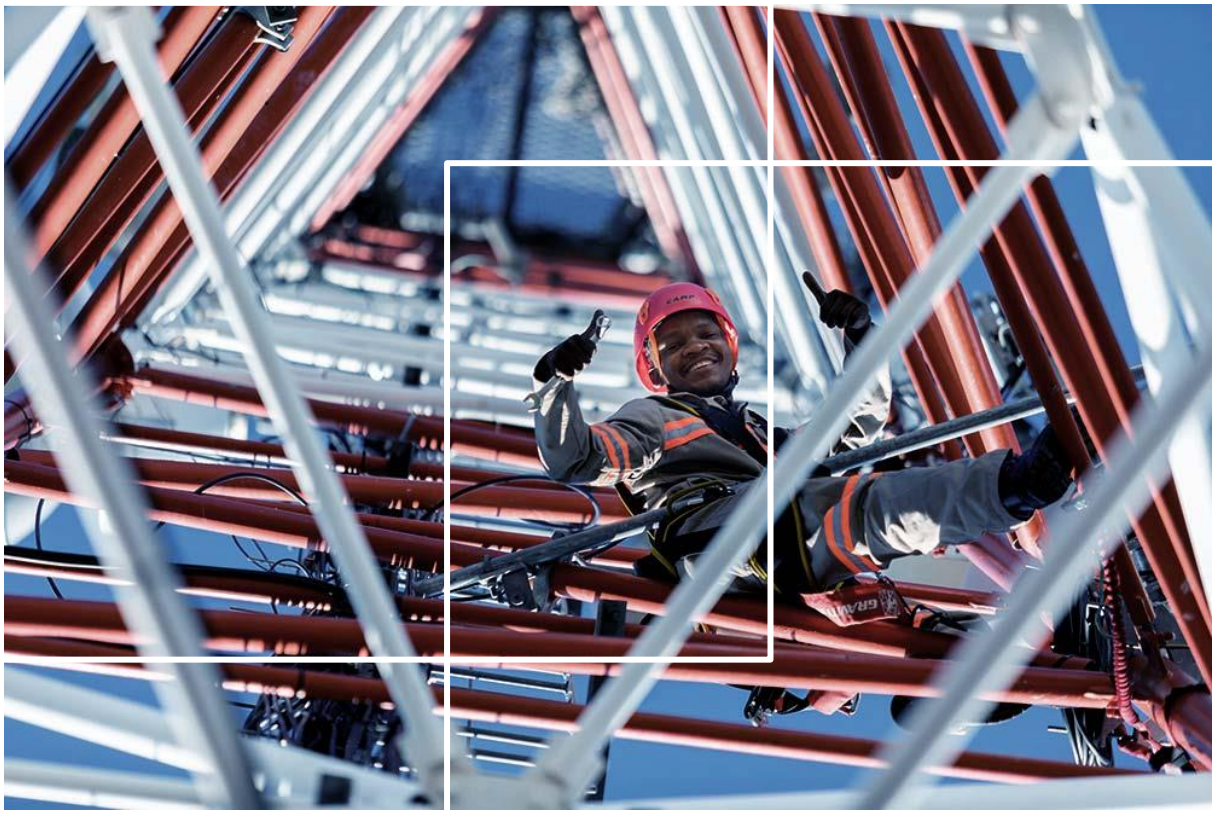

PARATUS
Always Prepared

Submitted to: Paratus Telecommunications (Pty) Ltd.
Attention: Mr. Robert Archer
P.O. Box 90140
102-106 Nickel Street, Prosperita
Windhoek
Namibia.

SCOPING REPORT:

PROPOSED CONSTRUCTION OF A PARATUS TELECOMMUNICATION (PTY) LTD BASE TRANSCEIVER STATION IN EXT. 11 (ERF 2747), HENTIES BAY, NAMIBIA

PROJECT NUMBER: ECC-45-452-REP-02-D

REPORT VERSION: REV 01

DATE: 18 AUGUST 2023

Prepared by:

ECC
ENVIRONMENTAL
COMPLIANCE CONSULTANCY

TITLE AND APPROVAL PAGE

Project Name:	Proposed construction of a Paratus Telecommunication (Pty) Ltd base transceiver station in Ext. 11 (ERF 2747), Henties Bay, Namibia
Client Company Name:	Paratus Telecommunications (Pty) Ltd.
Client Name:	Mr. Robert Archer
Ministry Reference:	APP-001503
Authors:	Kelly Ochs and Jessica Bezuidenhout
Status of Report:	Final for Government submission
Project Number:	ECC-45-452-REP-02-D
Date of issue:	18 August 2023
Review Period	NA

ENVIRONMENTAL COMPLIANCE CONSULTANCY CONTACT DETAILS:

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ABBREVIATIONS

Abbreviation	Description
%	percentage
˚C	degree celcius
BTS	base transceiver station
DEA	Directorate of Environmental Affairs
EAP	environmental assessment practitioner
ECC	Environmental Compliance Consultancy
EIA	environmental impact assessment
EMP	environmental management plan
EMR	electromagnetic radiation
ENE	east - northeast
ESIA	environmental and social impact assessment
GHz	gigahertz
I&APs	interested and affected parties
ICNIRP	Commission of Non-Ionising Radiation Protection
ICT	Information and Communication Technology
IFC	International Finance Corporation
kHz	Kilohertz
km	kilometres
km/h	kilometres per hour
Ltd.	Limited
m	metre
M^3	cubic metres
MEFT	Ministry of Environment, Forestry and Tourism
MHz	megahertz
MICT	Ministry of Information and Communication Technology
mm	millimetre
NE	northeast
NIR	non-ionising radiation
Paratus	Paratus Telecommunications (Pty) Ltd.
PPE	personnel protective equipment
Pty	proprietary
SDWAN	Software-defined Wide Area Network
SOP	standard operating procedure
SSW	south-southwest

SW	southwest
W/m^2	watt per metre squared

1 INTRODUCTION

1.1 COMPANY BACKGROUND

Paratus Telecommunication (Pty) Ltd, (herein referred to as the proponent) is a multinational organisation and Africa's largest infrastructure network offering comprehensive satellite services for almost 20 years. To meet the mobiles services (voice and data) users' demand throughout Namibia, the proponent proposes to construct a base transceiver station (BTS) on a portion of land (ERF 2747) in extension 11, Henties Bay, Erongo Region (Figure 1). The height of the BTS is predicted to be no longer than 30 m.

Paratus provides fiber, wireless, satellite and Software-defined Wide Area Network (SDWAN) solutions are advanced enough to support customers, ranging from personal use to large enterprises. One of the main goals' of Paratus is to expand their footprint through building and acquiring infrastructure. The construction of the BTS and associated infrastructure will allow Paratus to continue to provide quality connection services to its customers in Namibian regions. Henties Bay is a small town along the coast with a population of approximately 10000 and expanding rapidly, showing great potential for socio-economic growth and development within the next 5 years. Currently there is Mobile-LTE, SKY-FI services available to Henties Bay, provided by Paratus. The proposed project will overall enhance and promote effective information and communication services through expanding network coverage and telecommunication services to Henties Bay.

The proposed project requires an EIA to be conducted as stipulated in the Environmental Management Act, No. 7 of 2007 and its regulations, to obtain an environmental clearance certificate. As such, an environmental scoping report and EMP will describe the detailed potential environmental impact assessments and conditions or commitments, which will be adhered to by the proponent. The scoping report and EMP will be submitted to the competent authority as part of the decision-making process.

Figure 1- Location of the proposed project

1.2 PURPOSE OF THE SCOPING REPORT

Environmental Compliance Consultancy (ECC) has been appointed by Paratus Telecommunications (Pty) Ltd to undertake the EIA for the proposed construction of the BTS and associated infrastructure.

This report will present the findings of the EIA for the proposed construction of the BTS and associated infrastructure. It has been undertaken in terms of the requirements of the Environmental Management Act, No. 7 of 2007 and the EIA Regulations (No. 30 of 2012). This scoping report, plus assessment and appendices will be submitted to the Ministry of Information and Communication Technology (MICT) and the Directorate of Environmental Affairs (DEA) at the Ministry of Environment, Forestry and Tourism (MEFT) for review as part of the application for an environmental clearance certificate.

This scoping report and EMP will address possible impacts, explore alternatives, develop technical recommendations and mitigation measures for the proposed construction of the BTS and its associated infrastructure.

1.3 THE PROPONENT OF THE PROPOSED PROJECT

Table 1 provides an overview of the contact details of the Proponent.

Table 1 - Proponent's details

Company Representative:	Contact Details:
Mr Robert Archer	Paratus Namibia Head Office: PO Box 90140, Klein Windhoek 102-106 Nickel Street, Prosperita Windhoek Namibia robert.archer@paratus.africa +264 (81) 127 6608

1.4

1.5 ENVIRONMENTAL AND SOCIAL ASSESSMENT PRACTITIONER

The report has been prepared by Environmental Compliance Consultancy (Pty) Ltd (ECC) (Reg. No. 2022/0593) on behalf of the proponent. Authored by ECC employees with no material interest in the report's outcome, ECC maintains independence from the proponent and has no financial interest in the project apart from fair remuneration for professional fees. Payment of fees is not contingent on the report's results or any government decision. ECC members or employees are not, and do not intend to be, employed by the proponent, nor do

they hold any shareholding in the project. Personal views expressed by the writer may not reflect ECC or its client's views.
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Tel: +264 81 669 7608
Email: info@eccenvironmental.com

1.6 ENVIRONMENTAL REQUIREMENTS

The Environmental Management Act, No. 7 of 2007 stipulates that an environmental clearance certificate is required to undertake listed activities in terms of the Act and its regulations. Listed activities triggered by the proposed project are as follows:

LISTED ACTIVITY	EIA SCREENING FINDING
10.1. INFRASTRUCTURE (g) Communication networks including towers, telecommunication, and marine telecommunication line and cables.	- The proposed project will include: staging area development, minor ground preparation (trenches and levelling) of the site, storage and stockpiling of material for the construction of the tower, construction of the tower, installation of cables and wiring, concrete casting, construction of perimeter fencing and commissioning of transmitters, Maintenance.

2 APPROACH TO THE ASSESSMENT

2.1 PURPOSE AND SCOPE OF THE ASSESSMENT

This assessment aims to determine which impacts are likely to be significant, to scope the available data and identify any gaps that need to be filled, to determine the spatial and temporal scope, and to identify the assessment methodology.

The scope of the assessment was determined by undertaking a preliminary assessment of the proposed project against the receiving environment, obtained through a desktop review and available site-specific literature.

2.2 THE ASSESSMENT PROCESS

The ESIA methodology applied to this assessment has been developed using the International Finance Corporation (IFC) standards and models, in particular, Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012), which establishes the importance of:

- Integrated assessment to identify the environmental and social impacts, risks, and opportunities of Projects;
- Effective community engagement through disclosure of Project-related information and consultation with local communities on matters that directly affect them; and
- The proponent's management of environmental and social performance throughout the life of the Project.

Furthermore, the Namibian Draft Procedures and Guidance for ESIA and EMP (Republic of Namibia, 2008), as well as international and national best practice, and over 25 years of combined EIA experience, were also drawn upon in the assessment process. This impact assessment is a formal process in which the potential effects of the Project on the biophysical, social, and economic environments are identified, assessed, and reported so that the significance of potential impacts can be taken into account when considering whether to grant approval, consent, or support for the proposed Project.

2.3 SCREENING OF THE PROJECT

The first stages in the ESIA process are to register the Project with the DEA/MEFT (completed) and undertake a screening exercise to determine whether it is considered a listed activity under the Environmental Management Act, No. 7 of 2007 and associated regulations, and if significant impacts may arise from the Project. The location, scale, and duration of Project activities will be considered against the receiving environment. The full ESIA process is shown in Figure 2.

The proposed Project is a listed activity and potential impacts could occur. Thus, it was concluded that a scoping report with impact assessment would suffice for the proposed Project and that a preliminary EMP would be submitted with the scoping report as part of the application process for the environmental clearance certificate.

1. Project screening

Complete

The first stages in the ESIA process are to undertake a screening exercise to determine whether the Project triggers listed activities under the Environmental Management Act, 2007, and its regulations. The screening phase of the Project is a preliminary analysis, in order to determine ways in which the Project might interact with the biophysical, social, and economic environments.

Stakeholder engagement:
- Registration of the project
- Preparation of the BID

2. Establishing the assessment scope

Complete

Where an ESIA is required, the second stage is to scope the assessment. The main aim of this stage is to determine which impacts are likely to be significant; to scope the available data and any gaps that need to be filled; to determine the spatial and temporal scope; and to identify the assessment methodology.

The scope of this assessment was determined through undertaking a preliminary assessment of the proposed Project against the receiving environment. Feedback from consultation with the public and the Proponent informs this process. The following environmental and social topics were scoped into the assessment, as there was the potential for significant impacts to occur. Impacts that are identified as potentially significant during the screening and scoping phase are taken forward for further assessment in the ESIA process. These are:

BIOPHYSICAL ENVIRONMENT
- Avifauna
- Visual
- Ambient noise

SOCIO-ECONOMIC ENVIRONMENT
- Community health, safety and security on and off site
- Employment opportunities
- Air qualities, including dust emissions'
- Impact on residential property value

The following topics were scoped out of the ESIA, and they are therefore not discussed further in this report.
- An assessment of safety impacts or risks associated with exploration are not included within the scope of this assessment and will be addressed by the Proponent in a site-specific safety management plan.

3. Baseline studies

Complete

A robust baseline is required, in order to provide a reference point against which any future changes associated with a Project can be assessed, and to allow suitable mitigation and monitoring to be identified.

The Project site-specific area has been studied as part of the ESIA process, and the following has been conducted as part of this assessment:
- Desktop studies
- Consultation with stakeholders

The environmental and social baselines are provided in the scoping study.

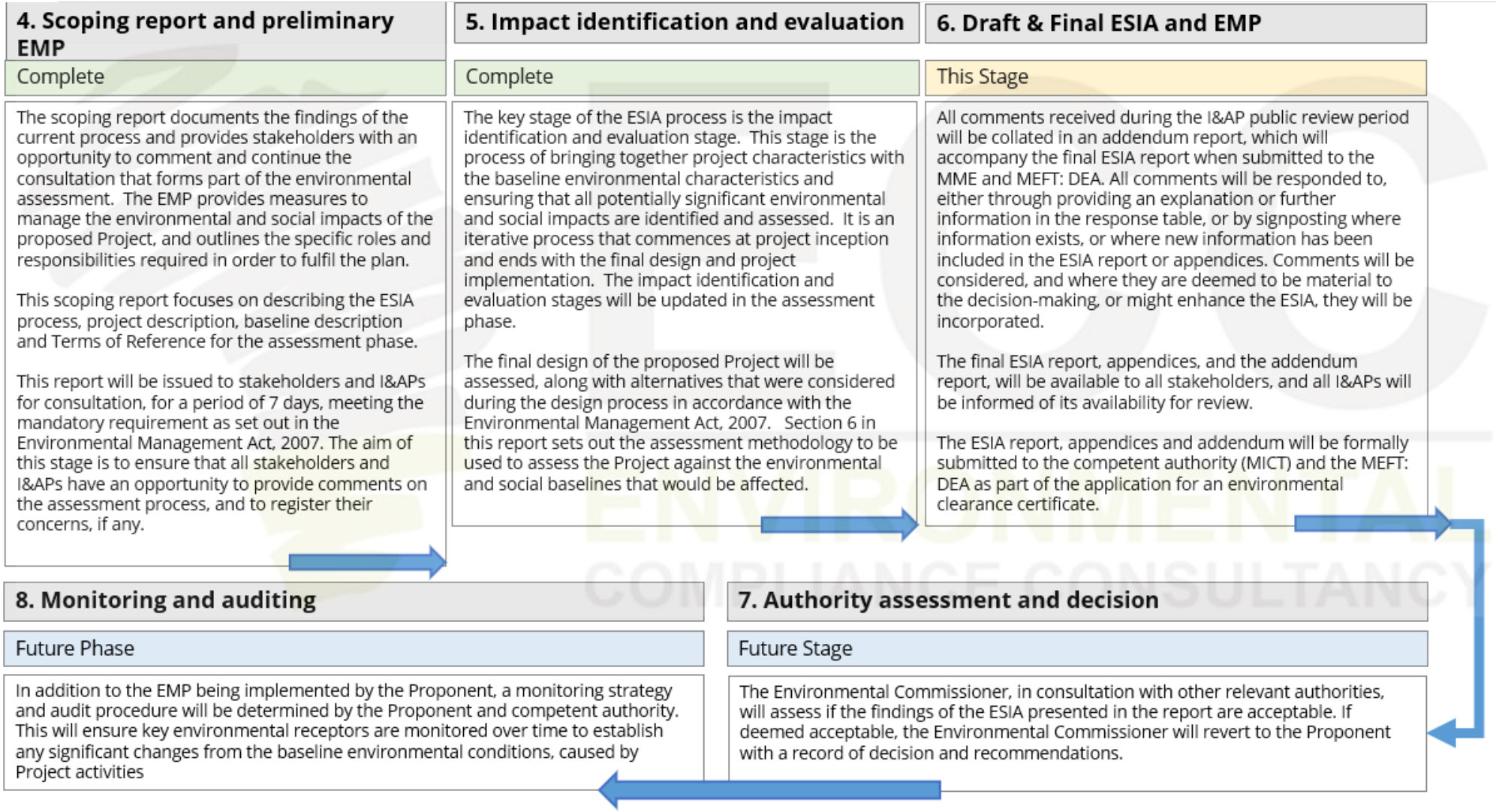


Figure 2 – ESIA process and stages complete

2.4 SCOPING AND THE ENVIRONMENTAL ASSESSMENT

Where a detailed assessment is required, the second stage is to scope the assessment. The main aims of this stage are to determine which impacts are likely to be significant; scope the available data and any gaps which need to be filled; determine the spatial and temporal scope and identify the assessment methodology.

The scoping phase of the Project is a preliminary analysis to determine ways in which the Project interacts with the biophysical, social, and economic environment. Potential impacts are identified, and the significance is assessed during the screening and scoping phase. The details and outcome of the impact assessment are discussed in sections 6 and 7 of this scoping report. Feedback from consultation with the Proponent and stakeholders also informs the analysis of the impacts. The following environmental and social aspects were considered in the impact assessment process:

SOCIO-ECONOMIC ENVIRONMENT

- Community health, safety and security on and off site
- Employment opportunities
- Air quality, including dust emissions
- Impact on residential property value

BIOPHYSICAL ENVIRONMENT

- Impact on Avifauna
- Visual
- Ambient noise

2.5 BASELINE STUDY

Baseline studies are undertaken as part of the scoping stage, which involves collecting all pertinent information from the status of the receiving environment. This provides a baseline against which changes that occur as a result of the proposed Project can be measured. For the proposed Project, baseline information was obtained through a desktop study, consultation, and engagement with stakeholders (Appendix B), focusing on environmental receptors that could be affected by the proposed Project, and verified through site-specific information. The baseline information is covered in Chapter 5.

2.6 PUBLIC CONSULTATION

A stakeholder mapping exercise was undertaken to identify individuals or groups of stakeholders and the method by which they will be engaged during the ESIA process.
Stakeholders were approached through direct communication (door-to-door notice, letters and phone calls), the national press, or directly by email. A summarised list of stakeholders for this project is given below:

- Surrounding residential owners
- The general public with an interest in the Project
- Ministry of Information and Communication Technology
- Erongo Regional Council
- Henties Bay Municipality

The records of the public consultation process in the form of a summary report will provide a list of interested and affected parties (I&APs), evidence of consultation, including minutes of public meetings, advertisements in national newspapers, and a summary of the comments or questions raised by the public.

2.6.1 NON-TECHNICAL SUMMARY

The BID presents a high-level description of the proposed Project, sets out the ESIA process, and outlines when and how consultation will be undertaken. It also provides contact details for further Project-specific inquiries to all registered I&APs. The BID was distributed to registered I&APs, and it can be found in Appendix B.

2.6.2 NEWSPAPER AND ADVERTISEMENTS

Notices of the proposed project were circulated on 6 June 2023 and 13 June 2023 in the 'Republikein' and "Allgemeine Zeitung" newspapers (Appendix C). The purpose of this was to commence the consultation process by informing the public and potential I&APs, allowing them to register an interest with the project.

2.6.3 SITE NOTICES

Neighbouring properties and stakeholders were informed about the proposed project by providing a site notice at the proposed site (Appendix D).

2.6.4 PUBLIC MEETING

In terms of Section 22 of the Environmental Management Act, No. 7 of 2007 and its regulations, to register I&APs. A public meeting is not a requirement during the public consultation process for all projects. The EAP decided not to arrange public meetings for the project but engage directly with stakeholders and invite all registered I&APs to raise their concerns and make comments in writing.

2.6.5 SUMMARY OF ISSUES RAISED

The I&APs were encouraged to provide constructive input during the consultation period. All comments, questions or concerns received during the consultation process are in

Table 2. The public was provided with an opportunity to send any comments on the draft scoping report and the EMP which was included and addressed in the addendum report (Appendix G)

Table 2 - Concerns and comments raised by stakeholders and I&APs during the public consultation process

Stakeholder name and method through which feedback was received	Comments/Questions Received	Response/Clarification
CF Janse van Rensburg Resident next to proposed site – Received via phone call	Expressed concern about the local seagulls and other bird species that roost and/or land on the telecommunication tower, which creates a significant amount of waste and pollution in neighbouring yards.	Waste produced by local birds has been taken into consideration during the impact assessment and mitigation measures are highlighted in this report under section 7, P. 38 and the EMP (Appendix A).
Elmarie van Rensburg Resident next to proposed site – Received via email	The resident explained that she does not want the communication tower to be constructed near her home, as there are better areas to place it. She is concerned about bird dropping, poor internet signal and the value of her property.	Waste produced by local birds has been taken into consideration during the impact assessment and mitigation measures are highlighted in this report under section 7, P. 38 and the EMP (Appendix A). There are no consistent market evidence that suggests any negative impacts on residential properties as a result of a communications tower in the area.
Dawie Grobler Resident near the proposed site - Received via ECC website	This will affect the value of my property negatively. Create health and security risks. With all the birds visiting this tower it would be difficult to keep the houses in the surrounding clean. It can also have a negative effect on my reception of my Wi-Fi. I am sure enough space on another exist to erect this tower.	Waste produced by local birds has been taken into consideration during the impact assessment and mitigation measures are highlighted in this report under section 7, P.38 and the EMP (Appendix A). There is no consistent market evidence that suggests any negative impacts on residential

Stakeholder name and method through which feedback was received	Comments/Questions Received	Response/Clarification
		properties as a result of a communications tower in the area.

3 REVIEW OF LEGAL ENVIRONMENT

As stated in Section 1, an environmental clearance certificate is required for any activity listed in the Government Notice No. 29 of 2012 of the EMA 2007. A thorough review of relevant legislation has been conducted for the proposed Project. Table 3 below identifies relevant legal requirements specific to the Project. Table 4 provides the national policies and plans.

Table ***5*** specifies permits relevant to the Project. This chapter outlines the regulatory framework applicable to the proposed Project.

3.1 NATIONAL REGULATORY FRAMEWORK

Table 3 - Details of the regulatory framework as it applies to the proposed project

National regulatory regime	Summary	Applicability to the Project
Communication Act, No. 8 of 2009 and relevant regulations, subject to the regulations regarding Licences as published in Government Gazette 5037, Notice No 308, 13 September 2012	The Act provides for the regulation of telecommunication services and networks; broadcasting postal services and the use and allocation of radio spectrum; the establishment of an independent Communications Regulatory Authority of Namibia (CRAN); to make provision for its powers and function; the granting of special rights to telecommunications licensees; the creation of an association to manage the internet domain namespace; and for matters connected therewith	The proposed project is compliant with this act and relevant regulations including license conditions for telecommunication service licenses.
The Aviation Act No. 74 of 1962 and Namibian Civil Aviation Regulations Part 139	Provides effect to certain International Aviation Conventions and makes provision for the control, regulation and encouragement of flying within the Republic of Namibia and for other matters incidental thereto	Provides the regulations for setting up cellular structures e.g., on obstacle limitation and marking such as no obstacle higher than 45 m above mean level of the landing area will be erected or be allowed to come into existence, within a distance of 15 km measured from the aerodrome reference point of any aerodrome, unless the plans for such erection or coming into existence have been approved by the executive director.

National regulatory regime	Summary	Applicability to the Project
The Regional Councils Act (No. 22 of 1992)	This Act sets out the conditions under which Regional Councils must be elected and administer each delineated region. From a land use and project planning point of view, their duties include, as described in section 28 "to undertake the planning of the development of the region for which it has been established with a view to physical, social, and economic characteristics, urbanisation patterns, natural resources, economic development potential, infrastructure, land utilisation pattern and sensitivity of the natural environment. The main objective of this Act is to initiate, supervise, manage, and evaluate development.	The construction site falls under the Erongo Regional Council, which will form a part of the I&APs and will be consulted during the ESIA Process.
Local Authorities Act, No. 23 of 1992	To provide for the determination, for purposes of local government, of local authority councils; the establishment of such local authority councils; and to define the powers, duties and functions of local authority councils; and to provide for incidental matters.	Henties Bay Municipality is the responsible Local Authority who should be consulted to ensure that the proposed project is compliant with the act, its regulations and their by-laws.
Environmental Management Act, No. 7 of 2007 and its regulations, including the Environmental Impact Assessment Regulations, No. 30 of 2012	The act aims to promote sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment. It sets the principles of environmental management	This scoping report includes the findings of the scoping phase and ESIA for the proposed project's activities. The assessment and report have been undertaken in line with the

National regulatory regime	Summary	Applicability to the Project
	as well as the functions and powers of the Minister. The act requires certain activities to obtain an environmental clearance certificate before project development. The act states an EIA may be undertaken and submitted as part of the environmental clearance certificate application. MEFT is responsible for the protection and management of Namibia's natural environment. The Department of Environmental Affairs, under MEFT is responsible for the administration of the EIA process.	requirements of this act and associated regulations.
Soil Conservation Act, No. 76 of 1969	Makes provision for the prevention and control of soil erosion and the protection, improvement and the conservation, improvement and manner of use of the soil and vegetation.	During trenching and leveling activities in the construction phase, there will be minimal soil disturbance.
The Atomic Energy and Radiation Protection Act, No. 5 of 2005	This act provides for adequate protection of the environment and of people in current and future generations against the harmful effects of radiation by controlling and regulating the production, processing, handling, use, holding, storage, transport and disposal of radiation sources and radioactive materials, and controlling and regulating prescribed non-ionising radiation sources.	The proposed BTS has the potential of emitting minimal non-ionising radiation.

National regulatory regime	Summary	Applicability to the Project
Labour Act (No. 6 of 1992)	The Ministry of Labour, Industrial Relations and Employment is aimed at ensuring harmonious labour relations through promoting social justice, occupational health and safety and enhanced labour market services for the benefit of all Namibians. This ministry insures effective implementation of the Labour Act no. 6 of 1992.	The proponent should ensure the safety and welfare of employers throughout the construction and operational phase.

3.2 NATIONAL POLICIES AND PLANS

Table 4 - National policies and plans

Policy or plan	Description	Relevance to the Project
Convention on International Civil Aviation, Annex 14	Annex to the Convention on International Civil Aviation – Chapter 4: Obstacle restrictions and removal – Chapter 6: Visual aids and donating of obstacles	The proposed BTS may be an obstacle to aerodromes in Namibia. Should the BTS be close to existing aerodromes, an assessment should be made in accordance with the document. The use of visual aids on the BTS may provide visibility to aircraft.
"Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300GHz)" (April 1998 developed by the	ICNIRP provides international standards and guidelines for the limiting adverse effects of non-ionising radiation on human health and well-being, and, where appropriate, provides scientifically bases advice on non-ionising radiation protection including the provision of guidelines on limiting exposure. This ICNIRP publication	Proper assessments and research will be carried out to investigate the impacts of electromagnetic radiation on nearby residents and the general community.

Policy or plan	Description	Relevance to the Project
International Commission on Non-Ionising Radiation Protection (ICNIRP))	resulted from a thorough review of the scientific literature and assessed all health risks to both the public and workers. ICNIRP exposure limits for non-ionising radiation is 4.5 W/m².	

Table 5 - Relevant permits and licences required by Paratus for the project

Permit/Licence	Relevant Authority	Validity
Class Comprehensive Telecommunications Service License (ECS & ECNS)	Communications Regulatory Authority of Namibia	5 Years
Spectrum Use Licenses	Communications Regulatory Authority of Namibia	1 Year
Broadcasting Service License for Signal Distribution	Communications Regulatory Authority of Namibia	5 Years

4 PROJECT DESCRIPTION

4.1 NEED FOR THE PROJECT

Telecommunication services in Namibia are in high demand and the telecommunication market experienced strong growth in recent years and is expected to have continued growth. This can be contributed to the fact that the Namibia's population is increasing and modernising, with Henties Bay's population almost doubling in the last 8 years. There is an extraordinary rise in the use of internet-enabled devices (mobile devices) which supports 3G, 4G and 5G services. Therefore, Paratus has identified the need to provide increased telecommunication services and hence improve customers' satisfaction in cellular networks, by constructing a BTS within the proposed site in Henties Bay. The BTS provides the physical connection of mobile devices to the network. Additionally, the proposed site has the ideal topography and landscape with no significant land-use issues which are unlikely to limit the network coverage.

4.2 ALTERNATIVES CONSIDERED

In terms of the Environmental Management Act, No. 7 of 2007 and its regulations, alternatives considered should be analysed and presented in the EIA reports. This requirement ensures that during the design evolution and decision-making process, potential environmental impacts, costs, and technical feasibility have been considered, which leads to the best option(s) being identified.

Considering the need for telecommunication service, network coverage optimisation and availability, ERF 2747 in Extension 11, Henties Bay was selected. No other alternatives were considered.

4.2.1 NO-GO ALTERNATIVES

If the BTS is not constructed, Paratus will not be able to supply telecommunication services necessary for the increased demand for network coverage around the proposed site. As a result, poor reception and/or no network access for mobile phone users will occur. In that regard, the "no-go alternative" is not preferred, and as such, the project could positively contribute to economic growth and other development by providing market-related, fast and reliable telecommunication service with minimal negative impacts.

4.3 PROPOSED ACTIVITIES

4.3.1 PROPOSED BASE TRANSCEIVER STATION AND ASSOCIATED INFRASTRUCTURE

The first phase of the project will comprise of:

- The Henties Bay Municipality will provide a layout plan for the exact location on the identified erven to be used for the BTS.

- Paratus will install their electrical meter, and
- Following completion, Paratus will be responsible for the proper maintenance of the BTS and its associated infrastructure.

4.3.2 CONSTRUCTION PHASE

The proposed construction phase will include low-impact and non-intrusive activities. The following activities will occur during the proposed project:

- Staging area development
- Minor ground preparation (trenches and levelling) of the site
- Storage and stockpiling of material for the construction of the tower
- Construction of the tower
- Installation of cables and wiring
- Concrete casting
- Construction of perimeter fencing, and
- Commissioning of transmitters.

4.3.3 EQUIPMENT AND MATERIALS

Equipment and material necessary for construction will be stockpiled in staging areas, which are located near the proposed site. The BTS height will be between 25 m to 30 m to provide 100% transmission and reception of telecommunication service signals. The typical BTS equipment would include 3G access power solutions-APS6-400 series, high-performance point-to-point microwave antenna, FibeAir IP-20G radio, panel antenna and AirHarmony 4000/4200/4400. The tilt angle of the tower is -2. The delivery of construction equipment and material will be done with light-to-heavy transport vehicles using the existing roads. No abnormal or hazardous loads will be used. The public exposure from the equipment is less than 10 Mj kg21 for waorker and 2Mj kg21 for the general public. In Table 6 the maximum output power is shown for the two different exposure categories.

Table 6 - Whole body SAR exclusion power levels

Exposure category	Maximum output power (rms)
General public	Max. power [W] = general public whole body SAR limit [W/kg] * 12.5 kg; 4-year-old child body mass = 1 W
Occupational	Max. power [W] = occupational whole body SAR limit [W/kg] * 42 kg; 16-year-old worker body mass = 16.8 W

4.3.4 WORKERS AND ACCOMMODATION

The proposed project will create over 10 employment opportunities to the local community, mainly from Henties Bay during the construction period. All project employees will be accommodated in Henties Bay during the construction phase.

4.3.5 RESOURCE USE AND WASTE MANAGEMENT

All the waste generated during the construction phase on site will be disposed of in the nearest appropriate dump site e.g., Rent-A-Drum skip removal.

4.3.6 OPERATIONAL PHASE

During the operational phase, the telecommunication infrastructure will require little intervention. Regular inspections (Monthly and yearly) will be conducted by the site manager.

4.3.7 DECOMMISSIONING PHASE

If the proposed BTS and associated infrastructure is no longer required, the equipment may be removed, followed by a rehabilitation and/or reclamation of the area. Alternatively, and with the agreement of interested or identified stakeholders, the BTS and associated infrastructure could remain to be leased for future telecommunication service use.

5 ENVIRONMENTAL AND SOCIAL BASELINE

An environmental and socio-economic baseline and a description of the existing biophysical environment is given in this section. This section has been compiled from a desktop study.

5.1 LAND USE

The location of the proposed project is in Extension 11 (ERF 2747) which is a new and developing urban residential area in the southern part of Henties Bay, Erongo Region. Henties Bay, is a small coastal town approximately 70 km north of Swakopmund. Henties Bay is major a tourist and holiday destination, retirement area and provides high potential for investment and business opportunity. Paratus has considered sharing existing infrastructure as required by the Communication Act of 2009; however, operating capacity is at its limits. As Henties Bay continues to expand it is becoming increasingly vital to add telecommunication service infrastructure to ensure efficient network coverage. Paratus will be willing to share the infrastructure with fellow telecommunication service providers in the near future.

5.2 CLIMATE

The climate along the Namibian coast is characterised by low rainfall, less radiation and sunshine, stronger winds and frequent fog (Mendelsohn, Jarvis, Roberts, et al., 2002). Henties Bay has a subtropical desert climate with virtually little to no rainfall (<10 mm) annually. The area's climate is characterised by mild to warms summer and cool winters with the average temperatures ranging between 10˚C and 34˚C (Figure 3). Fog and dew are the most common form of precipitation. Wind can occur any time of the day reaching up to 28km/h, with the predominant winds from SW-SSW and NE – ENE (Figure 4).

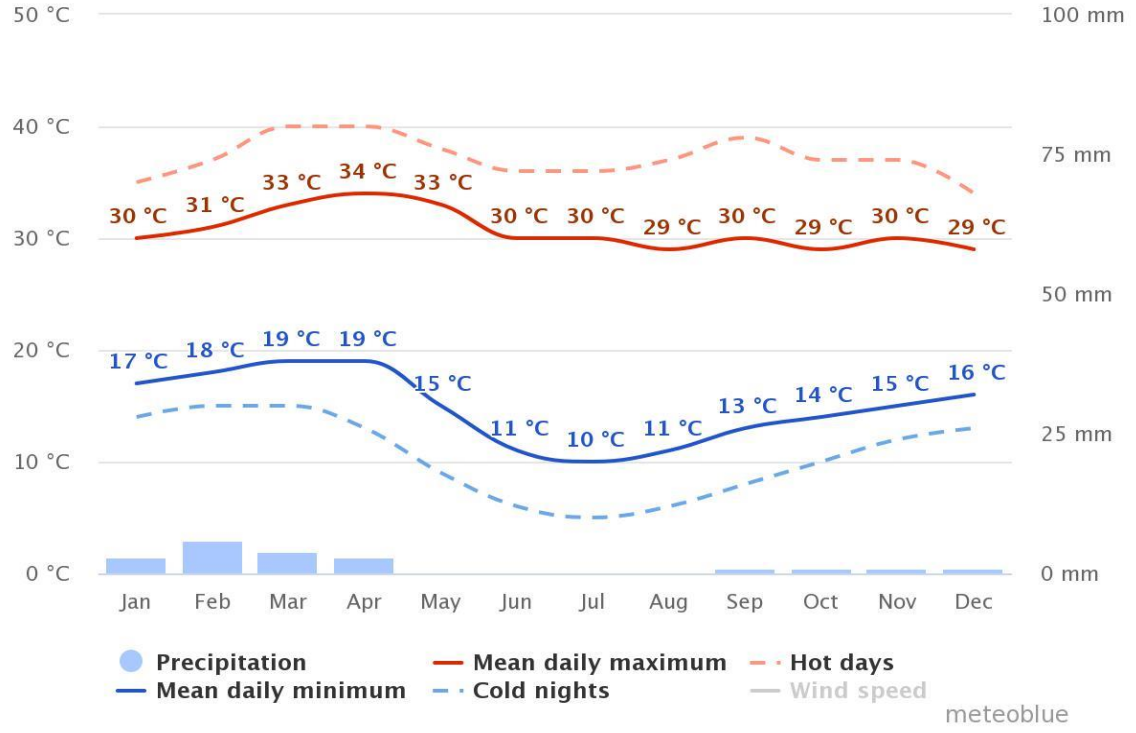


Figure 3 - Annual Temperatures and precipitation in Henties Bay (meteoblue, 2023)

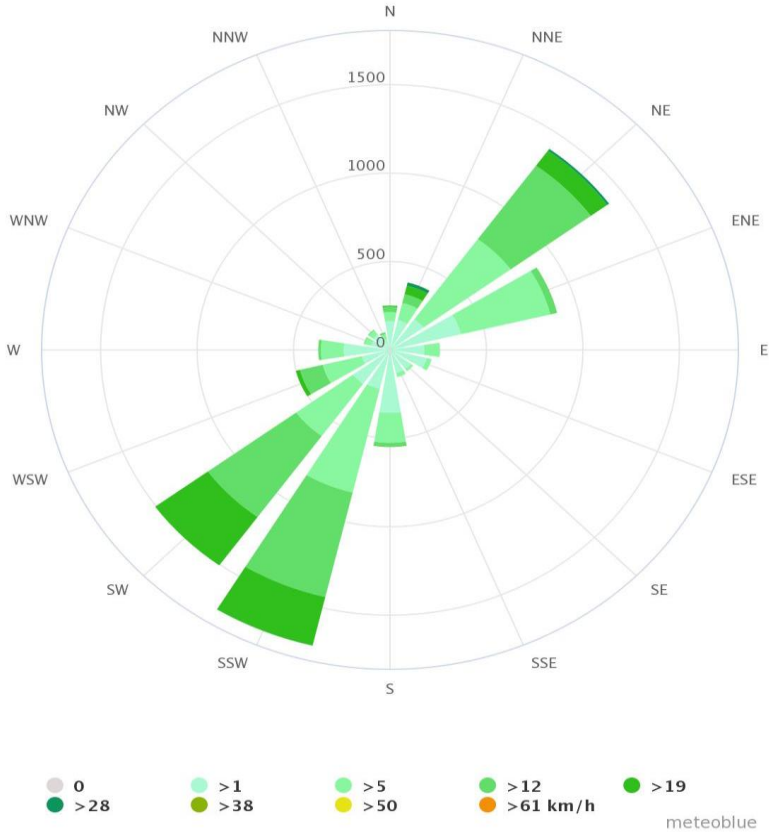


Figure 4 - Wind rose showing the hours blown per year from the indicated direction in Henties Bay (meteoblue, 2023)

5.3 SOILS, GEOLOGY AND TOPOGRAPHY

Majority of Henties Bay consist of Petric Gypsisols soil (which only covers 1.9% of the country) with a sandy to loamy sand soil texture. Gypsisols are found where there is a source of sulphate and calcium to form gypsum and where evaporation is much higher than precipitation (Mendelsohn, et al, 2022). These soils have very low fertility levels and therefore only the toughest vegetation survive here (Mendelsohn et al, 2003). The proposed project is within the Kalahari and Namib sand geology that make up the Damaraland Igneous Province (Mendelsohn, et al, 2003). The Henties Bay area is supported by rocks of Damara Sequence, intruded by dolerites dykes of Karoo age. The main rock types in this area are calc-silicate rock, marble, dolomitic marble and gneissic-granite (Bulley, 1986). The topography and landscape are relatively flat.

5.4 HYDROGEOLOGY

According to Mendelsohn, et al (2003) and Mendelsohn, et al (2022) the proposed site falls over an area with little to no groundwater, as the rock body has low or very limited groundwater potential, yielding between 0.5 m^3 and 3 m^3 water per hour. The small amount of groundwater may be safe for farms and small communities.

5.5 FAUNA AND FLORA

No endemic, threatened, rare or sensitive fauna and flora species are present at the proposed site.

5.6 RADIATION BACKGROUND

The potential impact of radiation on human health is a concern, especially for the neighbouring residents of the proposed site. The increased usage of cell phones worldwide has raised major concern on their potential impact on human health and potential hazard towards birds and bees (Singh, et al, 2016). There have been continuous claims of wild bird populations as well as bumblebees in the vicinity of high radioactivity (Siddoo-Atwal, 2018).

Electromagnetic radiation (EMR) from telecommunication towers is mainly comprised of high-frequency radio waves or microwaves (Siddoo-Atwal, 2018). There are two types of radiation: ionising and non-ionising radiation. Ionising radiation can be characterised as radiation that carries enough energy to detach electrons from atoms, causing the atom to become charged/ionised while non-ionising radiation has less energy and are unable to ionise atoms. Natural sources of nonionising radiation are sunlight and thermal radiation, while man-made sources of nonionising radiation are microwave ovens, cell phones, network towers and power lines (Adelaja Osibote, 2020).

The International Commission for Non-Ionising Radiation Protection (ICNIRP) is an independent scientific commission providing guidelines with regards to non-ionising

radiation (NIR) for the health and safety of human lives and the environment. ICNIRP specifically provides guidelines for humans exposed to radiofrequency electromagnetic fields in the range 100 kHz to 300 GHz. The ICNIRP exposure limits for non-ionising radiation of antennas operating at 900 MHz is 4.5 W/m^2 (ICNIRP, 1998). The specific frequency range for the BTS is 1800 MHz and the output power, 40 Watts (W). The strength and intensity of the radiofrequency diminishes rapidly with distance and even more due to the signal having to pass through different objects and obstacles such as buildings and trees. Below is Table 7 with the compliance boundaries for the general public and occupational levels.

Table 7 – Compliance boundaries for general public and occupational levels

Power	General public levels		Occupational levels	
	Frequency range			
	698-960 MHz	1710-2690 MHz	698-960 MHz	1710-2690 MHz
	Distance			
2 W	150 cm (59.1 in.)	100 cm (39.4 in.)	70 cm (27.6 in.)	50 cm (19.7 in.)
5 W	230 cm (90.1 in.)	150 cm (59.1 in.)	110 cm (43.3 in.)	70 cm (27.6 in.)
10 W	320 cm (126 in.)	210 cm (82.7 in.)	150 cm (59.1 in.)	100 cm (39.4 in.)
20 W	450 cm (177.2 in.)	290 cm (114.2 in.)	210 cm (82.7 in.)	140 cm (55.1 in.)
30 W	550 cm (216.5 in.)	350 cm (137.8 in.)	260 cm (102.4 in.)	160 cm (63 in.)
40 W	640 cm (252 in.)	410 cm (161.4 in.)	290 cm (114.2 in.)	190 cm (74.8 in.)
50 W	710 cm (279.5 in.)	460 cm (181.1 in.)	330 cm (130 in.)	210 cm (82.7 in.)
60 W	780 cm (307.1 in.)	500 cm (196.9 in.)	360 cm (141.7 in.)	230 cm (90.1 in.)
70 W	840 cm (330.7 in.)	540 cm (212.6 in.)	390 cm (153.5 in.)	250 cm (98.4 in.)
80 W	900 cm (354.3 in.)	580 cm (228.3 in.)	410 cm (161.4 in.)	270 cm (106.3 in.)
90 W	950 cm (374 in.)	610 cm (240.2 in.)	440 cm (173.2 in.)	280 cm (110.2 in.)

The component specifications for 900 MHz and 1800 MHz also apply to 850 MHz and 1900 MHz products respectively, and can be used to demonstrate compliance with FCC guidelines for human exposure to radio frequency electromagnetic fields contained in the FCC

5.7 SOCIAL AND SOCIO-ECONOMIC

Easier, faster and more efficient advances in telecommunication services in Namibia resulted in a positive socio-economic impact in recent years. Growth in telecommunication services has led to significant economic growth, employment opportunities and development. During the Covid-19 pandemic, telecommunication services became essential as it played a key role in businesses due to more people working from home. Since the Covid-19 pandemic there has been a rapid increase in remote job positions which contribute to the need for telecommunication services (Gifford, 2022).

5.7.1 EMPLOYMENT

According to Namibia Statistic Agency (NSA) results from a labour force survey carried out in 2016 showed that Erongo region has the lowest unemployment rate (21.9%) in the country. Furthermore, Erongo region's youth also has the lowest unemployment rate (25%), not including those studying at a tertiary level. The unemployment rate for Erongo region has dropped from 30% in 2011 which was lower than the national rate (Namibia Statistics Agency, 2011). Hoadley (2009), states that compared to other regions in Namibia, Erongo region has the second highest level of development and the second lowest rate of human poverty.

5.7.2 ECONOMIC ENVIRONMENT

Namibia has experienced an economic growth of 3.5% in 2022, mostly driven by diamond mining activities, there is however a lingering pandemic impact and Namibia is still recovering from the COVID-19 restrictions. Employment is projected to remain below pre-pandemic levels as the workforce slowly recovers. Fuel prices and inflation increased to a five-year high of 6.1% in 2022 a negative impact on consumers. Namibia has recognised the crucial role of Information and Communication Technology (ICT) in driving the economic growth and development. It has been identified that increasing the availability of the appropriate digital infrastructure is vital in developing the country's digital economy.

5.8 CULTURAL HERITAGE

Henties Bay is not known for its rich historical and cultural sites but rather for its traditional fish festival and angling competition in the hopes of attracting more tourists to visit the small town. Nevertheless, the proponent will ensure that the proposed BTS and associated infrastructure blend with the environment as practically as possible to minimise the visual impacts.

5.9 NOISE AND VIBRATIONS

The proposed site is in an urban residential area therefore, the noise would be minimal, and no vibrations are expected from the proposed project. There would be minimal temporary localised noise generated during the construction activities of the BTS however, the impact will be over a short period of time and will occur during normal working hours (7:00 am – 5:00 pm).

6 IMPACT IDENTIFICATION AND EVALUATION METHODOLOGY

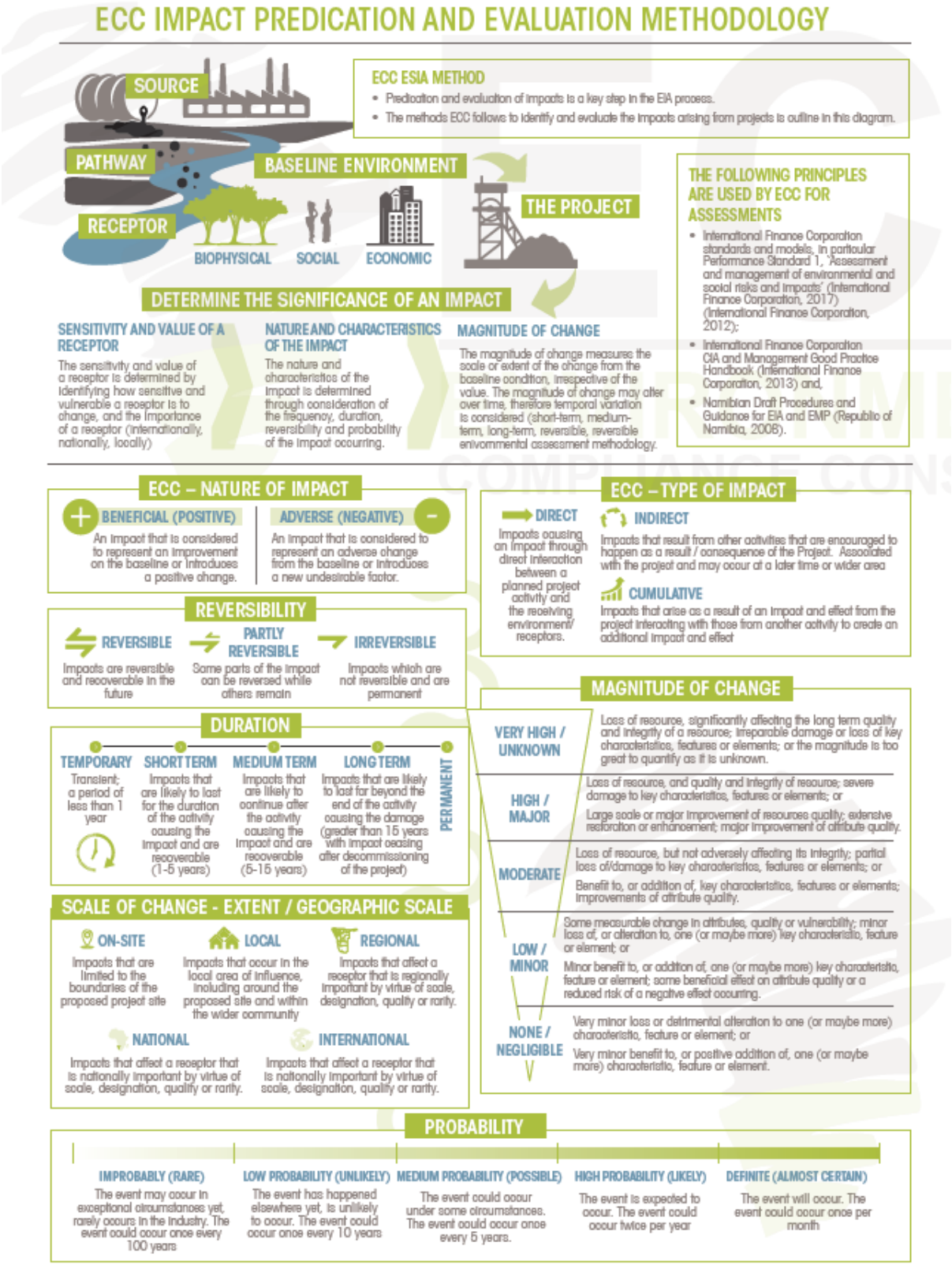
6.1 INTRODUCTION

The impact assessment method described in this chapter by ECC is designed to systematically identify and evaluate potential environmental and social impacts that may arise from a proposed project. The method takes into consideration the baseline characteristics of the project area and assesses the significance of impacts based on various factors, including the sensitivity and value of environmental and social receptors, the nature and characteristics of the potential impact, and the magnitude of potential change.

The method shown in Figure 5 provides assessment guidance that is used to evaluate impacts, and it also acknowledges any limitations, uncertainties, and assumptions associated with the assessment methodology. It outlines how impacts are identified and evaluated, and how the level of significance is derived. The method also addresses the application of mitigation measures in the assessment, and how additional mitigations are identified.

This chapter provides a structured approach for evaluating the potential impacts of a proposed project on the environment and social aspects. It considers various factors to determine the significance of impacts and provides guidance on how to identify and evaluate potential impacts. It also recognises the limitations and uncertainties associated with impact assessment methodologies, which adds transparency and credibility to the assessment process.

Overall, this chapter provides a comprehensive and systematic approach for conducting impact assessments, which can help ensure that potential environmental and social impacts are thoroughly evaluated and addressed in the decision-making process for the proposed project. However, it is important to note that the effectiveness of this method would ultimately depend on its implementation and the accuracy of the baseline data and assumptions used in the assessment. Therefore, regular reviews and updates of the methodology based on new information and feedback from stakeholders would be recommended to improve its accuracy and relevance.


ECC IMPACT PREDICATION AND EVALUATION METHODOLOGY
SOURCE
PATHWAY
RECEPTOR
BASELINE ENVIRONMENT
BIOPHYSICAL
SOCIAL
ECONOMIC
THE PROJECT
ECC ESIA METHOD
• Predication and evaluation of impacts is a key step in the EIA process.
• The methods ECC follows to identify and evaluate the impacts arising from projects is outline in this diagram.
THE FOLLOWING PRINCIPLES ARE USED BY ECC FOR ASSESSMENTS
• International Finance Corporation standards and models, in particular Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012);
• International Finance Corporation CIA and Management Good Practice Handbook (International Finance Corporation, 2013) and,
• Namibian Draft Procedures and Guidance for EIA and EMP (Republic of Namibia, 2008).
DETERMINE THE SIGNIFICANCE OF AN IMPACT
SENSITIVITY AND VALUE OF A RECEPTOR
The sensitivity and value of a receptor is determined by identifying how sensitive and vulnerable a receptor is to change, and the importance of a receptor (internationally, nationally, locally)
NATURE AND CHARACTERISTICS OF THE IMPACT
The nature and characteristics of the impact is determined through consideration of the frequency, duration, reversibility and probability of the impact occurring.
MAGNITUDE OF CHANGE
The magnitude of change measures the scale or extent of the change from the baseline condition, irrespective of the value. The magnitude of change may alter over time, therefore temporal variation is considered (short-term, medium-term, long-term, reversible, reversible environmental assessment methodology.
ECC – NATURE OF IMPACT
BENEFICIAL (POSITIVE)
An impact that is considered to represent an improvement on the baseline or introduces a positive change.
ADVERSE (NEGATIVE)
An impact that is considered to represent an adverse change from the baseline or introduces a new undesirable factor.
ECC – TYPE OF IMPACT
DIRECT
Impacts causing an impact through direct interaction between a planned project activity and the receiving environment/ receptors.
INDIRECT
Impacts that result from other activities that are encouraged to happen as a result / consequence of the Project. Associated with the project and may occur at a later time or wider area
CUMULATIVE
Impacts that arise as a result of an impact and effect from the project interacting with those from another activity to create an additional impact and effect
REVERSIBILITY
REVERSIBLE
Impacts are reversible and recoverable in the future
PARTLY REVERSIBLE
Some parts of the impact can be reversed while others remain
IRREVERSIBLE
Impacts which are not reversible and are permanent
MAGNITUDE OF CHANGE
VERY HIGH / UNKNOWN
Loss of resource, significantly affecting the long term quality and integrity of a resource; irreparable damage or loss of key characteristics, features or elements; or the magnitude is too great to quantify as it is unknown.
HIGH / MAJOR
Loss of resource, and quality and integrity of resource; severe damage to key characteristics, features or elements; or
Large scale or major improvement of resources quality; extensive restoration or enhancement; major improvement of attribute quality.
MODERATE
Loss of resource, but not adversely affecting its integrity; partial loss of/damage to key characteristics, features or elements; or
Benefit to, or addition of, key characteristics, features or elements; improvements of attribute quality.
LOW / MINOR
Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (or maybe more) key characteristic, feature or element; or
Minor benefit to, or addition of, one (or maybe more) key characteristic, feature or element; some beneficial effect on attribute quality or a reduced risk of a negative effect occurring.
NONE / NEGLIGIBLE
Very minor loss or detrimental alteration to one (or maybe more) characteristic, feature or element; or
Very minor benefit to, or positive addition of, one (or maybe more) characteristic, feature or element.
DURATION
TEMPORARY
Transient; a period of less than 1 year
SHORT TERM
Impacts that are likely to last for the duration of the activity causing the impact and are recoverable (1-5 years)
MEDIUM TERM
Impacts that are likely to continue after the activity causing the impact and are recoverable (5-15 years)
LONG TERM
Impacts that are likely to last far beyond the end of the activity causing the damage (greater than 15 years with impact ceasing after decommissioning of the project)
PERMANENT
SCALE OF CHANGE - EXTENT / GEOGRAPHIC SCALE
ON-SITE
Impacts that are limited to the boundaries of the proposed project site
LOCAL
Impacts that occur in the local area of influence, including around the proposed site and within the wider community
REGIONAL
Impacts that affect a receptor that is regionally important by virtue of scale, designation, quality or rarity.
NATIONAL
Impacts that affect a receptor that is nationally important by virtue of scale, designation, quality or rarity.
INTERNATIONAL
Impacts that affect a receptor that is nationally important by virtue of scale, designation, quality or rarity.
PROBABILITY
IMPROBABLY (RARE)
The event may occur in exceptional circumstances yet, rarely occurs in the industry. The event could occur once every 100 years
LOW PROBABILITY (UNLIKELY)
The event has happened elsewhere yet, is unlikely to occur. The event could occur once every 10 years
MEDIUM PROBABILITY (POSSIBLE)
The event could occur under some circumstances. The event could occur once every 5 years.
HIGH PROBABILITY (LIKELY)
The event is expected to occur. The event could occur twice per year
DEFINITE (ALMOST CERTAIN)
The event will occur. The event could occur once per month

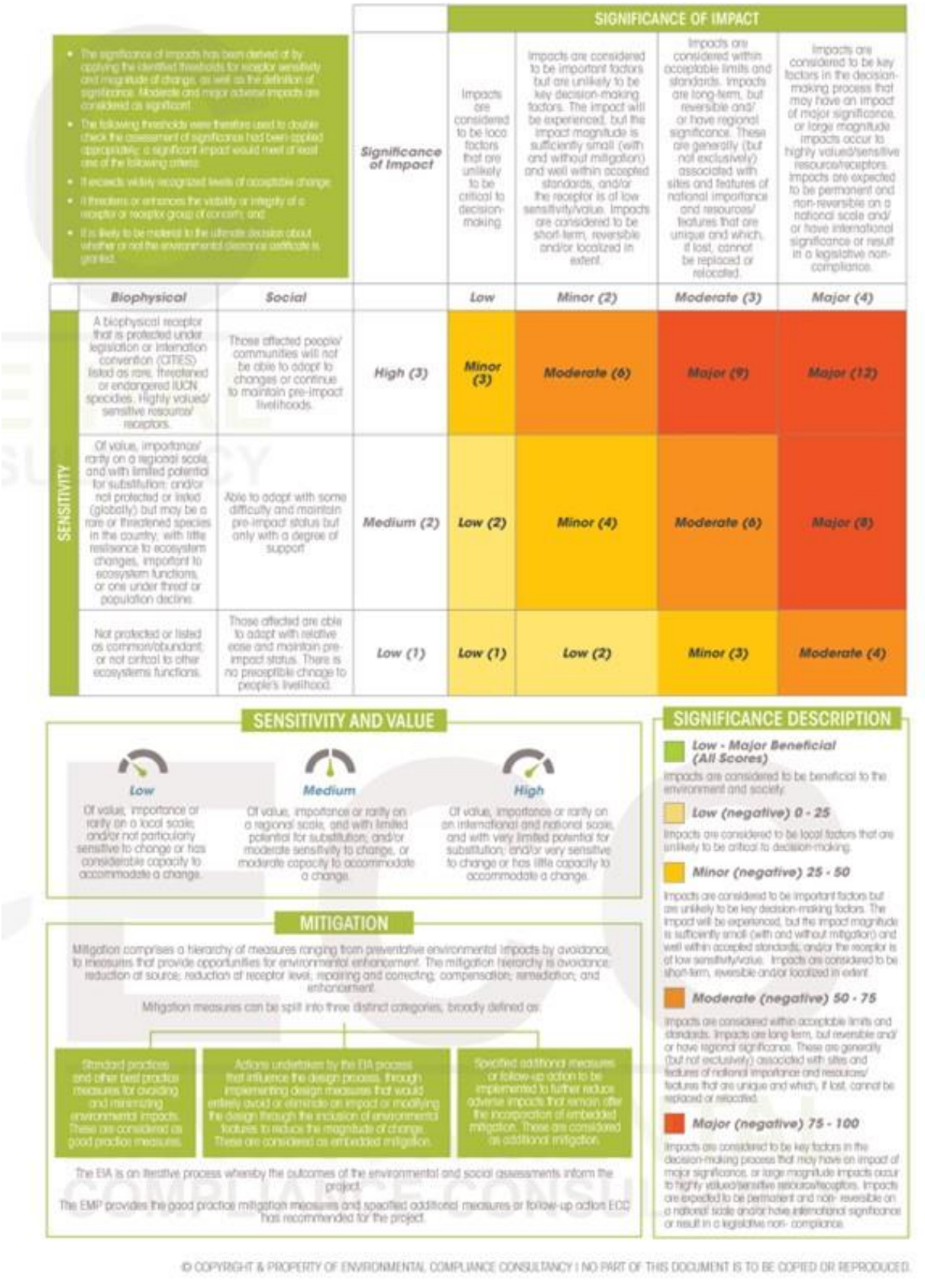


Figure 5 - ECC ESIA methodology based on IFC standards

6.2 ASSESSMENT GUIDANCE

The principal documents used to inform the assessment method are:

- International Finance Corporation standards and models, in particular Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012),
- International Finance Corporation CIA and Management Good Practice Handbook (International Finance Corporation, 2013); and,
- Namibian Draft Procedures and Guidance for EIA and EMP (Republic of Namibia, 2008).

6.3 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS

The limitations and uncertainties associated with the assessment methodology in Namibia were observed to include the absence of topic-specific assessment guidance, with a generic methodology being applied based on IFC (International Finance Corporation) guidance and professional judgement. This implies that there may be limitations in terms of tailoring the assessment to specific topics or issues relevant to Namibia, and that the methodology may not fully capture the unique characteristics and nuances of the local context.

The impact assessment process also acknowledged the presence of uncertainties, and assumptions were made based on realistic worst-case scenarios to ensure that potential environmental impacts were identified and assessed comprehensively. These assumptions and uncertainties were identified and documented during the assessment process shown in Table 8 in line with best practice.

A cautious approach was applied where uncertainties existed, allowing for the identification and assessment of potential impacts based on worst-case scenarios. The limitations and uncertainties were acknowledged and described in the baseline section of the assessment, indicating transparency and awareness of potential limitations in the methodology.

It is important to note that the limitations and uncertainties identified in the assessment methodology may introduce potential biases or inaccuracies in the assessment results. Therefore, it is recommended to regularly review and update the methodology to address these limitations and uncertainties, and to ensure that it remains robust and relevant for the specific context of Namibia. Additionally, incorporating stakeholder feedback and local knowledge can also contribute to improving the accuracy and comprehensiveness of the assessment process.

Table 8 - Limitation, uncertainties and assumptions

LIMITATION/UNCERTAINTY	ASSUMPTION
The project construction phase method statement is not available.	It is assumed that a trench about 5 m deep will be dug and then filled with concrete for laying a foundation. The BTS structure will be assembled on-site i.e., bolt the structure, and fasten the antennae before installation. A concrete plinth will be used to anchor it for stability.

7 IMPACT ASSESSMENT FINDINGS AND PROPOSED MITIGATION MEASURES

This chapter presents the findings of the impact assessment for the proposed project, with a focus on significant potential impacts. The design of the proposed project and best practice measures were considered during the assessment to identify likely significant impacts and recommend mitigation measures. A summary list of potential impacts was provided, including water (surface and groundwater), soil, landscape (visual impacts, sense of place), socioeconomics (employment, demographics, and land use), noise, ecology (fauna and flora), air quality (emissions, pollutants, and dust), and heritage (including culture, history, archaeology, and palaeontology).

Table 9 outlines the impact assessment findings, identifying the activities that could be the source of impacts, the receptors that could be affected, and the pathways between them. Where activities or receptors have not been identified and analysed, potential impacts are deemed unlikely, and no assessment or justification is provided. Justification for further assessment may or may not be required where the activity, receptor, and pathway have been identified and analysed.

Table 9 - Impact assessment findings and proposed mitigation measures

Description	**Details**	
Aspect	Avifauna	
Description of activity	The construction of the 30 m BTS and associated infrastructure and commissioning of the BTS	
Description of impact	Birds can collide into the erected BTS	
Assessment of impact	**Receptor**	**Avifauna**
	Effect/description of the magnitude	Adverse Direct Partly Reversible Moderate Long term On-site Likely
	Value of sensitivity	Medium
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Minor (4)
Impact management/control measures	– Eliminating non-flashing lights and use flash lights – The BTS will be no more than 30 m, therefore would not obstruct flying birds	

Description	Details
Residual impact after mitigation	**Minor (3)**

Description	Details	
Aspect	Avifauna	
Description of activity	The commissioning of transmitters of the BTS	
Description of impact	Birds may be impacted by EMR emissions from the BTS	
Assessment of impact	**Receptor**	**Avifauna**
	Effect/description of the magnitude	Adverse Cumulative Irreversible Minor Long term On-site Possible
	Value of sensitivity	Medium
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Minor (4)
Impact management/control measures	– Abiding by ICNIRP limits to prevent harmful EMR emissions from communication towers – The BTS will be no more than 30 m, therefore would not impact flying birds	
Residual impact after mitigation	**Minor (3)**	

Description	Details	
Aspect	Community	
Description of activity	The commissioning of the BTS	
Description of impact	Nesting bird waste and droppings onto neighbour's yard	
Assessment of impact	**Receptor**	**Community**
	Effect/description of the magnitude	Adverse Direct Partly reversible Negligible Long term On-site Likely
	Value of sensitivity	Low
	Magnitude of change	Minor

Description	Details	
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	– Monthly clean up agreement between the proponent and surrounding residents – Bird deterrents to prevent nesting – Fencing around the facility	
Residual impact after mitigation	**Low (1)**	

Description	Details	
Aspect	Air quality	
Description of activity	The minor ground preparation, transportation, storage and stockpiling of material and construction of the 30 m BTS and associated infrastructure	
Description of impact	Dust emissions from construction vehicles and equipment	
Assessment of impact	**Receptor**	**Community**
	Effect/description of magnitude	Adverse Direct Partly reversible Moderate Temporary Local Likely
	Value of sensitivity	Medium
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Minor (4)
Impact management/control measures	– Apply dust suppression where possible – Restrict speed of vehicles (<30 km/h) – Specific activities that may generate dust and impact nearby residents. – Dust generating activities should be avoided during strong wind events – All vehicles and machinery / equipment to be shut down or throttled back between periods of use	
Residual impact after mitigation	**Low (1)**	

Description	Details
Aspect	Ambient noise and visual impacts

Description	Details	
Description of activity	The minor ground preparation, transportation, storage and stockpiling of material and construction of the 30 m BTS and associated infrastructure	
Description of impact	Visual and Noise disturbance from the construction phase and visual disturbance after the construction of the communication tower	
Assessment of impact	**Receptor**	**Community**
	Effect/description of magnitude	Adverse Direct Reversible Minor Short term Local Likely
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	– Engage with the surrounding neighbours about the construction activities – Minimise the noise from the transportation and stockpiling of material – Minimise the noise from equipment used – Only operating during work hours (7 am to 5 pm) on weekdays and only half days on Saturdays – Maintain good housekeeping	
Residual impact after mitigation	**Low (1)**	

Description	Details	
Aspect	Community, health, safety and security	
Description of activity	The commissioning of transmitters of the BTS	
Description of impact	Non-ionising radiation from the communication tower may impact the health of the community on and off site, although it has been confirmed that the current exposure levels at critical areas have no effect on the public in the area.	
Assessment of impact	**Receptor**	**Community**
	Effect/description of magnitude	Adverse Cumulative Irreversible Moderate

Description	Details	
		Long Term Local Unlikely
	Value of sensitivity	High
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Moderate (6)
Impact management/control measures	– Abiding by the Non-ionising Radiation Regulations to prevent harmful radiation – Ensuring radiation is within the international standards of the Atomic Energy and Radiation Protection Act, 2005 (Act No. 5 of 2005) – Involving the National Radiation Protection Agency and their expertise of EMR emissions – Fulfilled NRPA requirements	
Residual impact after mitigation	**Minor (3)**	

Description	Details	
Aspect	Community, health, safety and security (on site)	
Description of activity	Minor ground preparation (trenches and levelling of the site), storage and stockpiling of material for the construction of the tower, construction of the tower, installation of cables and wiring, concrete casting and construction of perimeter fencing	
Description of impact	Occupational health and safety of workers	
Assessment of impact	**Receptor**	**Employees**
	Effect/description of the magnitude	Adverse Direct Irreversible Moderate Long term On-site Unlikely
	Value of sensitivity	Medium
	Magnitude of change	Low
	Significance of impact prior to mitigation	Low (2)

Description	Details
Impact management/control measures	– Use correct PPE in the workplace – Complying with the SOP – Complying with all applicable national regulations and laws to minimise risks at the workplace – Ensuring the appropriate supervision of activities – If necessary, providing site inductions to workers about health and safety – Proper use and storage of material and equipment
Residual impact after mitigation	**Low (1)**

Description	Details	
Aspect	Residential property value	
Description of activity	Construction of the tower	
Description of impact	The presence of the infrastructure may reduce the property value of the surrounding residential property.	
Assessment of impact	**Receptor**	**Surrounding residents**
	Effect/description of the magnitude	Adverse Direct Reversible Minor Long term Local Unlikely
	Value of sensitivity	Low
	Magnitude of change	Low
	Significance of impact prior to mitigation	Low (1)
Impact management/control measures	– There are no consistent market evidence that suggests any negative impact on residential properties as a result of a communications tower in the area.	
Residual impact after mitigation	**Low (1)**	

Description	Details
Aspect	Employment and Livelihood
Description of activity	Minor ground preparation (trenches and levelling of the site),

Description	Details	
	storage and stockpiling of material for the construction of the tower, construction of the tower, installation of cables and wiring, concrete casting and construction of perimeter fencing	
Description of impact	Employment opportunities	
Assessment of impact	**Receptor**	**Community**
	Effect/description of magnitude	Beneficial Direct Reversible Moderate Temporary On-site Definite
	Value of sensitivity	Medium
	Magnitude of change	Low
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	– Providing job opportunities for the local community – Promoting local procurement as far as possible – Enhancing the development of local skills	
Residual impact after mitigation	**Low Beneficial**	

Description	Details	
Aspect	Socio-economic environment	
Description of activity	Construction of the BTS and associated infrastructure	
Description of impact	Faster and more efficient telecommunication services	
Assessment of impact	**Receptor**	**Community**
	Effect/description of the magnitude	Beneficial Direct Reversible Major Long Term Local Definite
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Moderate (6)

Impact management/control measures	– Improving the network coverage and internet access of the local area – Ensuring prices are affordable for network usage – Providing a positive impact on local development
Residual impact after mitigation	**Moderate Beneficial**

8 CONCLUSION

ECC's impact assessment methodology was used to conduct the scoping report for the proposed project to identify if there is a potential for significant impacts to occur as an outcome of the proposed project. This scoping report identified that there was no major potential risk that requires further specialist studies and assessment. The identified impacts were found to be minor such as the impact of the erected BTS on bird collisions, the impact of EMR emissions on birds and local residents. Various mitigation measures have been identified and listed for implementation in the EMP to avoid and reduce effects as far as reasonably practical. This will ensure that the environment is protected, and unforeseen effects and environmental disturbances are avoided.

BIBLIOGRAPHY

Adelaja Osibote, O. (2020). Introductory Chapter: Radiation Exposure, Dose and Protection. *IntechOpen*. doi: 10.5772/intechopen.89041

Gifford, J. (2022). Remote working: unprecedented increase and a developing research agenda, *Human Resource Development International*, 25:2, 105-113, DOI: 10.1080/13678868.2022.2049108

Hoadley, M. (2009). Socio-Economic Baseline and Social Impact Assessment for Langer Heinrich Uranium (Pty) Ltd.

ICNIRP. (1998). Guidelines for Limiting Exposure to Time-varying Electric, Magnetic, and Electromagnetic Fields (Up to 300 GHz). *Health Physics* 74 (4), 494-522.

Mendelsohn, J., Jarvis, A., Robertson, T & Mendelsohn, M. (2022). *Atlas of Namibia: its land, water and life*. Namibia Nature Foundation.

Meteoblue. (2023). *Simulated historical climate & weather data for 24.84°S 16.98°*. https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/-24.844N16.981E1348_Africa%2FWindhoek

Siddoo-Atwal, C. (2018). Electromagnetic Radiation from Cellphone Towers: A Potential Health Hazard for Birds, Bees, and Humans. *InTech*. doi: 10.5772/intechopen.76084

Singh, K., Nagaraj, A., Yousuf, A., Ganta, S., Pareek, S., Vishnani, P. (2016). Effect of electromagnetic radiations from mobile phone base stations on general health and salivary function. *Journal of International Society Preventitive and Community Dentistry*, 6(1):54-9. doi: 10.4103/2231-0762.175413. PMID: 27011934; PMCID: PMC4784065

APPENDIX A – ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX B – BACKGROUND INFORMATION DOCUMENT

APPENDIX C – NEWSPAPER ADVERTISEMENT

4 Republikein Sun Allgemeine Zeitung Market Watch TUESDAY 6 JUNE 2023

Economic Indicators

Exchange Rates / *Forward Cover*

Currency	Spot	Currency	Spot		1M	3M	6M	12M
USD/NAD	19.4335	NAD/AUD	0.078051	USD/ZAR	19.4958	19.6209	19.8068	20.2246
EUR/NAD	20.77676	NAD/NZD	0.085015	EURO/ZAR	405.2791	407.9509	411.9137	420.7864
GBP/NAD	24.08721	NAD/BWP	0.707635	GBP/ZAR	469.8306	472.8675	477.3570	487.3863
NAD/CHF	0.3660268	NAD/JPY	7.22	ZAR/JPY	7.1645	7.0501	6.8842	6.5566

Please call your Private Banker or alternatively SMS PMM to 34778

*Effective rate (with citing tax still to be applied)

COMPANY NEWS IN BRIEF

RICHEMONT CFO EARNED R280 MILLION LAST YEAR

Richemont awarded Chief Financial Officer Burkhart Grund 12.9 million Swiss francs (R280 million) in total compensation last year, making him the highest-paid employee at the luxury-goods conglomerate.

Grund's total payout included special awards that the company's compensation committee said reflected exceptional performance, the company disclosed in its annual report Friday. The CFO's cash, stock and other awards compare to Chief Executive Officer Jerome Lambert's total compensation of almost 8 million francs (R172 million). The company said Grund, who joined Richemont in 2000 and became CFO and a board member in 2017, was awarded an additional payment of €2.3 million (R50 million) in the current year along with additional performance stock units as well as the right to more incentives next year.

"This discretionary award recognises exceptional performance over a number of years which the Committee considered had not been properly reflected in previous remuneration awards," the head of Richemont's compensation committee said in the report. - Fin24

NETFLIX TO CHALLENGE INDIA'S TOBACCO RULES

Streaming giants Netflix, Amazon and Disney privately discussed a possible legal challenge and other ways to stall India's new tobacco warning rules, amid fears they will need to edit millions of hours of existing web content, sources said.

The pushback is the latest headache for streaming giants in India, a top growth market. Companies often face legal cases and police complaints their content sometimes hurt religious sentiment, and many have self-censored content over the years.

As part of India's anti-tobacco drive, the health ministry this week ordered streaming platforms should within three months insert static health warnings during smoking scenes. Also, India wants at least 50 seconds of anti-tobacco disclaimers, including an audio-visual, at the start and in the middle of each program.

In first signs of industry distress, executives of the three global streaming companies, and India's Viacom18 which runs billionaire Mukesh Ambani's JioCinema app, held a closed-door meeting, where Netflix said the rules would hit customer experience and push production houses to block their content in India, according to two sources familiar with the discussions. - Fin24

NEDBANK SA STARTS LOOKING FOR A NEW CEO

Nedbank said it had started a process to look for a successor to CEO Mike Brown, who has been in the position since 2010.

Following the appointment of new board chair Daniel Mminele with effect from Friday, the banking group said it would now be looking for a replacement for Brown, who joined the group 30 years ago and has been an executive director since 2004. The 57-year-old Brown "continues to enjoy the total confidence of shareholders and the board", it said, and will continue in his role until a successor has been chosen and a suitable handover process has been completed.

Nedbank made the announcement on Friday ahead of its annual general meeting, and also provided investors with a trading update for its four months to end-April.

The group said trading conditions had deteriorated and its credit-loss ratio was higher than management's expectations, rising to above the upper end of its 2023 guidance of between 0.8% and 1%.

This reflected the fallout from higher interest rates, load shedding and inflation, the lender said. Nedbank also slashed its 2023 economic growth forecast for SA to 0.2%, from 0.7% previously. - Fin24

DUTCH COURT REJECTS BID FROM STEINHOFF

Steinhoff International said a Dutch court has rejected a petition from a shareholder grouping seeking the appointment of a restructuring expert.

The confirmation hearing for its restructuring plan is set to be heard on 15 June.

The Schutzgemeinschaft der Kapitalanleger (SdK), a private body representing shareholders' rights and interests in Germany and other countries, has vocally opposed Steinhoff's restructuring plan, which could shareholders with nothing.

The SdK filed a request for the Dutch court to appoint a restructuring expert to oversee the plan in the hope of better representing the interests of shareholders.

It also maintains that the restructuring plan wrongly assumes a valuation for Steinhoff that is too low.

Steinhoff's financial creditors voted earlier in May to back a three-year debt repayment holiday in exchange for taking over between 80% and 100% of the group's equity. - Fin24

ECC

NOTICE OF AN ENVIRONMENTAL ASSESSMENT

FOR THE PROPOSED CONSTRUCTION OF PARATUS TELECOMMUNICATION (PTY) LTD BASE TRANSCEIVER STATION AND ASSOCIATED INFRASTRUCTURE, ERONGO REGION, NAMIBIA

Environmental Compliance Consultancy (Pty) Ltd provides this notice to members of the public that an application for an environmental clearance certificate in accordance with the Environmental Management Act, No. 7 of 2007 will be made for the proposed construction of a Paratus Telecommunication (Pty) Ltd base transceiver station and associated infrastructure, Erongo Region, Namibia. Members of the public are invited to register as an interested and affected party (I&APs) and provide input into the environmental clearance certificate application process.

Applicant: Paratus Telecommunication (Pty) Ltd.
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: ERF 2747, Ext.11, Henties Bay, Erongo Region,

Proposed Activity: Paratus Telecommunication (Pty) Ltd propose to construct a base transceiver station and associated infrastructure located on ERF 2747, Extension 11, Henties Bay. The preferred base transceiver station's height will be between 25 to 30 meters to provide adequate transmission and reception of telecommunication service signals. The typical base transceiver station equipment would include 5G access power solutions-AP56-400 series, high-performance point-to-point microwave antenna, FibeAir IP-20G radio, panel antenna and AirHarmony 4000/4200/4400.

I&APs Registration: The purpose of the registration period is to introduce the proposed project and to allow interested and affected parties (I&APs) to register and comment on the project and to ensure that potential issues and concerns are brought forward, so that they can be considered and assessed during the impact assessment process.

The registration period is effective from 06 June 2023 to 20 June 2023. I&APs and stakeholders are required to register for the Project at: https://eccenvironmental.com/projects/ or call ECC to register.

The team at ECC will maintain contact with registered I&APs to engage and to keep them informed as the ESIA process develops. ECC will also provide registered I&APs input opportunities and review periods throughout the assessment process.

Contact: Environmental Compliance Consultancy
PO Box 91190, Klein Windhoek |Tel: +264 81 669 7600 |E-mail: info@eccenvironmental.com
Website: www.eccenvironmental.com/projects

Economic Indicators

Exchange Rates *Forward Cover*

Currency	Spot	Currency	Spot		1M	3M	6M	12M
USD/NAD	18.59833	NAD/AUD	0.079389	USD/ZAR	18.6825	18.7629	18.9560	19.3358
EUR/NAD	20.04498	NAD/NZD	0.087394	EUR/ZAR	374.2990	376.7816	380.3493	388.1580
GBP/NAD	23.41148	NAD/BWP	0.722388	GBP/ZAR	437.1384	439.9790	444.0408	452.8978
NAD/CHF	0.383484	NAD/JPY	7.49	ZAR/JPY	7.4271	7.3085	7.1384	6.8042

Please call your Private Banker or alternatively SMS PMM to 34778

*Effective rate (withholding tax still to be applied)

COMPANY NEWS IN BRIEF

MONDELEZ FACES BACKLASH OVER RUSSIA BUSINESS

Mondelez International, facing a widening corporate boycott in the Nordic region over its continued presence in Russia, said late on Sunday it had asked to meet with the Norwegian government to protect its local business.

Airlines SAS and Norwegian Air, railway group SJ, hotel chain Strawberry, retailer Elkjop, shipping group Fjord Line and the Norwegian Football Association were among those announcing in recent days that they would stop selling Mondelez products.

The global snack maker, producer of Oreo, Toblerone and dozens of other brands, has a strong presence in Norway and Sweden via its local chocolate manufacturers Freia and Marabou.

Although some Western companies sold their Russian assets after Moscow's invasion of Ukraine last year, others such as Mondelez have stayed despite pushback from employees in other countries. Russia says the invasion is a "special operation".

Nordic companies said their decision stop selling Mondelez products was based on an announcement this year by Ukraine's National Agency for the Prevention of Corruption to blacklist the snack maker and other groups.

Coop Norge, Norway's second biggest food retailer, said on Saturday that it would seek advice from the Norwegian government before making any decisions. -Fin24

TYMEBANK NOW HAS 7M CUSTOMERS

African Rainbow Capital Investments (ARC), a firm founded by billionaire Patrice Motsepe, said its increased stake in a debt review and recoveries business is expected to pay off in the current tough economic environment. It is also still focused on profitability in coming months for TymeBank, which has grown to over 7 million customers.

The company, valued at about R8.5 billion on the JSE, released an update for its third quarter to end March on Friday, saying TymeBank had a monthly acquisition rate of 188 000 customers, down about 6% from the last quarter of 2022, though its customer base has grown almost 13%.

TymeBank launched in 2019 made up just over a tenth of the group's more than R13 billion fund value at the end of its half-year to end-December, while mobile and data business Rain, which makes up more than a quarter, is still hitting its monthly targets.

Rain had acquired new spectrum in 2022, with the company now having launched its new "affordable" mobile offering - rainOne - which includes an unlimited 5G home Wi-Fi offering, as well as service offering for two phones.

"The company expects a significant number of existing customers to switch to this new offering and to acquire new customers," it said. -Fin24

UBS HAS SWISS MOUNTAIN TO CLIMB

With its Credit Suisse takeover officially wrapped up, UBS must now make good on its promise that the government-orchestrated rescue will deliver both for shareholders and Swiss taxpayers.

The world's biggest banking deal since the 2008 financial crisis has forged a wealth manager with an unrivalled global reach and $5 trillion in assets under management, handing UBS an overnight lead it would otherwise have taken years to achieve in key markets.

Arranged over a weekend in March to stave off a broader banking crisis, and backed by up to 250 billion Swiss francs (R5.2 trillion) in public funds - the tie-up now poses huge challenges and potential rewards for Switzerland and its biggest bank.

Switzerland must now contend with a bank whose balance sheet is twice as big as its economy, while Sergio Ermotti, who was brought back in as CEO to oversee the mega merger, faces tough strategic decisions as UBS integrates its smaller rival against an uncertain economic backdrop.

Possibly the first hurdle is a politically fraught decision on Credit Suisse's "crown jewel", its domestic business. -Fin24

PHOTO: REUTERS

NOTICE OF AN ENVIRONMENTAL ASSESSMENT

FOR THE PROPOSED CONSTRUCTION OF PARATUS TELECOMMUNICATION (PTY) LTD BASE TRANSCEIVER STATION AND ASSOCIATED INFRASTRUCTURE, ERONGO REGION, NAMIBIA

Environmental Compliance Consultancy (Pty) Ltd provides this notice to members of the public that an application for an environmental clearance certificate in accordance with the Environmental Management Act, No. 7 of 2007 will be made for the proposed construction of a Paratus Telecommunication (Pty) Ltd base transceiver station and associated infrastructure, Erongo Region, Namibia. Members of the public are invited to register as an Interested and affected party (I&APs) and provide input into the environmental clearance certificate application process.

Applicant: Paratus Telecommunication (Pty) Ltd.
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: ERF 2747, Ext.11, Henties Bay, Erongo Region,

Proposed Activity: Paratus Telecommunication (Pty) Ltd propose to construct a base transceiver station and associated infrastructure located on ERF 2747, Extension 11, Henties Bay. The preferred base transceiver station's height will be between 25 to 30 meters to provide adequate transmission and reception of telecommunication service signals. The typical base transceiver station equipment would include 3G access power solutions-APS6-400 series, high-performance point-to-point microwave antenna, FibeAir IP-20G radio, panel antenna and Airharmony 4000/4200/4600.

I&APs Registration: The purpose of the registration period is to introduce the proposed project and to allow interested and affected parties (I&APs) to register and comment on the project and to ensure that potential issues and concerns are brought forward, so that they can be considered and assessed during the impact assessment process.

The registration period is effective from 06 June 2023 to 20 June 2023. I&APs and stakeholders are required to register for the Project at: https://eccenvironmental.com/projects/ or call ECC to register.

The team at ECC will maintain contact with registered I&APs to engage and to keep them informed as the ESIA process develops. ECC will also provide registered I&APs input opportunities and review periods throughout the assessment process.

Contact: Environmental Compliance Consultancy
PO Box 91193, Klein Windhoek |Tel: +264 81 669 7606 |E-mail: info@eccenvironmental.com
Website: www.eccenvironmental.com/projects

THE PROPOSED EXPLORATION ACTIVITIES ON EPL 8098 FOR NUCLEAR FUELS, WITHIN THE ERONGO REGION, NAMIBIA

Environmental Compliance Consultancy (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in terms of the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant: Marenica Ventures (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Erongo Region, Namibia

Project: The EPL is located north of Henties Bay in the Erongo Region. Access to the EPL can be obtained via the C35 between Uis and Henties Bay.

Proposed Activities: The proponent, Marenica Ventures (Pty) Ltd propose to explore for nuclear fuels on EPL 8098 using standard exploration methods such as geochemical surveys, ground and airborne geophysical surveys (e.g. HLEM surveys to define palaeochannels and airborne radiometric surveys) and RC, RAB and diamond drilling to provide samples for density determination, mineralogical study, geochemical and disequilibrium analysis.

Purpose of the review and registration period: The purpose of the review and registration period is to introduce the proposed Project and to allow registered Interested and Affected Parties (I&APs) to comment on the Background Information Document (BID) to ensure that all issues, and concerns are brought forward, captured and considered further in the assessment.

The registration period is effective from 06 to 20 June 2023. I&APs and stakeholders are required to register for the Project at: https://eccenvironmental.com/download/the-proposed-exploration-of-nuclear-fuels-on-epl-8098-erongo-region-namibia/

The team at ECC will then maintain contact with all registered I&APs to keep them informed and engaged as the ESIA process develops, ECC will also provide registered I&APs relevant documents to review during the assessment process.

Environmental Compliance Consultancy
Registration Number: 2022/0599
Members: Mr JS Beuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek • Tel: +264 81 669 7606
E-mail: info@eccenvironmental.com
Website: www.eccenvironmental.com/projects
Project ID: ECC-79-466-ADT-02-D

APPENDIX D – SITE NOTICE

	
Coordinates:	**22° 8’ 27 “S, 14° 17’ 44” E**

APPENDIX E – EAP CV'S

APPENDIX F – STAKEHOLDER LETTER

Environmental Compliance Consultancy (Pty) Ltd
PO Box 91103 Klein Windhoek Namibia
info@eccenvironmental.com
www.eccenvironmental.com
+264 81 669 7608

ECC-45-452-LET-08-D

14 June 2023

RECEIVED BY OFFICIAL STAMP

Signature: _____

Date: / /

IDENTIFIED STAKEHOLDER AND POTENTIALLY INTERESTED PARTY FOR:

NOTIFICATION OF AN ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF A BASE TRANSCEIVER STATION AND ASSOCIATED INFRASTRUCTURE IN EXT.11 (ERF 2747), HENTIES BAY, ERONGO REGION, NAMIBIA.

Dear Sir/Madam,

Environmental Compliance Consultancy (ECC) has been appointed by Paratus Telecommunication (Pty) Ltd as the environmental assessment practitioner for the proposed construction of a base transceiver station and associated infrastructure in Ext.11 (Erf 2747), Henties Bay, Erongo Region, Namibia.

We are reaching out to potentially Interested and Affected Parties (I&APs) to inform you about the ongoing Environmental Impact Assessment (EIA) process and provide a means of communication with ECC.

The project entails the construction of a base transceiver station and associated infrastructure on Erf 2747, Extension 11, Henties Bay. The proposed base transceiver station will have a height between 25 to 30 meters to ensure optimal transmission and reception of telecommunication signals. The equipment involved includes 3G access power solutions (APS6-400 series), high-performance point-to-point microwave antenna, FibeAir IP-20G radio, panel antenna, and AirHarmony 4000/4200/4400.

Public participation is an integral part of the EIA process, enabling I&APs to gather information about the project and provide their feedback. We engage with I&APs through various means, including newspaper advertisements, public notices, public meetings, and the distribution of a Background Information Document (BID). The BID can be accessed online at (https://eccenvironmental.com/projects/)

Registered I&APs will receive notifications about the availability of the draft scoping report for review. During this review period, I&APs have the opportunity to raise any concerns or issues they may have. If you wish to register as an I&AP, please complete the registration form on the ECC website using the following link:

+264 81669 7608
info@eccenvironmental.com
www.eccenvironmental.com
PO BOX 91193
Klein Windhoek
Namibia

https://eccenvironmental.com/download/the-proposed-construction-of-a-base-transceiver-station-bts-and-the-associated-infrastructure-for-paratus-telecommunication-pty-ltd-on-a-portion-of-land-erf-2747-ext-11-in-henties-bay-erongo/

If you encounter any difficulties with the online registration form, kindly reach out to us via email at info@eccenvironmental.com for assistance.

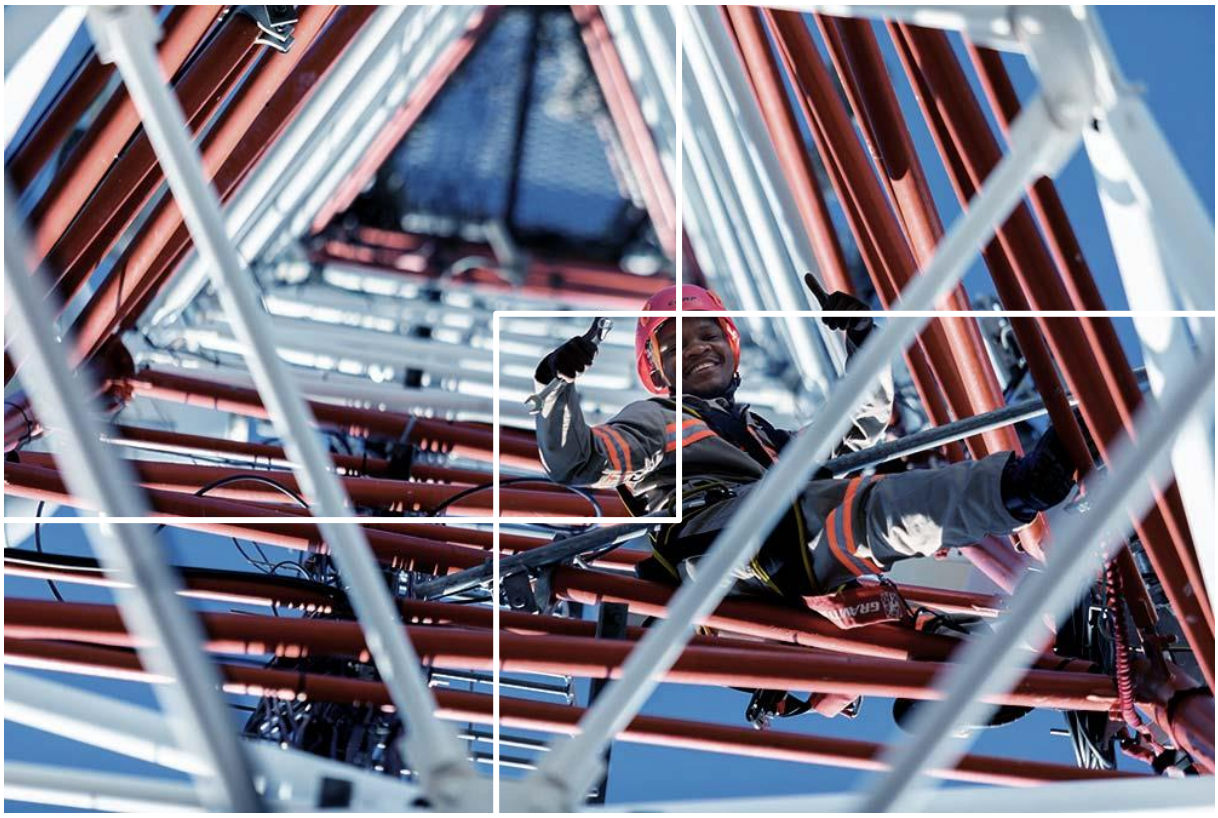
Please feel free to contact us if you have any questions or require further information.

Yours sincerely,

Stephan Bezuidenhout
stephan@eccenvironmental.com

Jessica Bezuidenhout Mooney
jessica@eccenvironmental.com

APPENDIX G – ADDENDUM REPORT



PARATUS
Always Prepared

Submitted to: Paratus Telecommunication (Pty) Ltd.
Attention: Mr. Robert Archer
P O Box 90140
102-104 Nickel Street, Prosperita
Windhoek, Namibia

REPORT:

EMP FOR THE PROPOSED CONSTRUCTION OF A PARATUS TELECOMMUNICATION (PTY) LTD BASE TRANSCEIVER STATION IN EXT. 11 (ERF 2747), HENTIES BAY, NAMIBIA

PROJECT NUMBER: ECC-45-452-REP-03-D

REPORT VERSION: REV 01

DATE: 18 AUGUST 2023

Prepared by:

ECC
ENVIRONMENTAL
COMPLIANCE CONSULTANCY

TITLE AND APPROVAL PAGE

Project Name:	EMP for the proposed construction of a Paratus Telecommunication (Pty) Ltd base transceiver station in Ext. 11 (ERF 2747), Henties Bay, Namibia
Client Company Name:	Paratus Telecommunication (Pty) Ltd.
Authors:	Environmental Compliance Consultancy
Status of Report:	Final for Government Submission
Project Number:	ECC-45-452-REP-03-D
Date of issue:	18 August 2023
Review Period	NA

ENVIRONMENTAL COMPLIANCE CONSULTANCY CONTACT DETAILS:

We welcome any enquiries regarding this document and its content. Please contact:

Environmental Compliance Consultancy
PO Box 91193, Klein Windhoek, Namibia
Tel: +264 81 669 7608
Email: info@eccenvironmental.com

DISCLAIMER

The report has been prepared by Environmental Compliance Consultancy (Pty) Ltd (ECC) (Reg. No. 2022/0593) on behalf of the Proponent. Authored by ECC employees with no material interest in the report's outcome, ECC maintains independence from the Proponent and has no financial interest in the Project apart from fair remuneration for professional fees. Payment of fees is not contingent on the report's results or any government decision. ECC members or employees are not, and do not intend to be, employed by the Proponent, nor do they hold any shareholding in the Project. Personal views expressed by the writer may not reflect ECC or its client's views. The environmental report's information is based on the best available data and professional judgment at the time of writing. However, please note that environmental conditions can change rapidly, and the accuracy, completeness, or currency of the information cannot be guaranteed.

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ABBREVIATIONS

Abbreviation	Description
BTS	base transceiver station
DEA	Directorate of Environmental Affairs
ECC	Environmental Compliance Consultancy
EIA	environmental impact assessment
EMP	environmental management plan
EMR	electromagnetic radiation
ICNIRP	Commission of Non-Ionizing Radiation Protection
Ltd.	Limited
m	metre
MEFT	Ministry of Environment, Forestry and Tourism
Paratus	Paratus Telecommunications (Pty) Ltd.
PPE	personnel protective equipment
Pty	proprietary
SOP	standard operating procedure
ToR	terms of reference

1 INTRODUCTION

1.1 PROJECT BACKGROUND

Environmental Compliance Consultancy (ECC) has been contracted by Paratus Telecommunication (Pty) Ltd (herein after referred to as 'the proponent') to conduct an environmental impact assessment (EIA) for the proposed construction of Paratus Telecommunication base transceiver station (BTS) in extension 11 (ERF 2747), Henties Bay, Namibia.

Paratus provides fiber, wireless, satellite and SDWAN solutions that are advanced enough to support customers, ranging from personal use to large enterprises. One of the main goals' of Paratus is to expand their footprint through building and acquiring infrastructure. The construction of the BTS and associated infrastructure will allow Paratus to continue to provide quality connection services to its customers in Namibian regions. Henties Bay is a small town along the coast with a population of approximately 10000 and expanding rapidly, showing great potential for socio-economic growth and development within the next 5 years. The proposed project will overall enhance and promote effective information and communication services through expanding network coverage and telecommunication services to Henties Bay.

The location of the proposed site is shown in Figure 1.

Figure 1: Locality map of the proposed BTS and associated infrastructure in Henties Bay

1.2 ENVIRONMENTAL REGULATORY REQUIREMENTS

The proposed project triggers listed activities as stipulated in the Environmental Management Act, No. 7 of 2007 and its Regulations, promulgated in 2012. An environmental scoping report, environmental impact assessment (EIA) and environmental management plan (EMP) are required to be submitted as part of the application to support the decision-making process for issuing an environmental clearance certificate.

This report presents the EMP and has been undertaken in terms of the requirements of the Environmental Management Act, 2007 and its Regulations.

1.3 PURPOSE AND SCOPE OF THIS REPORT

The environmental management plan (EMP) provides a logical framework, mitigation measures and management strategies for the activities associated with the proposed project. In this way ensuring that the potential environmental impacts are curbed and minimised as far as practically possible and that statutory and other legal obligations are adhered to and fulfilled. Outlined in the EMP are the protocols, procedures and roles and responsibilities to ensure the management arrangements are effectively and appropriately implemented.

The EMP forms an appendix to the environmental scoping report and is based on the findings of the assessment. The environmental scoping report should be referred to for further information on the proposed project, assessment methodology and terms of reference (ToR), applicable legislation, and assessment findings.

This EMP is a live document and shall be reviewed at predetermined intervals, and or updated during the EIA process when or if the scope of work alters, or when further data or information is added. All personnel working on the project will be legally required to comply with the requirements set out in the final EMP that is approved by the competent authorities and Ministry of Environment, Forestry and Tourism (MEFT).

1.4 MANAGEMENT OF THIS EMP

The proponent, will hold the environmental clearance certificate for the proposed project and will be responsible for the implementation and management of this EMP. The implementation and management of this EMP, and thus the monitoring of compliance, will be undertaken through daily duties and activities, as well as monthly inspections.

1.5 LIMITATIONS, UNCERTAINTIES, AND ASSUMPTIONS RELATED TO THIS EMP

This EMP does not include measures for compliance with statutory occupational health and safety requirements. This will be provided in the safety management plan to be developed by the Proponent.

Where there is any conflict between the provisions of this EMP and any contractor's obligations under their respective contracts, including statutory requirements (such as licences, project approval conditions, permits, standards, guidelines, and relevant laws), the contract should be amended, and statutory requirements are to take precedence.

The information contained in this EMP is based on the project description as provided in the environmental scoping report. Where the design or operation method is different, this EMP may require updating and potential further assessment may be undertaken.

1.6 ENVIRONMENTAL ASSESSMENT PRACTITIONER

The report has been prepared by Environmental Compliance Consultancy (Pty) Ltd (ECC) (Reg. No. 2022/0593) on behalf of the Proponent. Authored by ECC employees with no material interest in the report's outcome, ECC maintains independence from the Proponent and has no financial interest in the project apart from fair remuneration for professional fees. Payment of fees is not contingent on the report's results or any government decision. ECC members or employees are not, and do not intend to be, employed by the Proponent, nor do they hold any shareholding in the project. Personal views expressed by the writer may not reflect ECC or its client's views. The environmental report's information is based on the best available data and professional judgment at the time of writing. However, please note that environmental conditions can change rapidly, and the accuracy, completeness, or currency of the information cannot be guaranteed.

All compliance and regulatory requirements regarding this report should be forwarded by email or posted to the following address:

Environmental Compliance Consultancy
PO Box 91193, Klein Windhoek, Namibia
Tel: +264 81 669 7608
Email: info@eccenvironmental.com

2 ENVIRONMENTAL MANAGEMENT FRAMEWORK

2.1 OBJECTIVES AND TARGETS

Environmental objectives and targets have been developed so that exploration activities can minimise potential impacts on the environment, as far as reasonably practicable.

Environmental objectives for the project are as follows:

- Zero pollution incidents.
- Minimal vegetation clearing and earthworks.
- Minimal impact on regional groundwater users.
- Protect local flora and fauna, and
- Use natural resources effectively and efficiently.

2.2 ORGANISATIONAL STRUCTURE, ROLES, AND RESPONSIBILITIES

The Proponent shall be responsible for:

- Ensuring all members of the project team, including contractors, comply with the procedures set out in this EMP
- Ensuring that all persons are provided with sufficient training, supervision, and instruction to fulfil this requirement
- Ensuring that any persons allocated specific environmental responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood
- Contractors shall be responsible for ensuring and demonstrating that all personnel employed by them are compliant with this EMP, and meet the responsibilities listed above.

Table 1 lists the roles and responsibilities allocated to different management levels in the company and specific personnel.

Table 1 – Roles and responsibilities

ROLE	RESPONSIBILITIES AND DUTIES
Proponent	– Responsible for the overall management and implementation of the EMP. – Ensure environmental policies are drafted/updated and communicated to all personnel throughout the company. – Responsible for providing the resources required to effectively run operations and comply with the EMP. – Appoint all managers needed to ensure effective running of operations, and – Ensure systems for proper induction and training of personnel and contractors are in place.
Project manager	– Responsible for ensuring compliance with this EMP including overseeing the construction work, day to day activities during operations, and routine and non-routine maintenance work during operations, as well as the decommissioning of the infrastructure – Ensure all personnel are aware of the commitments made in the EMP and any other relevant regulatory requirements applicable to the project – Responsible for the management, maintenance and revision of the EMP – Ensure adequate resources are made available for implementation of this EMP – Maintain the community issues and concern register, and keep records of complaints – Ensure all employees and contractors participate in a site induction process before commencing work on the project and maintain an up-to-date register – Provisioning of environmental awareness/management training and inductions for all employees, including impacts of the BTS on human health – Ensure that the best environmental practice is undertaken throughout the project, and – Report any non-compliance or accidents to the regulatory authority.
Site manager	– Appointed to manage the performance of the construction and operational maintenance activities – Ensure that all contract workers, sub-contractors, and visitors to the site are aware of the requirements of this EMP, relevant to their roles and always adhere to this EMP. – Report any non-compliance or accidents. – Receive, recording and responding to complaints.

ROLE	RESPONSIBILITIES AND DUTIES
	– Ensure adequate resources are available for the implementation of the EMP. – Ensure safe and environmentally sound operations. – Responsible for the management, maintenance, and revisions of this EMP.
Employees	– Adhere to measures set out in the EMP. – Ensure they have undertaken a site induction. – Report any operations or conditions which deviate from the EMP as well as any non-compliant issues or accidents to the environmental manager.

2.3 CONTRACTORS

Any contractors hired during the construction work or maintenance activities in the operational phase shall be compliant with this EMP and shall be responsible for the following:

- Undertaking activities in accordance with this EMP as well as relevant policies, procedures, management plans, statutory requirements, and contract requirements.
- Implementing appropriate environmental and safety management measures.
- Reporting of environmental issues, including actual or potential environmental incidents and hazards, to the site manager.
- Ensuring appropriate corrective or remedial action is taken to address all environmental hazards and incidents reported by employees and subcontractors.

2.4 EMPLOYMENT

The Proponent and all contractors shall comply with the requirements of the Republic of Namibia's regulations for Labour, Health and Safety, and any amendments to these regulations. The following shall be complied with:

- In liaison with local government and community authorities, the Proponent shall ensure that local people have access to information about job opportunities and are considered first for construction/maintenance contract employment positions.
- The number of job opportunities shall be made known together with the associated skills and qualifications.
- The maximum length of time the job is likely to last for shall be indicated.
- Foreign workers with no proof of permanent legal residence shall not be hired.
- Every effort shall be made to recruit from the group of unemployed workers living in the surrounding area.

2.5 REGISTER OF ENVIRONMENTAL RISKS AND ISSUES

An environmental review of the project has been completed to identify all the commitments and agreements made. A list of environmental commitments and risks has been produced, which details

including measures identified for the prevention of pollution or damage to the environment during the construction and operational phase.

Table 2 provides a list of environmental risks and issues, as well as associated mitigation (as derived from the EIA) and monitoring measures, and the roles responsible for compliance. It will be subject to regular review by the project manager and updated when necessary. The project manager and site manager will use this register to undertake monthly inspections (see next section) to ensure the project is compliant with this EMP.

Table 2 – A list of environmental risks and issues, as well as associated mitigation and monitoring measures

Receptors	Potential impacts	Management/mitigation measures	Monitoring requirements	Responsibility
Avifauna	Possible bird collision due to the BTS construction	– Eliminating non-flashing lights and use flash lights – The BTS will be no more than 30 m, to prevent obstruction against flying birds – Monitor to help provide more scientific confirmation of collision data (rates, sites and associated weather conditions) and thereby increase the future predictability of such occurrences as a basis for marking – Mitigation should take place during the construction phase, rather than the operational phase; regular monitoring would be important during the operational phase.	– Daily – Weekly and – Annual observations	– Project manager – Site manager
	Birds may be impacted by EMR emissions from the constructed BTS	– Ensure that the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines, and precautionary principles, as well as other applicable legal frameworks and regulations, are adhered to – The BTS will be no more than 30 m, with EMR reducing with distance it is unlikely to affect flying patterns.		
Community	Construction and commissioning of the BTS may increase the probability of bird dropping and waste complaints/ social discomfort or anxiety	– Engage with the surrounding communities and/ or all stakeholders, especially the nearest neighbours about the construction activities. – Monthly clean up agreement between the proponent and surrounding residents – Bird deterrents to prevent nesting – Fencing around the facility	– Daily – Weekly – Annually	– Project manager – Site manager – Employees

Receptors	Potential impacts	Management/mitigation measures	Monitoring requirements	Responsibility
	Possible adverse health effect of non-ionising EMR to the local community/workers	– Abiding by the Non-ionising Radiation Regulations to prevent harmful radiation – Ensuring radiation is within the international standards of the Atomic Energy and Radiation Protection Act, 2005 (Act No. 5 of 2005) – Involving the National Radiation Protection Agency and their expertise of EMR emissions		
	Occupational health and safety of construction workers and nearby community	– Use the appropriate PPE, – Complying with SOP – Complying with all applicable national regulations and laws to minimise risks at the workplace – Comply with all applicable supervision of activities – Proper use and storage of material and equipment – Any accidents or incidents should immediately be reported to the project manager, and – All incidents should be recorded in an incidental register		
Waste management	Waste pollution	– Training and toolbox talks – Good housekeeping – Remove construction waste including general waste daily – Marked bins should be provided across the site, if necessary, and – Littering by the construction workers will not be allowed	– Daily observations – Weekly checks	– Project manager – Employees

Receptors	Potential impacts	Management/mitigation measures	Monitoring requirements	Responsibility
Visual	Visual disturbance	– Engage with the surrounding neighbours about the construction activities – Good housekeeping	– Weekly – Monthly	– Site Manager – Employees
Noise	Possible noise during construction phase	Noise should be minimised during construction work. The following measures should apply: – Limit working hours to 7 am to 5pm weekdays and 7 am until 1 pm on Saturday – Regular maintenance of equipment – All equipment to be shut down or throttled back between periods of use, and – Hearing protection should be provided to employees operating equipment which produces excessive noise	– Daily observations	– Project manager – Employees
Air quality	Possible dust emissions from construction vehicles and equipment	– Apply dust suppression where possible – Restrict speed of vehicles (<30 km/h) – Specific activities that may generate dust and impact nearby residents. – Dust generating activities should be avoided during strong wind events – All vehicles and machinery / equipment to be shut down or throttled back between periods of use	– Daily observations	– Project manager – Site Manager – Employees

3 COMMUNICATION AND TRAINING

To ensure potential risks and impacts are minimised it is vital that personnel are appropriately informed and trained on how to properly implement the EMP. It is also important that regular communications are maintained with stakeholders (if applicable) and made aware of potential impacts and how to minimise or avoid them. This section sets out the framework for communication and training in relation to the EMP.

3.1 COMMUNICATIONS

During construction, the project manager and site manager shall communicate site-wide environmental issues to the project team through the following means (as and when required):

- Site induction
- Audits and site inspections
- Toolbox talks, including instruction on incident response procedure, and
- Briefings on key project-specific environmental issues, like feedback on complaints.

This EMP shall be distributed to the construction team including any contractors and to ensure that the environmental requirements are adequately communicated. Key activities and environmentally sensitive operations will be highlighted to workers and contractors.

During the construction phase, communications between the management team shall include discussing any complaints received and actions to resolve them, - any inspections, audits, or non-conformance with this EMP, and any objectives or target achievements.

3.2 ENVIRONMENTAL EMERGENCY AND RESPONSE

An emergency is any abnormal event, which demands immediate attention. It is any unplanned event, which results in the temporary loss of management control at site, but where functional resources can manage the response. An emergency response plan document will be put in place that manages the response in relation to emergencies including environmental emergencies. Table 3 contains a list of numbers to be contacted in case of an emergency.

Table 3 - Emergency contact details

Town	Ambulance	Police	Fire brigade
Henties Bay	+264 (0) 64 500 346	+264 (0) 64 500 201	+264 (0) 81 241 1299

3.3 COMPLAINTS HANDLING AND RECORDING

Any complaints received verbally by any personnel on the project site shall be recorded by the receiver including:

- The name of the complainant
- The contact details of the complainant
- Date and time of the complaint
- The nature of the complaint

The information shall be given to the project manager who is overall responsible for the management of complaints. The project manager shall do the following:

- Inform the site manager of issues, concerns, or complaints.
- Maintain a complaint register that required details of the complaint
- Provide a written response to the complainant of the results of the investigation and action to be taken to rectify or address the matter(s). Where no action is taken, the reasons why are to be recorded in the register.

The workforce shall be informed about the complaints register, its location and the person responsible, to refer residents or the public who wish to lodge a complaint. The complaints register shall be kept for the duration of the Project and will be available for government or public review upon request.

3.4 TRAINING AND AWARENESS

All personnel working on the project shall be competent to perform tasks that have the potential to cause an environmental impact. Competence is defined in terms of appropriate education, training, and experience.

3.5 SITE INDUCTION

All personnel involved in the project shall be inducted to the site with specific environmental and social awareness training, and health and safety issues. The environmental and social awareness training shall ensure that personnel are familiar with the principles of this EMP, and the environmental impacts associated with their activities, the procedures in place to control these impacts and the consequences of departure from these procedures. The project manager shall ensure a register of completed training is maintained.

The site induction should include, but is not limited to the following:

A general site-specific induction that outlines:

- What is meant by “environment” and “social”?
- Why the environment needs to be protected and conserved?
- How can construction activities impact the environment?
- What can be done to mitigate against impacts?

The inductee's role and responsibilities concerning implementing the EMP:

- The site’s environmental rules
- Details of how to deal with, and who to contact should any environmental problems occur
- The potential consequences of non-compliance with this EMP and relevant statutory requirements, and
- The role of responsible people working on the project.

4 REPORTING, COMPLIANCE AND ENFORCEMENT

4.1 ENVIRONMENTAL PERFORMANCE MANAGEMENT

Th current summary of a register of environmental risks and issues identifies mitigation and monitoring measures, as well as the roles responsible for execution. The project manager and site manager will use this register to undertake monthly inspections to ensure the project is compliant with this EMP.

4.2 CONSTRUCTION: ENVIRONMENTAL INSPECTION & COMPLIANCE MONITORING

4.2.1 DAILY COMPLIANCE MONITORING

A copy of this EMP will be on-site throughout the construction work and will be available upon request. It is the responsibility of the project manager and site manager to ensure this EMP is complied with through their daily roles. Daily inspections will be undertaken by the site manager (or nominated site supervisor). Any environmental problems or risks identified will be reported to the project manager and actioned as soon as is reasonably practicable.

4.2.2 MONTHLY COMPLIANCE MONITORING

Monthly inspections will be undertaken by the site manager to check that the standards and procedures set out in this EMP are being complied with and environmental control measures are in place and working correctly. Any non-conformance will be recorded, including the following details: a brief description of non-conformance; the reason for the non-conformance; the responsible party; the result (consequence); and the corrective action taken and any necessary follow up measures required.

4.3 OPERATIONS: ENVIRONMENTAL INSPECTIONS & COMPLIANCE MONITORING

Annual inspections of the associated infrastructure will be managed and undertaken by the project manager. All infrastructure will be inspected to ensure that the equipment is operating as per specification, no damage has been caused, and no leaks or spills or rust have occurred. Any non-conformance will be recorded, including the following details: a brief description of non-conformance; the reason for the non-conformance; the responsible party; the result (consequence); and the corrective action taken and any necessary follow up measures required.

4.4 REPORTING

There will be a requirement to ensure that any incident or non-compliance, including any environmental issue, failure of equipment or accident, is reported to the project manager.

4.5 NON-COMPLIANCE

Where it has been identified that works are not compliant with this EMP, the project manager will implement corrective action to the extent that the works return to being compliant as soon as possible. In instances where the requirements of the EMP are not upheld, a non-conformance and corrective action notice will be produced. The notice will be generated during the inspections and the project manager will be responsible for ensuring a corrective action plan is established and implemented to address the identified shortcoming.

5 ENVIRONMENTAL AND SOCIAL MANAGEMENT

5.1 OBJECTIVES AND TARGETS

Environmental objectives for the project are as follows:

- Less than 10 grievances of complaints per year due to the construction and operation of the BTS structure
- At least one (1) awareness campaign conducted locally or regionally about the possible impacts of non-ionising electromagnetic fields on human health, and
- Increase in the number of telecommunication service users with zero complaints.

6 IMPLEMENTATION OF THE EMP

This environmental management plan:

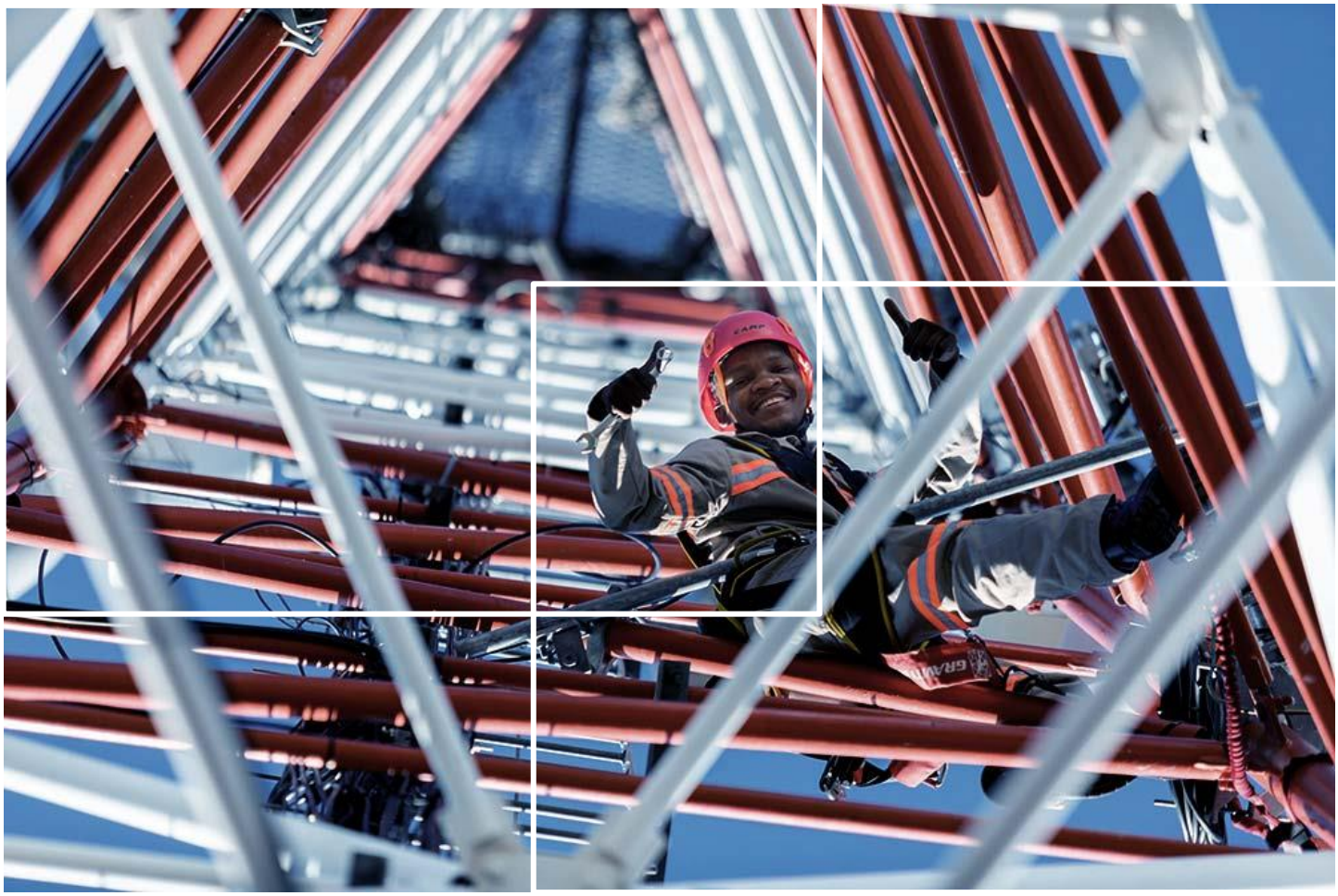
A. Has been prepared according to a contract with the proponent

B. Has been prepared based on information provided to ECC up to July 2023

C. Is for the sole use of the proponent, for the sole purpose of an EMP

D. Must not be used (1) by any person other than the proponent or (2) for any purpose other than an EMP

E. Must not be copied without the prior written permission of ECC.



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Submitted to: Paratus Telecommunication (Pty) Ltd
Attention: Mr. Robert Archer
P.O Box 90140
102-106 Nickel Street, Prosperita
Windhoek
Namibia

BID:

PROPOSED CONSTRUCTION OF A PARATUS TELECOMMUNICATION (PTY) LTD BASE TRANSCEIVER STATION IN EXTENSION 11 (ERF 2747), HENTIES BAY, NAMIBIA.

PROJECT NUMBER: ECC-45-452-BID-06-D

REPORT VERSION: REV 01

DATE: JUNE 2023

Prepared by:

ECC
ENVIRONMENTAL
COMPLIANCE CONSULTANCY

TITLE AND APPROVAL PAGE

Project Name:	Proposed construction of a Paratus Telecommunication (Pty) Ltd base transceiver station in Extension 11 (ERF 2747), Henties Bay, Namibia.
Client Company Name:	Paratus Telecommunication (Pty) Ltd
Client Name:	Mr. Robert Archer
Ministry Reference:	APP-00
Authors:	Kelly Ochs and Jessica Bezuidenhout
Status of Report:	Draft for client review
Project Number:	ECC-45-452-BID-06-D
Date of issue:	June 2023
Review Period	NA

ENVIRONMENTAL COMPLIANCE CONSULTANCY CONTACT DETAILS:

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DISCLAIMER

The report has been prepared by Environmental Compliance Consultancy (Pty) Ltd (ECC) (Reg. No. 2022/0593) on behalf of the Proponent. Authored by ECC employees with no material interest in the report's outcome, ECC maintains independence from the Proponent and has no financial interest in the Project apart from fair remuneration for professional fees. Payment of fees is not contingent on the report's results or any government decision. ECC members or employees are not, and do not intend to be, employed by the Proponent, nor do they hold any shareholding in the Project. Personal views expressed by the writer may not reflect ECC or its client's views. The environmental report's information is based on the best available data and professional judgment at the time of writing. However, please note that environmental conditions can change rapidly, and the accuracy, completeness, or currency of the information cannot be guaranteed.

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ABBREVIATIONS

Abbreviation	Description
BID	background information document
BTS	base transceiver station
DEA	Directorate of Environmental Affairs
ECC	Environmental Compliance Consultancy
EIA	environmental impact assessment
EMP	environmental management plan
ESIA	environmental and social impact assessment
I&APs	interested and affected parties
Ltd.	Limited
MEFT	Ministry of Environment, Forestry and Tourism
MICT	Ministry of Information and Communication Technology
Paratus	Paratus Telecommunications (Pty) Ltd.
Pty	proprietary

1 BACKGROUND INFORMATION DOCUMENT

1.1 PURPOSE OF THIS DOCUMENT

Environmental Compliance Consultancy (ECC) has been contracted by Paratus Telecommunication (Pty) Ltd to undertake an Environmental impacts assessment (EIA) and an Environmental Management Plan (EMP) in terms of the Environmental Management Act No.7 2007 and its Regulations. An environmental clearance certificate application will be submitted to the Ministry of Environment, Forestry and Tourism (MEFT).

The purpose of this Background Information Document (BID) is to provide Interested and Affected Parties (I&APs) a background to the proposed project and to invite I&APs to register as part of the EIA process.

All those who register as an I&AP will be kept informed throughout the EIA process. Registration provides a platform for participants to submit comments, concerns, or recommendations regarding the proposed project. This BID includes the following information:

- The proposed project and location
- The necessity of the project, benefits or adverse impacts anticipated
- The alternatives within the project that will be considered and assessed
- How the EIA process works
- The public participation process and how to become involved
- Next steps and the way forward

1.2 DESCRIPTION OF THE PROPOSED PROJECT

The proposed project is the construction of Paratus Telecommunication (Pty) Ltd base transceiver station (BTS) and associated infrastructure that will be located on Extension 11 ERF 2747, Henties Bay, Erongo Region, Namibia. Paratus Telecommunication (Pty) Ltd (hereafter referred to as "The Proponent"), is the official applicant for the proposed project and environmental clearance application.

In terms of Section 32 (1) of the Environmental Management Act, No. 7 of 2007, ECC has determined that the Ministry of Information and Communication Technology (MICT) is the competent authority for the proposed project. The proposed activity triggers the listed activities as per the Environmental Management Act Regulations. The relevant activities list provided later in the BID.

1.3 PROJECT LOCATION

The proposed Base Transceiver Station and associated infrastructure will be located on Extension 11 ERF 2747 (22˚8'26.74" S, 14˚17'45.36" E), on a portion of land measuring 400m^2 in Henties Bay, Erongo Region (Figure 1).

Figure 1- Locality of the proposed project

1.4 NEED FOR THE PROJECT

Paratus Telecommunication (Pty) Ltd, (Paratus) is a multinational organisation and Africa's largest infrastructure network offering comprehensive satellite services for almost 20 years. Paratus provides fiber, wireless, satellite and SDWAN solutions that are advanced enough to support customers, ranging from personal use to large enterprises. One of the main goals' of Paratus is to expand their footprint through building and acquiring infrastructure. The construction of the BTS and associated infrastructure will allow Paratus to continue to provide quality connection services to its customers in Namibian regions. The height of the BTS is predicted to be no longer than 30 m. Henties Bay is a small town along the Namibian coast with a population of approximately 10000 and expanding rapidly, showing great potential for socio-economic growth and development within the next 5 years. Currently there is Mobile-LTE, SKY-FI services available to Henties Bay, provided by Paratus. The proposed project will overall enhance and promote effective information and communication services through expanding network coverage and telecommunication services to Henties Bay. Additionally, the proposed project will provide local people with employment opportunities in the construction and maintenance phase.

1.5 CONSTRUCTION PHASE

The proposed construction phase will include low-impact and non-intrusive activities. The following are foreseen activities that are to occur in the construction phase of the proposed project:

- Staging area development;
- Minor ground preparation (trenches and levelling) of the site;
- Storage and stockpiling of material for the construction of the tower;
- Construction of the tower;
- installation of cables and wiring;
- Concrete casting; and
- Construction of perimeter fencing and commissioning of transmitters.

1.6 OPERATIONAL PHASE

During the operational phase, the telecommunication infrastructure will require little intervention. Regular inspections will be conducted by the site manager. The telecommunication infrastructure will be maintained by Paratus Telecommunication (Pty) Ltd and the municipality of Henties Bay to ensure the longevity of the infrastructure and secure current and future use.

1.7 DECOMMISSIONING PHASE

In the case that the proposed telecommunication infrastructure no longer be required, the infrastructure would be decommissioned and removed. Alternatively, and with the agreement of stakeholders, the telecommunication infrastructure could remain for beneficial use by others.

1.8 CONSIDERATION OF ALTERNATIVES

Best practice environmental assessment methodology calls for consideration and assessment of alternatives to a proposed project. In a project such as this, it is difficult to identify alternatives to satisfy the need of the proposed project; the activities will be specific to the site. During the assessment, alternatives will take the form of consideration of optimisation and efficiency to reduce potential effects, e.g. different types of technology or operations and construction methods.

2 THE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT PROCESS

The EIA for the proposed project is being conducted by ECC and will be undertaken in terms of the Environmental Management Act, 2007 and its regulations. The process followed for this EIA is set out in the flowchart in Figure 2

ECC has been contracted by Paratus Telecommunication (Pty) Ltd, as the independent Environmental Assessment Practitioner (EPA) to facilitate the whole EIA process. Prior to the start of the proposed project, an environmental clearance certificate is required in terms of the Environmental Management Act, 7 of 2007 and the associated EIA Regulations.

A final decision relating to the above-mentioned application will be made by Ministry of Environment, Forestry and Tourism (MEFT): Department of Environmental Affairs (DEA).

The related environmental process will include:

1. Screening phase (completed)
2. Scoping phase which includes baseline studies and the development of the Terms of Reference (ToR) for the EIA (initiated)
3. Assessment Phase which includes impact prediction and evaluation of alternatives, assigning mitigation measures and developing monitoring and conceptual rehabilitation plans. This phase culminates in the drafting of the EIA report and draft Environmental Management Plan (EMP) and submission to the appropriate competent authorities

The main objectives of the EIA are to:

a) Provide information describing the proposed construction of the Paratus BTS and associated infrastructure
b) Provide an independent environmental and social assessment of the activities associated with the proposed project
c) Develop management and mitigation measures associated with any identified potential impacts where necessary.

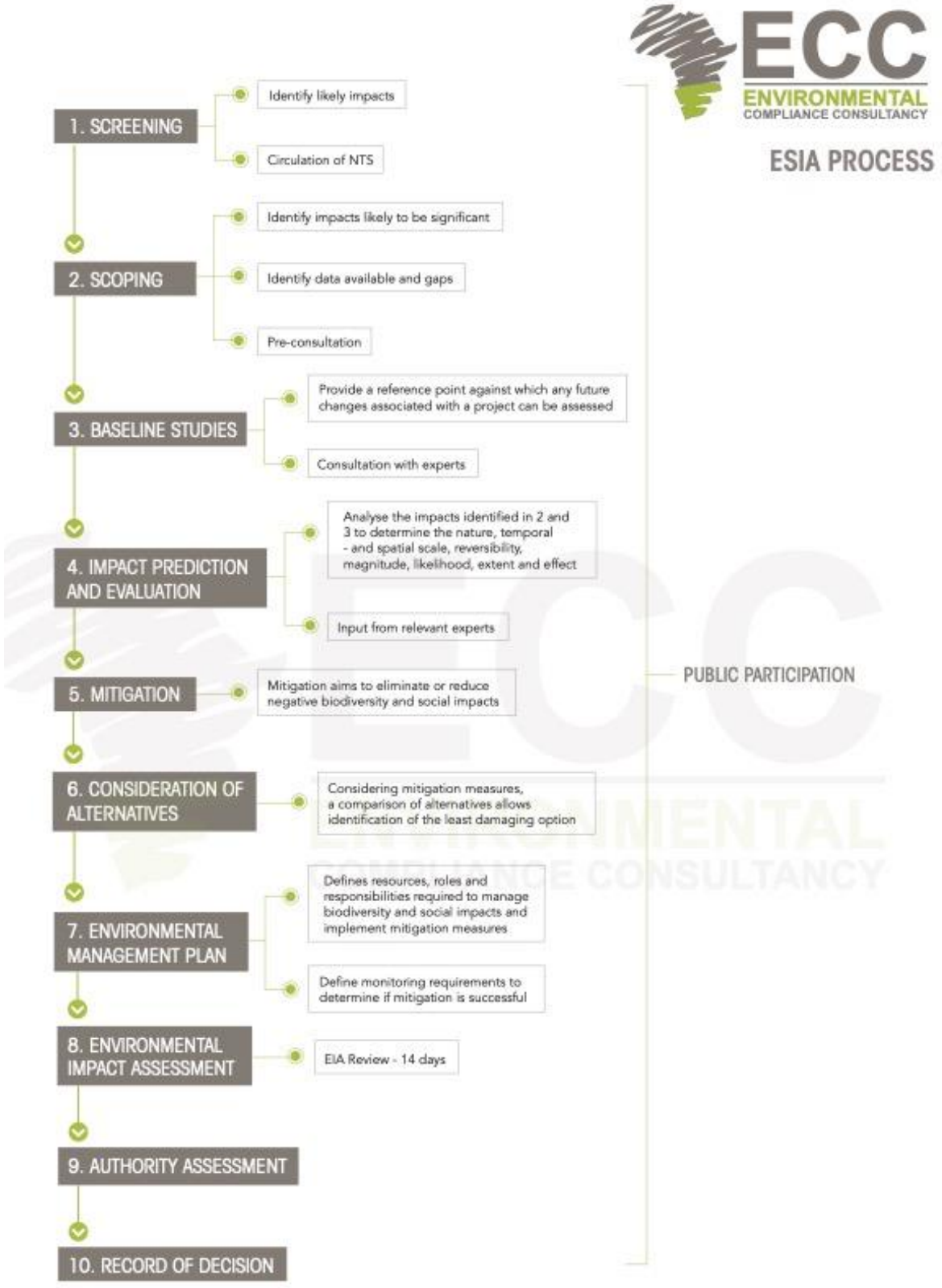

Figure 2 – Flowchart of the environmental and social assessment process

2.1 SCREENING

A review of the planned project was undertaken and the screening findings against the listed activities was conducted; the findings of which are summarised in Table 1.

Table 1- Listed activities triggered by the proposed project

LISTED ACTIVITY	EIA SCREENING FINDING
10.1. INFRASTRUCTURE (g) Communication networks including towers, telecommunication, and marine telecommunication line and cables.	- The proposed project will include: staging area development, minor ground preparation (trenches and levelling) of the site, storage and stockpiling of material for the construction of the tower, construction of the tower, installation of cables and wiring, concrete casting, construction of perimeter fencing and commissioning of transmitters, Maintenance.

2.2 SCOPING

The scoping phase is directed towards defining the range and nature of anticipated potential impacts that may have significance to the biophysical and social environments at the scale of the proposed operations. The appropriate available data and the literature are identified forming the starting point for assessment of the required baseline and specialist studies that may be required for assessment of the project impacts.

2.3 BASELINE STUDIES

For the proposed project, baseline information will be obtained through the existing studies.

The EIA will focus on the environmental receptors that could be affected by the proposed project. ECC will also engage with stakeholders, I&APs and the proponents to seek input into the assessment. The baseline studies chapter is broken into three sections, the baseline context, environmental (physical and biological), and social (includes economic).

Desktop studies a well as all available field surveys from the project area will be used to help define the baseline. These studies also give a further indication whether there are any local or regional future developments that could impact the project or vice versa.

Lastly the socio-economic section of the baseline studies helps to gain information on the governance, demographic profile, social stratification (employment, education, crime, infectious disease), occupation and livelihood (economic activities, occupations in study area, employment rates).

2.4 STAKEHOLDER ENGAGEMENT

The public and key stakeholders receive invitations to register as I&APs. After the presentation of the proposed project and EIA process through he defined public consultation process, a period of time for input will be granted for the Environmental Assessment Practitioner (EAP) to receive any additional concerns or comments from registered I&AP's. All feedback from the initial public consultation process will be incorporated into the scoping report.

2.5 SCOPING REPORT

The scoping report will be drafted and made available to the registered I&APs for comment before being submitted to the competent authority and MEFT. The scoping report will contain a description of the project and the bio physical and socio-economic environments, the specialist baseline studies, stakeholder engagement report and the terms of reference for the EIA.

2.6 ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT PHASE

2.6.1 POTENTIAL IMPACTS

The potential social and economic impacts should be considered with due regard to the nature and scale of the proposed operations its location within the ecological, commercial and social environments. The potential environmental and social impacts that have been anticipated may include the following:

- Visual impacts due to construction in residential area
- Avifauna (electromagnetic radiation impacts)
- Community health, safety and security on and off site, e.g. risks during construction, dangers of electromagnetic radiation
- Economic and Socio-economic impacts, e.g. employment opportunities, efficient information and communication services

2.6.2 DRAFT ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

An EMP shall be developed for the proposed project setting out auditable management actions for the project to ensure careful and sustainable management measures are implemented for their activities in respect of the surrounding environment and community. The EMP becomes the legally binding commitments upon approval of the EMP and issuing of the environmental clearance certificate. Environmental clearance certificates are issued for a period of 3 years and

renewal is subject to compliance with the provisions and conditions of the environmental clearance certificate.

3 THE WAY FORWARD – PUBLIC PARTICIPATION

Public participation is an important part of the EIA process. It allows you, the public and stakeholders to raise concerns or provide valuable local environmental knowledge that can benefit the assessment process as well as aid the planning process for the scoping phase of the defined assessment process. At this phase ECC will perform the following:

- Prepare and submit the application for the environmental clearance certificate in the prescribed manner
- Identify relevant key stakeholders, authorities, municipalities, environmental groups and interested or affected members of the public, hereafter referred to as I&APs
- Carry out a public consultation process in accordance with Regulation 21 of the EMA 2007 including:
    - Distribute the BID for the proposed construction of Paratus Telecommunication (Pty) Ltd base transceiver station project (this document)
    - Advertise the environmental application and call for registration of I&AP's in two national newspapers
    - Open a I&AP register and record all comments of I&APs and present such comments, as well as responses provided by ECC, in the comments and responses report, which will be included in the scoping report that shall submitted with the application
- Prepare a scoping report and provide same to registered I&APs for comment
- Submit the scoping report and the I&AP comments to the competent authority and Environmental Commissioner for a record of decision

Your request for registration as an I&AP as well as any comments on the BID or Project must be submitted in writing and can be emailed using the details in the contact us section below. Registration as an I&AP for the project can be completed online on ECCs website on the projects page, or by using this link: https://eccenvironmental.com/projects/

Registration as an I&AP should be submitted on or before 31 May 2023.

We welcome any enquiries regarding this document and its content. Please contact:
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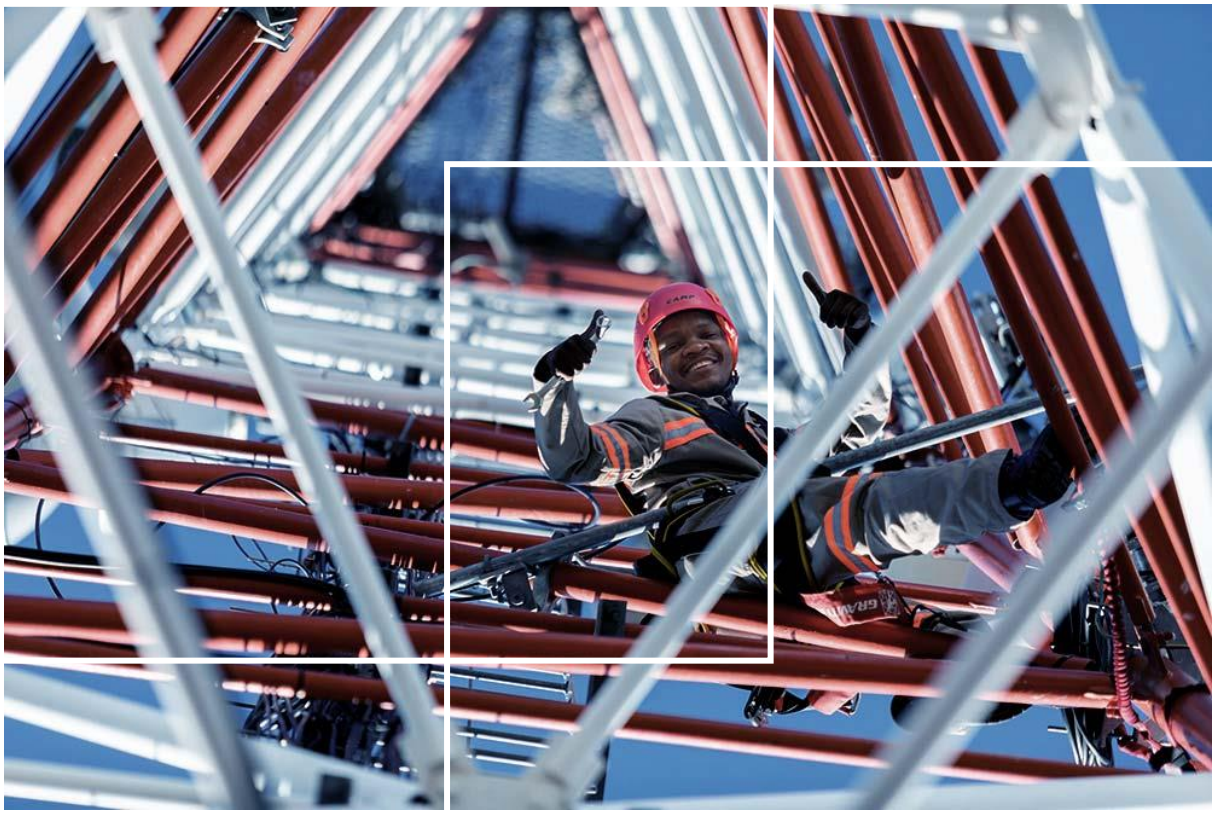
Tel: +264 816 697 608
www.eccenvironmental.com
At ECC we make sure all information is easily accessible to the public.
Follow our social pipes online to be kept up to date.



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ADDENDUM REPORT:

I&AP COMMENTS AND RESPONSES ON DRAFT SCOPING REPORT FOR THE CONSTRUCTION OF A BTS IN EXT. 11(ERF 2747), HENTIES BAY, NAMIBIA

PROJECT NUMBER: ECC-45-452-REP-15-D

REPORT VERSION: REV 01

DATE: 18 AUGUST 2023

TITLE AND APPROVAL PAGE

Project Name:	I&AP comments and responses on draft scoping report for the construction of a BTS in ext. 11(ERF 2747), Henties Bay, Namibia
Client Company Name:	Paratus Telecommunications (Pty) Ltd.
Client Name:	Mr. Robert Archer
Ministry Reference:	APP-001503
Authors:	Kelly Ochs and Jessica Bezuidenhout
Status of Report:	Final for Government submission
Project Number:	ECC-45-452-REP-15-D
Date of issue:	18 August 2023
Review Period	NA

ENVIRONMENTAL COMPLIANCE CONSULTANCY CONTACT DETAILS:

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DISCLAIMER

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APPENDICES

ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
EAP	environmental assessment practitioner
ECC	Environmental Compliance Consultancy
EIA	environmental impact assessment
EMA	Environmental Management Act, No.7 of 2007
ESIA	environmental and social impact assessment
Ext	Extension
I&APs	interested and affected parties
MEFT	Ministry of Environment, Forestry and Tourism
NRPA	National Radiation Protection Authority
Paratus	Paratus Telecommunications (Pty) Ltd

1 INTRODUCTION

1.1 PURPOSE OF THE COMMENTS CONSOLIDATED REPORT

This document has been compiled following the required period of review to be provided for public and registered interested and affected parties (I&APs). This allowed I&APs an opportunity to comment in writing on the draft scoping report for the proposed construction of a BTS and associated infrastructure in ext.11 (ERF 2747), Henties Bay, Namibia.

The draft scoping report was completed for the Project and undertaken in accordance with the requirements of the Environmental Management Act, 2007 (Act No. 7 of 2007) and the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011) gazetted under the Environmental Management Act (EMA), 2007 (Act No. 7 of 2007).

Environmental Compliance Consultancy (ECC) prepared the scoping report, which was provided to the public and registered I&APs for review for 14 days from 13th of July – 20th of July 2023.

This document compiles all comments received during the public review period; presents the responses from ECC as the appointed environmental assessment practitioner (EAP) for the project and the Proponent in the assessment.

2 SUMMARY OF COMMENTS FROM I&APS

2.1 INTRODUCTION

In accordance with the Regulations of the EMA 2007, on the 13th of July 2023 the scoping report was circulated electronically to all registered interested and affected parties (I&APs), identified key stakeholders. A letter was received by one individual which was collated in a separate "Comments and Responses" table per that are presented in Table 1. An email has been received from the National Radiation Protection Authority (NRPA) which was addressed in Table 2. Responses have been provided to all comments received. The original letter submission as received from the I&AP is provided in Appendix A. The comments from NRPA are provided in Appendix B.

2.2 KEY FEEDBACK ON ISSUES OF CONCERN

The scoping report was provided to all I&APs, identified stakeholders and made publicly available on ECC's website. This public review period is set out to solicit comments, feedback, and allow genuine participation in the final phase of the ESIA process. Several concerns were raised in a letter received from homeowner, Mr. D.J. Grobler, ext. 11(ERF 2717), on behalf of the surrounding residents. The NRPA advised the Proponent regarding a few aspects. The key areas raised from the review of the I&APs' comments can be summarised as follows:

Impacts of EMR on residents

Mr. Grobler expressed concern about the impacts of prolonged electromagnetic radiation and its health implications on the surrounding residents. The EAP addressed this potential impact in the scoping phase of the project and the Proponent assures that all equipment has been tested and approved by Communications Regulatory Authority of Namibia (CRAN).

Impacts of the BTS on property value

Mr. Grobler highlighted that the tower amongst the homes will likely affect the aesthetic appeal and deter potential home buyers and diminish the overall property value of the homes in this area. The Proponent will style the tower in such a manner that it does not diminish the aesthetic appeal of the area.

Noise generation during the operational phase

Mr. Grobler explained that the noise generation during the operational phase may be an annoyance to residents in proximity, however the EAP and Proponent assures that the telecommunications tower will not make a noise whereby it will disturb residents.

Bird dropping and waste

Mr. Grobler expressed concern over possible attraction of birds and the mess it may create in the yards of homeowners. The EAP addressed this potential impact during the scoping phase of the project.

Dialogue with Neighbourhood

Mr. Grobler pointed out that the Proponent should initiate a dialogue with residents before moving forward with the proposed Project. The Proponent would be happy engage with the I&APs should the responses not be sufficient.

Radiological Impact Assessment

The National Radiation Protection Authority (NRPA) requested that the Proponent (Paratus) submit a comprehensive radiological impact assessment. The Proponent responded to the requirements of the NRPA.

3 DRAFT SCOPING REPORT – COMMENTS AND RESPONSES

Table 1 - Comments and feedback from the scoping report public review period received from: Mr D J Grobler

Comment	EAP Response
We are writing to express our deep concern regarding the proposed installation of a base transceiver station and associated infrastructure (installation) in the middle of our residential area. As an active member of this community and a homeowner, we believe it is crucial to voice our collective apprehensions and seek an alternative solution that ensure the well-being of our neighbourhood.	We appreciate the feedback and agree your input is critical to the process.
The location of the proposed installation raises significant health and safety concerns for our residents. Numerous scientific studies raised questions about the potential health risks associated with prolonged exposure to the electromagnetic radiation emitted by these installations. Placing such an installation in such close proximity to our homes and families is a cause of alarm and warrants a thorough examination of the potential health implications.	A thorough impact assessment has been conducted in accordance with the EMP. Furthermore, Paratus is subject to the Regulations in Respect of Telecommunications Equipment Requiring Type Approval: Communications Act, 2009 which prohibits Paratus from using any equipment that has not been tested and approved by the Communications Regulatory Authority of Namibia for safety and quality.
Installation in the middle of a residential area could have severe negative impacts on our property value. The sight of a towering structure amidst our homes would undoubtedly diminish the aesthetic appeal of the neighbourhood, making it less attractive to prospective homebuyers. This could have detrimental effect on property prices and the financial well-being of the residents who have invested their hard-earned savings in their homes.	This impact has been included in the impact assessment under section 7 of the Project scoping report. The style of the tower will be minimalistic and neat to draw as little attention as possible.

The noise generated by the equipment associated with the operation of such an installation could be disruptive to the peaceful ambience of our residential area. The constant hum and mechanical sounds could not only cause annoyance but also disturb the tranquillity that we all cherish and value. Our neighbourhood should remain a heaven serenity, free from audible distractions associated with an industrial facility.	During the operational phase, the telecommunication tower will not make noise and disturb residents in proximity. Paratus is committed to keeping the tower in good repair and will immediately attend to any complaints of noise from the air-conditioner, which runs silently. There are currently two sites in Henties Bay that are operational where no noise complaints have been received.
The installation will attract birds, and this will create a mess on the surrounding properties. The cleaning of these properties will create an increase financial burden on homeowners.	This comment has been addressed in the impact assessment under section 7 of the Project scoping report.
We respectfully request that you reconsider the proposed location and explore alternative options. There may be other areas, such as commercial or industrial zones, that are better suited for this purpose, which would minimise the impact on our residential community.	Alternative locations were extensively considered, but this location was agreed to by the municipality, because it already houses a substation and is divided into 52m^2 portions. The location is also ideal to address the underserved residential areas where Paratus does not have coverage.
We kindly urge you to take our concerns seriously and initiate a dialogue with the residents before moving ahead with any installation plans. Community engagement and open communication are essential in addressing our shared concerns and finding a mutual beneficial solution that respects the well-being and aspirations of all parties involved. Thank you for taking the time to consider our concerns, we trust that you will give due attention to the issues raised and work towards a resolution that prioritizes the health, safety and quality of life to our community. We look forward to your prompt response and further collaboration on the matter.	Paratus is happy to further engage in person if this written engagement has not sufficiently addressed the legitimate concerns raised and further written engagement is not satisfactory. However, we trust that we have answered in depth. We have taken care to construct the tower in the most environmental and socially friendly manner and look forward to bringing reliable connectivity to all households in the area.

Table 2 - Comments and feedback from the scoping report public review period received from: Amakali Gideon (NRPA)

Comment	EAP Response
This communication has reference to the ECC Report No: ECC-45-452-REP-02-C, dated 13 July 2023 regarding the construction of the telecommunication base station site on ERF 2747, Henties Bay. Please note that our office, the National Radiation Protection Authority (NRPA) is the regulatory body established by the Atomic Energy and Radiation Protection Act (Act. No 5 of 2005) to control and regulate activities associated with radiation. As part of its regulatory control, the NRPA implement and enforce the Non-Ionising Radiation (NIR) Regulations, applies to, amongst others, cellular base stations and microwave dish antennas. For NRPA to consider your submission and recommend for an Environmental Clearance Certificate, it is expected that you submit a comprehensive radiological impact assessment result for the site of interest as per the Regulation 5. 4 (b) of the Non-Ionising Radiation Regulations: Atomic Energy and Radiation Protection Act, 2005.	Please see below, the response to the mentioned points for the Radiological impact assessment: 1. Confirmation that the public exposure from the equipment is less than 10 mJ kg21 for workers and 2mJ kg21 for general public: *Table 8: Whole body SAR exclusion power levels* Exposure category: General public — Maximum output power (rms): Max. power [W] = general public whole body SAR limit [W/kg] * 12.5 kg: 4-year-old child body mass = 1 W Exposure category: Occupational — Maximum output power (rms): Max. power [W] = occupational whole body SAR limit [W/kg] * 42 kg: 16-year-old worker body mass = 16.8 W 2. Output power • 40 Watts of power 3. Titling angles • -2 Tilt angle 4. Height of the tower • 30 meters 5. Boundary in which public may not come near tower

You are therefore required to undertake a comprehensive study to quantify the current exposure levels at critical areas / critical members of the public, due to any existing sources of NIR installations in the neighbourhood. You are also required to provide estimated exposure values to critical people in the surrounding as a result of the proposed installation.

The estimation study should consider the relevant parameters specific to the installations under study, e.g. output power, tilting angles, height of the tower, etc. The study should consider usage of internationally recognized or validated mathematical calculation or appropriate modelling to establish boundaries / exclusion zones for workers and members of the public for each antenna mounted on the base station, outside of which electric and magnetic field (EMF) exposure is below the International Commission on Non-Ionizing Radiation Protection (ICNIRP) limits. Without this information, we would not be able to reach an informed decision.

Table 9: Compliance boundaries for general public and occupational levels

Power	General public levels		Occupational levels	
	Frequency range			
	698-960 MHz	1710-2690 MHz	698-960 MHz	1710-2690 MHz
	Distance			
2 W	150 cm (59.1 in.)	100 cm (39.4 in.)	70 cm (27.6 in.)	50 cm (19.7 in.)
5 W	230 cm (90.1 in.)	150 cm (59.1 in.)	110 cm (43.3 in.)	70 cm (27.6 in.)
10 W	320 cm (126 in.)	210 cm (82.7 in.)	150 cm (59.1 in.)	100 cm (39.4 in.)
20 W	450 cm (177.2 in.)	290 cm (114.2 in.)	210 cm (82.7 in.)	140 cm (55.1 in.)
30 W	550 cm (216.5 in.)	350 cm (137.8 in.)	260 cm (102.4 in.)	160 cm (63 in.)
40 W	640 cm (252 in.)	410 cm (161.4 in.)	290 cm (114.2 in.)	190 cm (74.8 in.)
50 W	710 cm (279.5 in.)	460 cm (181.1 in.)	330 cm (130 in.)	210 cm (82.7 in.)
60 W	780 cm (307.1 in.)	500 cm (196.9 in.)	360 cm (141.7 in.)	230 cm (90.1 in.)
70 W	840 cm (330.7 in.)	540 cm (212.6 in.)	390 cm (153.5 in.)	250 cm (98.4 in.)
80 W	900 cm (354.3 in.)	580 cm (228.3 in.)	410 cm (161.4 in.)	270 cm (106.3 in.)
90 W	950 cm (374 in.)	610 cm (240.2 in.)	440 cm (173.2 in.)	280 cm (110.2 in.)

The component specifications for 900 MHz and 1800 MHz also apply to 850 MHz and 1900 MHz products respectively, and can be used to demonstrate compliance with FCC guidelines for human exposure to radio frequency electromagnetic fields contained in the FCC

The specific frequency range for this BTS is 1800 MHz

4 ACKNOWLEDGEMENTS

Through the ESIA process, the Proponent and ECC have endeavoured to provide a platform to hear and address all relevant comments put forward by I&APs. ECC would like to thank the I&APs and stakeholders for providing feedback during the scoping phase of the ESIA process. We acknowledge and appreciate the time required to review these documents and ECC genuinely appreciate the input provided by I&APS. The valuable feedback received during the scoping report phase of the ESIA process will ensure a robust impact assessment is submitted to the relevant authorities for a record of decision to be made. ECC acknowledges that constructive feedback results in an improved ESIA and a project that is understood by the community and I&APs.

APPENDIX A – THE ORIGINAL LETTER SENT BY MR. GROBLER

APPENDIX B - EMAIL FROM NRPA

From: **Amakali Gideon** <Amakali.Gideon@mhss.gov.na>
Date: Tue, Aug 1, 2023 at 12:03 PM
Subject: Review - ECC Report No.:ECC-45-452-REP-02-C
To: Info ECC <info@eccenvironmental.com>
Cc: Joseph Eiman <Joseph.Eiman@mhss.gov.na>, Dauphin Matomola <Dauphin.Matomola@mhss.gov.na>

Good day sir/madam,

This communication has reference to the ECC Report No.:ECC-45-452-REP-02-C, dated 13 July 2023 regarding the construction of the telecommunication base station site on ERF 2747, Henties Bay.

Please note that our office, the National Radiation Protection Authority (NRPA) is the regulatory body established by the Atomic Energy and Radiation Protection Act (Act. No 5 of 2005) to control and regulate activities associated with radiation. As part of its regulatory control, the NRPA implement and enforce the Non-Ionising Radiation (NIR) Regulations, applies to, amongst others, cellular base stations and microwave dish antennas.

For NRPA to consider your submission and recommend for an Environmental Clearance Certificate, it is expected that you submit a comprehensive radiological impact assessment results for the site of interest as per the Regulation 5. 4 (b) of the Non-Ionising Radiation Regulations: Atomic Energy and Radiation Protection Act, 2005.

You are therefore required to undertake a comprehensive studies to quantify the current exposure levels at critical areas / critical members of the public, due to any existing sources of NIR installations in the neighbourhood. You are also required to provide estimated exposure values to critical people in the surrounding as a result of the proposed installation.

The estimation study should consider the relevant parameters specific to the installations under study, e.g. output power, tilting angles, height of the tower, etc. The study should consider usage of internationally recognized or validated mathematical calculation or appropriate modelling to establish boundaries / exclusion zones for workers and members of the public for each antenna mounted on the base station, outside of which electric and magnetic field (EMF) exposure is below the International Commission on Non-Ionizing Radiation Protection (ICNIRP) limits. Without these information, we would not be able to reach an informed decision.

Best regards

_____

Gideon Amakali (PhD)
Chief Radiation Physicist
Atomic Energy & Radiation Protection Authority
Ministry of Health and Social Services,
-1C,02, Basement
Ministerial Building

Mr D J Grobler

Stand 2717
Sunbay
Hentiesbay
13100
Date: 17 July 2023

Mr S Besuidenhout

P O Box 91193
Klein Windhoek
Namibia
Phone: +264 81669 7608
Email:info@eccenvironmetal.com

Concerns Regarding Proposed Base Transceiver Station and Associated Infrastructure installation in Residential area Ext 11 (Erf 2747) Hentiesbay, Erongo Region, Namibia

We hope this letter finds you in good health and high spirits. We are writing to express our deep concern regarding the proposed installation of a Base Transceiver Station and Associated Infrastructure (**Installation**) in the middle of our residential area. As an active member of this community and a homeowner, we believe it is crucial to voice our collective apprehensions and seek an alternative solution that ensures the well-being of our neighborhood.

First and foremost, the location of the proposed installation raises significant health and safety concerns for our residents. Numerous scientific studies raised questions about the potential health risks associated with prolonged exposure to the electromagnetic radiation emitted by these installations. Placing such an installation in such close proximity to our homes and families is a cause of alarm and warrants a thorough examination of the potential health implications.

Furthermore, this installation in the middle of a residential area could have severe negative impacts on our property value. The sight of a towering structure amidst our homes would undoubtedly diminish the aesthetic appeal of the neighborhood, making it less attractive to prospective homebuyers. This could have a detrimental effect on property prices and the financial well-being of the residents who have invested their hard-earned savings in their homes.

Additionally, the noise generated by the equipment associated with the operation of such an installation could be disruptive to the peaceful ambiance of our residential are. The constant hum and mechanical sounds could not only cause annoyance but also disturb the tranquility that we all cherish and value. Our neighborhood should remain a heaven of serenity, free from the audible distractions associated with an industrial facility.

This installation will attract birds, and this will create a mess on the surrounding properties. The cleaning of these properties will create an increase financial burden on homeowners.

While we understand the need and necessity for these installations, we respectful request that you

reconsider the proposed location and explore alternative options. There may be other areas, such as commercial or industrial zones, that are better suited for this purpose, which would minimize the impact on our residential community.

We kindly urge you to take our concerns seriously and initiate a dialogue with the resident's before moving ahead with any installation plans. Community engagement and open communication are essential in addressing our shared concerns and finding a mutual beneficial solution that respects the well-being and aspirations of all parties involved.

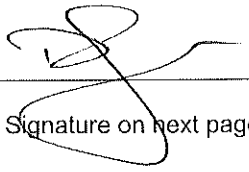
Thank you for taking the time to consider our concerns. We trust that you will give due attention to the issues raised and work towards a resolution that prioritizes the health, safety and quality of life of our community. We look forward to your prompt response and further collaboration on this matter.

Yours sincerely

Mr D J Grobler
Owner Stand 2717

Concerns Regarding Proposed Base Transceiver Station and Associated Infrastructure installation in Residential area Ext 11 (Erf 2747) Hentiesbay, Erongo Region, Namibia

Name	Stand Number: Sunbay	Contact Number	Signature
Graham & Leoni Schroeder	Stand 2750, Sunbay	0812503347	P.N. Schroeder

Mr D Grobler	2717, Sunbay	0811561395	
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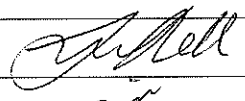
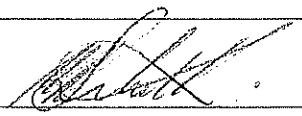
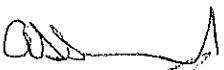
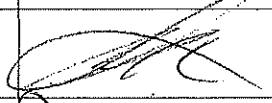
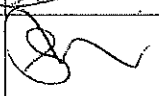
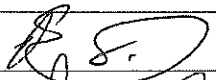
WAS van Schalkwyk Family Trust	2718 Sunbay	081 279 4547	Signature on next page
WAS van Schalkwyk Family Trust	2718 Sunbay	081 127 0681	Signature on next page
Mr CF Janse van Rensburg	2746 Sunbay	0811249769	
Jané Nell	2738 Sunbay	0812835767	
L. VISSER	2692 "	0811437 666	

Name	Stand Number: Sunbay	Contact Number	Signature
Ms P Schroeder			
Mr D Grobler	2717, Sunbay	0811561395	
WAS van Schalkwyk Family Trust	2718 Sunbay	081 128 5097	
WAS van Schalkwyk Family Trust	2718 Sunbay	0812991992	
WAS van Schalkwyk Family Trust	2718 Sunbay	081 279 4547	
WAS van Schalkwyk Family Trust	2718 Sunbay	081 127 0681	
PIETER ERASMUS	2715 Sunbay	081-7378976	
SARAH LOUW	2621 Sunbay	083 458 3476