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Operational Environmental Management Plan (EMP) for the existing Plastic Extrusion Plant on Plot No. 34, Shali Industrial Park, Brakwater, Windhoek

EMP

APP001123

Final

February 2023

Namibia Plastics & Packaging Distributors (Pty) Ltd

GCS Project Number: 22-1234

Client Reference: EMP Namibia Plastics



Operational Environmental Management Plan (EMP) for the existing Plastic Extrusion Plant on Plot No. 34, Shali Industrial Park, Brakwater, Windhoek

EMP

Version – Final

February 2023

Namibia Plastics and Packaging Distributors (Pty) Ltd

22-1234

DOCUMENT ISSUE STATUS

Report Issue	Final		
GCS Reference Number	GCS Ref – 22-1234		
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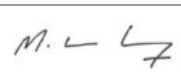
Title	Operational Environmental Management Plan (EMP) for the existing Plastic Extrusion Plant on Plot No. 34, Shali Industrial Park, Brakwater, Windhoek		
	Name	**Signature**	**Date**
Author	Michael Cloete		February 2023
Director	Magnus van Rooyen		February 2023

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OVERVIEW

1. PROJECT BACKGROUND

Namibia Plastics and Packaging Distributors (Pty) Ltd is a Namibian company who produces Fast Moving Consumer Goods (FMCG) packaging through a plastic extrusion process. This process consists of melting and forming of plastic material (e.g. pellets) into a continuous profile (i.e. conversion of one form of plastic to another through a heating (i.e. melting) process).

The plastic pellets are transported from South Africa to the site where it is placed in containers, melted (by means of electric currents) and converted (through a cooling process) to plastic sheeting, a process that is already followed by other industries in Namibia.

The proposed project is situated on Plot No. 34, Shali Industrial Park, Brakwater in Windhoek. The site is located approximately 10 km north of Windhoek on the B1 Road to Okahandja and falls in an area that has been earmarked as a heavy industrial area (although the particular project does not include any activities associated with heavy industries). The location of the site is shown in **Figure 1-1** below.

Environmental Compliance

The Environmental Management Act (Act 7 of 2007) is the regulating legislation that governs all activities that may have a potentially detrimental effect on the receiving environment. Under the Act, plastic manufacturing is among the listed activities that cannot be undertaken without an environmental clearance certificate.

This includes

- manufacturing or processing of any kind.
- the use of any chemicals.
- the use of excessive amounts of water
- the emission of gasses to the air.

Namibia Plastics & Packaging Distributors (Pty) Ltd uses a closed loop system, which means that all outputs from the system is used as inputs to the system.

Consequently, Namibia Plastics & Packaging Distributors (Pty) Ltd has applied for exemption from the office of the Environmental Commissioner for the proposed construction of the facility on condition that an Environmental Management Plan (EMP) be provided. The Environmental Clearance Certificate was granted 22 June 2017 and is due to be renewed.

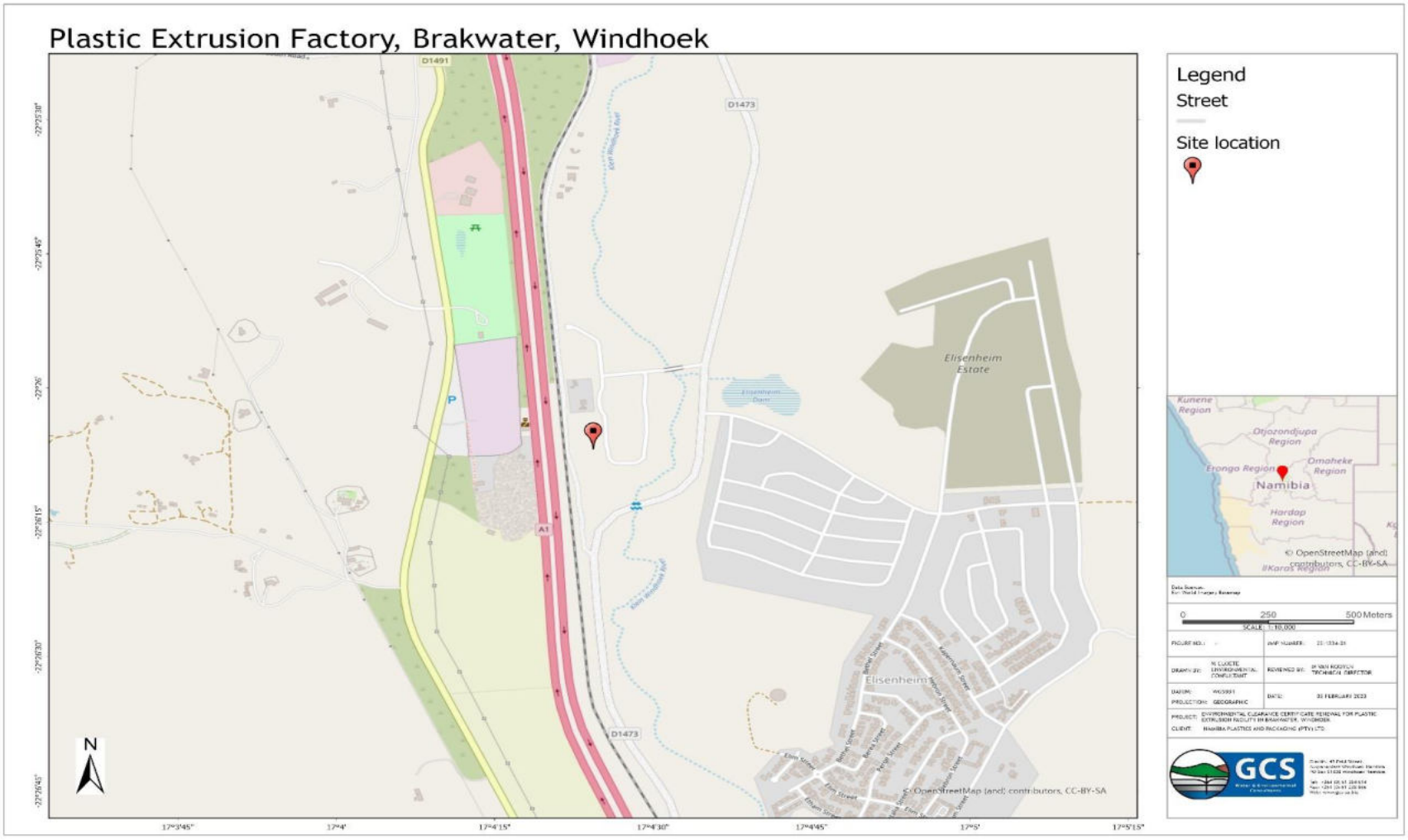

Figure 1: Locality map of Plastic Extrusion facility

Purpose of the EMP

According to the Environmental Management Act (EMA) (7 of 2007) a 'management plan' is defined as:

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

The EMP is a:

- list of management actions needed to ensure that negative environmental and social impacts of the project are avoided or minimized. It assigns responsibilities and will be used as a checklist to monitor compliance at the site.
- legally binding document and a person who contravenes the provisions of this EMP may face imprisonment and/or a fine.

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 various stages of development. In this instance, the prescribed mitigation measures explicitly focus on the operational phase of the development.

The phases are defined as follow in this EMP:

- Operation and maintenance – refer to activities associated with the operation and maintenance of the facility both in the initial and later phases of development in particular the establishment of a printing facility.

Environmental Assessment Practitioner (EAP)

GCS Water Environmental Engineering Namibia (Pty) Ltd ("GCS Namibia" hereafter) have been appointed by Namibia Plastics and Packaging Distributors (Pty) Ltd ("the proponent"), as independent environmental consultants to compile an EMP for the proposed development. The EMP was submitted as part of the "request for exemption" to the Environmental Commissioner at the Department of Environmental Affairs and Forestry (DEAF) of the Ministry of Environment, Forestry and Tourism (MEFT) and the Environmental Clearance Certificate was granted with the letter dated 22 June 2017.

2 EMP IMPLEMENTATION

The EMP will be used by the Proponent in guiding them during the construction and operation of the plastics extrusion facility to ensure that impacts on the environment are limited or avoided altogether.

Copies of this EMP shall be kept at the office and will be distributed to all senior personnel who will be required to familiarize themselves with the contents of this document.

Roles and Responsibilities

The Proponent is ultimately responsible for the implementation of the EMP but may delegate this responsibility at any time, as they deem necessary, from construction to operation and maintenance. 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

Proponent's Representative

If the Proponent does not personally manage all aspects of the operation and maintenance phase activities 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. operation and maintenance and decommissioning phase. The PR's responsibilities, included in Table 2-1. are as follows:

Table 1: Responsibilities assigned to the Proponent's Representative construction, operation, and maintenance 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

Environmental Control Officer (ECO)

The Proponent should assign the responsibility of overseeing the implementation of the EMP 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 bi-annually during the operation and maintenance phase) of all areas;
- 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.

Environmental Awareness Training

Employees appointed for construction work must ensure that all personnel are aware of the 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 employees are aware of any environmentally sensitive sites.
- Ensuring that employees are aware of the measures and procedures to be followed should environmentally sensitive sites be detected.
- Ensure that employees are aware of the measures and procedures to be followed should an environmental impact (such as a hydrocarbon spill, etc.) take place.

3 ENVIRONMENTAL MANAGEMENT PLAN ACTIONS

Key Potential environmental impacts to be managed

From the EA, the following key potential negative impacts have been identified and are summarised in **Table 2** below.

Table 2: Summary of key potential environmental impacts

Project Phase	Potential negative impacts identified in the EA
Construction	Health and safety, loss of biodiversity (vegetation), vehicular traffic safety, waste generation, visual, noise, soil and water resources and air quality.
Operation and maintenance	Health and safety, potential groundwater or soil pollution due to presence of paint.

Management actions recommended to the potential impacts associated with the proposed development are presented in the following tables. The management actions were compiled based on the two project phases:

- Operation and maintenance phase management actions (Table 3).

Phase 2: Operation and Maintenance Management Actions

The table below (**Table 3**) presents the management action for the operation and maintenance phase.

Table 3: Operation and maintenance phase management actions

Environmental Feature	Impact	Management Actions	Responsibility	Timeframes
Health and Safety	Health and Safety	▫ At least four fire extinguishers should be provided within the building and workers should be trained on how to use it. ▫ All requirements listed under the Labour Act should be adhered to and communicated to the workforce. ▫ Measures should be taken to ensure that the property is sufficiently protected against theft, thereby ensuring that the development does not contribute to the flow of criminal activities into the area.	ECO	Ongoing
Hazardous waste management	Groundwater or soil pollution	▫ No potentially hazardous effluent other than common household effluent may be discharged into the sewer system. Toxic materials (e.g. oil, fuel or paint) may under no circumstances be discharged into the conventional	ECO	Ongoing

Environmental Feature	Impact	Management Actions	Responsibility	Timeframes
		sewerage system. These materials need to be handled as hazardous waste and may only be disposed of at Kupferberg. Industry will have to register at Kupferberg and be charged a levy to discharge their waste there. ▫ Oil traps and paving of areas where vehicles are parked for prolonged periods need to be implemented.		
Public relations with neighbours	Bad relations with neighbouring owners	The ECO should aim to maintain the relationship with the neighbours by ensuring transparency on the project. Communication between the various parties is of particular importance.	ECO	Ongoing

4 CONCLUSIONS

Due to the risk that pollutants in surface runoff poses to freshwater bodies such as the Swakoppoort dam, management of potentially hazardous substances are of vital importance on this project. The risk of groundwater and surface water pollution increases with the number of industrial activities now rising in Brakwater.

Management actions prescribed in this EMP are specifically designed to minimise or manage the impacts exerted by Namibia Plastics & Packaging Distributors (Pty) Ltd. It should however be emphasized that management activities should be strengthened with continuous and well-orchestrated monitoring of the implementation of the prescribed EMP. The developer needs to understand the severity of the situation and all efforts should be made to ensure that the message is also conveyed to the workforce. The proponent obtained exemption for the activities as it posed a low risk to the receiving environments and got the Environmental Clearance certificate dated 22 June 2017.

Based on these initial findings, GCS Namibia do not foresee any activity during the proposed project development that may pose irreversible, significant environmental risks to the biophysical or social environment on the site.

We are therefore of the opinion that the Proponent’s request for renewal is valid.

APPENDIX A: CV OF EAP

MAGNUS VAN ROOYEN
Technical Director

CORE SKILLS

- Environmental Impact Assessments
- Scoping Reports
- Preliminary Environmental Assessment
- Mining Right and Applications
- Environmental Management Programmes
- Strategic Environmental Assessments
- Wildlife Management Plans

DETAILS

Qualifications

- BSc – Botany & Zoology
- B.SC Honours - Botany
- Specialist Student
- Post Graduate Diploma in Teaching
- Masters Degree: Environmental Management

Memberships

- SACNASP
- International Association of Impact Assessors

Languages

- English - fluent
- Afrikaans- fluent
- German – fair
- Dutch – fair
- Zulu - adequate

PROFILE

In addition to holding a Masters Degree: Environmental Management, Magnus also holds a BSc degree in Botany and Zoology, an Honours Degree in Botany and a Post Graduate Certificate in Education.

Magnus has 13 years' experience in projects involving Environmental Impact Assessments in various developmental sectors (Mining and Agricultural Sector, National Roads, Pipelines, Dams, and Residential Developments), conducting of Specialist Biodiversity Assessments associated with Environmental Impact Assessments and Project Feasibility Studies. He has experience in the compilation of Resettlement Policy Framework Plans associated with infrastructure development projects.
Magnus has experience in working on various private and public sectors as well as rural and urban environments in various countries.
His expertise lies within the mining sector where he has gained extensive exposure to all the aspects of mining projects from the pre-feasibility, prospecting, environmental impact assessment

Magnus has experience in the following areas:

- Environmental Impact Assessments
- Scoping Reports
- Preliminary Environmental Assessment
- Mining Right and Permit Applications
- Environmental Management Programmes
- Strategic Environmental Assessments
- Wildlife Management Plans

WORK EXPERIENCE

Year	Employer	Position	Role and Responsibility
2007 – 2020	JG Afrika (Pty) Ltd	Executive Associate	Project Management of an environmental contingent of 4 people and conducting Environmental Impact Assessments
2006 – 2007	JG Afrika (Pty) Ltd	Environmental Scientist	Conducted a wide range of infrastructure related Environmental Impact Assessments
2002 – 2005	Department of Conservation Ecology, University of Stellenbosch	Biodiversity Researcher	Conducted field work, sampling, laboratory work and logistics associated with two projects within the Conservation Ecology Department
2002 – 2005	Department of Botany and Zoology, University of Stellenbosch	Junior Lecturer in Botany	Lectured Botany practical component of the first-year Natural Science Degree
2001 – 2002	Paul Roos Gymnasium	Biology Teacher	Teaching the South African Biology curriculum to high school students

Biodiversity Assessment Projects	**Biodiversity Assessment Projects** **Mamatwan Tailings Facility** Biodiversity and Wetland Assessment for the site to be used for the establishment of the new tailings facility on the South32 Mamatwan Manganese Mine near Hotazel. **Hillside Aluminum Desalination Plant** Biodiversity Screening Assessment for the infrastructure network associated with the South32 Hillside Aluminum Desalination Plant in Richards Bay. **Lichtenburg Siding Expansion** Biodiversity Assessment for the proposed expansion of the Lichtenburg Cement Siding, North West Province. **Nacala Dam Project** Riparian Vegetation Study for the Ecological Reserve Determination Specialist Study for the Environmental Impact Assessment for the Nacala Dam Project in Mozambique. **National Route N8** Vegetation Specialist Study for the Environmental Impact Assessment for the National Route N8. National Route N2 uMgeni Interchange ImprovementsEnvironmental Impact Assessment for proposed improvements to the uMgeni Road Interchange and the National Route N2. The project included an extensive public participation process within the city of Durban, KwaZulu-Natal during the process. **Qudeni Link Road** Vegetation Specialist Study for the Environmental Impact Assessment for the Qudeni Rural Link Road. **Municipal Landfill Site Identification** Negative mapping and ground truthing for the options analysis for the identification of a District Municipality Landfill Site.
Port Related Projects	**Pier 1 Phase 2 expansion** Environmental Impact Assessment for proposed expansions to Pier 1 within the Durban Harbour. Locomotive Turning Table in the Port of Richards Bay Environmental Impact Assessment for proposed Locomotive Turn Table in within the Port of Richards Bay. **Rail line construction in the Port of Richards Bay** Environmental Impact Assessment for proposed additional rail line into the Richards Bay Coal Terminal in the Port of Richards Bay.

	Environmental Monitoring – RME Projects Durban Harbour Environmental Monitoring Duties for all the RME construction projects within the Durban harbour. **Ore Loading Facility at Kalia in Guinea** Environmental Impact Assessment for the proposed Ore Loading Facility in Kalia in Guinea, West.
Roads Projects	**National Route N2 uMgeni Interchange Improvements** Environmental Impact Assessment for proposed improvements to the uMgeni Road Interchange and the National Route N2. The project included an extensive public participation process with a range of public and private sector stakeholders. **National Route N11 upgrade** Environmental Impact Assessment for proposed upgrade of the National Route N11. The project included a public participation process with a range of public and private sector stakeholders as well as specialist studies associated with the river crossings. **National Route N2 improvement and upgrade** Environmental Impact Assessment for proposed upgrade of the National Route N2. The project included a public participation process with a range of public and private sector stakeholders as well as specialist studies associated with the river crossings. **National Route N3 Chota Motala Interchange Environmental Audits** Environmental Monitoring for the construction of the Chota Motala Interchange on the National Route N3. N**ational Route R30 Environmental Audits** Environmental Monitoring for the construction of the National Route R30.
Agricultural Projects	**uMngano Community Dairy Development Project** Environmental and Social Impact Assessment for the Development of a 200ha dairy for the uMngano Community in KwaZulu-Natal, South Africa. **uMngano Community Vegetable Project** Environmental and Social Impact Assessment for the Development of a 180ha vegetable growing project for the uMngano Community in KwaZulu-Natal, South Africa. **Sundays River Citrus Project** Environmental and Social Impact Assessment for the Development of a 100ha citrus project in the Sundays River Valley in the Eastern Cape, South Africa.
Water Projects	**Nacala Dam project in Mozambique for the Millennium Challenge Corporation** Environmental and Social Impact Assessment for the Nacala Dam project in Nacala, Mozambique. The study included the management of a range of specialist studies which included; biodiversity (fauna and flora) assessments, health impact assessments, social impact assessments, a hydrocensus, geotechnical investigation and an ecological flow requirement assessment. The project was conducted under the auspices

	of the Millennium Challenge Corporation. **Mpofana Bulk Water Supply Scheme Environmental Impact Assessment for the Bulk Water Supply Scheme** which included an extensive public facilitation process with affected landowners and other specialist studies. **KwaHlokohloko Rural Water Supply Scheme Environmental Impact Assessment for the Rural Water Supply** Scheme which included an extensive public facilitation process with the rural landowners and tribal leaders. **Conservation Management Plans** **Ndumo Game Reserve Management Plan** Compilation of the Management Plan for the KwaZulu-Natal Wildlife Ndumo Game Reserve in northern KwaZulu-Natal. The compilation was conducted in accordance to the National Environmental Management: Protected Areas Act (No 57 of 2003).
Mining Projects	Uithoek Colliery for Miranda Mineral Holdings Environmental Impact Assessment for the establishment of the Uithoek Colliery including the management of a range of specialist studies which included a hydrological and geohydrological assessment, a biodiversity assessment, a social and heritage assessment and a repatriation plan for residents on the site. **Burnside Colliery for Miranda Mineral Holdings** Environmental Impact Assessment for the establishment of the Burnside Colliery including the management of a range of specialist studies which included a hydrological and geohydrological assessment, a biodiversity assessment, a social and heritage assessment and a repatriation plan for residents on the site. **Ultimate Goal Colliery for Corobrik (Pty) Ltd** Environmental Impact Assessment for the establishment of the Ultimate Goal Colliery including the management of a range of specialist studies which included a hydrological and geohydrological assessment, a biodiversity assessment, a social and heritage assessment and a repatriation plan for residents on the site. **Klipwaal Gold Mine for Miranda Mineral Holdings** Environmental Due Diligence assessment on the Klipwaal Gold Mine which included an assessment of completed and required rehabilitation, a contaminated land liability assessment and an evaluation of the structure and the possible impact of the slurry dams. **Afrimat Quarries Compliance Audits** Compliance audits and Due Diligence assessments of the Afrimat Quarry operations in South Africa. These audits are conducted on a two yearly basis. **Private and Public Sector Development Projects** Provincial Legislature Precinct Environmental and Social Impact Assessment for the proposed Provincial Legislature Precinct. This study consisted of a large public facilitation component and extensive engagement with private and public sector stakeholders.

	Camps Drift Canal Mixed Use Development Environmental Impact Assessment for proposed improvements to the uMgeni Road Interchange and the National Route N2. The project included an extensive public participation process within the city of Durban, KwaZulu-Natal during the process. **Tiger Lodge Development** Environmental Impact Assessment for the proposed Tiger Lodge Tourism Development. **Paradise Lodge Development** Environmental Impact Assessment for the proposed Paradise Lodge Tourism Development.

DECLARATION

I, Magnus Van Rooyen hereby declare that the details furnished above are true and correct to the best of my knowledge and belief and I undertake to inform you of any changes therein, immediately. In case any of the above information is found to be false or untrue or misleading or misrepresenting, I am aware that I may be held liable for it.

Signature: **Date: 27/02/2021**

Michael Cloete

GIS and Environmental Consultant

CORE SKILLS

- Spatial Analysis
- Office Administration
- Database management
- GIS Data manipulation and analysis

DETAILS

Qualifications:

Bachelor of Science Geo-Information Science Honours

Languages

- Home Language: Afrikaans: Read, write, and understand - Excellent
- Other Languages: English: Read, write, and understand - Excellent
- German: Read, and write - Satisfactory

Countries Worked In

- Namibia
- South Africa

PROFILE

Michael is an Environmental and Geographic-Information Science consultant at GCS Water and Environmental Engineering (Pty) Ltd and has been working for GCS since the end of January 2021. Studied Geo-Information Science with Geography and Environmental Studies. He has experience helping on many environmental impact assessments and scoping projects. He has previously worked with many software's for database management like Microsoft Access or SQL and also skills in ArcMap, Envi, QGIS and also Microsoft visual studio for programming.

Areas of Expertise:
Cartography and mapping, spatial analysis, database management, office administration, environmental impact assessment and environmental scoping.

Work Experience

Period	Employer	Position	Role/ Responsibility
Holiday job 2014-2015	Supreme Car Wash	Supervisor and driver	Manage/supervise staff, interact with customers, handle money and inventory, and drive vehicles.
Holiday job 2016 till present	Namakwa Take Away	Administrative assistant (family business)	Assist with administration duties, ordering of stock, managing staff.
2017 June to July	Cronje & Co legal practitioners	Messenger	Deliver and retrieve legal documents between clients, lawyers, and respective businesses. Interact with clients and various court officials and legal representation.
2020 December	Kloppers legal practitioners	Receptionist and messenger	Office management of inventory and legal documents and set up meetings with clients, answer phone calls.

Project Experience

Year	Client	Project Description	Role/Responsibility
2021	MTC	08everyone proposed tower construction public participation across the country	Hand out letters to residents for public meeting assist with public participation process for environmental impact assessment
2021	MTC	Compliance monitoring	Call Regional offices to obtain comments for reports, project administration for environmental impact assessment
2021	Osona Village	Compliance monitoring	Site visit and take photos for compliance report, assist with environmental audit and compliance monitoring
2021	Namdeb Diamond Coorporation, Lüderitz	Bird sanctuary construction	Assist with public participation process for environmental impact assessment
2021	Nampower	Environmental assessment for the subdivision and consolidation of erven in Tsumeb	Compile and send out letters to I&AP's, assist with public participation process
2021	Famestone Marble mine	Compliance proposal	Compile draft proposal reports for environmental compliance monitoring
2021 - 2022	Powercom	Proposed telecommunication towers	Assist with public participation process of the Environmental impact assessment and map out locality of proposed towers
2021	Epangelo Mining	Environmental impact assessment for exclusive prospecting license in Erongo region	Engagement with surrounding farm owners as part of public participation process for environmental impact assessment
2021-2022	Tsandi Village Council	Re-alignment of street in Tsandi Village in Omusati region	Assist with background information documents and adverts for the public participation process and scoping report compilation
2021 - 2022	Walvis Bay Municipality	Environmental impact assesment for Township establishment of five township extensions	Assist with the Environmental impact and scoping process
2021	Keetmanshoop Private School	Rezoning of erven and street in Keetmanshoop to accommodate more space for the school development	Assist with Environmental and scoping process for the rezoning of streets and erven surrounding the Keetmanshoop private school.
2021	Cairos Cottage, Lüderitz	Rezoning public open space to accommodate more space for guest house to develop	Assist with public participation process of the environmental impact assessment
2021-2022	Ondekaremba Farm	Creation of servitude to access farmlands close to Neudam in Windhoek district	Assist with public participation process and scoping report process
2021	Lüderitz Town Council	Rezoning erven from public open	Assist with public participation process for the environmental impact

		space to residential and business for flexible land tenure scheme	assessment
2021	Henties Bay Municipality	Environmental impact assessment for establishment of Tulongeni gardens golf estate	Assist with public participation process for environmental impact assessment
2021 - 2022	Henties Bay Municipality	Hydrological assessment and environmental impact assessment of Agricultural small holdings	Assist with the environmental impact assessment and hydrological study to establish agricultural plots
2021	Oshikuku Town Council	Environmental impact assessment for rezoning public open space	Assist with public participation process and scoping report for the rezoning of public open space to residential
2021	Omuthiya Town Council	Environmental impact assessment for establishing Kanita Extension	Assist with public participation process and scoping report for establishing new residential areas
2021 - 2022	Henties Bay Municipality	Environmental impact assessment for rezoning public open spaces to development electrical substations	Assist with public participation process and environmental scoping report for rezoning erven
2021- 2022	Lüderitz Town Council	Environmental Impact assessment for flexible land tenure scheme	Assist with public participation process and scoping report for environmental impact assessment
2022	Ondangwa Town Council	Environmental impact assessment for Township Establishment for Onatsi extensions	Assist with environmental scoping report and submission to Ministry of Environment, Forestry and Tourism
2022	Namwater	Environmental and social impact assessment for upgrade of water purification plant	Assist with public participation and scoping for the upgrade of the water supply scheme of Rundu town and surrounding villages
2022	Namibia Wildlife Resorts	Environmental Clearance Certificate renewals	Assist with Environmental management plans and scoping reports and locality maps of resorts
2022	Oranjemund Town Council	Environmental Impact assessment for formalization of dwelling units	Assist with environmental assessment and scoping report
2022	Outapi Town Council	Environmental impact assessment for rezoning erven from public open space to residential	Assist with environmental scoping for establishment of residential extensions
2022	Mariental Municipality	Environmental impact assessment for rezoning erven from residential to business	Assist with the environmental impact assessment, public participation, and scoping of establishing business districts
2022	Nkomati Mine (Mpumbalanga, South Africa)	Hydrological study for feasibility of pit lake closure	Field surveying and pit lake sampling for water quality analysis
2021 - 2022	Stubenrauch planning consultants	Town Planning and Environmental assessments	Regular assistance with structural plans of municipalities and town councils

DECLARATION

I, Michael Cloete hereby declare that the details furnished above are true and correct to the best of my knowledge and belief and I undertake to inform you of any changes therein, immediately. In case any of the above information is found to be false or untrue or misleading or misrepresenting, I am aware that I may be held liable for it.

Signature:  Date: 06/06/2022

APPENDIX B: ECC PREVIOUSLY ISSUED

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Tel: (00 26461) 284 2111
Fax: (00 26461) 229 936

E-mail: rikka.shikongo@met.gov.na

Enquiries: Ms. Rikka Shikongo

Cnr Robert Mugabe &
Dr Kenneth Kaunda Street
Private Bag 13306
Windhoek
Namibia

22 June 2017

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

Chief Executive Officer
Namibia Plastics and packaging Distributors (Pty) Ltd
P. O. Box 6523
Ausspannplatz
Windhoek

Dear Sir

SUBJECT: ENVIRONMENTAL CLEARANCE CERTIFICATE FOR THE PROPOSED PLASTIC EXTRUSION/CONVERSION PLANT ON ERF 34 AT BRAKWATER INDUSTRIAL PARK, WINDHOEK, KHOMAS REGION

The Environmental Management Plan submitted is sufficient as it have made an adequate provisions of the environmental management concerning the proposed activities. From this perspective regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored from time to time.

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 certificate for the project to commence. However, this clearance letter does not in any way 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 Namibia Plastics and Packaging Distributors (Pty) Ltd and their consultant.

This environmental clearance is valid for a period of 3 (three) years, from the date of issue unless withdrawn by this office.

Yours sincerely,

MINISTRY OF ENVIRONMENT AND TOURISM
P/Bag 13306
Windhoek, Namibia
2017 -07- 30
Office of the Environmental Commissioner

Teofilus Nghitila
ENVIRONMENTAL COMMISSIONER

"Stop the poaching of our rhinos"

All official correspondence must be addressed to the Permanent Secretary

APPENDIX C: ENVIRONMENTAL MANAGEMENT PLAN COMPLIANCE AUDIT REPORT

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PO Box 81808, Windhoek, Namibia
Tel: (+264) 61 248 614 **Fax:** (+264) 61 238 586 **Web:** www.gcs-na.biz

Environmental Compliance Monitoring for the existing Plastic Extrusion Plant on Plot No. 34, Shali Industrial Park, Brakwater, Windhoek

Audit Report

Version – Final

February 2023

Namibia Plastics & Packaging Distributors (Pty) Ltd

GCS Project Number: 22-1234

Client Reference: Environmental Clearance Certificate: Namibia Plastics

Environmental Compliance Monitoring for the existing
Plastic Extrusion Plant

Report
Final

February 2023

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	Name	**Signature**	**Date**
Author	Michael Cloete		February 2023
Reviewer 1	Magnus van Rooyen		February 2023

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1.2 Background

Namibia Plastics and Packaging Distributors (Pty) Ltd is a Namibian company who produces Fast Moving Consumer Goods (FMCG) packaging through a plastic extrusion process. This process consists of melting and forming of plastic material (e.g. pellets) into a continuous profile (i.e. conversion of one form of plastic to another through a heating (i.e. melting) process).

The plastic pellets are transported from South Africa to the site where it is placed in containers, melted (by means of electric currents) and converted (through a cooling process) to plastic sheeting, a process that is already followed by other industries in Namibia.

The proposed project is situated on Plot No. 34, Shali Industrial Park, Brakwater in Windhoek. The site is located approximately 10 km north of Windhoek on the B1 Road to Okahandja and falls in an area that has been zoned as a heavy industrial area (although the particular project does not include any activities associated with heavy industries). The location of the site is shown in **Figure 1** below.

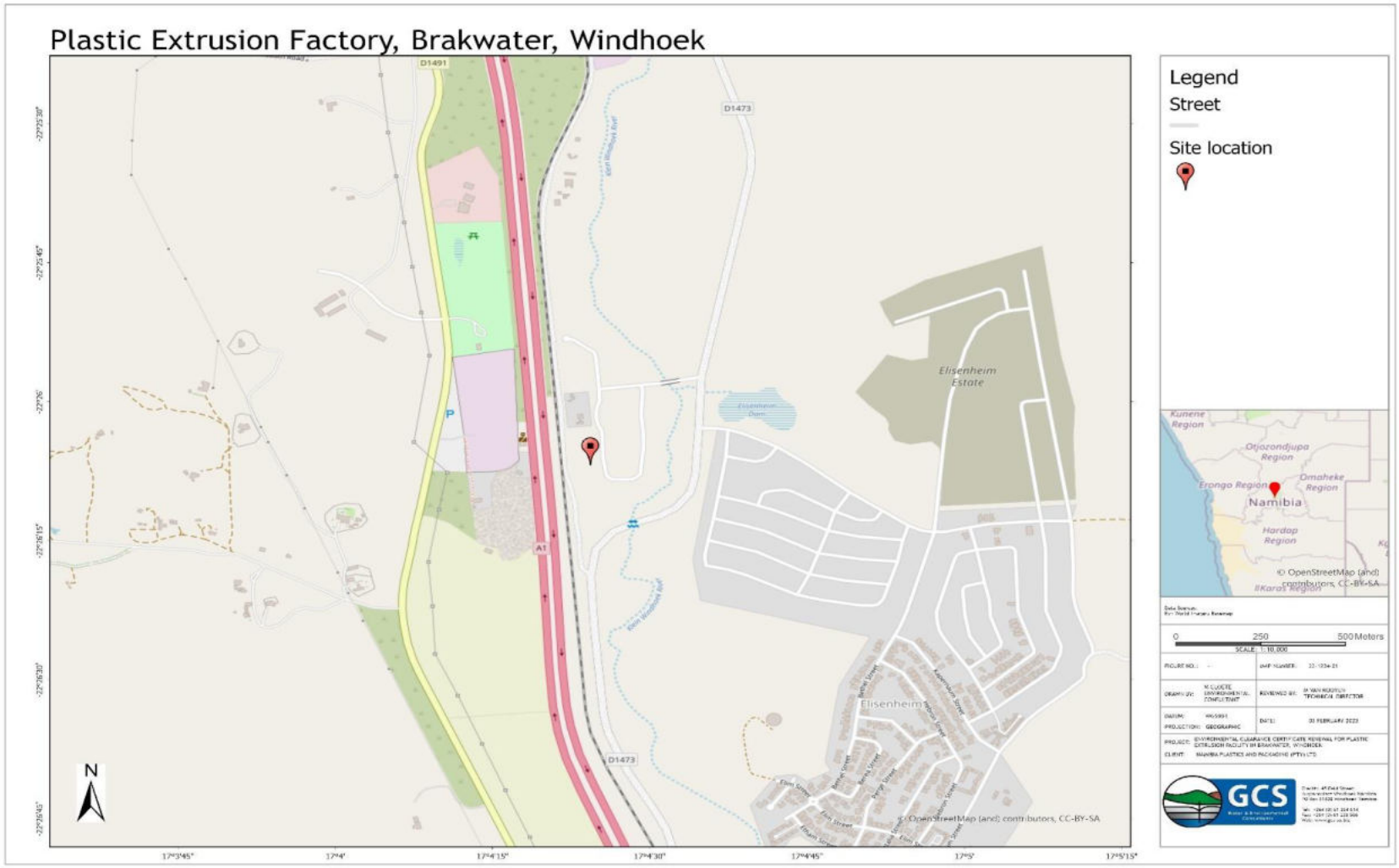

Figure 1: Locality map of Namibia Plastics and Packaging

1.3 Objectives of the environmental audit

The objectives of the environmental audit for 2023 are to:

- Renew the environmental clearance certificate.

2. SCOPE OF WORK

The scope of work entailed:

- Site inspection for compliance to both environmental and safety regulations;
- Conducting a compliance checklist for implementation of the EMP provisions;
- Compilation of an Environmental Audit Report; and
- Production of an audit table summarising social, environmental and safety conditions for the facility.

All these were done as per the methodology in the subsequent section.

3. METHODOLOGY

The audit was divided into three (3) phases, namely: desktop study (which made provision for the review of the EMP), Site visit (inspection of the sites) and reporting and submission to the Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs (MEFT: DEAF).

3.1 Phase 1: Desktop study

An environmental checklist was developed to summarise issues raised in the EMP as well as the mitigation measures assigned to each impact. The checklist will be used to guide the on site audit.

3.2 Phase 2: Site visit and inspection

Site visits and inspections was conducted by GCS staff on the 11th of January 2023 at Namibia Plastics and Packaging (Pty) Ltd. A site walkover was undertaken, to inspect the different areas and to ensure that their status is maintained.

3.3 Phase 3: Reporting and submission to the MEFT:DEAF

This Environmental Audit Report includes the following:

- On site compliance to the requirements of the EMP;

- Assessment of the effectiveness of the mitigation measures applied;
- Report on the progress made towards achieving the objectives of the EMP; and
- Additional comments and notes on observations made regarding the photographic evidence.

Results of this process are presented in Section 4. After the compilation of the Environmental Audit Report, GCS will submit the report to the MEFT: DEAF for auditing.

4. AUDIT FINDINGS

The findings of the audit are included in of this Report. The audit findings also include practical recommendations whereby the various non-compliance issues can be corrected.

All findings were ranked according to the criteria indicated in the table below. The colour coding assigned to the rankings is used to visually indicate areas of compliance, minor non-compliance, moderate non-compliance, and major non-compliance. Furthermore, to indicate which conditions are not applicable to the on-site activities and which are repeat conditions that have already been scored. Each colour coding has a value (score) attached to it.

Table 4-1: Compliance ranking

RANKING	SCORE
Compliant	2
Minor non-compliance	1
Noted/Not Applicable	0
Repeat Condition	-
Moderate non-compliance	-1
Major non-compliance	-2

All findings were ranked according to the following criteria:

Noted/Not Applicable:

- The specific condition is not relevant to the current on-site activities.

Repeat Condition:

- The specific condition is a repeat of a previous condition.

Compliant:

- Namibia Plastics and Packaging Distributors (Pty) Ltd complies with the conditions as stated in the EMP.

Non-compliance:

- **Minor Non-compliance:**
  - Isolated observations demonstrating that full compliance to the environmental requirements on site have not been, or will not be, fully achieved.
- **Moderate Non-compliance:**
  - There is a substantial failure to meet the environmental requirements for the project, there is a possibility of substantial environmental degradation and/or pollution, and/or objective evidence was observed raising doubt as to the integrity of data or records inspected.
- **Major Non-compliance:**
  - There is a critical failure against legal requirements or management response that presents an immediate or significant risk that could result in prosecution and/or adverse legal findings due to failure to meet regulatory requirements; result in immediate injury or serious injury; result in prolonged business outage; and/or could result in serious damage to the project's reputation.

The findings of the audit were entered into the audit spread sheet which tabulates the percentage of compliance to the regulatory requirements. The table can be interpreted as follows:

- **Maximum Score** – represents the score if 100% compliance is achieved; i.e. the number of conditions minus the conditions which are not applicable or repeated, multiplied by the score allocation of 2.
- **Compliance, minor non-compliance, moderate non-compliance and major non-compliance** – represent the number of times the specific rating was triggered;
- **Score** – represents the sum of the ratings (rating times the corresponding score); and
- **Percentage (%) compliance** - represents the score divided by the maximum score.

It must be noted that duplicate conditions are not scored due to the fact that this will negatively influence the scoring results. Duplicate conditions are marked as a Repeat Condition.

Namibia Plastics EMP Compliance Audit Results

Scoresheet	% Compliance	Score	Maximum Score	Compliance	Noted/ Not Applicable	Repeat Condition	Minor Non-Compliance	Moderate Non-Compliance	Major Non-Compliance
Namibia Plastics and Packaging	110%	44	40	22	20	0	0	0	0

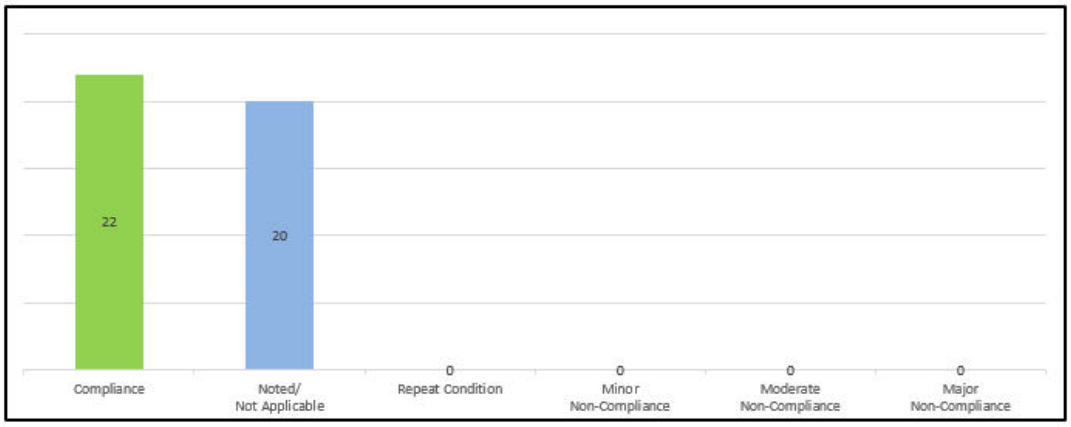

Figure 2: EMP Compliance Audit Results

Details of the areas that should be given attention are summarised in **Table 4-2** as shown below.

Table 4-2: Summary of findings from environmental audit – Namibia Plastics and Packaging (Pty) Ltd

Namibia Plastics Environmental Compliance Audit January 2023				
DATE:	**11/01/2023**		**SITE:**	
No	**Conditions**	**Status**	**Score**	**Observations**
	Description of the environment			**Comment Here**
1	Climate	Noted/Not Applicable	0	The area has a warm climate with a fair amount of rainfall.
2	Fauna and Flora	Noted/Not Applicable	0	There were fauna and flora species found around the facility. eg birds, and trees and plants.
3	Geology	Noted/Not Applicable	0	
4	Landscape	Noted/Not Applicable	0	Brakwater Elisenheim rocky sandy area
5	Provide a description of the environment in which the facility is located i.e. within town, protected area, farming area etc.	Noted/Not Applicable	0	it's located in the Windhhoek District
	Water			
6	Where do they get water from	Noted/Not Applicable	0	Namwater (Local authority)
7	Water usage at facility	Noted/Not Applicable	0	They use water for extrusion process but recycle water in house in a closed loop system
8	Water saving on site	Noted/Not Applicable	0	They use water for extrusion process but recycle water in house in a closed loop system
9	Is there grey water produced at the facility?	Noted/Not Applicable	0	Yes, they do.
10	Is the grey water recycled or is it regularly removed from site and how?	Noted/Not Applicable	0	Recycled
	Electricity			
11	Where do they get electricity from	Noted/Not Applicable	0	Nampower but making provisions for Solar electricity.
12	Electricity usage at facility	Noted/Not Applicable	0	They use eletricity for the operations of machinery

13	Electricity saving on site	Noted/Not Applicable	0	They use low voltage light bulbs
	Sewage			
14	How is sewage disposed of at the facility	Noted/Not Applicable	0	Only the toilets and wash basins lead into the sewer system
	Sanitation			
15	Number and Type of toilet facilities available on site	Noted/Not Applicable	0	Enough toilets that are designated specifically for males and females
	Solid waste management			
16	How is solid waste disposed of	Compliance	2	The waste is collected at the facility and recycled and sold (Mostly plastic waste)
17	Waste bins available on site	Compliance	2	Yes there are waste bins at the facility.
18	Tidiness of the site	Compliance	2	The facility is tidy and well taken care of.
19	Is there any recycling of waste practices on site	Compliance	2	Yes
20	National strategy on waste management in protected areas to apply	Compliance	2	Yes, the facililty follows the national strategy on waste management in protected area.
	Sense of place			
21	Ways in which facility tries to maintain the natural ambiance of the facility	Compliance	2	The buildings colour are matching with the environment.
22	Noise management actions in place at the facility	Compliance	2	The factory is fairly quiet
	Community relations			
23	Are there any communities in proximity of the site	Noted/Not Applicable	0	Yes they do.
24	How is communication with these communities facilitated	Noted/Not Applicable	0	They communicate with them via phonecalls.
	Stormwater management			
25	Stormwater management measures implemented on site	Compliance	2	Yes
26	Is stormwater an issue on site?	Compliance	2	So far no storm water issues.

	Groundwater and Surface Contamination			
27	Pollution control measures are in place in terms of cleaning and maintenance of equipment, vehicles etc. and are effectively ensuring that the soil is not polluted.	Compliance	2	Yes, they do empty the waste bins on a daily basis. They have cleaning campaigns at the facility.
	Hazardous Waste			
28	Is there any hazardous waste on site that must be disposed of?	Noted/Not Applicable	0	No
29	How is it being disposed of?	Compliance	2	The waste is collected at the facility and recycled and sold (Mostly plastic waste)
	Conservation of vegetation			
30	What vegetation is present on site	Compliance	2	Indigenous species
31	What measures in place to preserve the vegetation?	Compliance	2	Having walking pathways to avoid people walking on the vegetation.
32	Any alien vegetation species on site?	Compliance	2	No, they don't.
	Protection of Biodiversity and Cultural Heritage			
33	Is there visible conflict with fauna or flora which may negatively impact the biodiversity in the area.	Noted/Not Applicable	0	No, they don't have.
	Road safety			
35	Roads are clearly demarcated	compliance	2	Yes, they are.
	Archaeological/ Heritage			
37	Are there any archaeological/heritage sites or artefacts within the facility or in proximity of the facility?	Noted/Not Applicable	0	No
38	How are these protected from human interference	Compliance	2	It is demarcated.
	Environmental policies			
39	Does Namibia Plastics have any written environmental policies	Compliance	2	Yes, they do.
	Signage at the facility			
40	Warning signs presence of wildlife etc.	Compliance	2	No, they don't have any signage.
41	No littering etc.	Compliance	2	No, they don't have a no littering signage at the facility

	Employment			
42	Local employment prioritized?	Compliance	2	Yes they do.
43	Use of local labour and skills where needed	Compliance	2	Yes they do.
44	Goods and services sourced from local suppliers	Compliance	2	Yes they do.
		Total Findings	**40**	

5. EMP COMPLIANCE SURVEY

The photos displayed in this section visually illustrate the areas of compliance and/or non-compliance that were assessed during the audit undertaken for the Namibia Plastics and Packaging facility.

Namibia Plastics and Packaging Distributors (Pty) Ltd

Ablution facility

Ablution facility

Ablution facility wash basins

Fire hydrant

Fire hydrant

First aid Kit

Plastic Pellets

Plastic Extrusion

Chemical Trap (Chemicals never disposed into Environment)

Ink washing station (Not drained into Environment)

6. CONCLUSION

The objective of the study was to conduct an environmental audit for the facility as part of their environmental clearance certificate renewal. The audit was conducted during the period of January 2023, comprising a site inspection to determine on site compliance with the EMP. The compliance of the project with the provided action plans are well adhered to and the closed loop system is well implemented.

APPENDIX D: GUIDELINE ECO ENVIRONMENTAL MONITORITING REPORT

Reported by: …… Date: ……

Environmental Feature	Impact	Management Actions	Observation	Remedial Action	Compliance (Yes/No)
EMP training	Lack of EMP awareness and the implications thereof	• Employees appointed for work (construction, maintenance etc.) must ensure that all personnel are aware of necessary health, safety, and environmental considerations applicable to their respective work. • A copy of the EMP should be available at the facility. • Employees appointed for work (construction, maintenance etc.) should be made aware by the PR of the provisions of the EMP that their work must comply with.			
Monitoring	EMP non-compliance	• Appoint a Proponents Representative (PR) or delegate a member of staff to be the PR • The Proponent/PR should monitor the implementation of this EMP. • The PR should inspect the site at least on a monthly basis. • Bi-annual audits should be conducted of site activities by an external ECO.			

Environmental Feature	Impact	Management Actions	Observation	Remedial Action	Compliance (Yes/No)
Waste Management	Visual impact and soil contamination	• The site should always be kept tidy. • All domestic and general waste produced daily should be disposed of correctly. • No waste may be buried or burned. • Waste containers (bins) should be emptied regularly and removed from site to the nearest waste disposal site. Records of collection should be kept for auditing purposes. • Set up a Waste Management Programme to include sorting of waste by separate waste streams for recycling wherever possible. • All recyclable waste needs to be taken to the nearest recycling depot. • Adequate separate waste containers (bins) for hazardous and domestic / general waste must be provided on site. • Staff should be sensitised to dispose of waste in a responsible manner and not to litter.			
Hazardous Waste	Soil and groundwater contamination	• Adequate separate waste containers (bins) for hazardous and domestic / general waste must be provided on site. • Hazardous waste should be disposed of at a facility that is able to receive such waste and records of disposal should be kept. • Maintenance and washing of vehicles and machinery on site should take place only at a designated workshop area that is on a bunded, impermeable surface. • Ensure that all bunded areas, e.g. in workshops and around generators, are regularly drained and cleared and that all material is safely stored on site until disposed of as hazardous waste at appropriate facility.			

Environmental Feature	Impact	Management Actions	Observation	Remedial Action	Compliance (Yes/No)
		• Set up a Contingency Plan to deal with minor and major pollution incidences e.g. oil spill clean-up kit available at all necessary points.			
Biodiversity	Loss of Biodiversity	• Trees and plants protected under the Forest Act No 12 of 2001 are not to be removed without a valid permit from the local Department of Forestry. • Off-road driving should not be allowed on site. • No alien vegetation should be introduced on site. • Enforce regulations that prevent the stripping of natural vegetation. • Conduct regular checks to prevent alien and/or invasive plants from establishing. • No pets or domestic animals allowed in settlements as per standing park rules.			
Noise	Disturbance to fauna	• Noise restrictions should be in place on site to minimise disturbance.			
Health and Safety	Health and Safety on site	• Ensure first aid training and environmental awareness training is provided to staff. • Fire extinguisher training should be provided to a designated member of staff who will act as a fire marshal during fire events. • Any accidents/incidents occurring on site should be reported to MEFT and other relevant authority within 24 hours. • Ensure that adequate emergency procedures are in place to reduce the magnitude of the impacts in the event of an emergency.			

Environmental Feature	Impact	Management Actions	Observation	Remedial Action	Compliance (Yes/No)
Employment	Recruitment	• Local employment and use of local businesses/suppliers should be encouraged to promote and improve the local economy as far as reasonably possible. • Should the required services and/or goods not be available locally then look to other localities for these services/goods.			
Ablution	Sanitation	• Separate ablutions should be available for men and women and should clearly be indicated as such. • Workers responsible for cleaning the toilets should be provided with latex gloves and masks.			
Sewage Management	Environmental pollution and underground water resources contamination from waste water	• Suitably qualified and/or skilled personnel should be appointed to run the wastewater treatment plant as required (which may include processing technicians, mechanical technicians and electrical technicians) based on the technology employed and the relevant expertise required to ensure efficient operation of the plant. • Ensure that the sewage system is managed and maintained as per design and engineering specifications. • Ensure that all concerned staff are trained in critical health and safety issues regarding operation and maintenance of the sewage system components. • Ensure that all concerned staff are issued with the necessary safety equipment and protective clothing required for them to do their jobs safely and at no risk to their health.			

Environmental Feature	Impact	Management Actions	Observation	Remedial Action	Compliance (Yes/No)
		• Be on the lookout for leaking pipes and any signs of environmental contamination resulting from the sewage infrastructure (encouraging residents to do the same) and take remedial action to resolve any identified problems as rapidly as possible. • Routine visual inspections of sewer infrastructure and resident parking areas for signs of soil contamination. • Groundwater monitoring of known boreholes in the area, to determine if there is an impact. Mitigation measures should then be formulated. • The solid sludge produced should be disposed at a registered waste dumpsite. • Hazardous waste, including emptied chemical containers (e.g. liquid chlorine, sodium hypochlorite) and other chemicals used for disinfection in the operational phase should be safely stored on site where they cannot be reached and used by the unsuspecting and uniformed locals for personal use.			
Soil	Soil contamination	• Spill control preventative measures should be put in place to manage soil contamination. • Potential contaminants such wastewater should be contained on site and disposed of in accordance with municipal wastewater discharge standards so that they do not contaminate surrounding soils. • Soil contamination should be monitored on site daily by PR and monthly by ECO.			

Environmental Feature	Impact	Management Actions	Observation	Remedial Action	Compliance (Yes/No)
Water Management	Water saving Groundwater contamination	• Water saving mechanisms should be implemented on site e.g., installation of water saving devices where practical. • Should any hazardous material and wastes be produced these shall be managed in a safe and responsible manner so as to prevent contamination of soils, pollution of water and/or harm to people or animals as a result of the use of these materials. • Hazardous and non-hazardous waste shall be stored separately at all times and should be disposed at a facility that is licenced to receive such waste. • In the event of a pipe burst, the burst pipe section must be isolated by closing the nearest valves on either side of the break. • A qualified plumber with water distribution pipeline experience must be contacted to repair such pipe breaks as soon as possible. • The plumber must repair the burst pipe by means of an approved method, and the repair must be tested by opening all the valves prior to backfilling of the trench. • Only once the repair is tested and confirmed to be correct may the pipe trench be backfilled. • Replace washers and seals on pipes fittings, taps and toilets when fittings leak.			
Archaeology	Archaeological Impacts	• Should a heritage site or archaeological site be uncovered or discovered on site, a “chance find” procedure should be applied in the order they appear below: o If operating machinery or equipment, stop work; o Demarcate the site with danger tape; o Determine GPS position if possible; o Report findings to the construction foreman;			

Environmental Feature	Impact	Management Actions	Observation	Remedial Action	Compliance (Yes/No)
		○ Report findings, site location and actions taken to superintendent; ○ Cease any works in immediate vicinity; ○ Visit site and determine whether work can proceed without damage to findings; ○ Determine and demarcate exclusion boundary; ○ Site location and details to be added to the project's Geographic Information System (GIS) for field confirmation by archaeologist; ○ Inspect site and confirm addition to project GIS; ○ Advise the National Heritage Council of Namibia (NHCN) and request written permission to remove findings from work area; and			
Traffic	Traffic Impacts	• Introduce speed limits and signage within the facility. • Roads to be clearly demarcated.			
Wastewater	Surface and groundwater contamination	• The discharge of effluent into the environment and required monitoring is to be done in accordance with the discharge permit as issued by MAWLR for the wastewater treatment facility. • Bi-annual monitoring of groundwater and surface water resources (as applicable).			
Community relations	Communication	• Establish an official complaints procedure and communicate the procedure to all stakeholders. Ensure that feedback loops are in place.			