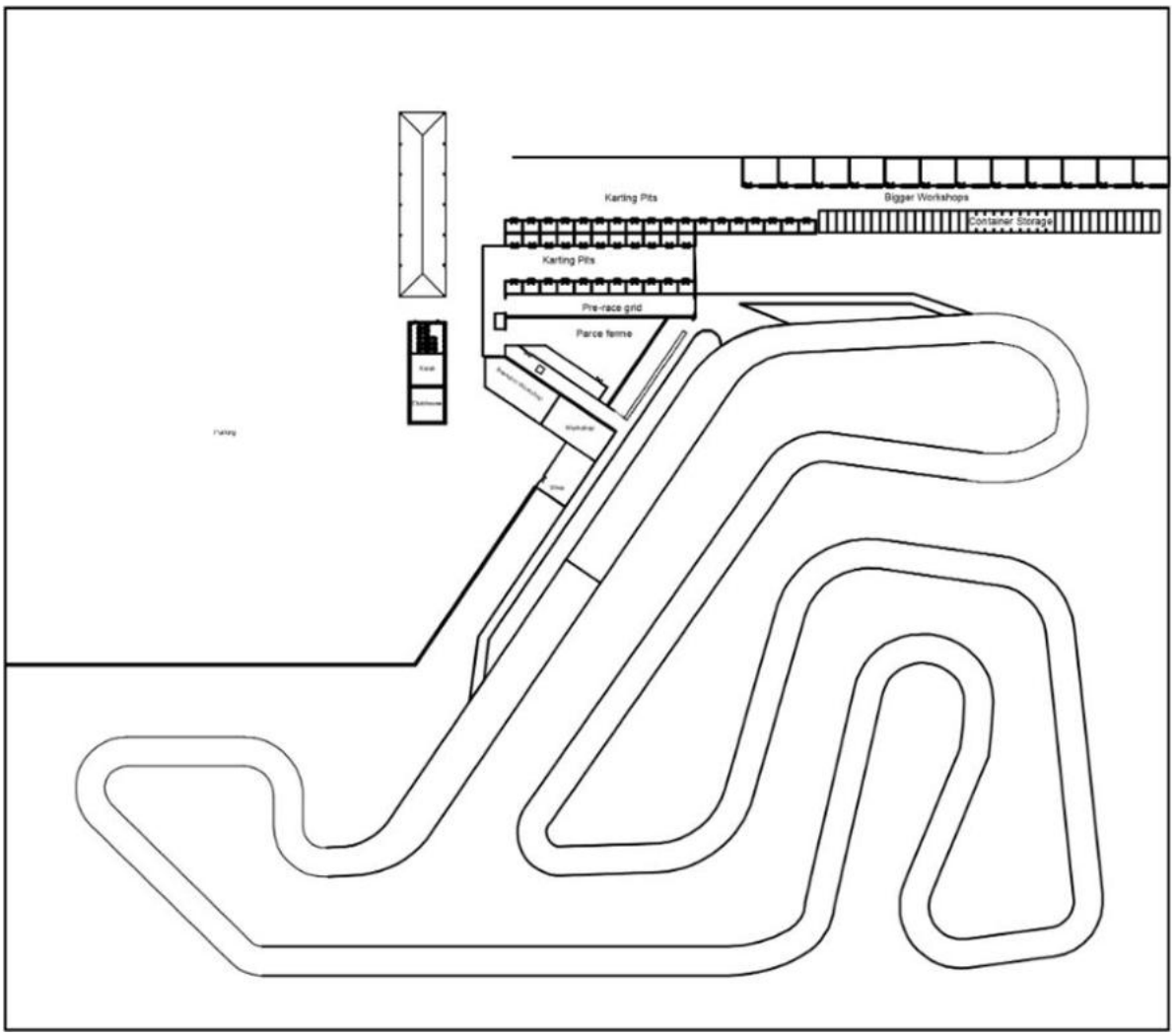
ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION, OPERATION & DECOMMISSIONING OF A KARTING CIRCUIT AND ASSOCIATED FACILITIES ON PORTION 48 (Portion of Portion B), SWAKOPMUND.

SCOPING REPORT
AND
ENVIRONMENTAL MANAGEMENT PLAN



MARCH 2026

Project Title:	Environmental Impact Assessment (EIA) for The Proposed Construction, Operation & Decommissioning of a Karting Circuit and Associated Facilities on Portion 48 (Portion of Portion B), Swakopmund.
Report:	Scoping Report & EMP
Version/Date:	Final Version - March 2026
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MEFT No.	APP-007059

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LIST OF ABBREVIATIONS

DEA	Department of Environmental Affairs
ECC	Environmental Clearance Certificate
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
I&APs	Interested & Affected Parties
MEFT	Ministry of Environment, Forestry and Tourism
NMSF	Namibian Motorsport Federation,
OHS	Occupational Health and Safety
PPE	Personal Protective Equipment
WHO	World Health Organization

EXECUTIVE SUMMARY

Organised motorsport and recreational facilities support structured sporting activities, skills development, and youth engagement. Karting requires a designated and controlled environment to ensure safety, manage noise, and minimise environmental disturbance. The Swakop Karters Sports Club (Proponent) proposes the establishment of a formal karting circuit to accommodate organised karting activities, training, and events within the Swakopmund area. According to Section 27 of the Environmental Management Act No. 7 of 2007, motor vehicle and motorcycle racing and test tracks activities may not be carried out without undertaking an Environmental Impact Assessment (EIA) and obtaining an Environmental Clearance Certificate (ECC).

Thus, SandSea Consulting cc was appointed to undertake the EIA process and to apply for an ECC, in terms of the Environmental Management Act No. 7 of 2007 and its Regulations of 2012 (GN No 30 of 2012). The proposed site is located on 22°35'56.09" S; 14°33'06.57" E. The proposed area measures approximately 9 hectares.

This study is conducted to determine all environmental, safety, health and socio-economic impacts associated with the construction and operation of the site. Relevant environmental data has been compiled using secondary sources and site-visit observations. Potential environmental impacts and associated socio-economic impacts identified during the scoping process are addressed in this report.

This development will have impacts on waste management, traffic & access, noise and dust pollution, health & safety, and visual & aesthetic impacts during the construction and operational phases. If all mitigation measures for the potential impacts are implemented in accordance with the recommendations in the Environmental Management Plan, the likelihood and severity of the predicted negative impacts are expected to be reduced.

The EMP should be used as an on-site reference during construction, operation and decommissioning phases. Parties responsible for transgressing the EMP should be held accountable for any corrective measures that may be required. This study recommends that environmental performance be monitored regularly to ensure compliance and that remedial measures be taken as needed.

1. INTRODUCTION

1.1. Background

The Swakop Karters Sports Club (Proponent) proposes the establishment of a formal karting circuit to accommodate organised karting activities, training, and events within the Swakopmund area. The Erf belongs to Swakop Karters, an affiliated members club to the Namibian Motorsport Federation, NMSF. The proposed development seeks to replace informal or ad hoc activities with a purpose-built facility that can be appropriately managed and regulated. This is a listed activity that cannot be undertaken without an Environmental Clearance Certificate. Therefore, as part of the commissioning process, an Environmental Impact Assessment (EIA) is required to evaluate potential environmental and social impacts associated with the proposed activity and to identify mitigation measures to ensure environmentally responsible development.

SandSea Consulting cc has been appointed to conduct an EIA and develop an Environmental Management Plan (EMP) for the proposed project. Additionally, an application to the Ministry of Environment, Forestry and Tourism (MEFT): Department of Environmental Affairs (DEA) to obtain an ECC for the proposed project will be submitted.

1.2. Terms of Reference

The proposed project involves the establishment of a formal karting circuit. This is a listed activity that cannot be undertaken without an Environmental Clearance Certificate. The Terms of Reference (TOR) for the proposed project are based on the requirements set out by the Environmental Management Act (No. 7 of 2007) and its EIA Regulations (GN No 30 of 2012). The process covered the following steps:

- Provide a detailed description of the proposed activity;
- Identify all policies, legislation and guidelines that are relevant to the proposed activity;
- Notify and consult relevant stakeholders and I&AP's regarding the proposed activity and provide them with a reasonable opportunity to participate during the assessment process;
- Identify potential environmental impacts the proposed activity will have on the natural & urban environment and assess their significance;
- Collecting all possible data on the environmental, social, and natural resource components and parameters of necessity;
- Describing the location of the proposed project, including the physical area that may be affected by the project activities; and
- Outline management and mitigation measures in an EMP to minimise and/or mitigate potentially negative impacts which cannot be avoided.

2. PROJECT DESCRIPTION

2.1. Site Locality

The proposed karting circuit will be located on Portion 48 (Portion of Portion B), Swakopmund, in Erongo Region, Namibia. The coordinates of the site are 22°35'56.09" S; 14°33'06.57" E, and the area cover 9 hectares. The site is situated outside established residential areas, as shown in **Figure 1** below and was identified based on land availability, accessibility, and compatibility with surrounding land uses. Presently, the area is undeveloped, and the closest development is the municipal Wastewater Treatment Plant.

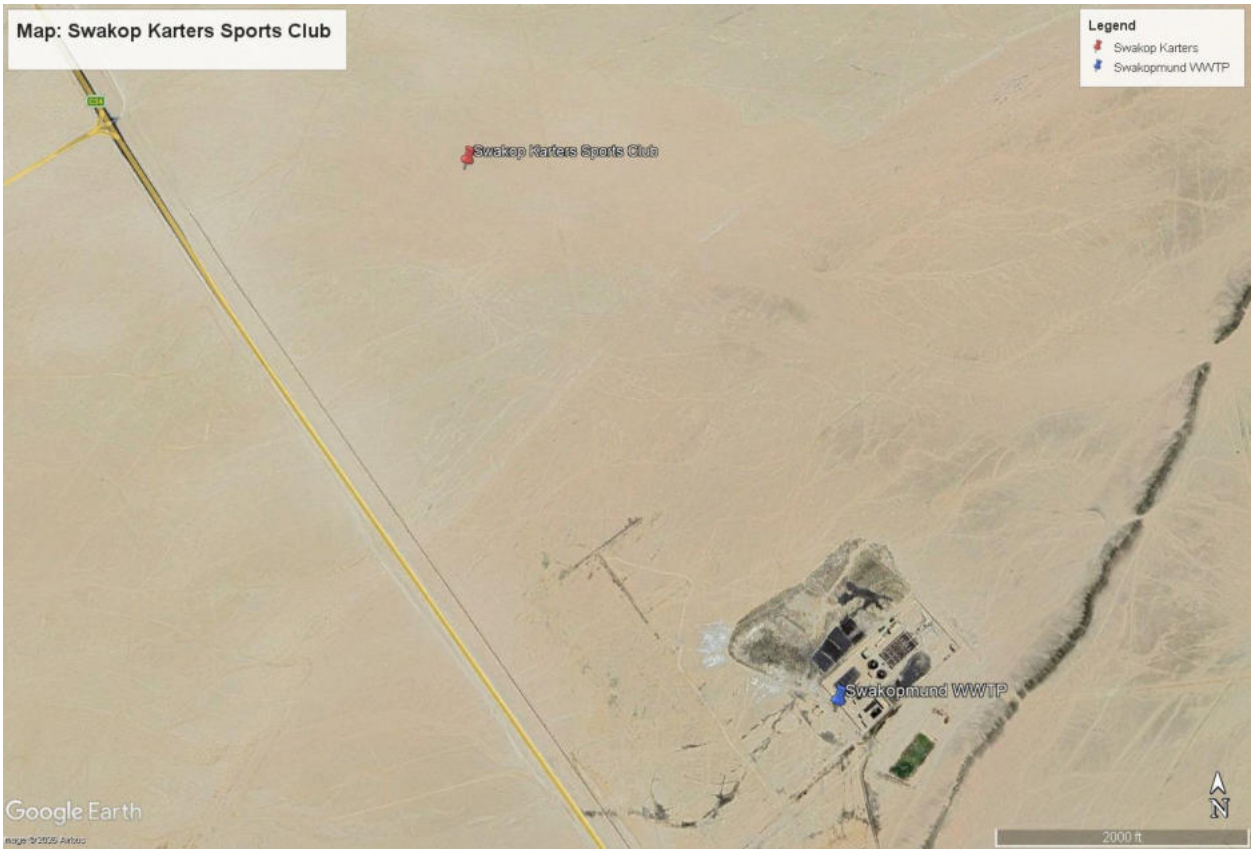


Figure 1: Locality Map (Google Earth, 2026)

2.2. Existing Infrastructure and Proposed Activities

The Erf belongs to Swakop Karters, an affiliated members club to the Namibian Motorsport Federation, (NMSF) and is situated outside established residential areas. All major and bulk services such as water, sewerage and electricity are not readily available in the area, but they will be arranged by the proponent in collaboration with the Municipality of Swakopmund.

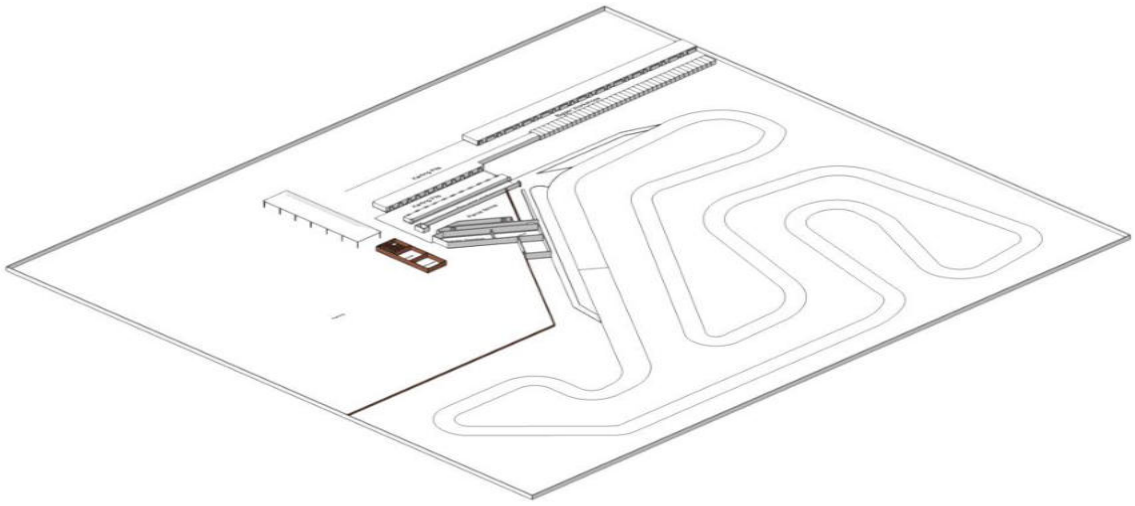
Figure 2: Photographs of the surrounding land use

2.3. Proposed Activity

The proposed activity entails the construction and operation of a karting circuit and associated facilities, which may include:

- A karting track and safety barriers;
- Paddock and pit areas;
- Support infrastructure such as parking, spectator areas, and ablution facilities; and
- Access roads and internal circulation areas.

The preliminary drawings of the proposed activity are depicted below.



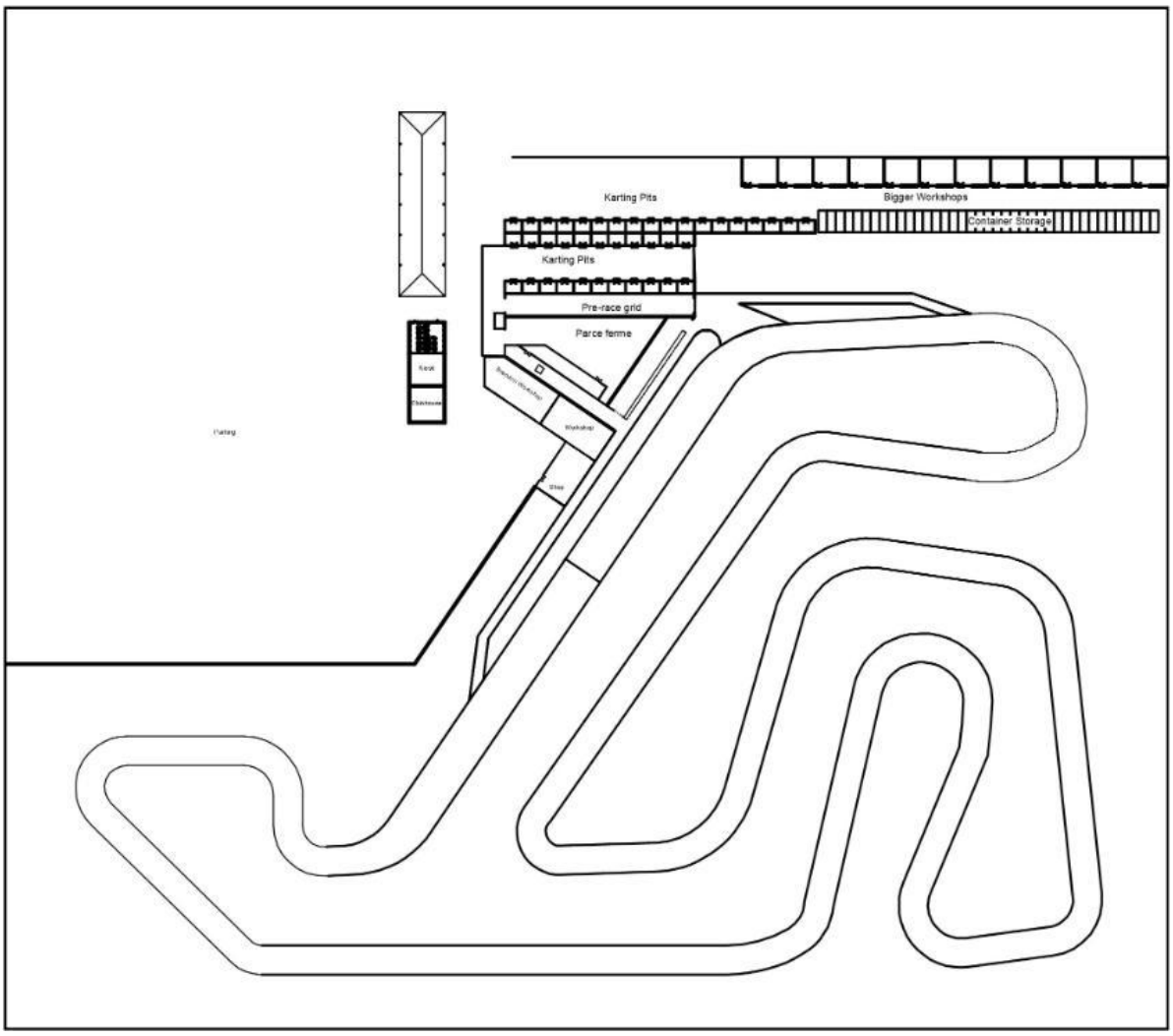


Figure 3: Preliminary drawings

2.4. Need and Desirability of the Proposed Project

The proposed development is intended to:

- Provide a formal, managed karting facility for organised motorsport activities;
- Improve safety and environmental management compared to informal karting practices;
- Promote recreational opportunities and skills development; and
- Support local sporting initiatives within the Swakopmund area.

2.5. Project Alternative

Environmental impact assessment best practices require evaluating potential impacts of proposed activities, including exploring alternatives. This process aims to identify options that minimize harm to the environment, which may involve assessing site, technology, and other

alternatives. Crucially, it must also consider the "no-go" alternative, wherein the activity is not implemented.

The following alternatives were considered.

- **No - Go Alternative**: This is a baseline against which all alternatives are assessed. This would essentially entail maintaining the current project status quo, whereby the area remains undeveloped. The town and residents will also not benefit from the available opportunities created by the development of a karting circuit.
- **Land-use Alternative**: The proponent considers this piece of land as the most viable for the development of a karting circuit and the erf is owned by the proponent. The area measures approximately 9 hectares in size and can accommodate the karting circuit and associated facilities. Therefore, no alternative site has been identified for this study.

3. LEGAL REQUIREMENTS

This section depicts the relevant Namibian legislation and policies associated with the proposed activity.

***Table 1: Namibian legislation applicable to the* proposed activity**

LEGISLATION/GUIDELINE	PROVISION	PROJECT IMPLICATION
The Constitution of Namibia 1990	The articles 91(c) and 95(i) commits the state to actively promote and sustain environmental welfare of the nation by formulating and institutionalizing policies to accomplish the sustainable objectives which include: - Guarding against overutilization of biological natural resources, - Limiting over-exploitation of non-renewable resources, - Ensuring ecosystem functionality, - Maintain biological diversity.	Through implementation of the environment management plan, the proponent shall be advocating for sound environmental management and sustainable development as set out in the Constitution.
Environmental Management Act No. 7 of 2007 and the Environmental Management Act Regulations of 2012	The purpose of this Act is to promote the sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment; to provide for a process of assessment and control of projects which may have significant effects on the environment; and to provide for incidental matters. Requires that projects with significant environmental impacts are subjected to an environmental assessment process (Section 27).	The development should be informed by the EMA. Activity 10.1 the construction of Motor vehicle and motorcycle racing and test tracks.
Local Authorities Act No. 23 of 1992	Define the powers, duties and functions of local authority councils. Regulations related to discharges into sewer networks, business registration, etc.	The development must comply with the provisions of the Local Authorities Act.
Town and Regional Planners Act No. 9 of 1996	This Act establishes the Namibian Council for Town and Regional Planners, defines functions and powers of the Council. The Act also provides for the establishment of national, regional and urban structure plans, and the development of zoning schemes.	The project layout must be done in accordance with the Swakopmund Town Planning Scheme.

The Water Act No. 54 of 1956	Prohibits the pollution of water and implements the principle that a person disposing of effluent or waste has a duty of care to prevent pollution (S3 (k)). Provides for control and protection of groundwater (S66 (1), (d (ii)). Liability of clean-up costs after closure/abandonment of an activity (S3 (l)).	The protection of ground and surface water resources should be a priority during the project phases.
Water Resources Management Act No. 11 of 2013	The Act aims to provide for the management, protection, development, use and conservation of water resources; to provide for the regulation and monitoring of water services and to provide for incidental matters.	
Atmospheric Pollution Prevention Ordinance No. 11 of 1976	Governs the control of harmful or offensive gasses and prohibits processes without registration certificate. Requires best practical means for preventing or reducing the escape into the atmosphere of harmful or offensive gasses produced by any process.	All activities shall be conducted in an environmentally sensitive manner.
Public Health Act No. 36 of 1919	Provides for the protection of the health of all people	The Proponent and all its employees should ensure compliance with the provisions of these legal instruments.
Public and Environmental Health Act No. 1 of 2015	Provides a framework for a structured more uniform public and for incidental matters. The objects of this Act are to: ✓ Promote public health and wellbeing. ✓ Prevent injuries, diseases and disabilities. ✓ Protect individuals and communities from public health risks.	
Labour Act No. 11 of 2007	Provides for Labour Law and the protection and safety of the employees. Labour Act, 1992: Regulations relating to the health and safety of employees at work.	Contractors, Sub-contractor shall be guided by this Act when recruiting or handling employment related issues.
Nature Conservation Ordinance No. 4 of 1975	Chapter 6 provides for legislation regarding the protection of indigenous plants	Indigenous and protected plants must be managed within the legal confines.
Atmospheric Pollution Prevention Ordinance (No. 11 of 1976).	The Ordinance objective is to provide for the prevention of the pollution of the atmosphere, and for matters incidental thereto.	All activities on the site must take due consideration of the provisions of this legislation.

Roads Ordinance 17 of 1972	This Ordinance consolidates the laws relating to roads.	Some functions of the Roads Ordinance 17 of 1972 have been assigned to the Roads Authority.
WHO Guidelines for Community Noise	The guideline values consider all identified adverse health effects for the specific environment. An adverse effect of noise refers to any temporary or long-term impairment of physical, psychological or social functioning that is associated with noise exposure. Specific noise limits have been set for each health effect, using the lowest noise level that produces an adverse health effect.	Noise in all phases of the project should be kept as per the guideline.
Roads Authority Act, 1999	Section 16(5) of this Act places a duty on the Roads Authority to ensure a safe road system.	The provisions of this legislation must be taken into consideration as far as access to the development site is concerned.
Swakopmund Municipality: Standard Building Regulations of 1975 as amended.	Provide matters to building approval and control of building activities to protect residents and the environment, offences and penalties and incidental matters. Any person who intends to erect any building, whether permanent or temporary, must make a written application to the Local Authority for approval	Adherences during the construction.
Swakopmund Urban Structure Plan	Plan indicates the future growth and structure plan of Swakopmund up to 2040 with policies on land use planning. The urban structure plan was reviewed to determine whether the proposed activity is broadly in line with the future planning of Swakopmund.	Adherences to the Swakopmund structure plan.

4. DESCRIPTION OF THE AFFECTED ENVIRONMENT

4.1 Biophysical Environment

a) Climate Conditions

Swakopmund town, is located within the Namib Desert, and benefits from the moderating influence of the cold Benguela current flowing south to north along Namibia's coastline. While temperatures in the interior can exceed 35 °C during summer, Swakopmund's climate is temperate, with average temperatures ranging between 15 °C and 25 °C. Rainfall is minimal, averaging 8 mm per annum and occurring less than 10 times a year between October and March. Moisture from the cold Benguela current manifests as fog, providing a vital water source for local fauna and flora, especially during the foggiest months from May to August. The climatic conditions at the proposed site should not pose any significant problems related to the constructions and operations of the facility. Flooding is not a concern in the area.

b) Geology and Hydrogeology

Deep unconsolidated sediments of Tertiary to Recent age underlie Swakopmund, with bedrock estimated at depths of 40 to 60 m below the surface. The deposits have been formed by a combination of fluvial, estuarine, coastal and Aeolian processes. Quaternary deposits are found in the area and consist of alluvium, gravel, calcrete, and windblown deposits from the Namib Desert Sand Sea. Groundwater flows westward towards the Atlantic Ocean, with no groundwater points within a 5 km radius from the site. Public water supply to Swakopmund and the surrounding development is provided by the Municipality of Swakopmund.

c) Flora and Fauna

The proposed site falls within the Southern Namib Dune Grassland biome, characterized by grassland and dwarf shrublands growing in gravel plains. Plants in the area therefore rely heavily on fog as their water source. Animals in this biome are likewise heavily reliant on fog and have to be highly specialized, migratory, or adapted to severe water scarcity. The proposed site although undeveloped, characteristically possesses the typical flora and fauna of the Namib dune grassland biome with no endemic species in the area and therefore threats to biodiversity are expected to be low to insignificant.

Figure 4: Photographs depicting the dwarf shrublands

4.2 Socio-Economic Profile

According to the Namibia 2023 Population and Housing Census the total Population in Erongo Region is 240 206 (NSA, 2023) of which 75 921 make up the Population of Swakopmund. Swakopmund has a total population of 75 921 people, with a population density of 196.32 persons per km^2. The urban population of Swakopmund is 37,950 males and 37,971 females, totalling to 75,921 residents and the average household size in Swakopmund is 3.0 people per household (NSA, 2023).

One of four major coastal towns along the Namibian coastline, Swakopmund in the Erongo Region is located 35 km north of the port town of Walvis Bay and is an important holiday destination. It lies on the B2 road which stretches further to the Trans Kalahari Highway. The Erongo desalination plant has been the regions highest achievement thus far in terms of economic growth. The town of Swakopmund is more of a tourist destination than a commercial town, with no fishing industry or local port. Tourism is important to the Namibian economy and is ranked third as a forex earner. Many view the coastal towns such as Swakopmund and Henties Bay as holiday towns, which see an influx of tourist during the holiday season. As the tourism industry expands so does the employment rate in the accommodation and catering industries.

Despite the many recreational facilities and activities offered in Swakopmund the youth and local community still resort to frequenting bars/shebeens. Most of Swakopmund's road infrastructure is paved or tarred, especially in the centre of the town, however many roads in suburbs like DRC and Mondesa are still salt and gravel roads. There is an active railway which stretches from Swakopmund to Windhoek as well. Other services like electricity and telecommunications in the town are well established including fibre optic cable. The proposed project will require construction and operation services which will provide a beneficial economic boost to the local economy through increased employment and widen the tourism scope of the town.

5. PUBLIC CONSULTATION

This section of the report outlines the Public Consultation Process conducted during the assessment period, as required by Section 26(1)(h) of the Namibian Environmental Assessment Regulations (2012). The key objective is to allow stakeholders, neighbouring landowners and Interested and Affected Parties (I&APs) to raise issues of concern and suggestions for enhanced benefits as well as to comment on the findings and consultants' recommendations.

Public consultation was conducted as follows:

- Site notices were placed onsite on Portions 48 (Portion of Portion B) and at the Municipality of Swakopmund notice board.

Municipality of Swakopmund

Site Notice

- Interested & affected parties were provided with the Background Information Document (BID) and an attached a comment sheet to raise any comments, issues or concerns related to the proposed project. The BID and a list of I&APs generated from this exercise is appended to the report.
- Public consultation notices were also advertised in two (2) national newspaper for two consecutive weeks.
    - **Namib Times** 06 February 2026 and 13 February 2026
    - **CONFIDENTE** 06 – 12 February 2026; 13 – 19 February 2026
- The Municipality of Swakopmund was also consulted and the documentation resulting from this consultation are appended to this report.
- There is one objection received against the proposed development and it is appended to the report. In summary, the consulted I&APs are in support of the proposed development and considers the site to be suitable. Proof of public consultation is appended to the report.

6. ENVIRONMENTAL IMPACTS IDENTIFIED

The proposed project will be undertaken on an undeveloped piece of land therefore it could have potential environmental impacts which require mitigation. Some identified potential environmental impacts include:

6.1 Changes in Land Use

The construction of a racing track and associated facilities will change the current land use and because the proposed area is undeveloped there will be significant changes in land use.

6.2 Dust Impacts

Potential air quality impacts from the construction works of the project would mainly arise from construction dust from site clearance, excavation, foundation and site formation works. These are expected to be site specific and will pose minimal nuisance to the neighbours and residents of Swakopmund.

Dust might be worse during the winter months when strong berg winds occur. The construction of the proposed development is envisaged to have minimal impacts on the surrounding air quality. It is recommended that regular watering of the construction site and adopt dust control measures. Special care must be taken during periods of strong wind in the area.

During the operational phase, the potential dust sources could emanate from racing vehicles, spectator vehicles when accessing and leaving the site, it would therefore be recommended that during the operational phase a regular watering of non-paved or sandy surfaces be carried out to suppress dust especially before and during events. It is also recommended that parking areas, spectator pavilion areas and workshop areas be paved to mitigate dust.

6.3 Noise Impacts

Earthmoving equipment passing or moving into a specific place at intervals may exert little influence on average noise levels over a period, but the effects on community health produced by the peaks that they create in the noise level are insignificant. Construction workers should be equipped with ear protection equipment and erect warning signs where necessary. Construction activities should be limited to 07H00 - 18H00 during weekdays and weekends. The facility must adhere to World Health Standards as specified in the EMP.

During the operational phase noise from the engines of racing vehicles could cause a nuisance to neighbours and nearby residential areas. Sources of noise include exhaust noise from individual vehicles; other vehicle noise; including tyre and brake noise; collateral noise from unofficial revving and racing in the vicinity; public address (PA) systems; as well as noise from increased spectator traffic to and from the venue.

6.4 Traffic Impacts

The Construction related activities are expected to have a minimal impact on the movement of traffic along the C34 road. No diversion of traffic or closures of the roads are expected.

During the operational phase, spectator and racing motor vehicle traffic is expected to have a moderate impact on the flow of traffic along the C34 road on event days. The frequency of events, the spread of the events throughout the year and the timing of events also determine the intensity of the impact on traffic flow.

6.5 Health and Safety Impacts

Safety issues could arise from earthmoving equipment that will be used on site during the construction period, this increases the possibility of injuries. This increases the possibility of injuries, and the responsible contractor must ensure that all staff members are made aware of the potential risks of injuries on site.

The contractor is advised to ensure that the team is equipped with first aid kits and that they are always available on site. Workers should be equipped with adequate personal protective gear and properly trained, thus mitigating these impacts. Heavy vehicle makes excessive noise during loading, excavation and transportation of material. Employees must not be exposed to noise levels above the required -85dB (A) limit over a period of 8 hours.

Supply clean drinking water to the site, such as a portable water tank and there must be two suitable, clean and user-friendly ablution facilities, with separate Male and Female toilets. Only qualified and licenced personnel must be allowed to operate machinery and vehicles and adequate safety signs must be displayed on site.

Health concerns during the operational phase include an insufficient number of ablution facilities for spectators and safety concerns include motor vehicle accidents from unofficial racing or spinning during events. The provision of designated visibly marked parking spaces and sufficient signage prohibiting unofficial racing and spinning on site could curb safety concerns whereas the provision of an adequate number of ablution facilities for male and female spectators would mitigate health and sanitation concerns.

6.6 Solid and Liquid Waste Management

During the construction and operational phases, waste will be generated. In the construction phase, building rubble, boulders and stones will be generated and unearthed, while during the operational phase, spectators will frequent the karting venue, leading to the generation of general solid and liquid waste.

All waste must be collected, contained in skips and wheelie bins and disposed of at the Municipal waste disposal site. Waste is not to be buried on site. Building rubble, planks, metal offcuts, cement, wires and household waste such as plastic are common on most construction sites, and thus must be collected and disposed of properly.

Sewage generated during the operational phase should be linked to the municipal sewage lines to be treated and disposed of correctly. Sufficient disposal bins should be provided on site during the operational phase for spectators and vendors on site. Any motor oils, hydrolic fluids and

lubricants used at the facility should be collected and disposed of correctly and not in municipal sewage lines.

6.7 Socio-economic Impacts

The construction phase of the project will create job opportunities for residents, including labourers, skilled workers, and contractors, thereby contributing to local employment and income generation. The operation of a karting facility will create employment and an additional recreation and entertainment option for the residents of Swakopmund. The operation of a karting facility also has the potential to attract motor sport enthusiasts and tourists which will boost and have additional spin-off benefits for the Swakopmund economy. Working contracts to employees and gender mainstreaming must be considered during recruitment process. Local vendors to be considered for the provision of event organising and catering services during the operational phase of the project.

7 IMPACT ASSESSMENT

7.1 Introduction

The purpose of this section is to evaluate the potential environmental, social and economic impacts associated with the proposed construction, operation and decommissioning of a karting circuit and associated facilities on Portion 48 (Portion of Portion B), Swakopmund.

The objective of the impact assessment is to identify, predict and evaluate potential impacts that may arise from the proposed development and to recommend appropriate mitigation measures to avoid, reduce or manage these impacts.

Potential impacts identified for the proposed development include:

- Changes in Land Use
- Solid and liquid waste management;
- Traffic impacts;
- Noise pollution;
- Dust pollution, and
- Socio-economic impacts.

The identified impacts will be assessed and evaluated in the phases (construction, operations and decommissioning) of the project. Mitigation measures are also proposed for the identified impacts. The Matrix Impact Assessment (MIA) method will be used during the assessment, to evaluate the significance of potential impacts based on several criteria including likelihood, severity, spatial extent, legal compliance and mitigation measures.

7.2 Impact Assessment Criteria

The Matrix Impact Assessment (MIA) method evaluates potential impacts according to the following criteria.

Likelihood

Likelihood refers to the probability that a particular impact will occur as a result of the proposed activity, considering existing management measures and operational conditions.

Rating	Description	Score
Definite	It is certain that the impact will occur regardless of preventative measures.	10
Probable	The likelihood that the impact will occur exceeds 10%.	7
Possible	The likelihood of the impact occurring is less than 10%.	3
Unlikely	The possibility of the impact occurring is very low due to design or historical experience.	1

Severity

Severity describes the magnitude or intensity of the impact on environmental, social or cultural processes.

Rating	Description	Score
Very High	Total disruption of natural, social or cultural processes resulting in permanent loss of function.	80
High	Major disruption of functions during the activity but recovery is possible after the activity ceases.	40
Moderate	Functions are altered but continue in a modified manner. The effect is reversible.	20
Low	Minimal measurable impact occurring during the life of the activity.	4
No Effect	No observable or measurable effect.	1

Extent

Extent refers to the geographical area over which the impact will occur.

Rating	Description	Score
International	Impact extends beyond Namibian boundaries.	6
National	Impact occurs across Namibia.	5
Regional	Impact affects the Erongo Region.	2
Local	Impact limited to the project site and surrounding area.	1

Compliance with Legal and Other Requirements

This criterion evaluates whether the activity complies with applicable environmental legislation and regulatory requirements.

Rating	Description	Score
Not Compliant	Operation does not comply with legal requirements under normal operating conditions.	40
Occasionally Not Compliant	Generally compliant but occasional non-compliance occurs.	20
Potentially Not Compliant	Potential non-compliance may occur under abnormal conditions.	2
Compliant	Fully compliant or not applicable to the impact.	1

7.3 Determination of Impact Significance

The overall significance of impacts is determined by combining the scores from the assessment criteria.

Significance Level	Description	Score Range
High Negative	Requires immediate management and potentially further investigation with substantial mitigation measures.	93 – 176
Medium Negative	Requires routine monitoring and management actions.	30 – 92
Low Negative	Minimal impact expected; standard management practices sufficient.	8 – 29

7.4 Impact Assessment for the Proposed Development

Table 2: Environmental, Social and Economic evaluation of impacts using the MIA method

Impact	Project Phase	Likelihood	Severity	Extent	Compliance	Improvement Opportunity	Total Score	Significance	Mitigation Measures
Change in Land Use	Construction	Probable (7)	Moderate (20)	Local (1)	Compliant (1)	Medium (20)	49	Medium Negative	Limit disturbance footprint and rehabilitate disturbed areas after construction.
Dust Pollution	Construction	Probable (7)	Moderate (20)	Local (1)	Potentially Non-Compliant (2)	Medium (20)	50	Medium Negative	Apply dust suppression measures and control vehicle speeds.
Noise Pollution	Construction	Possible (3)	Moderate (20)	Local (1)	Compliant (1)	Medium (20)	45	Medium Negative	Restrict construction activities to daytime hours.
Traffic Impacts	Construction	Possible (3)	Moderate (20)	Local (1)	Compliant (1)	Medium (20)	45	Medium Negative	Implement traffic management measures and signage.
Noise from Karting Activities	Operation	Probable (7)	High (40)	Local (1)	Potentially Non-Compliant (2)	Medium (20)	70	Medium Negative	Install noise barriers and limit operating hours.
Solid & Liquid Waste	Operation	Possible (3)	Moderate (20)	Local (1)	Potentially Non-Compliant (2)	Medium (20)	46	Medium Negative	Implement waste management plan and proper disposal systems.
Dust from Track	Operation	Possible (3)	Moderate (20)	Local (1)	Compliant (1)	Medium (20)	45	Medium Negative	Maintain track surface and implement dust suppression measures.
Socio-economic Benefits	Operation	Probable (7)	Moderate (20)	Regional (2)	Compliant (1)	Medium (20)	Positive	Positive	Job creation and increased tourism opportunities.
Waste Generation	Decommissioning	Possible (3)	Moderate (20)	Local (1)	Potentially Non-Compliant (2)	Medium (20)	46	Medium Negative	Remove infrastructure responsibly and dispose of waste appropriately.
Site Disturbance	Decommissioning	Possible (3)	Moderate (20)	Local (1)	Compliant (1)	Medium (20)	45	Medium Negative	Rehabilitate site and restore natural conditions where possible.

8 ENVIRONMENTAL MANAGEMENT PLAN

8.1 Introduction

The Environmental Management Plan (EMP) is an environmental tool that is used to ensure that undue or reasonably avoidable adverse caused by the proposed project are minimized or prevented and the positive benefits of the project are enhanced. An EMP is important for ensuring that the management actions arising from Environmental Impact Assessment (EIA) processes are clearly defined and implemented through all phases of the project life cycle.

- Ensuring compliance with regulatory stipulations and guidelines which may be national /local /international;
- Define details of who, what, where and when environmental management and mitigation measures are to be implemented;
- Formulate measures which will mitigate adverse impacts on various environmental components, protect environmental resources where possible, and enhance the value of environmental components where possible; and
- Providing feedback for continual improvement in environmental performance.

This EMP applies to the construction, operational and decommissioning phases of the project.

8.2 EMP Methodology

The stipulated EIA procedures outlined in the Environmental Management Act (No. 7 of 2007) and its Regulations (2012) were followed. The following key activities and tasks have been undertaken as part of the EIA and EMP development process:

- Initial input from main stakeholders, as their input is essential for developing an all-inclusive plan. Since no resource exists in isolation, an EMP can affect various other parties. Input is necessary to address concerns early in the planning process.
- Identify the problems and/or questions associated with the proposed development. Clearly defined objectives were identified to remain focused on a plan.
- Make a list of applicable criteria, standards, and principles for construction as required by legislation, regulations, policies, etc.
- Established the extent of the plan and the actions required by the proponent to ensure its execution.
- Sought public input through advertisement of the EIA process in widely circulated newspapers and continuous engagements with registering as I&APs.

This environmental management plan was developed to guide short-term goals and decision-making and will provide environmental-related guidelines. By having this plan in place, the proponent and contractors will have means to make informed decisions.

8.3 Institutional Arrangements and Responsibilities

Effective implementation of the EMP requires a clear allocation of roles and responsibilities.

8.3.1 Project Proponent

The project developer will be responsible for:

- Ensuring that all EMP requirements are implemented after approval by the Department of Environmental Affairs and Forestry (DEAF) and ensure compliance with set conditions.
- Providing adequate resources for environmental management.
- Ensuring contractors comply with environmental requirements.
- Ensure that all required approvals, licenses, and permits are obtained before commencing work.
- Implement the final EMP.
- Provide environmental training and awareness of the EMP to all contractors, subcontractors, and employees.
- Notify the Ministry of Environment, Forestry and Tourism (MEFT) and Environmental Assessment Practitioner (EAP) of any proposed changes to the development.
- Appoint personnel responsible for monitoring and reviewing on-site environmental management.
- Conduct regular audits of EMP implementation.
- Compile and submit environmental reports annually to DEA.

8.3.2 Project Manager

The proponent should appoint a project manager responsible for overseeing project implementation during the construction phase. The project manager will ensure compliance with the EMP by all contractors and subcontractors, provide necessary training, keep records of incidents, and take corrective actions as needed. The project manager must ensure that are contractors, sub-contractors and all employees involved are aware of this EMP by providing a brief training in the language best understood by all.

8.3.3 Contractor

The contractor responsible for construction activities must:

- Comply with all mitigation measures outlined in the EMP.
- Ensure workers follow environmental procedures.
- Manage waste generated during construction.
- Prevent pollution and environmental degradation.

8.3.4 Environmental Control Officer (ECO)

An Environmental Control Officer may be appointed to:

- Monitor implementation of the EMP.
- Conduct periodic environmental inspections.
- Report non-compliance issues.
- Recommend corrective actions.

8.3.5 Authorities

The competent authority, through respective departments should provide supervisory and monitoring roles to ensure compliance with national and local legislation. Other government ministries should offer necessary assistance for successful EMP implementation whenever deemed necessary.

8.3.6 The Contractor and Subcontractors

All contractors and subcontractors involved in the project must comply with the EMP and its conditions. They should undertake activities in an environmentally sensitive manner, practice good housekeeping, and provide environmental awareness training to employees. The contractor upon receiving this EMP should ensure:

- To undertake their activities in an environmentally sensitive manner and within the context of this EMP;
- To undertake good housekeeping practices during the duration of their activities; and
- To ensure that adequate environmental awareness training takes place in the language understood by the employees.

8.4 Environmental Management Measures

Phase	Aspect	Impact	Mitigation Measures	Responsibility	Monitoring
Construction	Vegetation & Habitat	Loss of vegetation due to site clearance	Limit clearing to approved footprint. Demarcate construction areas before work commences.	Contractor	Weekly site inspections
Construction	Vegetation & Habitat	Disturbance to surrounding habitat	Restrict machinery movement to designated areas only.	Contractor	ECO inspections
Construction	Dust	Dust generation from vehicles and earthworks	▪ Apply water to exposed surfaces. ▪ Enforce speed limits. ▪ Cover trucks transporting materials. ▪ Regular dust suppression activities be and during windy conditions, dust generating activities should be limited. ▪ Ensure all employees have appropriate PPE in relation to dust such as noise-cancelling earmuffs, eye protection.	Contractor	Daily visual inspections
Construction	Noise	Noise from construction equipment	▪ Restrict work to daytime hours. ▪ Maintain machinery regularly. ▪ WHO guidelines on maximum noise levels to prevent hearing impairment for workers on site should be followed. ▪ Construction workers should be equipped with ear protection equipment and erect warning signs where necessary.	Contractor	Periodic inspections
Construction	Traffic	Increased traffic and road safety risks	Implement the traffic management plan and signage.	Contractor	Traffic monitoring
Construction	Health and Safety	Risk to the health and safety of employees	▪ Provision of appropriate PPE to all employees. ▪ Provide ablution facilities onsite.	Proponent / Contractors	ECO inspection

			▪ Conduct safety training to personnel on the use of protective wear, the correct handling of material and the safe use of all equipment. ▪ First aid kits and emergency medical assistance must be available. ▪ A register for all the training offered and for all the incidents must be kept. ▪ Adhere to the national and local legislation. ▪ Prevent extended working hours and restrict public access by fencing the construction site.		
Construction	Waste	Generation of construction waste	▪ The site should be always kept tidy, and no waste may be buried or burned on site. ▪ All domestic and general construction waste produced daily should be cleaned and contained in skips daily. ▪ Separate waste containers/bins for hazardous (if any) and domestic/general waste must be provided onsite. ▪ The waste containers should be emptied after construction and disposed of at the Municipal landfill site.	Contractor	Waste records
Operation	Noise	Noise from karting activities	▪ Noise level as recommended by the WHO guidelines should be adhered to during the operational phase. ▪ Restrict operating hours. Install noise barriers if required. ▪ Maintain karts.	Operator	Monitor complaints

Operation	Water and Energy demand Management	Water and electricity usage	▪ Ensure sufficient supply of potable water and commit to minimising the use of water operation activity. ▪ Make provision for renewable energy. ▪ Enforce energy and water conservation measures. ▪ Fit the toilets with efficient toilets and basins and water-saving mechanisms.	Proponent	Monitor complaints
Operation	Waste	General waste from visitors	▪ Provide sufficient bins onsite and dispose at the Municipal landfill site. ▪ Ensure regular collection and disposal. ▪ Sufficient recycling containers should also be provided at suitable locations to encourage recycling of waste such as aluminium cans, plastics and glass bottles.	Operator	Routine inspections
Operation	Health and Safety	Risk to the health and safety of employees	▪ Provision of appropriate PPE to all employees. ▪ Provide ablution facilities onsite. ▪ Conduct safety training to personnel on the use of protective wear, the correct handling of material and the safe use of all equipment. ▪ First aid kits and emergency medical assistance must be available. ▪ A register for all the training offered and for all the incidents must be kept. ▪ Adhere to the national and local legislation. ▪ Prevent extended working hours.	Proponent / Contractors	ECO inspection
Operation	Hazardous Waste	Oil and fuel spills	▪ Store hazardous substances in bunded areas. ▪ Use spill kits.	Operator	Monthly inspections

Operation	Dust	Dust from the track and the surrounding areas	▪ Maintain track surface. ▪ Apply dust suppression where necessary. ▪ A regular watering of non-paved or sandy surfaces should be carried out to suppress dust, especially before and during events. ▪ It is also recommended that most of the area be paved.	Operator	Visual inspections
Operation	Traffic	Increased traffic during events	▪ Provide adequate parking and traffic control measures. ▪ Coordinate movement of vehicles and obey traffic rules. ▪ Ensure enough access road network and consider safety of users by utilizing safety signs and traffic control measures. ▪ Provide sufficient parking bays for employees and clients.	Operator	Event monitoring
Operation	Municipal Services	Increase demand on municipal services i.e. sewer connection and maintenance, waste collection etc.	▪ All the required services are readily available i.e. sewer, water, roads and electricity and can be planned for. ▪ Adhere to all national and local legislation. ▪ Submit building plans to the Municipality of Swakopmund for approval and comply with international, national and local building regulations.	Proponent	Site inspection
Operation	Socio-economic	Job creation and economic benefits	Prioritise local employment and suppliers where possible.	Developer/Operator	Employment records
Decommissioning	Waste	Demolition waste generation	Recycle materials where possible. Dispose at approved facilities.	Contractor	Waste disposal records
Decommissioning	Land	Site disturbance after removal of infrastructure	Rehabilitate the site and restore natural conditions.	Contractor/Developer	Final site inspection

8.5 Environmental Monitoring

Environmental monitoring ensures that mitigation measures are effectively implemented.

Monitoring activities may include:

- Regular environmental inspections of the site.
- Monitoring dust levels during construction.
- Monitoring waste management practices.
- Recording and addressing environmental complaint

Monitoring reports should be kept for record purposes and made available to relevant authorities

8.6 Environmental Awareness and Training

All personnel involved in the project should receive environmental awareness training to ensure they understand the environmental requirements of the EMP.

Training should include:

- Waste management practices
- Pollution prevention
- Protection of surrounding environments
- Compliance with environmental regulations

8.7 Compliance with Environmental Legislation

The project must comply with relevant Namibian environmental legislation including:

- Environmental Management Act (Act No. 7 of 2007)
- Environmental Impact Assessment Regulations (2012)
- Local authority environmental and waste management regulations

Compliance with these legal requirements is essential to ensure sustainable development and environmental protection.

8.8 EMP Review and Updating

The EMP should be reviewed periodically to ensure its effectiveness and relevance throughout the life cycle of the project.

Updates may be required if:

- Project activities change.
- New environmental risks are identified.
- Regulatory requirements change.

8.9 EMP Implementation

This section provides a structured framework for the execution of the Environmental Management Plan (EMP) throughout the construction, operation and decommissioning phases of the proposed karting circuit.

It ensures that mitigation measures are implemented, monitored, and enforced, and that all parties clearly understand their roles and responsibilities.

8.9.1 Implementation Strategy

The EMP will be implemented through:

- Integration of EMP requirements into contract documents and specifications
- Appointment of responsible personnel for environmental compliance
- Ongoing monitoring and reporting
- Corrective action in cases of non-compliance

All contractors and operators will be required to always comply with the EMP.

8.9.2 Action Plan

Action	Description	Responsible Party	Phase	Timeframe	Deliverable
Incorporate EMP into contracts	Include all environmental requirements in contractor agreements	Proponent	Pre-construction	Before construction starts	Signed contracts
Appoint Environmental Control Officer	Assign ECO to oversee environmental compliance	Proponent	Pre-construction	Before site establishment	Appointment letter
Site induction training	Train all workers on environmental requirements	Contractor / ECO	Construction	Before and during construction	Attendance register
Demarcation of site	Clearly mark construction footprint	Contractor	Construction	Before clearing begins	Demarcated site
Implementation of mitigation measures	Apply all measures outlined in EMP	Contractor / Operator	All phases	Ongoing	Compliance records
Environmental monitoring	Conduct inspections and monitoring	ECO	All phases	Weekly / Monthly	Monitoring reports
Waste management implementation	Provide bins and ensure proper disposal	Contractor / Operator	All phases	Ongoing	Waste records
Incident reporting	Record and report environmental incidents	Contractor / Operator	All phases	As required	Incident reports

Corrective actions	Address non-compliance issues	Contractor / Operator	All phases	As needed	Corrective action reports
Final site rehabilitation	Restore site after decommissioning	Contractor / Developer	Decommissioning	End of project	Rehabilitation report

8 CONCLUSION AND RECOMMENDATIONS

The Environmental Management Plan (EMP) for the proposed construction, operation and decommissioning of a karting circuit and associated facilities on Portion 48 (Portion of Portion B), Swakopmund provides a comprehensive and practical framework for managing the environmental and social impacts associated with the development.

The assessment identified potential impacts including loss of vegetation and habitat disturbance, dust and noise pollution, traffic impacts, solid and hazardous waste generation, and socio-economic effects. These impacts are generally of low to medium significance, provided that appropriate mitigation measures are effectively implemented.

The EMP outlines specific mitigation measures, monitoring requirements, and clearly defined roles and responsibilities to ensure that environmental impacts are avoided, minimised, or adequately managed throughout all phases of the project. The successful implementation of these measures will be critical in ensuring compliance with applicable environmental legislation and maintaining environmental integrity.

Based on the findings of the assessment, the proposed development is environmentally acceptable, provided that the EMP is strictly implemented and adhered to.

To ensure effective environmental management and regulatory compliance, the Developer should fully implement the EMP and incorporate all environmental requirements into contractual agreements. An Environmental Control Officer (ECO) should be appointed, particularly during the construction phase, to oversee compliance and conduct regular monitoring and reporting.

All personnel involved in the project should undergo environmental awareness training to ensure proper understanding of environmental responsibilities, including waste management, pollution prevention, and emergency response procedures. Regular environmental monitoring must be conducted, and records of inspections, incidents and corrective actions must be maintained and made available to the relevant authorities upon request.

A grievance mechanism should be established to allow members of the public and nearby residents to raise concerns, which must be recorded, investigated and addressed promptly. Upon decommissioning, the site should be rehabilitated to an environmentally stable condition and, where possible, restored to its natural state. Finally, the EMP should be regarded as a living document and reviewed periodically to ensure its continued effectiveness and alignment with project activities and regulatory requirements.

The proponent is advised to utilise improved technology installations, which will result in minor negative construction impacts and an insignificant footprint on the environment. Furthermore, all engineering alterations and business activities to be carried out onsite should gather the requisite Municipal approval before commencement (approved building plans, business fitness certificates etc.). Thus, the EAP recommends that the ECC be granted for the proposed activity**.**

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APPENDIX A: CONSULTANT CURRICULUM VITAE

APPENDIX B: PROOF OF PUBLIC CONSULTATION