.shp) for maps / site development plans must be included in the electronic copy of the report submitted to the competent authority.

Locality Map: Appendix A	The scale of the locality map must be at least 1:50 000. For linear development proposals 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:
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	<ul style="list-style-type: none"> • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; • a linear scale; • the prevailing wind direction (during November to April and during May to October); and • GPS co-ordinates (to indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection). <p>For an ocean-based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken.</p> <p>Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94; WGS84 co-ordinate system.</p>
<p>Site Plan: Appendix B</p>	<p>Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:</p> <ul style="list-style-type: none"> • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan. • The position of each element of the application as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development <u>must</u> be indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): <ul style="list-style-type: none"> ◦ Watercourses / Rivers / Wetlands - including the 32 meter set back line from the edge of the bank of a river/stream/wetland; ◦ Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable); ◦ Ridges; ◦ Cultural and historical features; ◦ Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow <p>A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.</p> <p>The GIS shape file for the site development plan(s) must be submitted digitally.</p>

6. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached as **Appendix C** to this report. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.

Appendix C

SECTION B: DESCRIPTION OF THE RECEIVING ENVIRONMENT

Site/Area Description

For linear development proposals (pipelines, etc.) as well as development proposals that cover very large sites, it may be necessary to complete copies of 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 that is covered by each copy on the Site Plan.

1. GRADIENT OF THE SITE

Indicate the general gradient of the sites (highlight the appropriate box).

Flat	Flatter than 1:10	1:10—1:4	Steeper than 1:4
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2. LOCATION IN LANDSCAPE

(a) Indicate the landform(s) that best describes the site (highlight the appropriate box(es)).

Ridgeline	Plateau	Side slope of hill / mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
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(b) Provide a description of the location in the landscape.

The proposed 25m high telecommunication mast and base station will be located on Portion 112 of Fam Hans Moes Kraal. 202, George, Western Cape. The proposed site is currently zoned Agriculture. The proposed site is transformed from its natural state due to past development activities on the property. The site is located adjacent to tall Pine trees. Two residential buildings are situated on the property.

The property directly east of the site also belongs to the land owner. The property to the west, south and north is also zoned agriculture. Lalavuge Coastal Reserve is located further East of the property with Le Grand George Golf Este to the West. Surrounding agricultural activities includes planted pastures and the sea is located more than 1km south of the property. Please refer to **Appendix A** for Locality Maps and **Appendix D** for Crop census map. Figure 4 is a topographical map indicating the contours of the proposed site.



Figure 4: Topographical Map indicating the contours of the chosen site\

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

(a) Is the site(s) located on or near any of the following (highlight the appropriate boxes)?

Shallow water table (less than 1.5m deep)	YES	NO	UNSURE
Seasonally wet soils (often close to water bodies)	YES	NO	UNSURE
Unstable rocky slopes or steep slopes with loose soil	YES	NO	UNSURE
Dispersive soils (soils that dissolve in water)	YES	NO	UNSURE
Soils with high clay content	YES	NO	UNSURE
Any other unstable soil or geological feature	YES	NO	UNSURE

An area sensitive to erosion	YES	NO	UNSURE
An area adjacent to or above an aquifer.	YES	NO	UNSURE
An area within 100m of a source of surface water	YES	NO	UNSURE
An area within 500m of a wetland	YES	NO	UNSURE
An area within the 1:50 year flood zone	YES	NO	UNSURE
A water source subject to tidal influence	YES	NO	UNSURE

- (b) If any of the answers to the above is "YES" or "UNSURE", specialist input may be requested by the Department.
(Information in respect of the above will often be available at the planning sections of local authorities. The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

- (c) Indicate the type of geological formation underlying the site.

Granite	Shale	Sandstone	Quartzite	Dolomite	Dolorite	Other (describe)
Provide a description.						
<p>Information from Cape Farm Mapper indicate the geology of the site consist of mainly Phyllite, schist and quartzite of the Kaaimans Group, together with gneissic granite and granodiorite.</p>						

4. SURFACE WATER

(a) Indicate the surface water present on and or adjacent to the site and alternative sites (highlight the appropriate boxes)?

Perennial River	YES	NO	UNSURE
Non-Perennial River	YES	NO	UNSURE
Permanent Wetland	YES	NO	UNSURE
Seasonal Wetland	YES	NO	UNSURE
Artificial Wetland	YES	NO	UNSURE
Estuarine / Lagoon	YES	NO	UNSURE

(b) Provide a description.

N/A

5. THE SEAFRONT / SEA

(a) Is the site(s) located within any of the following areas? (highlight the appropriate boxes).

If the site or alternative site is closer than 100m to such an area, please provide the approximate distance in (m).

AREA	YES	NO	UNSURE	If "YES": Distance to nearest area (m)
An area within 100m of the high water mark of the sea	YES	NO	UNSURE	
An area within 100m of the high water mark of an estuary/lagoon	YES	NO	UNSURE	
An area within the littoral active zone	YES	NO	UNSURE	
An area in the coastal public property	YES	NO	UNSURE	
Major anthropogenic structures	YES	NO	UNSURE	
An area within a Coastal Protection Zone	YES	NO	UNSURE	
An area seaward of the coastal management line	YES	NO	UNSURE	
An area within the high risk zone (20 years)	YES	NO	UNSURE	
An area within the medium risk zone (50 years)	YES	NO	UNSURE	
An area within the low risk zone (100 years)	YES	NO	UNSURE	
An area below the 5m contour	YES	NO	UNSURE	
An area within 1km from the high water mark of the sea	YES	NO	UNSURE	
A rocky beach	YES	NO	UNSURE	
A sandy beach	YES	NO	UNSURE	

(b) If any of the answers to the above is "YES" or "UNSURE", specialist input may be requested by the Department. (The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

6. BIODIVERSITY

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 development. 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, Tel.: (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) must be provided as an overlay map on the property/site plan as **Appendix D** to this report.

(a) Highlight the applicable biodiversity planning categories of all areas on preferred and alternative sites and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category. Also describe the prevailing level of protection of the Critical Biodiversity Area ("CBA") and Ecological Support Area ("ESA") (how many hectares / what percentages are formally protected).

Systematic Biodiversity Planning Category	CBA	ESA	Other Natural Area ("ONA")	No Natural Area Remaining ("NNR")
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If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives	
Describe the site's CBA/ESA quantitative values (hectares/percentage) in relation to the prevailing level of protection of CBA and ESA (how many hectares / what percentages are formally protected locally and in the province)	

Figure 7: SANBI BGIS: 2017 Western Cape Biodiversity Spatial Plan. The proposed site (blue dot) is located within a terrestrial ESA (RES).

Figure 8: Cape Farm Mapper Biodiversity Overlay Map. The proposed site (red dot) is located within a terrestrial ESA. The site is completely transformed from its natural condition due to past agricultural activities on the property.

(b) Highlight and describe the habitat condition on site.

Habitat Condition	Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m ²)		Description and additional comments and observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes, etc.)
Natural	0%	m ²	
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	m ²	
Degraded (includes areas heavily invaded by alien plants)	0%	m ²	
Transformed (includes cultivation, dams, urban, plantation, roads, etc.)	100%	m ²	The site is currently completely transformed and disturbed with no natural vegetation present. Grass species dominate the site. Please refer to Appendix C for site photographs.

(c) Complete the table to indicate:

- (i) the type of vegetation present on the site, including its ecosystem status; and
- (ii) whether an aquatic ecosystem is present on/or adjacent to the site.

Terrestrial Ecosystems		Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status
Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Critically	
	Endangered	According to the vegetation map (Appendix D) the vegetation that would have been present on the site is Groot Brak Dune Strandveld. This type of vegetation is classified as Endangered in the Western Cape in terms of <i>NEMBA National list of Ecosystems that are threatened and in need of protection</i> . The site is completely transformed and disturbed due to previous developments with no natural vegetation remaining. Refer to site photos (Appendix C)
	Vulnerable	
	Least Threatened	

Aquatic Ecosystems

Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
YES	NO	UNSURE	YES	NO	YES	NO

- (d) Provide a description of the vegetation type and/or aquatic ecosystem present on the site, including any important biodiversity features/information identified on the site (e.g. threatened species and special habitats). Clearly describe the biodiversity targets and management objectives in this regard.

According to the vegetation map (**Appendix D**) the vegetation that would have been present on the site is Groot Brak Dune Strandveld. This type of vegetation is classified as Endangered in the Western Cape in terms of *NEMBA National list of Ecosystems that are threatened and in need of protection*. The area is transformed and disturbed due to previous developments with no natural vegetation remaining. See Site Photos (**Appendix C**).

The Biodiversity overlay map from Cape Farm Mapper (**Appendix F**) indicate that the proposed site does not fall within any Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs).

The Water Resources Map (**Appendix D**) show that the proposed site does not fall within any wetlands/watercourses on rivers. The sea is located more than 1km south of the property. The sea lies approximately 1km south of the proposed site.

7. LAND USE OF THE SITE

Note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed development.

Untransformed area	Low-density residential	Medium-density residential	High-density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism and Hospitality facility
Open-cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical centre	School	Tertiary education facility	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes and more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archaeological site
Other land uses (describe):				

- (a) Provide a description.

The proposed 25m high telecommunication mast and base station will be located on Portion 112 of Fam Hans Moes Kraal. 202, George, Western Cape. The proposed site is currently zoned Agriculture. The proposed site appears to be transformed from its natural state due to past development activities on the property. The site is located adjacent to tall trees. Two residential buildings are situated on the property.

8. LAND USE CHARACTER OF THE SURROUNDING AREA

- (a) Highlight the current land uses and/or prominent features that occur within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site.

Note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed development.

Untransformed area	Low density residential	Medium-density residential	High-density residential	Informal residential
Retail	Commercial & warehousing	Light industrial	Medium industrial	Heavy industrial
Power station	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Tourism and Hospitality facility
Open-cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical centre	School	Tertiary education facility	Church	Old-age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes and more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	Filling station
Landfill or waste treatment site	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archaeological site
Other land uses (describe):				

- (b) Provide a description, including the distance and direction to the nearest residential area, industrial area, agri-industrial area.

The property directly east of the site also belongs to the land owner. The property to the west, south and north is also zoned agriculture. Lalavuge Coastal Reserve is located further East of the property with Le Grand George Golf Estate to the West. Surrounding agricultural activities includes planted pastures. The sea is located more than 1km south of the property.

Please refer to **Appendix A** for Locality Maps and **Appendix D** for Crop census map.

9. SOCIO-ECONOMIC ASPECTS

- a) Describe the existing social and economic characteristics of the community in the vicinity of the proposed site, in order to provide baseline information (for example, population characteristics/demographics, level of education, the level of employment and unemployment in the area, available work force, seasonal migration patterns, major economic activities in the local municipality, gender aspects that might be of relevance to this project, etc.).

Hans Moes Kraal is situated just outside Pacaltsdorp. Pacaltsdorp is a suburb of George in the Western Cape. The area falls under the administration of the George local municipality.

The following social and economic characteristics was taken from the George Social Economic Profile (SEP) for 2017

It was estimated that 2018, the George municipal area will have an estimated population of 212 120 and after five years this population is estimated to be 224 095. This equates to an estimated growth rate in this time span of 5.65 per cent. The estimated population growth rate of George is therefore 1.06 percentage points higher than the estimated population growth of the Eden District which is 4.59 per cent.

The matric pass rate in George dropped slightly to 83.4 per cent in 2016 from 84.6 per cent in 2015. Although slight, it is important to know the possible causes for the drop in the pass rates in order to direct interventions necessary to improve school performance. In comparison to pass rates by other municipal areas within the Eden District, George had the fifth highest pass rate behind Hessequa, Oudtshoorn, Kannaland and Mossel Bay.

The George municipal area is largest economy in the District, contributing 39.8 per cent to the Eden District economy in terms of GDP and 35.6 per cent to employment in the district in 2015. George's tertiary sectors have achieved above average growth rates in terms of GDP and has contributed significantly to employment. The George local economy is driven by the finance, insurance, real estate and business services sector (26.4 per cent); the wholesale and retail trade, catering and accommodation sector (18.5 per cent), manufacturing sector (14.7 per cent) and the transport, storage and communication (11.9 per cent). Combined, these sectors contributed about R10.0 billion to the economy in 2015.

In 2016, the finance, insurance, real estate and business services sector grew the fastest (3.1 per cent), followed by the transport, storage and communication (1.7 per cent); the wholesale and retail trade, catering and accommodation sector (1.5 per cent) and manufacturing (1.4 per cent). The agriculture, forestry and fishing sector recorded a serious decline (-7.8 per cent) in 2016, which could be attributed to the drought that has affected the Western Cape agriculture sector over the last couple of years.

The sectors that contributed the most to the 63 361 jobs in the George municipal area in 2015 were the wholesale and retail trade, catering and accommodation sector (26.7 per cent), followed by the finance, insurance, real estate and business services sector (18.3 per cent) and the community, social and personal services (12.8 per cent).

Unemployment has been steadily rising in the George municipal area over the few years, with the jobless rate recorded at 16.1 per cent in 2014, 16.6 per cent in 2015 and an estimated 17.3 per cent in 2016, which is marginally lower than the rate for the Eden District and Western Cape.

In the Western Cape, the region needs efficient transport systems, water and sanitation, telecommunications and power supplies in order to influence the standard of living of their populations and regional economic growth. There is, thus, a pressing need to determine whether government's strategy on infrastructure investment will yield the desired economic growth benefits at micro (i.e. project or sector level) or at national or macro level.

10. HISTORICAL AND CULTURAL ASPECTS

- (a) Please be advised that if section 38 of the NHRA is applicable to your proposed development, you are requested to furnish this Department with written comment from Heritage Western Cape as part of your public participation process. Heritage Western Cape must be given an opportunity, together with the rest of the I&APs, to comment on any Pre-application BAR, a Draft BAR, and Revised BAR.

Section 38 of the NHRA states the following:

"38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000m² in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000m² in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development".

- (b) The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the NHRA, must also be investigated, assessed and evaluated. Section 3(2) states the following:
- "3(2) Without limiting the generality of subsection (1), the national estate may include—
- (a) places, buildings, structures and equipment of cultural significance;
 - (b) places to which oral traditions are attached or which are associated with living heritage;
 - (c) historical settlements and townscapes;
 - (d) landscapes and natural features of cultural significance;
 - (e) geological sites of scientific or cultural importance;
 - (f) archaeological and palaeontological sites;
 - (g) graves and burial grounds, including—
 - (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders;
 - (iii) graves of victims of conflict;
 - (iv) graves of individuals designated by the Minister by notice in the Gazette;
 - (v) historical graves and cemeteries; and
 - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
 - (h) sites of significance relating to the history of slavery in South Africa;
 - (i) movable objects, including—
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage;
 - (iii) ethnographic art and objects;
 - (iv) military objects;
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
 - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)".

Is Section 38 of the NHRA applicable to the proposed development?	YES	NO	UNCERTAIN
If YES or UNCERTAIN, explain:	N/A. However, please note that a Heritage Screener and NID was submitted to Heritage Western Cape. HWC provided comments (Appendix E1), the proposed construction of the mast is not expected to impact on Heritage Resources.		
Will the development impact on any national estate referred to in Section 3(2) of the NHRA?	YES	NO	UNCERTAIN
If YES or UNCERTAIN, explain:			
Will any building or structure older than 60 years be affected in any way?	YES	NO	UNCERTAIN
If YES or UNCERTAIN, explain:			
Are there any signs of culturally or historically significant elements, as defined in section 2 of the NHRA, including Archaeological or paleontological sites, on or close (within 20m) to the site?	YES	NO	UNCERTAIN
If YES or UNCERTAIN, explain:	Please note that a Heritage Screener and NID was submitted to Heritage Western Cape. HWC provided comments (Appendix E1), the proposed construction of the mast is not expected to impact on Heritage Resources.		

Note: If uncertain, the Department may request that specialist input be provided **and** Heritage Western Cape must provide comment on this aspect of the proposal. (Please note that a copy of the comments obtained from the Heritage Resources Authority must be appended to this report as Appendix E1).

11. APPLICABLE LEGISLATION, POLICIES, CIRCULARS AND/OR GUIDELINES

- (a) Identify all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to the development proposal and associated listed activity(ies) being applied for and that have been considered in the preparation of the BAR.

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	ADMINISTERING AUTHORITY and how it is relevant to this application	TYPE Permit/license/authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, etc.)	DATE (if already obtained):
National Environmental Management Act, 1998 (Act No. 107 of 1998) – NEMA EIA Regulations 2014, as amended	Department of Environmental Affairs and Development Planning (“DEA&DP”)	Environmental Authorisation	The Basic Assessment process (this report) is currently underway.
George Local Municipality: Municipal Land Use Planning By-Law.	George Municipality	Consent use	The Land Use Planning (“LUPA”) Application will be submitted once an Environmental Authorization has been issued.
South African Civil Aviation Authority	South African Civil Aviation Authority	Obstacle Approval Permit	Approved 14-09-2018 Appendix E2
CARA Demarcation Application for management of existing Pine Trees on the property	Department Agriculture, Forestry & Fisheries	CARA Demarcation Permit	Approved 04-11-2019
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) NEM:BA Chapter 7 Application for Permits and GN. 40166 – National List of Invasive Species in terms of Section 70(1), 71(3), 71A	National Department of Environment, Forestry and Fisheries	NEMA (Permit to carry out a restricted activity in terms of Alien Invasive Species Regulations	

- (b) Describe how the proposed development **complies with and responds** to the legislation and policy context, plans, guidelines, spatial tools, municipal development planning frameworks and instruments.

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds:
Department's Circular EADP 0028/2014 (dated 9 December 2014) on the “One Environmental Management System”	Circular and guidelines consulted and adhered to when undertaking this Basic Assessment Report.
Guidelines on EIA Regulations 2014	Guideline was consulted while compiling the BAR.
Guidelines on Public Participation, 2014	Guideline was consulted while compiling the BAR.
Guidelines on Need and Desirability, 2013	Guideline was consulted while compiling the BAR.
Guidelines on Alternatives, 2014	Guideline was consulted while compiling the BAR.
Guideline for involving visual and aesthetic specialists in EIA processes (June 2005)	Guideline was consulted while compiling the BAR.

WC Department of Environment and Cultural Affairs and Sport: Guideline on the Application of EIA Regs to structures Associated with communication networks, September 2001	Guideline was consulted while compiling the BAR.
Knysna Municipality: Policy for the Placing, Size and Appearance of Cellular Communication Mast within the Knysna Municipal Area, (11 Dec 2008).	The George Local Municipality & Garden Routes District Municipality have not adopted policies in terms of telecommunication mast and therefore the Knysna Municipality Policy and Guidelines was consulted while compiling the BAR and VIA.
CARA Invasive Alien Plan Species List	Guideline was consulted in compiling the Demarcation Application
NEMBA: Alien Invasive Species Regulations	Guideline was consulted in compiling the Demarcation Application

Note: Copies of any comments, permit(s) or licences received from any other Organ of State must be attached to this report as **Appendix E**.

Section C: PUBLIC PARTICIPATION

The PPP must fulfil the requirements outlined in the NEMA, the EIA Regulations, 2014 (as amended) and if applicable, the NEM: WA and/or the NEM: AQA. This Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must also be taken into account.

- Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was an exemption applied for.

In terms of Regulation 41 of the EIA Regulations, 2014 (as amended) -			
(a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of -			
(i) the site where the activity to which the application relates, is or is to be undertaken; and	YES	EXEMPTION	
(ii) any alternative site	YES	EXEMPTION	N/A
(b) giving written notice, in any manner provided for in Section 47D of the NEMA, to -			
(i) the occupiers of the site and, if the applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	EXEMPTION	N/A
(ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	EXEMPTION	
(iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;	YES	EXEMPTION	
(iv) the municipality (Local and District Municipality) which has jurisdiction in the area;	YES	EXEMPTION	
(v) any organ of state having jurisdiction in respect of any aspect of the activity; and	YES	EXEMPTION	
(vi) any other party as required by the Department;	YES	EXEMPTION	N/A
(c) placing an advertisement in -			
(i) one local newspaper; or	YES	EXEMPTION	
(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;	YES	EXEMPTION	N/A
(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken	YES	EXEMPTION	N/A
(e) using reasonable alternative methods, as agreed to by the Department, in those instances where a person is desirous of but unable to participate in the process due to— (i) illiteracy; (ii) disability; or (iii) any other disadvantage.	YES	EXEMPTION	N/A
If you have indicated that "EXEMPTION" is applicable to any of the above, proof of the exemption decision must be appended to this report.			
Please note that for the NEM: WA and NEM: AQA, a notice must be placed in at least two newspapers circulating in the area where the activity applied for is proposed.			
If applicable, has/will an advertisement be placed in at least two newspapers?	YES	NO	

If "NO", then proof of the exemption decision must be appended to this report.

2. Provide a list of all the State Departments and Organs of State that were consulted:

State Department / Organ of State	Date request was sent:	Date comment received:	Support / not in support
Department of Agriculture	08/02/2019 09/07/2019	None None 04/11/2019 (CARA Demarcation Permit	
CapeNature	08/02/2019 09/07/2019	None yet	
Department of Health	08/02/2019 09/07/2019	None yet	
BGCMA	08/02/2019 09/07/2019	25/03/2019	Support, the proposed development does not impact water resources.
George Municipality	08/02/2019 09/07/2019 09/07/2019	04/03/2019 None 11/07/2019 11/11/2019	
DEA&DP	08/02/2019 09/07/2019	25/03/2019 26/08/2019	Comments on Pre-App BAR
South African Civil Aviation	Unsure of date of submission	14/09/2018	Support
Heritage Western Cape	Unsure of date of submission of NID	26/02/2019	Support

3. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated, or the reasons for not including them.
(The detailed outcomes of this process, including copies of the supporting documents and inputs must be included in a Comments and Response Report to be attached to the BAR (see note below) as **Appendix F**).

Please note that the Poster and Notification Letters made available to potential I&APs, stipulated that the Pre-App BAR Jan'19 will be made available on the EnviroAfrica website for comments for 30 days. Please refer to Appendix F4 for the letter and email sent out

Comments on the Pre-App, Post-App and Revised Post App BAR is addressed in the comments and response report (C&RR). Please refer to **Appendix F1** for the updated C&RR as well as original comments received,

4. Provide a summary of any conditional aspects identified / highlighted by any Organs of State, which have jurisdiction in respect of any aspect of the relevant activity.

Appendix E1

Comments Heritage Western Cape:

1. Should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately and HWC must be notified without delay.

Appendix E2

Approval Conditions SACAA Obstacle Approval:

1. Night markings

Appendix E3

CARA Demarcation Permit:

All reasonable steps must be taken to curtail the spreading or propagating material of *Pines Spp* (Pine Trees) outside the demarcated area as per section 5 and 6 of the CARA (Act No. 43 of 1983), read with Regulation 15 and 16 and Table 3 of the Regulation and the approved management plan included in Appendix E3.

Note:

Even if pre-application public participation is undertaken as allowed for by Regulation 40(3), it must be undertaken in accordance with the requirements set out in Regulations 3(3), 3(4), 3(8), 7(2), 7(5), 19, 40, 41, 42, 43 and 44.

If the "exemption" option is selected above and no proof of the exemption decision is attached to this BAR, the application will be refused.

A list of all the potential I&APs, including the Organs of State, notified and a list of all the registered I&APs must be submitted with the BAR. The list of registered I&APs must be opened, maintained and made available to any person requesting access to the register in writing.

The BAR must be submitted to the Department when being made available to I&APs, including the relevant Organs of State and State Departments which have jurisdiction with regard to any aspect of the activity, for a commenting period of at least 30 days. Unless agreement to the contrary has been reached between the Competent Authority and the EAP, the EAP will be responsible for the consultation with the relevant State Departments in terms of Section 24O and Regulation 7(2) – which consultation must happen simultaneously with the consultation with the I&APs and other Organs of State.

All the comments received from I&APs on the BAR must be recorded, responded to and included in the Comments and Responses Report included as **Appendix F** of the BAR. If necessary, any amendments made in response to comments received must be effected in the BAR itself. The Comments and Responses Report must also include a description of the PPP followed.

The minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded, must also be submitted as part of the public participation information to be attached to the final BAR as **Appendix F**.

Proof of all the notices given as indicated, as well as notice to I&APs of the availability of the Pre-Application BAR (if applicable), Draft BAR, and Revised BAR (if applicable) must be submitted as part of the public participation information to be attached to the BAR as **Appendix F**. In terms of the required "proof" the following must be submitted to the Department:

- a site map showing where the site notice was displayed, a dated photograph showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
 - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
 - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
 - if a facsimile was sent, a copy of the facsimile report;
 - if an electronic mail was sent, a copy of the electronic mail sent; and
 - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

Interested and Affected Parties (I&APs) were identified throughout the process. Landowners adjacent to the proposed site, relevant organs of state, organizations, ward councillors and the Local and District Municipality were added to this database. A complete list of organisations and individual groups identified to date is shown in **Appendix F5**.

Public Participation was conducted for this proposed development in accordance with the requirements outlined in Regulation 41, 42, 43 and 44 of the NEMA EIA Regulations 2014 as amended, as well as the Department of Environmental Affairs and Development Planning's guideline on Public Participation 2011.

As such each subsection of Regulation 54 contained in Chapter 6 of the NEMA EIA Regulations will be addressed separately to thereby demonstrate that all potential Interested and Affected Parties (I&AP's) were notified of the proposed development.

Posters were put up on site and surrounds and notification letters were delivered via maildrops to potential I&APs. The poster and notification letters stipulated that the *Pre-Application BAR for comment Jan '19* (this document) will be available on the EnviroAfrica website for 30 days for comment. Comments on this report will be addressed in the comments and response report (**Appendix F1**) and be made available during the next round of public participation in the Post-Application BAR for comment.

Please refer to the table below which indicate the public participation process conducted this far

R41	Posters, Advertisement & Notification letters
(2) (a) (i)	<p>Posters were displayed on the site property gate on Portion 112 Farm Hans Moes Kraal No 202, entrance of the La Grande Golf Estate and at the Spar in Pacaltsdorp</p> <p>Posters were A2 and A3 Please see Appendix F2 & F3</p>
(ii)	N/A No viable alternative site
(2) (b) (iii)	<p>Notification letters were sent to the municipal ward councilor at the George Local Municipality.</p> <p>Please see Appendix F4</p>
(iv)	<p>Notification letters were sent to George Local Municipality & Garden Route District Municipality</p> <p>Please see Appendix F4</p>
(v)	<p>Notification letters were sent to the following organs of state, notifying of the proposed development and of the Pre-App BAR available on the EnviroAfrica website for comment:</p> <ul style="list-style-type: none"> • Department of Environment and Development Planning • Department of Water and Sanitation • BGCMA • Cape Nature • Heritage Western Cape • WC Department of Agriculture and Land Use Management • South African Civil Aviation Authority (SACAA) <p>Please see Appendix F4</p>
(vi)	<p>Notification letters were delivered via maildrops to as many neighbours as possible</p> <p>Please see Appendix F3</p>
(2) (c) (i)	<p>An advert was placed in the local newspaper.</p> <p>Please see Appendix F6 for the template that was sent in to the newspaper. Poof to be provided in the Post-App BAR for comment.</p>

R42 & 34	Register of I&AP
(a), (b), (c), (d)	A register of interested and affected parties was opened and maintained and is available to any person requesting access to the register in writing Please see Appendix F5
R43	Registered I&AP entitled to comments
3	I&AP were given 30 days for comments during the initial public participation phase and will be given 30 day to comment on the Pre-Application BAR (this report).
R44	I&AP to be recorded
	A summary of issues raised by I&AP are addressed in the comments and response report (C&RR). Appendix F1

SECTION D: NEED AND DESIRABILITY

Note: Before completing this section, first consult this Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department's website: <http://www.westerncape.gov.za/eadp>. In this regard, it must be noted that the *Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010* published by the national Department of Environmental Affairs on 20 October 2014 (GN No. 891 on Government Gazette No. 38108 refers) (available at: http://www.gov.za/sites/www.gov.za/files/38108__891.pdf) also applied to EIAs in terms of the EIA Regulations, 2014 (as amended).

1. Is the development permitted in terms of the property's existing land use rights?	YES	NO	Please explain
The property is zoned Rural. A consent use application will be required in terms of George Municipality: Municipal Land Use Planning By-Law, 2015.			
2. Will the development be in line with the following?			
(a) Provincial Spatial Development Framework ("PSDF").	YES	NO	Please explain
The proposed development of a 25 m high telecommunication mast is not likely to have a negative impact on the Province's PSDF. A consent use application will be submitted upon finalisation of this NEMA EIA application. The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage.			
(b) Urban edge / edge of built environment for the area.	YES	NO	Please explain
The site is located in a rural area surrounded by small holdings and agricultural activities. outside			
(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g., would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	NO	Please explain
The proposed development will be in line with the IDP and SDF of the municipality. A consent use application will be submitted upon finalisation of this NEMA EIA application. The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. This application is for the construction of a telecommunications mast, which is considered as part of the essential services for the greater community.			
(d) An Environmental Management Framework ("EMF") adopted by this Department. (e.g., Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
Unknown If the local municipality has an EMF. However, the proposed development will be in line with the SDF of the Garden Route District Municipality. A consent use application will be submitted upon finalisation of this NEMA EIA application. The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. This application is for the construction of a telecommunications mast, which is considered as part of the essential services for the greater community.			

(e) Any other Plans (e.g., Integrated Waste Management Plan (for waste management activities), etc.)).	YES	NO	Please explain
N/A.			
3. Is the land use (associated with the project being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (in other words, is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
This application is for the construction of a telecommunications mast, which is considered as part of the essential services for the greater community.			
4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur on the proposed site at this point in time?	YES	NO	Please explain
This application is for the construction of a telecommunications mast, which is considered as part of the essential services for the greater community and should occur at this point in time due to the increased demand for these services. The proposed activity will not lead to the expansion of the town.			
5. Does the community/area need the project and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g., development is a National Priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. The social benefits are considered to greatly outweigh any potential negative environmental impacts from the activity. The activity would create a more efficient telecommunications service, considered as essential to the business and private sector. The construction of the telecommunications mast is therefore considered as part of the essential services for the greater community.			
6. Are the necessary services available together with adequate unallocated municipal capacity (at the time of application), or must additional capacity be created to cater for the project? (Confirmation by the relevant municipality in this regard must be attached to the BAR as Appendix E .)	YES	NO	Please explain
The proposed activity will only require minimal amounts of power, which will be sourced existing Eskom connections. The proposed activity will not require water, solid waste removal, storm water or sewerage services from the local council.			
7. Is this project 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 BAR as Appendix E .)	YES	NO	Please explain
A consent use application will be submitted to the municipality after this NEMA EIA application. The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. The social benefits are considered to greatly outweigh any potential negative environmental impacts from the activity. The activity would create a more efficient telecommunications service, considered as essential to the business and private sector. The construction of the telecommunications mast is therefore considered as part of the essential services for the greater community.			
8. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
N/A			
9. Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.)	YES	NO	Please explain
The site has been identified as an ideal location for the proposed project as it will provide the necessary coverage required. In addition, the proposed site is located on an area that causes the least harm to the environment due to the transformed nature of the site.			
10. Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	YES	NO	Please explain
No sensitive natural or cultural areas were identified on site. The proposed site is not located within an CBA or ESA and the site is degraded and transformed with no natural vegetation remaining, due to past development activities on the property. Please refer to Appendix D .			
11. Will the development impact on people's health and well-being (e.g., in terms of noise, odours, visual character and 'sense of place', etc.)?	YES	NO	Please explain

The activity is expected to have a low-medium impact on the visual character of the area if the existing tall pine trees on site are retained. The proposed communications mast is not expected to produce any noise or odours during the operational phase. Some noise can be expected during the construction phase, but this will be temporary and is expected to be negligible. Please refer to Appendix L (Letter from Department of Health).

Alternative mast designs have been considered as per Appendix B (Concept Design Plans) - the visual significance of various mast designs viz. tree mast, lattice mast and monopole mast on the receiving environment (with and without the presence of the existing tall pine trees on site), has been assessed by a visual impact specialist as per Appendix G2 in terms of aesthetic impact and sense of place.

A final statement by the visual impact specialist in Appendix G2.2 indicates that a lattice mast is the most preferred alternative. Please refer to the report for more detail as well as illustrations. This section aims to give a summary of the outcome of the VIA.

With the CARA demarcation permit to retain and manage the existing pine trees on the site, Alternative 4a (Lattice mast) is the most preferred alternative.

12. Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs?	YES	NO	Please explain
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The nature, size and location of the site would mean that there are no unacceptable opportunity costs due to the proposed activity.

13. What will the cumulative impacts (positive and negative) of the proposed land use associated with the development proposal and associated listed activity(ies) applied for, be?
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The activity is not expected to have any negative cumulative impacts. The mast will allow for multiple service providers to attach and house their equipment on the mast, creating more efficient telecommunications service in the area and decreasing the need for additional masts in the area. This will therefore have a positive cumulative impact on the area.

14. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
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The best practicable environmental option for the site would be the no-go option. However, any potential benefits would be considered lost. Due to the nature of the activity, and the size and location of the site, any potential negative environmental impacts are expected to be negligible. The socio-economic benefits of the activity to the community are considered to greatly outweigh any environmental benefits of not implementing the activity.

15. What will the benefits be to society in general and to the local communities?	Please explain
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The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. Cellular communication is used more and more for data transfer and not only voice calls. Such data capabilities are important in business, education and for the public/private user, and have thus become paramount for social and economic development. The proposed telecommunication mast will have a positive impact on the socio-economics of the surrounding area as it will also provide multiple cellular users with the option of faster internet coverage and cheaper cellular rates.

16. Any other need and desirability considerations related to the proposed development?	Please explain
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N/A

17. Describe how the general objectives of Integrated Environmental Management as set out in Section 23 of the NEMA have been taken into account:
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The general objectives of Integrated Environmental Management have been taken into account through the following:

- The actual and potential impacts of the activity on the environment, socio-economic conditions and cultural heritage have been identified, predicted and evaluated, as well as the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impact, maximizing benefits and promoting compliance with the principles of environmental management – please refer to Section F below.
- The effects of the activity on the environment have been considered before actions taken in connection with them alternatives have been considered and investigated (please refer to Section E below).
- Adequate and appropriate opportunity for public participation is ensured through the public participation process.
- The environmental attributes have been considered in the management and decision-making of the activity – an EMPr has been included (Appendix H) with the proposed activity and must adhere to the requirements of all applicable state Authorities.

18 Describe how the **principles of environmental management** as set out in Section 2 of the NEMA have been taken into account:

The principles of environmental management as set out in section 2 of NEMA and pertinent to this activity include:

- People and their needs have been placed at the forefront while serving their physical, psychological, developmental, cultural and social interests – the proposed activity will have a beneficial impact on people, especially developmental, cultural and social benefits due to increased coverage and reliability of communications.
- Development must be socially, environmentally and economically sustainable. Where disturbance of ecosystems, loss of biodiversity, pollution and degradation, and landscapes and sites that constitute the nation's cultural heritage cannot be avoided, are minimised and remedied.
- Although the activity is expected to have little to no environmental impact, these impacts have been considered, and mitigation measures have been put in place.
- Where waste cannot be avoided, it is minimised and remedied through the implementation and adherence of EMPr.
- The use of non-renewable natural resources is responsible and equitable – no exploitation of non-renewable natural resources occurs with the proposed activity.
- The negative impacts on the environment and on people's environmental rights have been anticipated and prevented, and where they cannot be prevented, are minimised and remedied - refer to Section F below.
- The interests, needs and values of all interested and affected parties will be taken into account in any decisions through the Public Participation Process - refer to Section F below.
- The social, economic and environmental impacts of the activity have been considered, assessed and evaluated, including the disadvantages and benefits – refer to Section F below.
- The effects of decisions on all aspects of the environment and all people in the environment have been taken into account, by pursuing what is considered the best practicable environmental option – the proposed activity is expected to have minimal/negligible environmental impacts, especially after mitigation measures as described under Section F and in the EMPr are implemented. The social benefits are considered to outweigh any potential negative environmental impacts from the activity.

Please refer to Appendix K (Atlas Tower Need & Desirability Document), as well as Appendix L (Letter from the Department of Health regarding the health impact of cellular base stations).

SECTION E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED

Note: Before completing this section, first consult this Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department's website <http://www.westerncape.gov.za/eadp>.

The EIA Regulations, 2014 (as amended) defines "alternatives" as "*in relation to a proposed activity, means different means of fulfilling the general purpose and requirements of the activity, which may include alternatives to the—*

- (a) property on which or location where the activity is proposed to be undertaken;
- (b) type of activity to be undertaken;
- (c) design or layout of the activity;
- (d) technology to be used in the activity; or
- (e) operational aspects of the activity;
- (f) and includes the option of not implementing the activity;"

The NEMA (section 24(4)(a) and (b) of the NEMA, refers) prescribes that the procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must, *inter alia*, with respect to every application for environmental authorisation –

- ensure that the general objectives of integrated environmental management laid down in the NEMA and the National Environmental Management Principles set out in the NEMA are taken into account; and
- include an investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity.

The general objective of integrated environmental management (section 23 of NEMA, refers) is, *inter alia*, to "identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management" set out in the NEMA.

The identification, evaluation, consideration and comparative assessment of alternatives directly relate to the management of impacts. Related to every identified impact, alternatives, modifications or changes to the activity must be identified, evaluated, considered and comparatively considered to:

- in terms of negative impacts, firstly avoid a negative impact altogether, or if avoidance is not possible alternatives to better mitigate, manage and remediate a negative impact and to compensate for/offset any impacts that remain after mitigation and remediation; and
- in terms of positive impacts, maximise impacts.

1. DETAILS OF THE IDENTIFIED AND CONSIDERED ALTERNATIVES AND INDICATE THOSE ALTERNATIVES THAT WERE FOUND TO BE FEASIBLE AND REASONABLE

Note: A full description of the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exists.

- (a) Property and **location/site** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

The current site is the only location considered. It is strategically placed due to its proximity to existing masts, coverage needed and thus the coverage it can provide. This location is also considered the preferred location due to existing tall Pine Trees on the site. An addendum to the Visual Impact Assessment (VIA) has been included (**Appendix G2.2**) to investigate the visual significance in a scenario where the cluster of trees adjoining the proposed mast position will be removed. The VIA also considers various visual receptors or positions from where the development site is potentially visible.

Removal of existing alien Pine Trees on site is not a site alternative but a change to site the condition. According to the VIA, the scenario where the trees are retained provide the lowest visual impact as the trees provide the best visual absorption, regardless of the mast type. The removal of the trees will have a medium-high visual impact. Please refer to the VIA (**Appendix G2.2**) report for more detail as well as illustrations.

A CARA Demarcation Permit was granted from the Department of Agriculture, Forestry and Fisheries: Land Use and Soil Management (**Appendix E3**). The permit allows the landowner/ user to retain the existing Pine Trees on the property but with the condition that to manage the spread of the trees from the demarcated area as per section 5 and 6 of the Act, read with Regulation 15 and 16 and Table 3 of the Regulation and the approved management plan included in Appendix E3.

It is for these reason that the preferred site condition would that the Pine Trees remain on the property with the condition that the land owner/user manage and prevent the trees of spreading.

- (b) **Activity** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

N/A. This is the only activity that can increase the telecommunication coverage for the area.

- (c) **Design or layout** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Alternative mast designs have been considered:

An addendum to the Visual Impact Assessment (VIA) has been included (**Appendix G2.2**) to investigate the visual significance in a scenario where the cluster of trees adjoining the proposed mast position will be removed as discussed above, as well as the visual significance of various mast designs, namely tree, lattice and monopole on the receiving environment. The VIA also considers various visual receptors or positions from where the development site is potentially visible.

Please refer to the report for more detail as well as illustrations. This section aims to give a summary of the outcome of the VIA.

35m Tree Mast (Alternative 1 – Not viable)

A 35m tree mast was initially considered as a preferred alternative. However, the municipality gave comment that they will not support a 35m mast and suggested that the mast height be reduced to 25m. It is for this reason that a 35m mast was not evaluated further in the report and is considered not viable.

25m Tree Mast, existing Pine Trees remain on site (Alternative 2a, Preferred Alternative)

A tree mast will allow for multiple service providers to attach and house their equipment on the mast. From the VIA it can be concluded that should the trees be retained, the proposed tree mast will blend into the surrounding environment and would have a low impact on the surrounding environment. With the CARA demarcation permit to retain and manage the existing pine trees on the site, Alternative 2a is the most preferred alternative.

25m Tree Mast, removal of existing Pine Trees on site (Alternative 2b, Not preferred Alternative)

A tree mast will allow for multiple service providers to attach and house their equipment on the mast. From the VIA it can be concluded that should the trees be removed, the proposed Tree mast will have a medium (from Pacaltsdorp) to high (from Le Grande Estate Approach) visual impact in the receiving environment. The tree mast would be out of character with the surrounding landscape and will be very prominent and the intrusive level increases. Alternative 2b is the least preferred alternative.

25m Monopole Mast, existing Pine Trees remain on site (Alternative 3a, Not preferred Alternative)

A monopole mast is also considered as a viable option for the applicant. However, the mast will not be able to hold as much equipment when compared to the tree mast (preferred alternative) and lattice mast (most preferred alternative). From the VIA it can be concluded that should the trees remain on the site, a monopole mast will have an overall low visual impact on the receiving environment. The mast partially fits with other elements in the landscape.

This mast is not preferred as the mast cannot hold the necessary amount of equipment required.

25m Monopole Mast, removal of existing Pine Trees on site (Alternative 3b, Not Preferred Alternative)

A monopole mast is also considered as a viable option for the applicant. However, the mast will not be able to hold as much equipment when compared to the tree mast (preferred alternative) and lattice mast. From the VIA it can be concluded that the removal of the trees will expose other infrastructure such as telephone poles and lines. The monopole mast aligns with these elements which reduces the intrusiveness of the mast. A monopole mast with the trees removed will have a medium visual impact. With the mitigation measures, such as to paint the mast a dark green or brown, the intrusiveness can be reduced even more, having a low visual impact on the receiving environment.

25m Lattice Mast, existing Pine Trees remain on site – (Alternative 4a, Most Preferred Alternative)

A lattice mast is another option for the applicant, as it is able to hold the necessary amount of equipment, allowing for equipment from various service providers, and is cheaper to construct than a monopole or tree mast design. The VIA concludes that with the trees retained, a lattice mast will be screened by the trees. The advantage of a lattice mast is that it does not position a solid element in the landscape but allows for a level of transparency which will reduce exposure levels. The lattice mast, with the trees remaining on site, will have a low impact on the receiving environment.

Applying a dark grey or dark green colour to the structure will compliment similar coloured landscape elements and further reduce the exposure level.

25m Lattice Mast, removal of existing Pine Trees on site – (Alternative 4b, Most Preferred Alternative)

A lattice mast is another option for the applicant, as it is able to hold the necessary amount of equipment, allowing for equipment from various service providers, and is cheaper to construct than a monopole or tree mast design. A lattice mast with the trees removed will have the same visual impact as the monopole mast. The removal of the trees will expose other infrastructure such as telephone poles and lines. The lattice mast aligns with these elements which reduces the intrusiveness of the mast. A lattice mast with the trees removed

will have a medium visual impact. With further mitigation measures, such as to apply a dark green or dark grey colour to the structure, the mast will compliment similar coloured landscape elements and further reduce its exposure level, thereby having a low visual impact on the receiving environment.

A lattice mast is also a better option for the applicant, from an economic point of view since as it is able to hold the necessary amount of equipment, allowing for equipment from various service providers and is cheaper to construct than a monopole or tree design.

- (d) **Technology** alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

N/A

- (e) **Operational** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

N/A

- (f) The option of **not implementing** the activity (the 'No-Go' Option):

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

- (g) **Other** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

N/A

- (h) Provide a **summary** of all alternatives investigated and the outcome of each investigation:

Location/ Site Alternative:

The current site is the only location considered. It is strategically placed due to its proximity to existing masts, coverage needed and thus the coverage it can provide. This location is also considered the preferred location due to existing tall Pine Trees on the site. An addendum to the Visual Impact Assessment (VIA) has been included (**Appendix G2.2**) to investigate the visual significance in a scenario where the cluster of trees adjoining the proposed mast position will be removed. The VIA also considers various visual receptors or positions from where the development site is potentially visible.

Removal of existing alien Pine Trees on site is not a site alternative but a change to site the condition. According to the VIA, the scenario where the trees are retained provide the lowest visual impact as the trees provide the best visual absorption, regardless of the mast type. The removal of the trees will have a medium-high visual impact. Please refer to the VIA (**Appendix G2.2**) report for more detail as well as illustrations.

A CARA Demarcation Permit was granted from the Department of Agriculture, Forestry and Fisheries: Land Use and Soil Management (**Appendix E3**). The permit allows the landowner/ user to retain the existing Pine Trees on the property but with the condition that to manage the spread of the trees from the demarcated area as per section 5 and 6 of the Act, read with Regulation 15 and 16 and Table 3 of the Regulation and the approved management plan included in Appendix E3.

It is for these reason that the preferred site condition would that the Pine Trees remain on the property with the condition that the land owner/user manage and prevent the trees of spreading.

Design Alternatives:

Alternative mast designs have been considered:

An addendum the Visual Impact Assessment (VIA) has been included (**Appendix G2.2**) to investigate the visual significance in a scenario where the cluster of trees adjoining the proposed mast position will be removed as discussed above, as well **as well as** the visual significance of various mast designs, namely tree, lattice and monopole on the receiving environment. The VIA also considers various visual receptors or positions from where the development site is potentially visible.

Please refer to the report for more detail as well as illustrations. This section aims to give a summary of the outcome of the VIA.

35m Tree Mast (Alternative 1 – Not viable)

A 35m tree mast was initially considered as a preferred alternative. However, the George municipality gave comment that they will not support a 35m mast and suggested that the mast height be reduced to 25m. It is for this reason that a 35m mast was not evaluated further in the report and is considered not viable.

25m Tree Mast, exiting Pine Trees remain on site (Alternative 2a, Preferred Alternative)

A tree mast will allow for multiple service providers to attach and house their equipment on the mast. The VIA concluded that if the trees remain on site, the proposed tree mast will blend into the surrounding environment and have a low visual impact on the receiving environment.

With the CARA demarcation permit to retain and manage the existing Pine Trees on the site, Alternative 2a is a preferred alternative in the short to medium term but may not be in the long term should the trees be removed.

25m Tree Mast, removal of exiting Pine Trees on site (Alternative 2b)

The VIA concludes that should the trees be removed, the proposed tree mast will have a high visual impact in the receiving environment. The tree mast would be out of character with the surrounding landscape and will be very prominent and the intrusive level increases. Alternative 2b is the least preferred alternative.

25m Monopole Mast, existing Pine Trees remain on site (Alternative 3a)

A monopole mast is also considered as a viable option for the applicant. However, the mast will not be able to hold as much equipment when compared to the tree mast (preferred alternative) and lattice mast. The VIA concludes a that should the trees remain on the site, a monopole mast will have an overall low visual impact on the receiving environment. The mast partially fits with other elements in the landscape.

25m Monopole Mast, removal of existing Pine Trees on site (Alternative 3b)

The VIA concludes that the removal of the trees will expose other infrastructure such as telephone poles and lines. The monopole mast aligns with these elements which reduces the intrusiveness of the mast. A monopole mast with the tress removed will have a medium visual impact. With the mitigation measures, such

as to paint the mast a dark green or brown, the intrusiveness can be reduced even more, having a low visual impact on the receiving environment.

25m Lattice Mast, existing Pine Trees remain on site – (Alternative 4a, Most Preferred Alternative)

The VIA concludes that with the trees retained, a lattice mast will be screened by the by the trees. The impact of a lattice mast of on the receiving, with the trees remaining on site will have a low impact on the receiving environment. The advantage of a lattice mast is that it does not position a solid element in the landscape but allow for a level of transparency which will reduce exposure levels. Applying a dark or green colour will compliment similar coloured landscape elements and further reduce the exposure level

25m Lattice Mast, removal of existing Pine Trees in site – (Alternative 4b, Most Preferred Alternative)

A lattice mast with the trees removed will have a similar visual impact as the monopole mast although it may appear less visually intrusive due to its non-solid structure i.e. from a distance one can see through it. This is confirmed by the lower impact rating score for a lattice mast without surrounding trees, as opposed to a monopole mast without surrounding trees Appendix J2 (D). Furthermore, the removal of the trees will expose other infrastructure in the area such as telephone poles and lines. The lattice mast aligns with these elements which reduces the intrusiveness of the mast. A lattice mast with the trees removed will have a medium visual impact. With the mitigation measures, such as applying a dark green or dark grey colour will compliment similar coloured landscape elements and further reduce the exposure level, having a low visual impact on the receiving environment.

A lattice mast is also a better option for the applicant, from an economic point of view since as it is able to hold the necessary amount of equipment, allowing for equipment from various service providers and is cheaper to construct than a monopole or tree design.

Please also refer to communication with George Municipality (**Appendix F1.10.2**) where it is stated that a tree mast design will be the preferred alternative only if the existing pine trees are to remain on site. Although a demarcation permit has been obtained for the pine trees currently on site, the longevity of these trees cannot be guaranteed – physical hazards such as fire or mechanical damage, or biological stresses such as pests and/or diseases could result in the removal of these trees from the surrounding environment which would leave a monopole tree mast very exposed and visually intrusive.

- (i) Provide a detailed **motivation for not further considering** the alternatives that were found not feasible and reasonable, including a description and proof of the investigation of those alternatives:

Please refer to the design/layout alternatives on Page 36. Reasons are given for the consideration of alternatives.

2. PREFERRED ALTERNATIVE

- (a) Provide a **concluding statement** indicating the preferred alternative(s), including preferred location, site, activity and technology for the development.

Location/ Site Alternative

The current site is the only location considered. It is strategically placed due to its proximity to existing masts, coverage needed and thus the coverage it can provide. This location is also considered the preferred location due to existing tall pine trees on the site.

No natural vegetation will be lost due to the construction of the proposed mast as the site is already completely transformed. The site selected does not fall within any CBA/ ESA or watercourses.

Electricity supply source from George Municipality, an application will need to be submitted for the upgrade of an existing transformer, please refer to communication with George municipality, **Appendix F1.10.1**. This should be a condition of the environmental authorisation (EA).

No new roads will be constructed as an existing access road will be utilised to gain access to the proposed site.

An addendum to the Visual Impact Assessment (VIA) has been included (**Appendix G2.2**) to investigate the visual significance in a scenario where the cluster of trees adjoining the proposed mast position will be removed. The VIA also considers various visual receptors or positions from where the development site is potentially visible.

Removal of existing alien pine trees on site is not a site alternative but a change to site the condition. According to the VIA, the scenario where the trees are retained provide the lowest visual impact as the trees provide the best visual absorption, regardless of the mast type. The removal of the trees will have a medium-high visual impact. Please refer to the VIA (**Appendix G2.2**) report for more detail as well as illustrations.

A CARA Demarcation Permit was granted from the Department of Agriculture, Forestry and Fisheries: Land Use and Soil Management (**Appendix E3**). The permit allows the landowner/ user to retain the existing Pine Trees on the property but with the condition that to manage the spread of the trees from the demarcated area, as per management measures proposed in the Demarcation Application, attached as Appendix E3 and as per section 5 and 6 of the Act, read with Regulation 15 and 16 and Table 3 of the Regulation

No new trees to be planted and these trees do not occur in natural vegetation or within a watercourse.

It is for these reasons that the preferred site condition would that the Pine Trees remain on the property with the condition that the landowner/user manage and prevent the trees of spreading from the demarcated area.

Design Alternatives

Tree Mast (Alternative 2a, Preferred Alternative)

A tree mast will allow for multiple service providers to attach and house their equipment on the mast. The VIA concluded that if the trees remain on site, the proposed tree mast will blend into the surrounding environment and have a low visual impact on the receiving environment.

With the CARA demarcation permit to retain and manage the existing pine trees on the site, Alternative 2a is a preferred alternative.

Consultation with George Municipality, **Appendix F1.10.2**, confirms that a tree mast where the trees are retained on site is a highly preferred alternative, indicated by the lowest impact rating (Appendix J2, D).

Lattice Mast (Alternative 4a or Alternative 4b, Most Preferred Alternative)

A lattice mast is another option for the applicant, as it is able to hold the necessary amount of equipment, allowing for equipment from various service providers, and is cheaper to construct than a monopole or tree mast design.

The VIA concludes that with the trees retained (Alternative 4a), a lattice mast will be screened by the by the trees (as will any of the other types of mast). The lattice mast, with the trees remaining on site, will have a low impact on the receiving environment.

A lattice mast with the trees removed (Alternative 4b), will have a similar visual impact as the monopole mast although it may appear less visually intrusive due to its non-solid structure i.e. from a distance one can see through it. This is confirmed by the lower impact rating score for a lattice mast without surrounding trees, as opposed to a monopole mast without surrounding trees (Appendix J2, D). Furthermore, the removal of the trees will expose other infrastructure in the area such as telephone poles and lines. The lattice mast aligns with these elements which reduces the intrusiveness of the mast. A lattice mast with the trees removed will have a medium visual impact.

The advantage of a lattice mast is that it does not position a solid element in the landscape but allows for a level of transparency which will reduce exposure levels.

Applying a dark grey or dark green colour to the structure will compliment similar coloured landscape elements and further reduce the exposure level.

It is proposed that a 25m high lattice telecommunications mast with a 10m x 10m base station be constructed on a flat surface area on Portion 112 of Farm Hans Moes Kraal, George, Western Cape. The base station and mast will be enclosed with a 2.4m high palisade fence with an access gate.

This development must take place in conjunction with the CARA demarcation directive/permit, to facilitate a low visual impact.

Please refer to **Appendix A** for locality maps **Appendix B** for site plans, including conceptual plans of the various design alternatives considered.

Activity and technology alternatives were not investigated as they are not applicable.

SECTION F: ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE ALTERNATIVES

Note: The information in this section must be DUPLICATED for all the feasible and reasonable ALTERNATIVES.

1. DESCRIBE THE ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE PROPOSED DEVELOPMENT AND ITS ALTERNATIVES, FOCUSING ON THE FOLLOWING:

(a) Geographical, geological and physical aspects:

The activity is not expected to have any impacts on any geographical and/or physical aspects. The site is largely transformed.

(b) Ecological aspects:

Will the proposed development and its alternatives have an impact on CBAs or ESAs? If yes, please explain: Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map.	YES	NO
The Biodiversity overlay map from Cape Farm Mapper (Appendix D) indicate that the proposed site does not fall within any Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs).		
Will the proposed development and its alternatives have an impact on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)? If yes, please explain:	YES	NO
<p>According to the vegetation map (Appendix D) the vegetation that would have been present on the site is Groot Brak Dune Strandveld. This type of vegetation is classified as Endangered in the Western Cape in terms of <i>NEMBA National list of Ecosystems that are threatened and in need of protection</i>. The site is transformed and disturbed due to previous developments with no natural vegetation remaining. Refer to site Photos (Appendix C).</p> <p>The Water Resources Map (Appendix D) show that the proposed site does not fall within any wetlands/watercourses on rivers. The sea is located more than 1km south of the property. The sea lies approximately 1km south of the proposed site. BGCMA confirmed that no water resources will be impacted by the proposed construction of the mast. (Appendix F1.9.1).</p> <p>The proposed mast development, irrespective of mast design will not have an impact on natural vegetation or aquatic ecosystems.</p> <p>A CARA Demarcation Permit (Appendix E3) was granted which will allow the landowner to retain the existing Pine Trees on the site, with the condition to manage these trees and to prevent the trees from spreading as per section 5 and 6 of the Act, read with Regulation 15 and 16 and Table 3 of the Regulation. A management plan was approved by Department Agriculture, Forestry and Fisheries and is included in as Appendix E3 and as an addendum to the EMP. These trees do not occur in natural vegetation or within a watercourse.</p>		
Will the proposed development and its alternatives have an impact on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species? If yes, please explain:	YES	NO

According to the vegetation map (**Appendix D**) the vegetation that would have been present on the site is Groot Brak Dune Strandveld. This type of vegetation is classified as Endangered in the Western Cape in terms of *NEMBA National list of Ecosystems that are threatened and in need of protection*. The site transformed and disturbed due to previous developments with no natural vegetation remaining. Refer to site Photos (**Appendix C**). Grass species dominate the site.

No threatened plant or animal species are expected to be on site and will therefore not be impacted by the proposed development.

Describe the manner in which any other biological aspects will be impacted:

The proposed development is not expected have any impact on any other biological aspects.

Will the proposed development also trigger section 63 of the NEM: ICMA?

YES NO

If yes, describe the following:

- (i) the extent to which the applicant has in the past complied with similar authorisations;
- (ii) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development proposal or listed activity is consistent with the purpose for establishing and protecting those areas;
- (iii) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area;
- (iv) the likely socio-economic impact if the listed activity is authorised or is not authorised;
- (v) the likely impact of coastal environmental processes on the proposed development;
- (vi) whether the development proposal or listed activity—
 - (a) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations;
 - (b) is situated within the coastal protection zone and is inconsistent with the purpose for which a coastal protection zone is established as set out in section 17 of NEM: ICMA;
 - (c) is situated within coastal access land and is inconsistent with the purpose for which coastal access land is designated as set out in section 18 of NEM: ICMA;
 - (d) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal environment that cannot satisfactorily be mitigated;
 - (e) is likely to be significantly damaged or prejudiced by dynamic coastal processes;
 - (f) would substantially prejudice the achievement of any coastal management objective; or
 - (g) would be contrary to the interests of the whole community;
- (vii) whether the very nature of the proposed activity or development requires it to be located within coastal public property, the coastal protection zone or coastal access land;
- (viii) whether the proposed development will provide important services to the public when using coastal public property, the coastal protection zone, coastal access land or a coastal protected area; and
- (ix) the objects of NEM: ICMA, where applicable.

(c) Social and Economic aspects:

What is the expected capital value of the project on completion?	R 500 000.00
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project?	TBC
Will the project contribute to service infrastructure?	YES NO
Is the project a public amenity?	YES NO
How many new employment opportunities will be created during the development phase?	5
What is the expected value of the employment opportunities during the development phase?	R 120 000.00
What percentage of this will accrue to previously disadvantaged individuals?	65%
How will this be ensured and monitored (please explain):	
N/A	
How many permanent new employment opportunities will be created during the operational phase of the project?	N/A
What is the expected current value of the employment opportunities during the first 10 years?	TBC
What percentage of this will accrue to previously disadvantaged individuals?	N/A
How will this be ensured and monitored (please explain):	
N/A	
Any other information related to the manner in which the socio-economic aspects will be impacted:	
N/A	

(d) Heritage and Cultural aspects:

A Heritage Screener and NID was submitted to Heritage Western Cape. HWC provided comments (Appendix E1), the proposed construction of the mast is not expected to impact on Heritage Resources.

2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

Will the development proposal produce waste (including rubble) during the development phase?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?	m ³	
Minimal amounts of building rubble will be produced due to construction activities and must be disposed of at the correct, registered landfill site.		

Will the development proposal produce waste during its operational phase?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?	m ³	
N/A, The activity will not produce waste.		

Will the development proposal require waste to be treated / disposed of on site?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?	m ³	
N/A		
If no, where and how will the waste be treated / disposed of? Please explain. Indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?	m ³	
Minimal amounts of building rubble due to construction activities. Construction waste will be disposed of at a registered municipal landfill site.		
Has the municipality or relevant authority confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? If yes, provide written confirmation from the municipality or relevant authority. N/A	YES	NO
Will the development proposal produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream? N/A	YES	NO
If yes, has this facility confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? Provide written confirmation from the facility. N/A	YES	NO
Does the facility have an operating license? (If yes, please attach a copy of the licence.) N/A	YES	NO
Facility name:		
Contact person:		
Cell:	Postal address:	
Telephone:	Postal code:	
Fax:	E-mail:	

Describe the measures that will be taken to reduce, reuse or recycle waste:
N/A

(b) Emissions into the atmosphere

Will the development proposal produce emissions that will be released into the atmosphere?	YES	NO
If yes, does this require approval in terms of relevant legislation?	YES	NO
If yes, what is the approximate volume(s) of emissions released into the atmosphere?	N/A	m ³
Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated:		
N/A. The activity will not generate emissions into the atmosphere.		

3. WATER USE

(a) Indicate the source(s) of water for the development proposal by highlighting the appropriate box(es).

Municipal	Water board	Groundwater	River, Stream, Dam or Lake	Other	The project will not use water
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Note: Provide proof of assurance of water supply (e.g. Letter of confirmation from the municipality / water user associations, yield of borehole)

(b) If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	N/A	m ³
(c) Does the development proposal require a water use permit / license from DWS? If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix.	YES	NO
(d) Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:		
N/A		

4. POWER SUPPLY

(a) Describe the source of power e.g. municipality / Eskom / renewable energy source.

Electricity supply from George Municipality. The power requirements are relatively low for such a development.
Electricity supply is available, an existing transformer will need to be upgraded. **Appendix F1.10.1**

(b) If power supply is not available, where will power be sourced?

N/A

5. ENERGY EFFICIENCY

(a) Describe the design measures, if any, that have been taken to ensure that the development proposal will be energy efficient:

All equipment is ISO 14001 compliant.

(b) Describe how alternative energy sources have been taken into account or been built into the design of the project, if any:

N/A

6. TRANSPORT, TRAFFIC AND ACCESS

Describe the impacts in terms of transport, traffic and access.

Access to the proposed site will be restricted to construction personal only. The proposed development will not have a negative impact in terms of local traffic. No roads will be constructed as an existing access road will be used to access the site. The EMPr will be implemented to mitigate any potential negative impact.

7. NUISANCE FACTOR (NOISE, ODOUR, etc.)

Describe the potential nuisance factor or impacts in terms of noise and odours.

The proposed activity will not produce any odours. Localised construction noise can be expected. However, the construction noise will be temporary in nature and as a mitigation measure, construction activities will be limited to normal working hours. The proposed development will have an insignificant impact on the surrounding areas in terms of nuisance.

A Visual Impact Assessment as well as an addendum was conducted (**Appendix G2**). The findings concluded that in the scenario where the trees are to remain on site will provide the lowest visual impact as the trees provide the best visual absorption, regardless of the mast type. The removal of the trees will have a medium-high visual impact. A CARA Demarcation Permit was granted from the Department of Agriculture, Forestry and Fisheries: Land Use and Soil Management (**Appendix E3**). The permit allows the landowner/ user to retain the existing Pine Trees on the property but with the condition that to manage the spread of the trees from the demarcated area as per section 5 and 6 of the Act, read with Regulation 15 and 16 and Table 3 of the Regulation and the approved management plan in the Demarcation Application included in Appendix E3. No new trees to be planted and these trees do not occur in natural vegetation or within a watercourse.

During construction, various types of vehicles and equipment will be transported to the site. This impact on the on the general experience of viewers. This impact will however be temporary and is therefore rated as low. The proposed mast will have an overall low impact without mitigation this impact is overall within acceptable levels of change. The most significant impact is the direct on-site impacts, however this is also within an acceptable levels, given the tree design which fits with other landscape elements. The overall low

rating is partially due to the Tree design couples with the existing stand of trees which provide effective screening of the mast. These trees must not be removed.

Note: Include impacts that the surrounding environment will have on the proposed development.

8. OTHER

N/A

SECTION G: IMPACT ASSESSMENT, IMPACT AVOIDANCE, MANAGEMENT, MITIGATION AND MONITORING MEASURES

1. METHODOLOGY USED IN DETERMINING AND RANKING ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES

- (a) Describe the **methodology** used in determining and ranking the nature, significance consequences, extent, duration and probability of potential environmental impacts and risks associated with the proposed development and alternatives.

The following impact rating approach used by EnviroAfrica CC is a basic exponential rating system to assess actual and potential negative and positive environmental impacts. (Appendix J1)

Environmental activities or aspects are identified, based on:

- the phases of the project,
- the nature (or description) of the actual and potential impacts of the activities.

For every project activity or aspect, various environmental impacts are listed.

Every negative impact is allocated a value as per each of the following criteria:

- Likelihood (Probability)
- Extent (Severity)
- Duration (Frequency)
- Consequence (Receiving Environment and Toxicity)

Once a value is allocated for each of the criterion, the scores are averaged to determine the final impact rating see Table 1 below.

EnviroAfrica then further assesses environmental significance, based on the nature of the impact, as per the score and colour key which forms part of Table 1 below. This results in impacts having either a low (indicated in green), medium (indicated in yellow) or high (indicated in orange and red) negative significance.

Note:

- i. One environmental aspect or project activity e.g. site clearance may have multiple impacts in different areas;
- ii. The various impacts as per aspects/project activity are documented in the Quantification of Aspects and Impact/s Significance Rating from;
- iii. As a baseline, impact rating values/scores are allocated taking the worst case scenario into account i.e. with no mitigation. The baseline rating is compared with those after mitigation has been taken into account i.e. the post-mitigation rating. Post mitigation rating is used for the actual impact assessment.

SIGNIFICANCE CRITERIA	Very High	Moderately High	Medium	Moderately Medium	Low	Very Low	Score
Value	32	16	8	4	2	1	
Likelihood / Probability (L/P)	Impact will definitely occur	Very likely for impact to occur	Impact may occur once annually	Impact may occur less than once annually but at least twice every five years	Impact may occur one to two times (maximum) in project's life	Very unlikely for impact to occur / Impact will not occur	
Extent / Severity (E/S)	Impact potentially reaches beyond national boundaries	Impact has definite provincial potential national consequences	Impact will affect neighbouring province	Impact confined to local province	Impact confined to local region but not province wide	Impact confined to project property / site	
Duration / Frequency (D/F)	Continual / daily occurrence	Impact will occur once a week	Impact will occur once a month	Impact will occur once a year	Impact will occur once every ten years	Possible that impact will never occur in Project's	
Consequence: Receiving environment (C: RE)	Very sensitive, pristine area – protected site or species permanently or seasonally present	Unused area containing only indigenous fauna / flora species	Unused area containing indigenous and alien fauna / flora species	Semi-disturbed area already rehabilitated / recovered from prior impact	Disturbed area undergoing rehabilitation / recovering from prior impacts	Disturbed area, already in need of rehabilitation prior to impact	
Consequence: Toxicity (C:T)	Impact is poisonous to natural environment and is not contained - no rehabilitation possible - permanent irreversible impact	Impact is potentially poisonous to natural environment and is not contained – only partial rehabilitation possible – potential permanent irreversible impact	Impact is potentially poisonous to natural environment and is partially contained – some rehabilitation possible and is potentially reversible	Impact is potentially poisonous to natural environment and is partially contained – complete rehabilitation possible	Impact is potentially poisonous to natural environment but is completely contained	Impact is not poisonous to natural environment	
FINAL RATING (average score)							

ENVIRONMENTAL RATING SIGNIFICANCE KEY:

SIGNIFICANCE	RATING	Final rating score / value range
Very Significant	Very High	25 to 32
Significant	High	19 to <25
Increasing Significance	Medium	13 to <19
	Moderately Medium	6 to <13
Insignificant	Low	3 to <6
	Very Low	1 to <3

Table 1: Environmental Significance Rating Methodology

(b) Please describe any gaps in knowledge.

There are no significant gaps of knowledge that have been identified.

(c) Please describe the underlying assumptions.

The following assumptions are made:

- The information on which the report is based (i.e. project information) is correct.
- The construction and management of this proposed development will be in line with the recommendations in this report, which will be enforced by the implementation of a detailed Environmental Management Programme (“EMPr”).
- That an Environmental Control Officer (“ECO”) be appointed as per the EMPr.
- Much of the long-term success lies in the effective implementation of the measures prescribed in the EMPr.

(d) Please describe the uncertainties.

There are no uncertainties that we are aware of at present.

(e) Describe adequacy of the assessment methods used.

The Basic Assessment Report for the proposed telecommunication mast is being undertaken with sustainable development as a goal. The assessment looked at the impacts of the proposals on the environment and assesses the significance of these, as well as the possible avoidance of negative impacts. Where negative impacts could not be avoided, mitigation measures have been proposed, to reduce the anticipated impacts to acceptable levels. This is to ensure that the development makes “equitable and sustainable use of environmental and natural resources for the benefit of present and future generations”.

2. IDENTIFICATION, ASSESSMENT AND RANKING OF IMPACTS TO REACH THE PROPOSED ALTERNATIVES INCLUDING THE PREFERRED ALTERNATIVE WITHIN THE SITE

Note: In this section the focus is on the identified issues, impacts and risks that influenced the identification of the alternatives. This includes how aspects of the receiving environment have influenced the selection.

(a) List the identified impacts and risks for each alternative.

Alternative 1: 35m Tree Mast (Not viable)	Not considered viable and therefore not investigated.
Alternative 2a: 25m Pine Tree Mast, trees remain on site (Most Preferred Alternative)	Fauna & Flora, Riparian Habitat, Ecosystems connectivity, Heritage Resources, Air Quality, Waste Management, Visual Impact, Noise Impact, Alien Biodiversity Management
Alternative 2b: 25m Pine Tree Mast, trees removed	Fauna & Flora, Riparian Habitat, Ecosystems connectivity, Heritage Resources, Air Quality, Waste Management, Visual Impact, Noise Impact, Alien Biodiversity Management
Alternative 3a: 25m Monopole Mast, trees remain on site	Fauna & Flora, Riparian Habitat, Ecosystems connectivity, Heritage Resources, Air Quality, Waste Management, Visual Impact, Noise Impact, Alien Biodiversity Management
Alternative 3a: 25m Monopole Mast, trees remain on site	Fauna & Flora, Riparian Habitat, Ecosystems connectivity, Heritage Resources, Air Quality, Waste Management, Visual Impact, Noise Impact, Alien Biodiversity Management
Alternative 4a: 25m Lattice Mast, trees remain on site	Fauna & Flora, Riparian Habitat, Ecosystems connectivity, Heritage Resources, Air Quality, Waste Management, Visual Impact, Noise Impact, Alien Biodiversity Management
Alternative 4b: 25m Lattice Mast, trees remain on site	Fauna & Flora, Riparian Habitat, Ecosystems connectivity, Heritage Resources, Air Quality, Waste Management, Visual Impact, Noise Impact, Alien Biodiversity Management
No-go Alternative:	Fauna & Flora, Riparian Habitat, Ecosystems connectivity, Heritage Resources, Air Quality, Waste Management, Visual Impact, Noise Impact, Alien Biodiversity Management

- (b) Describe the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed; may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.

The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. (The EAP has to select the relevant impacts identified in blue in the table below for each alternative and repeat the table for each impact and risk).

Please refer to Appendix J2 for the comprehensive Impact Risk Matrix for all alternatives considered.

Alternative 1:	
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
OPERATIONAL PHASE	
Potential impact and risk:	
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	

Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	

Note: The EAP may decide to include this section as Appendix J to the BAR.

(c) Provide a summary of the site selection matrix.

Please refer to **Appendix J2** for a comprehensive Impact Risk Matrix for the project and project life cycle.

(d) Outcome of the site selection matrix.

It is proposed that the construction, operations and decommissioning of the proposed telecommunication mast will have a moderately medium significance impact on the receiving environment of the correct mitigation measures as described in the risk matrix, specialist recommendations, and EMP is implemented. Site specific method statements also to be conducted before any construction is permitted.

The proposed site location on Portion 112 of Farm Hans Moes Kraal No 202, George, is best situated to avoid potential negative environmental impacts. The proposed mast footprint, irrespective of design (tree, monopole, lattice) will be the same and habitat loss will occur, nonetheless. However, the site is considered completely transformed from its natural state, with no natural vegetation remaining and therefore no indigenous vegetation will be lost. The proposed site does not fall in a CBA/ESA or in close proximity to a watercourse or a wetland. Ecosystems connectivity and loss of riparian habitat will therefore not take place due to the proposed development. The impact on Heritage resources is also considered very low (insignificant)/

The Risk Matrix aims to investigate the visual impact of the proposed development in terms of the various mast designs (tree, monopole, lattice) should the existing tall Pine Trees on the site be retained or removed. The overall visual significance for the construction of the telecommunication mast, can be rated as medium, irrespective of mast design and irrespective if the trees are removed. The risk matrix does indicate that the significance rating in terms of visual impact increases from moderately medium to medium if the trees were to be removed, irrespective of the mast design.

3. SPECIALIST INPUTS/STUDIES, FINDINGS AND RECOMMENDATIONS

Note: Specialist inputs/studies must be attached to this report as **Appendix G** and must comply with the content requirements set out in Appendix 6 of the EIA Regulations, 2014 (as amended). Also take into account the Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014,

Provide a summary of the findings and impact management measures identified in any specialist report and an indication of how these findings and recommendations have been included in the BAR.

Due to the fact that the site selected does not fall within any CBA/ ESA's, because the site is clear of any natural vegetation and not located near any water resources, no Botanical or Freshwater specialists were appointed.

However, Heritage Specialist, CTS Heritage were appointed to conduct a Heritage Screener as well as submit a Heritage NID to Heritage Western Cape. HWC provided comments (Appendix E1), the proposed construction of the mast is not expected to impact on Heritage Resources.

A Visual Impact Specialist was also appointed to conduct a Visual Impact Assessment (**Appendix G2**). An addendum the Visual Impact Assessment (VIA) has been included (**Appendix G2.2**) to investigate the visual significance in a scenario where the cluster of trees adjoining the proposed mast position will be removed as discussed above, as well **as well as** the visual significance of various mast designs, namely tree, lattice and monopole on the receiving environment. The VIA also considers various visual receptors or positions from where the development site is potentially visible. The significance varies from moderate-high to low. The table below provide a summary of the assessment of landscape scenarios and mast design options investigated as taken from the VIA Addendum, Appendix G2.2

	Cluster of trees remain	Cluster of trees removed
Tree Mast	The overall impact is low due to the screening effect of the trees	The tree structure becomes more prominent in the landscape and thus the obtrusive level increase.
Monopole Mast	The overall impact is low due to the screening effect of the trees. The mast form also fits with other infrastructure elements in the area	<u>Without Mitigation:</u> The mast is visible but the obtrusive level is moderate.
		<u>With Mitigation (colour):</u> Changing the mast colour can reduce the obtrusiveness and thus reduce the impact to moderate-low to low
Lattice Mast	The overall impact is low due to the screening effect of the trees. The mast form is not alien to the elements within this production landscape.	<u>Without Mitigation:</u> The mast is visible but the obtrusive level is moderate.
		<u>With Mitigation (colour):</u> Changing the mast colour can reduce the obtrusiveness and thus reduce the impact to moderate-low

The scenario where the trees are retained provide the lowest impact regardless of the mast type. However, should the trees be removed the impact is increased and the monopole or lattice mast can be mitigated to reduce the impact to within acceptable levels of change.

Mitigation measures:

- The strand of trees adjacent to the proposed mast location must not be removed.
- In terms of monopole and lattice mast designs - Applying a dark or green colour will compliment similar coloured landscape elements and further reduce the exposure level

4. ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

(i) A summary of the key findings of the EIA.

he proposed site location on Portion 112 of Farm Hans Moes Kraal No 202, George, is best situated to avoid potential negative environmental impacts. The current site is the only location considered for the proposed development of a 25m high telecommunications mast. It is strategically placed due to its proximity to existing mast, coverage needed and thus the coverage it can provide. The location is also considered preferred due to the existing tall Pine Trees on the site.

No natural vegetation will be lost due to the construction of the proposed mast as the site is already completely transformed. The proposed site does not fall in a CBA/ESA or in close proximity to a watercourse or a wetland. Ecosystems connectivity and loss of riparian habitat will therefore not take place due to the proposed development.

The proposed mast footprint, irrespective of design (tree, monopole, lattice) will be the same and habitat loss will occur, nonetheless. However, the site is considered completely transformed from its natural state, with no natural vegetation remaining and therefore no indigenous vegetation will be lost. The impact on Heritage resources is also considered very low (insignificant)/

The Risk Matrix as well as the VIA conducted concludes that the scenario where existing tall pine trees on the site are retained and managed as per the CARA Demarcation permit provide the lowest impact regardless of the mast type/ design (Alternative 2a, Alternative 3a, Alternative 4a). With the Tree mast design, Alternative 2a, rated as most preferred. The tree mast will blend into the surrounding environment. Visual Impact significance can be rated as low and concurs with the impact rating assessment found in Appendix J2 (D).

However, should the trees be removed the visual impact is increased. The visual impact of a tree mast with the trees removed (Alternative 2b) is rated as high as the tree will look out of place. The visual impact of the monopole or lattice mast, with the trees removed (Alternative 3b and Alternative 4b) is rated as medium significance. These impacts can be further reduced by applying a dark grey or dark green colour which will compliment similar coloured landscape elements and further reduce the exposure level of the structure. It is in terms of the exposure level of the structure that the lattice mast rates slightly lower than a monopole mast should the surrounding trees be removed. The non-solid nature of a lattice mast affords a level of 'transparency' resulting in a lattice mast being less obtrusive than a monopole in a rural setting. **Therefore, in the long term, a lattice mast is the most referred alternative.**

It is up to The Department to ultimately decide on the mast type, considering all the information provided.

The Environmental Management Programme ("EMPr") must be implemented. An Environmental Control Officer to be appointed during the construction phase to oversee construction activities, and to see that construction activities are aligned with the EMPr.

(ii) Has a map of appropriate scale been provided, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers?	YES	NO
No negative areas identified as the site is completely transformed, please refer to the Biodiversity Overlay Maps, Appendix D		
(iii) A summary of the positive and negative impacts that the proposed development and alternatives will cause in the environment and community.		

Section E of the BAR (Details of the identified and considered alternatives and indicate those alternatives that were found to be feasible and reasonable), describes the various alternatives in terms of location/site, activity, design or layout, technology, operational and no-go.

Location/ site alternatives:

The current site is the only location considered. It is strategically placed due to its proximity to existing masts, coverage needed and thus the coverage it can provide. This location is also considered the preferred location due to existing tall Pine Trees on the site.

No natural vegetation will be lost due to the construction of the proposed mast as the site is already completely transformed. The site selected does not fall within any CBA/ ESA or watercourses. Electricity supply source from George Municipality, an existing transformer will need to be upgraded, please refer to communication with George municipality, **Appendix F10.1**. No new roads will be constructed as an existing access road will be utilised to gain access to the proposed site.

An addendum to the Visual Impact Assessment (VIA) has been included (**Appendix G2.2**) to investigate the visual significance in a scenario where the cluster of trees adjoining the proposed mast position will be

removed. The VIA also considers various visual receptors or positions from where the development site is potentially visible.

Removal of existing alien Pine Trees on site is not a site alternative but a change to site the condition. According to the VIA, the scenario where the trees are retained provide the lowest visual impact as the trees provide the best visual absorption, regardless of the mast type. The removal of the trees will have a medium-high visual impact. Please refer to the VIA (**Appendix G2.2**) report for more detail as well as illustrations.

A CARA Demarcation Permit was granted from the Department of Agriculture, Forestry and Fisheries: Land Use and Soil Management (**Appendix E3**). The permit allows the landowner/ user to retain the existing Pine Trees on the property but with the condition that to manage the spread of the trees from the demarcated area as per section 5 and 6 of the Act, read with Regulation 15 and 16 and Table 3 of the Regulation and the approved management plan included in Appendix E3.

It is for these reason that the preferred site condition would that the Pine Trees remain on the property with the condition that the landowner/user manage and prevent the trees of spreading.

Activity & technology alternatives:

Activity and technology alternatives were not investigated as this application is for the development of a telecommunication mast.

Design or layout:

Mast design alternatives (tree, lattice, monopole) were investigated in detail and rated in terms of positive and negative impact. Alternative 1 – 35m Tree mast was not considered viable by George Municipality and therefore not investigated; Alternative 2a – Tree mast with existing Pine Trees remaining on site; Alternative 2b – Tree mast with existing pine trees removed; Alternative 3a – Monopole mast with existing pine trees remaining; Alternative 3b – Monopole mast with existing pine trees removed; Alternative 4a – Lattice mast with existing pine trees remaining on site; Alternative 4b – Lattice Mast with existing pine trees removed.

Operational:

Operational aspects will include the implementation of the CARA Demarcation Permit for the management and prevention of spreading of the existing pine trees on the site as per section 5 and 6 of the Act, read with Regulation 15 and 16 and Table 3 of the Regulation and the approved management plan included in Appendix E3.

No-go:

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

Negative impacts:

Habitat loss (effect on fauna) for the proposed development will occur irrespective of the mast design, However. the site is considered disturbed with no natural vegetation remaining, no natural vegetation will be lost.

Potential but not likely animal facilities/ interaction particularly due to the use of heavy machinery during construction and decommissioning.

Resource use of water, land, fuels/ hydrocarbons will occur.

Temporary noise nuisance during site clearing, construction and perhaps in the future during decommissioning.

Topsoil removal/stockpiling which has the potential to cause degradation of surrounding land if not stored and managed appropriately on site as per the EMP
Emissions

Littering/ domestic waste production.

Spillage of construction related contaminants during use or due to incorrect storage e.ge cement/paint/oil/fuel contaminated water.

Generation of emissions e.g. dust during site clearing, construction/ decommissioning

<p>Erosion and sedimentation from site clearing or removal of exiting pine trees on site may cause degradation.</p> <p>Potential discovery of heritage resources during site clearing and excavations which may be damaged by machinery but could also be protected should the EMPr recommendations be implemented.</p> <p>Non-adherence to demarcation of site footprint resulting in the loss of land, flora and fauna habitat.</p> <p>Non-adherence to ablution facilities for site labour throughout the project life results in potential contamination of the environment and nuisance impacts.</p> <p>Visual impacts – the proposed development of the mast will have an impact on the visual character of the site, irrespective of the mast design. The scenario where the trees are retained provide the lowest visual impact as the trees provide the best visual absorption, regardless of the mast type. The removal of the trees will have a medium-high visual impact which could be further reduced by applying mitigation measures (i.e. painting the lattice and monopole mast a dark green or dark grey colour to blend into the surrounding environment).</p> <p>Positive impacts:</p> <p>Alien biodiversity (existing pine trees) management on site. The implementation of the CARA demarcation permit. The permit will allow the landowner/user to keep the existing pine trees on site but the manage and prevent the spread of these trees from the demarcated area.</p> <p>The proposed development will provide employment opportunities for the local community particularly during construction and decommissioning phases and to a smaller degree, during operational and maintenance. With employment opportunities comes environmental training, awareness and skills transfer which contributes toward the local social-economy. Increased coverage of telecommunication services and coverage is also a positive impact.</p> <p>Recycling of waste product where possible such as if domestic waste can be recycled is also sound environmental practice.</p>
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5. IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES

- (a) Based on the assessment, describe the impact management, mitigation and monitoring measures as well as the impact management objectives and impact management outcomes included in the EMPr. The EMPr must be attached to this report as Appendix H.

Noise

Objectives: To minimise potential negative noise impacts during the construction phase.

Mitigation measures:

- Effective noise control measures must be in place and acceptable working hours must be kept;
- Construction work will be restricted to normal working hours; and
- Implementation of the Environmental Management Programme ("EMPr").

Visual

Objectives: Minimise potential negative visual impacts during construction phase

Mitigation measure:

- The Contractor must control the movement of all vehicles and plant including that of his suppliers so that they remain on designated routes. In addition, such vehicles and plant must be so routed and operated as to minimise disruption to regular users of the routes not on the Site. On public roads adjacent to the Site, vehicles will adhere to municipal and provincial traffic regulations. The Contractor must take all reasonable measures to minimize the generation of dust as a result of construction activities to the satisfaction of the ECO and Local Authority.
- The strand of trees adjacent to the proposed mast site provide the best visual absorption, regardless of the mast design.
- Applying a dark or green colour to the monopole and lattice mast to compliment similar coloured landscape elements and further reduce the exposure level

Socio-economic aspects

Objectives: To improve the positive socio-economic impact and to avoid any potential negative aspects on site and surrounding area.

Mitigation measures:

- Adjacent, and nearby Property owners or property occupiers must be treated with respect and courtesy at all times. The cultural lifestyles of the communities living near the construction areas must be respected. Cognisance of the visual and noise impacts of construction activities must be taken, and all possible efforts to minimise these impacts must be taken.

Heritage and Cultural-Historic aspects

Objectives: Protect heritage resources should any be discovered during construction.

Mitigation measures:

- If remains or artefacts are discovered on Site during earthworks, work in the vicinity must cease and the Contractor must immediately inform the Engineer and the ECO who must contact Heritage Western Cape and/or the South African Heritage Resources Agency (SAHRA) for information on the appropriate course of action to be taken.
- In the event that previously unknown archaeological features are exposed during the construction phase, the Contractor should inform the Engineer and the ECO who will advise the applicant on the necessary course of action.
- Note that the Contractor may not, without a permit issued by the responsible heritage resource authority; destroy, damage, excavate, alter, deface or otherwise disturb any archaeological site or archaeological material. The latter is a criminal offence under the National Heritage Resources Act (No. 25 of 1999).

Ecological/ Biodiversity aspects

Objectives: To avoid the destruction of sensitive ecological or biodiversity features present on site and surrounding area and to mitigate any potential negative impacts.

Mitigation measures:

- The Contractor must not deface, paint, damage or mark any natural features (e.g. trees, rock formations, buildings, etc.), if these should be situated in or around the Site, for survey or other purposes unless agreed beforehand with the Engineer and the ECO. Any features affected by the Contractor in contravention of this clause must be restored/rehabilitated to the satisfaction of the Engineer and the ECO.
- Except to the extent necessary for the carrying out of the works, flora must not be removed, damaged or disturbed nor must any vegetation be planted. Any removal of vegetation that is necessary should be kept strictly to the demarcated area. The planted trees on site that are within the development footprint should be carefully removed and replanted elsewhere on the property.
- Staff and plant movement to be restricted to the disturbed areas. Construction material must be stored in areas designated by the site agent and must not damage natural vegetation. Only the existing roads/tracks are to be used.
- Trapping, poisoning and/or shooting of animals is strictly forbidden. No domestic pets or livestock are permitted on Site. Where the use of herbicides, pesticides and other poisonous substances are to be used, the Contractor must submit a Method Statement.
- All incidents of harm to any animal or natural vegetation (apart from the agreed upon areas) must be reported to the ECO.
- The removal of fauna from the site must be done in accordance with the requirements of the Nature Conservation Ordinance regulating these activities and should be conducted by a suitably qualified and experienced person. The necessary permits that may be required from CapeNature should first be obtained.
- If required, any flora identified during construction to be rescued must be removed and placed in an area specifically allocated for these plants to ensure that the necessary care thereof will take place until being relocated and planted in designated areas.
- The areas of vegetation that are to be protected during construction must be demarcated and indicated on a site plan. A Method Statement is to be submitted to the ECO by the Contractor, detailing the method of fencing for protection of the conservation areas.
- A Method Statement must be submitted detailing the methods to be used for vegetation clearing if required. All cleared areas must be stabilised as soon as possible. Burning of cleared vegetation on

site is prohibited. The burying of cleared vegetation or use as part of backfill or landscape shaping is prohibited unless written approval is obtained from the ECO.

- Cleared vegetation may be used for mulch or slope stabilisation of the site. Should bulk vegetation be removed from the designated working areas (footprint area) then tall vegetation shall first be removed through brush cutting and chipping of larger shrub material; this may be added to the topsoil material stockpiles as mulch. Unless otherwise agreed upon, only indigenous plant material shall be used for this purpose.
- Prior to any activities within the demarcated work areas, topsoil material shall be removed to a depth of 200 mm or deeper if specified by the engineer in consultation with the ECO and stockpiled in a designated area for use in landscaping/rehabilitation of the site post construction. Any area where the topsoil will be impacted by construction activities, including the construction offices and storage areas, must have the topsoil stripped and removed and covered with herbaceous vegetation (other than alien species), overlying grass and other fine organic matter and stockpiled for subsequent use in rehabilitation.

The Environmental Management Programme (EMPr) is required to address the protection and ongoing management of the natural resources both on and off the site during the operational stages of the development. The overarching goal is to ensure that undue or reasonably avoidable impacts of the proposed development are avoided and that positive impacts of the development are enhanced.

The following points of action must be considered during the operational phase (maintenance activities) to avoid any environmental impacts:

- All maintenance activities will consider the environment and surrounding businesses, residences and residents.
- The Applicant will ensure that any maintenance activities that are undertaken are carried out in line with the specifications and recommendations set out in the EMPr/method statements.
- Any incidents that have resulted in a significant negative impact on the environment are to be reported to the Department of Environmental Affairs and Development Planning ("DEA&DP").
- The site must be securely fenced off, with no public access to the installation.

- (b) Describe any provisions for the adherence to requirements that are prescribed in a Specific Environmental Management Act relevant to the listed activity or specified activity in question.

N/A. The proposed activity involves the proposed development of a telecommunications mast on Portion 112 of Farm Hans Moes Kraal, George, Western Cape. No other National Environmental Management Act or Specific Environmental Management Act ("SEMA") are applicable to this listed activity. The proposed site is not located within 32m of any watercourse and does not involve waste management activities or air quality listed activities requiring authorisation.

- (c) Describe the ability of the applicant to implement the management, mitigation and monitoring measures.

Under South African environmental legislation, the Applicant is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts. Atlas Tower SA (Pty) Ltd. as the Applicant therefore has overall and total environmental responsibility to ensure that (particularly the implementation of the construction and operational phases of this EMPr) comply with the relevant legislation and the conditions of the environmental authorisation.

The developer will be responsible for the development and implementation of the conditions of the Environmental Authorisation in terms of the design of the development and construction thereof. The developer will thus be responsible for the implementation of this EMPr. The applicant has shown commitment to implement management, mitigation and monitoring measures as specified in the recommendations in and the EMPr.

- (d) Provide the details of any financial provisions for the management of negative environmental impacts, rehabilitation and closure of the proposed development.

Atlas Tower SA (Pty) Ltd., as the applicant, has the financial ability/provision to manage and mitigate any potential negative environmental impacts through the implementation of the EMPr, should they occur.

- (e) Provide the details of any financial provisions for the management of negative environmental impacts, rehabilitation and closure of the proposed development.

Atlas Tower SA (Pty) Ltd., as the applicant, has the financial ability/provision to manage and mitigate any potential negative environmental impacts through the implementation of the EMP, should they occur.

- (f) Describe any assumptions, uncertainties, and gaps in knowledge which relate to the impact management, mitigation and monitoring measures proposed.

There are no significant gaps of knowledge that have been identified.

SECTION H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS

(a) In my view as the appointed EAP, the information contained in this BAR and the documentation attached hereto is sufficient to make a decision in respect of the listed activity(ies) applied for.	YES	NO
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(b) If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised:		
Listed activity(ies) should be authorised:	YES	NO
Provide reasons for your opinion		
<p>The proposed activity should be authorised for the following reasons:</p> <ul style="list-style-type: none"> The proposed communication mast, allows for multiple service providers to attach and house their equipment on the mast, decreasing the need for additional communications masts to be erected in the area. The benefits of telecommunications services in modern society are potentially limitless. The proposed activity will increase the coverage of these telecommunications services, including providing a more reliable and wider coverage. The social benefits are considered to greatly outweigh any potential negative environmental impacts from the activity. The activity would create a more efficient telecommunications service, considered as essential to the business and private sector. The construction of the telecommunications mast is considered as part of the essential services for the greater community. The data capabilities provided by the proposed mast are important in business, education and for the public, and has thus become paramount for social and economic development. The impact on the visual character of the area is expected to be low but acceptable. The proposed site is not located within an ESA and there are no watercourses near the site. There are no significant biodiversity features present on site and the site contains no indigenous natural vegetation. The proposed site is not located within a Critical Biodiversity Area ("CBA") and no populations of threatened plant or animal species were observed on site. No cultural or historical aspects were identified on the site. No cultural or historical aspects were identified on the site. The proposed communications mast is not expected to produce any noise or odours during the operational phase. Some noise can be expected during the construction phase, but this will be temporary and expected to be negligible. According to the VIA, the scenario where the trees are retained provide the lowest visual impact as the trees provide the best visual absorption, regardless of the mast type. The removal of the trees will have a medium-high visual impact. The Visual Impact of Alternative 2a - 25m Tree mast with existing pine trees remaining on site is considered the most preferred alternative if the existing pine trees remain on site as the tree mast will blend into the surrounding environment. The visual impact of Alternative 3b – 25m Monopole Mast and Alternative 4b – 25m Lattice mast, with the trees removed, can be further mitigated by applying a dark green or dark grey colour to the mast to compliment similar coloured landscape elements and further reduce the exposure level. 		

- Should the existing trees be removed, then the most preferred alternative is the lattice mast in the short and long term.
- Please note:** The most preferred alternative is now the lattice mast structure. (refer to Appendix G2.2)
- A CARA Demarcation Permit was granted by the Department of Agriculture, Forestry and Fisheries (DAFF). The permit allowed the landowner/user to keep the existing pine trees on the site with the condition to manage and prevent the spread of new trees from the approved, demarcated area. A management plan was approved by DAFF and is included in Appendix E3 and appended to the EMPr. No new trees are to be planted and these existing trees are not situated in natural veld or in watercourse.

Considering all the information, it is not envisaged that this proposed development will have a negative impact on the environment.

It is therefore recommended that this application be authorised with the necessary conditions of approval as described throughout this BAR.

(c) Provide a description of any aspects that were conditional to the findings of the assessment by the EAP and Specialists which are to be included as conditions of authorisation.

The mitigation measures as contained in the Basic Assessment Report ("BAR") and EMPr must be implemented to mitigate any potential negative environmental impacts.

Appendix E1

Comments Heritage Western Cape:

1. Should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately and HWC must be notified without delay.

Appendix E2

Approval Conditions SACAA Obstacle Approval:

1. Night markings

Recommendation from the VIA (Appendix G2):

- The strand of trees adjacent to the proposed mast site provide the best visual absorption, regardless of the mast design.
- Applying a dark green or dark grey colour to the monopole and lattice mast to compliment similar coloured landscape elements and further reduce the exposure level

Appendix E3

CARA Demarcation Permit:

All reasonable steps must be taken to curtail the spreading or propagating material of *Pines Spp* (Pine Trees) outside the demarcated area as per section 5 and 6 of the CARA (Act No. 43 of 1983), read with Regulation 15 and 16 and Table 3 of the Regulation and the approved management plan included in Appendix E3.

(d) If you are of the opinion that the activity should be authorised, please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an environmental authorisation.

Compliance with the EMPr and appointment of an ECO during the construction phase.

(e) Please indicate the recommended periods in terms of the following periods that should be specified in the environmental authorisation:

i.	the period within which commencement must occur;	Construction is expected to take a period of 4 months. Commencement must begin within 5 years from the granting of the EA.
ii.	the period for which the environmental authorisation is granted and the date on which the development proposal will have been concluded, where the environmental authorisation does not include operational aspects;	Construction is expected to take a period of 4 months. The EA should be valid for 5 years.

iii.	the period for which the portion of the environmental authorisation that deals with non-operational aspects is granted; and	The EA should be valid for 5 years.
iv.	the period for which the portion of the environmental authorisation that deals with operational aspects is granted.	Approximately 30 years

SECTION I: APPENDICES

The following appendices must be attached to this report:

APPENDIX		Confirm that Appendix is attached
Appendix A:	Locality map	✓
Appendix B:	Site development plan(s)	✓
	A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;	N/A
Appendix C:	Photographs	✓
Appendix D:	Biodiversity overlay map	✓
Appendix E:	Permit(s) / license(s) from any other Organ of State, including service letters from the municipality.	✓
	Appendix E1: Copy of comment from HWC.	✓
	Appendix E2: SACAA Obstacle Approval	✓
	Appendix E3: CARA Demarcation Directive and Application	✓
Appendix F:	Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required in Section C above.	✓
Appendix G:	Specialist Report(s)	✓
Appendix H :	EMPr	✓
Appendix I:	Additional information related to listed waste management activities (if applicable)	N/A
Appendix J:	If applicable, description of the impact assessment process followed to reach the proposed preferred alternative within the site.	✓
Appendix K:	Atlas Tower Need and Desirability Document	✓
Appendix L:	Letter from Department of Health	✓
Appendix M:	PoA – Registered Owner’s Consent	✓
Appendix N:	EAPs CVs	✓

SECTION J: DECLARATIONS ORIGINAL SIGNED DECLARATIONS SUBMITTED TO DEA&DP

THE APPLICANT

Note: Duplicate this section where there is more than one applicant.

I, in my personal capacity or duly authorised thereto, hereby declare/affirm all the information submitted as part of this Report is true and correct, and that I –

- am aware of and understand the content of this report;
- am fully aware of my responsibilities in terms of the NEMA, the EIA Regulations in terms of the NEMA (Government Notice No. R. 982, refers) (as amended) and any relevant specific environmental management Act and that failure to fulfil these requirements may constitute an offence in terms of relevant environmental legislation;
- have provided the EAP and Specialist, Review EAP (if applicable), and Review Specialist (if applicable), and the Competent Authority with access to all information at my disposal that is relevant to the application;
- will be responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority;
- will be responsible for the costs incurred in complying with the conditions that may be attached to any decision(s) issued by the Competent Authority;

Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

Signature of the Applicant:

Name of Organisation:

Date:

THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, as the appointed EAP hereby declare/affirm:

- the correctness of the information provided as part of this Report;
- that all the comments and inputs from stakeholders and I&APs have been included in this Report;
- that all the inputs and recommendations from the specialist reports, if specialist reports were produced, have been included in this Report;
- any information provided by me to I&APs and any responses by me to the comments or inputs made by I&APs;
- that I have maintained my independence throughout this EIA process, or if not independent, that the review EAP has reviewed my work (Note: a declaration by the review EAP must be submitted);
- that I have throughout this EIA process met all of the general requirements of EAPs as set out in Regulation 13;
- I have throughout this EIA process disclosed to the applicant, the specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application;
- have ensured that information containing all relevant facts in respect of the application was distributed or was made available to I&APs and that participation by I&APs was facilitated in such a manner that all I&APs were provided with a reasonable opportunity to participate and to provide comments;
- have ensured that the comments of all I&APs were considered, recorded and submitted to the Department in respect of the application;
- have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, if specialist inputs and recommendations were produced;
- have kept a register of all I&APs that participated during the PPP; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the EAP: _____

Name of Company: _____

Date: _____

THE REVIEW ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, as the appointed Review EAP hereby declare/affirm:

- that I have reviewed all the work produced by the EAP;
- the correctness of the information provided as part of this Report;
- that I have, throughout this EIA process met all of the general requirements of EAPs as set out in Regulation 13;
- I have, throughout this EIA process disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the
Review EAP:

Name of Company:

Date:

THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I :

- in terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- in terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared or to be prepared as part of the application; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the Specialist:

Name of Company:

Date:

THE REVIEW SPECIALIST

I, as the appointed Review Specialist hereby declare/affirm:

- that I have reviewed all the work produced by the Specialist(s);
- the correctness of the specialist information provided as part of this Report;
- that I have, throughout this EIA process met all of the general requirements of specialists as set out in Regulation 13;
- I have, throughout this EIA process disclosed to the applicant, the EAP, the review EAP (if applicable), the Specialist(s), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of Review Specialist: _____

Name of Company: _____

Date: _____