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Environmental Management Plan (EMP) for the Erection of 3 MTC Towers in Ocean View Swakopmund, Erongo Region

Report

Final

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MTC Namibia Ltd

GCS Project Number: 20-0874

Client Reference: Ocean View MTC



GCS (Pty) Ltd. Reg No: 2006/717 Est.2008

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1 INTRODUCTION

1.1 Project Background

Mobile Telecommunications Limited (MTC) applied for an Environmental Clearance Certificate (ECC) for the erection of 3 signal towers in Ocean View in Swakopmund in 2014. The Environmental Assessment (EA) for the proposed development was conducted by EnviroSolutions in 2014. Following the submission of the final Environmental Assessment Report, the ECC was granted as per letter dated July 2014 (Appendix A). In accordance with the Environmental Management Act No 7 of 2007 and the Environmental Impact Assessment Regulations of 2012 the ECC is only valid for three years and as such the ECC has expired. MTC has thus appointed GCS Water Environmental Engineering Namibia (GCS Namibia) to apply on their behalf to the Ministry of Environment, Forestry and Tourism (MEFT) for the renewal of the ECC.

1.2 ECC Amendment and Renewal Application

The approved EMP which was initially submitted to MEFT was drafted in 2014 and thus requires to be updated. Furthermore, the location of one of the towers as per the original application submitted in 2014 has changed (the details are outlined in Section 2.1), it is thus additionally required to amend the ECC to reflect this change in location. As such this EMP has been updated and is herewith submitted to apply for the ECC amendment and renewal for the erection of 3 signal towers in Ocean View in Swakopmund in 2014.

2 PROJECT DESCRIPTION

2.1 Project Locality

MTC had initially intended to erect three 25-meter-high telecommunication towers on three erven located in Ocean View, Swakopmund. The towers were proposed to be erected at the following locations.

- Penguin site Erf 6083, Ocean View (to be constructed);
- Galjoen site Erf 5361, Ocean View (already constructed);
- Sardine site Extension 24, Ocean View (to be constructed).

The tower on the Galjoen site has already been constructed and the Penguin and Sardine site are still to be constructed. The sites will consist of a 12m x 12m concrete palisade fence with a 25m palm tree tower and a concrete building. The towers are to be erected in order to improve connectivity to the mobile network within the subject area (EnviroSolutions, 2014).

The initial application submitted to MEFT indicated that the Sardine site is to be located within Extension 24 as per Figure 1-2 below. Subsequently the ECC was granted based on this location of the sites. However, in 2017 MTC signed lease agreements with the Swakopmund Municipality for the sites to be erected on the locations as indicated in Figure 1-3. In light of the above it can be seen that the location of the Sardine site has changed. However, the impacts assessed for the previous location still remains as the new site is located within a similar environment (urban area).

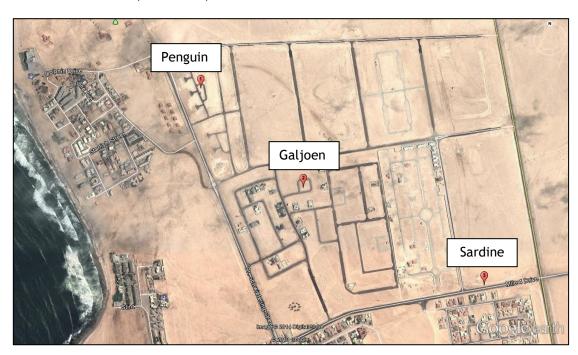


Figure 2-1: Location indicated on initial application (EnviroSolutions, 2014)

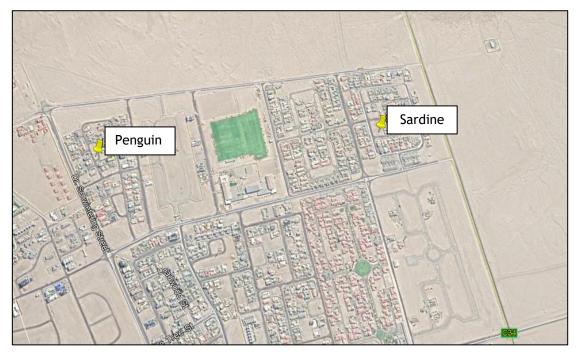


Figure 2-2: Locality of proposed towers

2.2 Site Development

One of the towers, Galjoen site (located on Erf 5361, Ocean View), has been constructed to date. The picture below illustrates the tower erected on the Galjoen site.



Figure 2-3: Tower erected on Erf 5361, Ocean View

The additional two towers located on the Sardine and Penguin sites are still to be constructed. The background information of the two sites still to be constructed are outlined in **Table 2-1** below. MTC already has signed lease agreements with the Swakopmund Municipality for the erection of the proposed towers on the erven outlined below.

Table 2-1: Background information of proposed sites

Site name	Erf number	Zoning	Coordinates
Penguin	Erf 6083	Public Open Space	S22.626311
			E14.528794
Sardine	Erf 5979	Public Open Space	S22.626232
			E14.538523

2.3 Site Infrastructure

The proposed design requires a total area of 12×12 meters. The towers to be constructed will be a 25-meter-high telecommunication tower disguised as a Palm Tree. The area will be surrounded by a fence to control access to the infrastructure. The following infrastructure will be established on the site:

- BTS (Base Station Tranceiver)
- BBU (Base band unit)
- Transceiver (radio transmitters and receivers)
- Rectifier and batteries (Power part)
- GSM, UMTS and LTE antennas (Combined antenna)
- Micro Wave transmission including a Micro wave dish
- Alarm unit for security

3 ENVIRONMENTAL MANAGEMENT PLAN

3.1 Purpose of the EMP

Regulation 8 of the Environmental Management Act's (EMA) (7 of 2007) Environmental Impact Assessment Regulations (2012) requires that a draft Environmental Management Plan (EMP) be included as part of the scoping Environmental Assessment (EA) process. A 'management plan' is defined as:

"...a plan that describes how activities that may have significant effects on the environment are to be mitigated, controlled and monitored."

An EMP is one of the most important outputs of the EA process as it synthesises all of the proposed mitigation and monitoring actions, set to a timeline and with specific assigned responsibilities. It provides a link between the impacts identified in the EIA Process and the required environmental management on the ground during project implementation and operation. It is important to note that an EMP is a legally binding document and a person who contravenes the provisions of this EMP may face imprisonment and/or a fine. This EMP is a living document and should be amended to adapt to address project changes and/or environmental conditions and feedback from compliance monitoring.

The purpose of this document is therefore to guide environmental management throughout the following life-cycle stages of the proposed development, namely planning and design, construction, operation and maintenance and if considered, decommissioning.

The following phases are addressed in this EMP:

- Planning and design the period, prior to the construction phase, during which
 preliminary legislative and administrative arrangements are carried out in
 preparation of construction activities;
- **Construction phase** during this phase, the tower and its related infrastructure will be constructed;
- Operation and maintenance the period during which the tower and its related infrastructure will be operational and maintenance is conducted by the proponent as deemed necessary.
- **Decommissioning** Should the tower be decommissioned, this phase will be implemented.

3.2 Environmental Assessment Practitioner (EAP)

GCS Namibia have been appointed by MTC as independent environmental consultants to apply for the renewal of the ECC and to update the EMP initially submitted for the proposed development. The EMP is to be submitted as supporting document to the application for the renewal of the ECC to the Environmental Commissioner at the Department of Environmental Affairs (DEA) of the Ministry of Environment, Forestry and Tourism (MEFT). The EMP will also be used by Contractors and Engineers as well as the Proponent in guiding them during the construction and operation of the tower to ensure that impacts on the environment are limited or avoided altogether.

3.3 Legal Requirements

The contents of the EMP must meet the requirements Section 8 (j) of the EIA Regulations. The EMP must address the potential environmental impacts of the proposed activity on the environment throughout the project life-cycle. It must also include a system for assessment of the effectiveness of monitoring and management arrangements after implementation. MTC therefore has the responsibility to ensure that the proposed activity as well as the EIA process conforms to the principles of EMA and must ensure that any contractors appointed by them also comply with such principles.

Under the 2012 Environmental Impact Assessment (EIA) Regulations of the Environmental Management Act (7 of 2007), the proposed development is a listed activity that may not be undertaken without an Environmental Clearance Certificate (ECC). This activity is listed under the following section:

"10.1 (g) The construction of masts of any material or type and of any height, including those used for telecommunication, broadcasting, and radio transmission."

Table 3-1 below lists the requirements of an EMP as stipulated by Section 8 (j) of the EIA Regulations.

Table 3-1: Applicable and relevant Namibian legislations and other international guidelines for this specific EA process

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Environmental Management Act	Requires that projects with significant environmental impacts are	The EMA and its regulations should inform and guide the
EMA (No 7 of 2007)	subject to an environmental assessment process (Section 27).	EA process.
	Details principles which are to guide all EAs.	
Environmental Impact	Details requirements for public consultation within a given	
Assessment (EIA) Regulations GN	environmental assessment process (GN 30 S21).	
28-30 (GG 4878)	Details the requirements for what should be included in a Scoping	
	Report (GN 30 S8) and an Assessment Report (GN 30 S15).	
The Constitution of Namibia Act	According to Legal Assistance Centre (LAC), there is no clear right	The Proponent should ensure compliance with the
No. 1 of 1990	to health in the Namibian Constitution. But under the Article 95 of	conditions set in the Act.
	the Namibian Constitution that deals with Principles of State Policy,	
	the Namibian Constitution states "the state shall enact legislation	
	to ensure consistent planning to raise and maintain an acceptable	
	standard of living for the country's people" and to improve public	
	health.	

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Namibian Communications Act 8	Provides for the regulation of telecommunications services and	Provides the standards for setting up cellular, wireless
of 2009	networks, broadcasting, postal services and the use and allocation	and satellite services.
	of radio spectrum; for that purpose the establishment of an	
	independent Communications Regulatory Authority of Namibia; to	
	make provision for its powers and functions; the granting of special	
	rights to telecommunications licensees; the creation of an	
	Association to manage the .na internet domain name space and for	
	matters connected therewith.	
Local Authorities Act (No. 23 of	Provides for the determination, for purposes of local government,	The Swakopmund Municipality is the responsible Local
1992)	of local authority councils; the establishment of such local authority	Authority of the area in which the proposed development
	councils; and to define the powers, duties and functions of local	will be located, and they should be consulted for this EA.
	authority councils; and to provide for incidental matters.	
The Atomic Energy and Radiation	Provides for the adequate protection of the environment and of	To determine the "safe distance" around the site.
Protection Act, Act 5 of 2005	people 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 according to the standards set out by the ICNIRP.	

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
"Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300GHz)" (April 1998 developed by the International Commission on Non-Ionizing Radiation Protection (ICNIRP))	Provides international standards and guidelines for limiting the adverse effects of non-ionising radiation on human health and wellbeing, and, where appropriate, provides scientifically based advice on non-ionising radiation protection including the provision of guidelines on limiting exposure.	Justifies the need for assessing the impact of electromagnetic radiation from the antennae, on the nearby residents.
The Aviation Act, Act 74 of 1962	Gives 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 in Namibia.
Convention on International Civil Aviation, Annex 14	 Annex 14 to the Convention on International Civil Aviation. Chapter 4: Obstacle restrictions and removal Chapter 6: Visual aids and donating of obstacles 	The proposed new structures may be obstacles to some aerodromes in Namibia. Those that are close to existing aerodromes need to be assessed in accordance with the document. Visual aids to the new structures to make them visible to aircraft need to be applied in accordance with this Convention.
Labour Act (No. 6 of 1992)	Ministry of Labour (MOL) 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.	MTC should ensure that construction, operation and maintenance of the towers, the safety and welfare of workers are not compromised.

3.4 Assumptions and Limitations

This EMP has been drafted with the acknowledgment of the following assumptions and limitations:

- This EMP has been drafted based on the scoping-level Environmental Assessment (EA)
 conducted for the proposed construction of the proposed towers in Swakopmund by
 EnviroSolutions dated 2014. No specialist studies were included as part of the assessment;
 and
- The mitigation measures recommended in this EMP document is based on the risks/impacts
 in the scoping report which were identified based on the provided project description and
 anticipated project impacts. Should the scope of the project change, the risks will have to
 be reassessed and mitigation measures provided accordingly.

3.5 Report Structure

This EMP lays out the management actions for the proposed MTC towers in Swakopmund Town of the Erongo Region. The EMP addresses the following phases:

- Planning and design the period, prior to construction, operation and maintenance, during
 which preliminary legislative and administrative arrangements are carried out in preparation
 for the construction of the infrastructure;
- **Construction phase** during this phase the services infrastructure (electricity cables), the tower and its related infrastructure will be constructed;
- Operation and maintenance phase the period during which the towers and its related infrastructure will be operational and maintenance is conducted by the proponent as deemed necessary; and
- Decommissioning phase: the period during which the proponent may decide to discontinue
 the operations of the towers and its associated infrastructure. The modern world is advancing
 on a daily basis, and there will always be a need for improved mobile services, hence the
 decommissioning of the infrastructure is not anticipated at this stage. Regardless, mitigation
 measure will be provided therefore.

4 ROLES AND RESPONSIBILITIES

MTC is ultimately responsible for the implementation of the EMP. The Proponent may delegate this responsibility at any time, as they deem necessary, from operation and maintenance phase and decommissioning phase (if considered). The delegated responsibility for the effective implementation of this EMP will rest on the following key individuals which may be fulfilled by the same person:

- Proponent's Representative
- Environmental Control Officer

4.1 Proponent's Representative

If the Proponent does not personally manage all aspects of the planning and design, construction and operation and maintenance phase activities and decommissioning, referred to in this EMP, they should assign this responsibility to a suitably qualified individual referred to in this plan as the Proponent's Representative (PR). The Proponent may decide to assign the role of a PR to one person for both phases. Alternatively, the Proponent may decide to assign a separate PR for each component i.e. planning and design, construction, operation and maintenance and decommissioning phase. The PR's responsibilities, included in **Table 4-1** are as follows:

Table 4-1: Responsibilities assigned to the Proponent's Representative for planning and design, construction, operation and maintenance and decommissioning phases

Responsibility	Project Phase
Managing the implementation of this EMP and updating and maintaining it when necessary	Throughout the lifetime of the project
Management and monitoring of individuals and/or equipment on-site in terms of compliance with this EMP	Throughout the lifetime of the project
Issuing fines for contravening EMP provisions	Throughout the lifetime of the project

4.2 Environmental Control Officer

The Proponent should assign the responsibility of overseeing the implementation of the whole EMP on the ground from the planning and design phase to operation and maintenance and decommissioning phase to a designated member of staff, referred to in this EMP as the Environmental Control Officer (ECO). The Proponent may decide to assign this role to one person for both phases or may assign separate individual ECOs to oversee EMP implementation during each phase. The ECOs will have the following responsibilities:

• Management and facilitation of communication between the Proponent, PR and Interested and Affected Parties (I&APs) with regard to this EMP;

- Conducting site inspections (recommended minimum frequency is daily during construction period and bi-annually during the operation and maintenance and decommissioning) of all areas with respect to the implementation of this EMP (monitor and audit the implementation of the EMP);
- Advising the PR on the removal of person(s) and/or equipment not complying with the provisions of this EMP;
- Making recommendations to the PR with respect to the issuing of fines for contraventions of the EMP; and
- Undertaking an annual review of the EMP and recommending additions and/or changes to this
 document.

5 ENVIRONMENTAL MANAGEMENT PLAN ACTIONS

5.1 Key Potential environmental impacts to be managed

From the EA prepared by EnviroSolutions (2014), the following key potential negative impacts have been identified per project phase and are summarised in **Table 5-1** below.

Table 5-1: Summary of key potential environmental impacts per project phase

	Project Phase	Potential negative impacts identified in the EA		
1	Planning and Design	Design and planning failures		
2	Construction	- Disturbance to surrounding property owners,		
		- Health and safety		
		- Waste generation		
		- Dust and concrete mixture fumes		
		- Visual impacts		
		- Noise		
		- Traffic		
3	Operation and maintenance	- Health and safety (radiation emission)		
		- Civil aviation		
4	Decommissioning	Loss of better cellular network coverage		

The aim of the management actions of the EMP is to avoid potential impacts where possible. Where impacts cannot be avoided, measures are provided to reduce the significance of these impacts.

Management actions recommended to manage the potential impacts rated in the EA carried out for the proposed tower construction are presented in the following tables. The management actions were compiled based on the four project phases:

- Planning and design phase (Table 5-2);
- Construction phase (Table 5-3);
- Operation and maintenance phase management actions (Table 5-4); and
- Decommissioning phase (Table 5-5)

The responsible persons at MTC should assess these commitments in detail and should acknowledge their commitment to the specific management actions detailed in the table of the next subchapters.

5.2 Phase 1: Planning and Design Management Actions

Since the proponent is responsible for the construction of the sites, the management requirements detailed in **Table 5-2** need to be carried out before any construction works while necessary preliminary legislative and administrative arrangements are made in preparation for the operation of the proposed development. These management requirements are also applicable for the period during which engineering designs/drawings are carried out.

Table 5-2: Planning and design management actions

Aspect	Management Requirement	Responsibility	Timeframes
Tower Design	 The design standards to be applied for the Tower should comply with the internationally accepted public exposure guidelines. The tower design should comply with the aesthetic guidelines for similar structures as prescribed by the Swakopmund Municipality 	Proponent	Pre-construction phase
Labour Recruitment	It is anticipated that MTC will utilize its own workforce. However, should the need to employ extra person(s), recruitment should not be done at the project site.	Proponent	Ongoing
Surrounding property owners	Consent letters are to be obtained from the surrounding property owners prior to construction.	Proponent	Pre-construction phase
Construction schedule	 A convenient construction work/schedule should be prepared and be shared with the surrounding property owners. This will ensure that the surrounding property owners are aware of when to expect the construction team at the site. 	Proponent	Pre-construction

Aspect	Management Requirement	Responsibility	Timeframes
ЕМР	MTC needs to appoint a Proponent's Representative (PR) that	Environmental Officer	Ongoing
Implementation	will act as their on-site implementing agent. This person		
	should be responsible to ensure that the Proponent and		
	Contractor's responsibilities are executed in compliance		
	with relevant legislation and this EMP.		

5.3 Phase 2: Construction Phase Management Actions

The management actions for the construction phase are listed in Table 5-3.

Table 5-3: Construction phase management actions

Environmental Feature	Impact	Management Actions	Responsibility	Timeframes
EMP training	Lack of EMP awareness and the implications thereof	 Employees appointed for construction work on respective infrastructure must ensure that all personnel are aware of necessary health, safety and environmental considerations applicable to their respective work. Comprehensive induction forms a critical component during the construction and operational period. This includes the following: Ensuring that all employees are aware of their individual impact on the environment. Ensuring that preventative measures and procedures are undertaken in order to reduce the risk of a potential impact. 	Environmental Officer	Ongoing
Monitoring	EMP non- compliance	 The ECO or the Proponent/Contractor should monitor the implementation of this EMP. The ECO(s) should inspect the site throughout the construction period and after completion. 	Environmental Officer	Ongoing

Environmental Feature	Impact	Management Actions	Responsibility	Timeframes
Health and Safety	Health and Safety	 Construction workers should be trained on how to handle materials and equipment on site (if they do not already know how to) in order to avoid injuries. The contractor(s) should ensure that all personnel are provided with personal protective equipment (PPE), such as gloves, safety boots, safety glasses and hard hats (as required) at all times during construction hours on site. No workers should be allowed to drink alcohol during working hours. No workers should be allowed on site if under the influence of alcohol. 	Proponent	Ongoing
Waste Management		 The construction site should be kept tidy at all times. All domestic and general construction waste produced on a daily basis should be cleaned and contained daily. No waste may be buried or burned on site or anywhere else. Waste containers (bins) should be emptied after the construction and removed from site to the municipal waste disposal site. Hazardous and domestic / general waste must be disposed of separately and appropriately. Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter. 	Environmental Officer	Ongoing

Environmental Feature	Impact	Management Actions	Responsibility	Timeframes
		 No waste may remain on site after the completion of the project. Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter. No waste may remain on site after the completion of the project. 		
Construction labourers		 Construction workers will be transported, in a bus (or similar suitable passenger vehicle) to and from site. If the construction team is not allowed to use the toilets available on site, portable toilets (i.e. easily transportable) should be available: No workers may reside on-site for the entire duration of the construction period. 	Proponent	Ongoing

5.4 Phase 3: Operation and Maintenance Management Actions

The table below (Table 5-4) presents the management action for the operation and maintenance phase.

Table 5-4: Operation and maintenance phase management actions

Environmental Feature	Impact	Management Actions	Responsibility	Timeframes
EMP training	Lack of EMP awareness and the implications thereof	Employees appointed for operation and maintenance on respective site infrastructure and services must ensure that all personnel are aware of necessary health, safety and environmental considerations applicable to their respective work.	Environmental Officer	Ongoing
Monitoring	EMP non- compliance	 The ECO or the Proponent should monitor the implementation of this EMP. The ECO(s) should inspect the site operation throughout the operation on a biannual basis. 	Environmental Officer	Ongoing
Health and Electromagnetic Safety Radiation (EMR) emission		 MTC should ensure that tower construction and its EMR are within the international standards of The Atomic Energy and Radiation Protection Act, Act 5 of 2005 and Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (April 1998 developed by the International Commission on Nonlonizing Radiation Protection (ICNIRP)). The design standards to be applied for the antennae should comply with the internationally accepted public exposure guidelines. 	Proponent	Ongoing

Environmental Feature	Impact	mpact Management Actions		Timeframes
		 MTC should adopt cautionary policies, and in particular the Precautionary Principle. This approach should be adopted in such a manner to optimize the benefits that is derived from the technology while also providing protection to allay the fears of those for which the State has responsibility to protect. The National Radiation Protection Authority should be involved 	National Radiation	Ongoing
		during this phase (operational) to assess the possible emissions from the towers and its related components.	Authority of Namibia	
Civil aviation	Civil aviation impact	 MTC should ensure that no other high projections/extensions will be added on top of the antennae that may compromise the aerodrome (civil aviation) safety. MTC should ensure that the structures adhere to the Namibia Civil Aviation Regulations (NAMCARs) Part 139 Aerodomes and Heliports: licencing and Operation. In the case that MTC will need to increase the height of the antennae or add additional infrastructure on top of the tower, prior consultations should be made with Civil Aviation Department to ensure that that the new infrastructure does not interfere with civil aviation operations. 	Proponent	Ongoing

5.5 Phase 4: Decommissioning Management Actions

The table below (Table 5-5) presents the management action for decommissioning phase.

Table 5-5: Decommissioning phase management actions

Environmental Feature	Impact	Management Actions	Responsibility	Timeframes
Tower	Loss of better	The proponent should ensure that the mobile coverage	Proponent	Pre-decommissioning
Decommissioning	mobile network coverage	is not compromised, by putting up an alternative cellular infrastructure.		

6 CONCLUSIONS

Based on the recommendation given in this EMP, GCS is confident that the proposed telecommunication tower construction may be granted an Environmental Clearance Certificate, provided that the EMP is implemented and that all the legal requirements pertaining to this development are complied with.

7 REFERENCES

EnviroSolutions. 2014. Environmental Assessment Report for the Erection of three MTC towers in Ocean View, Swakopmund.

APPENDIX A: ENVIRONMENTAL CLEARANCE CERTIFICATE



REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Tel: +264 61 2842701 Fax: +264 61 240339 Enquiry: Saima Angula Capital Centre, 6th Floor Private Bag 13306 Windhoek 8 July 2014

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

The General Manager MTC Namibia Ltd P.O. Box 23051 Windhoek

Dear Sir or Madam

SUBJECT: ENVIRONMENTAL CLEARANCE FOR THE PROPOSED ERECTION OF 3 MTC TOWERS AT OCEAN VIEW, SWAKOPMUND, ERONGO REGION

The Environmental Impact Assessment submitted is sufficient as it made an adequate provision of the environmental management during your proposed activities. From this perspective regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored throughout this process.

In view of the fact that your project is located in an environmentally sensitive area, this Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project.

On the basis of the above, this letter serves as an environmental clearance for the project to proceed. However, this clearance letter does not in anyway hold the Ministry of Environment and Tourism accountable for misleading information, nor any adverse effects that may arise from this project's activities. Instead, full accountability rests with the proponent and his/her consultants.

Yours sincerely,

Teofilus Nghitila

ENVIRONMENTAL COMMISSIONER

2014 -07- 0 9
Office of the

APPENDIX B: CV OF ENVIRONMENTAL ASSESSMENT PRACTITIONER



CORE SKILLS

- Project management
- Impact assessment
- Environmental Management and mitigation
- Environmental Monitoring
- Client engagement
- Public participation and stakeholder engagement
- Geographic Information Systems

DETAILS

Qualifications

- BA Honours Geography and Environmental Studies -University of Namibia 2013
- PGD Environmental Management University of Stellenbosch 2018 (Cum Laude)
- Mphil Environmental Management University of Stellenbosch 2019

Memberships

EAPAN Environmental Practitioners Association of Namibia

Languages:

English (Excellent)

Afrikaans

(Excellent)

Countries worked in:

Namibia

Environmental Assessment Practitioner

PROFILE

Stephanie is an Environmental Assessment Practitioner with experience in Environmental projects in various sectors. The work experience that she has ranges from environmental assessments for urban development projects, waste, infrastructure development to quarrying. She has conducted various public participation and stakeholder engagement relevant to the projects. Stephanie has also conducted environmental monitoring and compliance.

Stephanie has skills and experiences in the following areas:

- Environmental Impact assessment
- Environmental management and mitigation
- Environmental monitoring and reporting

Recent key projects project experience includes Environmental Assessment Practitioner on the following:

- Arandis Logistics Park EIA- 2016
- Township Establishment of Omatando Extensions Proper to Extension 7, Ongwediva EIA 2017
- Rundu Waste Disposal Site EIA -2017
- Sand Mining and Brick Manufacturing Nkurenkuru EIA -2017
- Emirates Hotel, Ondangwa EIA 2017
- Establishment of Kranzfontein Nature Estate Grootfontein EIA 2017
- Brickmaking Factory, Outapi EIA 2018
- Osona Village Master Plan EIA, Okahandja 2018
- Township Establishment of Various Townships in Helao Nafidi EIA- 2018
- Construction and Operation of Service Stations in Karibib, Grootfontein and Ruacana EIA- 2018
- Osona Village Development Environmental monitoring and Compliance - 2019

Previous Experience

Year	Employer	Project description	Roles and responsibilities
April 2019 to Present	GCS Namibia	Environmental Assessment Practitioner	Project co-ordination Environmental Assessment Client Liaison Stakeholder Engagement Authority Liaison Environmental auditing and monitoring.
July 2016 to March 2019	Africa Planning Forum	Junior Environmental Consultant	Technical Report Writing Impact Assessment Environmental Management Planning Environmental Compliance and Monitoring Stakeholder Engagement

Previous Experience

June 2013 to July 2016	Stubenrauch Planning Consultants	Town Planning Officer	Statutory Planning
			Structure Plan Baseline research and Report Writing
			Environmental Assessment
			GIS Base Mapping