

**Proposed Upgrading of the
Airstrip at Farm Aandstêr,
NamibRand Nature Reserve, Hardap Region**

Environmental Management Plan

September 2022

Table of Contents

Abbreviations and Acronyms	2
1 Introduction	3
2 Project Overview	4
2.1 The Aandstêr airstrip and proposed upgrade	4
2.2 Proposed activities	4
2.3 Operational activities	5
3 Roles and Responsibilities	6
4 Applicable Legal Requirements	7
5 Recommended Mitigation Measures	9
6 Monitoring reports	10

Abbreviations and Acronyms

DEA	Department of Environmental Affairs
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan

1 Introduction

This Environmental Management Plan (EMP) is for the planning, construction and operation phases of the proposed upgrade of the airstrip on Farm Aandstêr, NamibRand Nature Reserve, Hardap Region. It contains practical measures that must be taken to ensure that potentially negative impacts on the biophysical and social environment are minimised or avoided.

Namibia's Environmental Management Act (EMA) (7 of 2007) requires that an EMP be put in place before a project is implemented. This is usually prepared as part of an Environmental Impact Assessment (EIA). The proposed upgrade of the Aandstêr airstrip is not expected to result in significant negative environmental impacts, therefore a scoping-level EIA has been conducted.

The decommissioning of the airstrip is not addressed in this EMP, as that event is not intended, and the activities are similar in nature to that of general construction.

This EMP is laid out in the following sections.

- Project overview – a description of the proposed project (Chapter 2).
- Roles and responsibilities – outlines the roles of key agents and their responsibilities (Chapter 3).
- Applicable legal requirements – outlines relevant permits and legal obligations (Chapter 4).
- Mitigation measures – outlines of the measures required to ensure that negative impacts are avoided or minimised (Chapter 5).
- Monitoring reports – outlines what must be covered in 6-monthly reports to the Environmental Commissioner, as a requirement for the renewal of the Environmental Clearance Certificate after 3 years (Chapter 6).

2 Project Overview

2.1 The Aandstêr airstrip and proposed upgrade

The airstrip is situated on Farm Aandstêr, at coordinates 25.358056°S, 16.102488°E. This is at the southern end of the NamibRand Nature Reserve, approximately 100 km south of Sesriem, and about 8 km west of the C27 gravel road running from Sesriem to Betta (). It is situated on an open plain close to the Aandstêr homestead, which is also the Boulders tourist camp in NamibRand. The airstrip is 1,450 m long, oriented roughly east-west. The farm house, approximately 200 m from the parking end of the airstrip, comprises the 'Boulders' camp, one of the tourism establishments in NamibRand Nature Reserve.

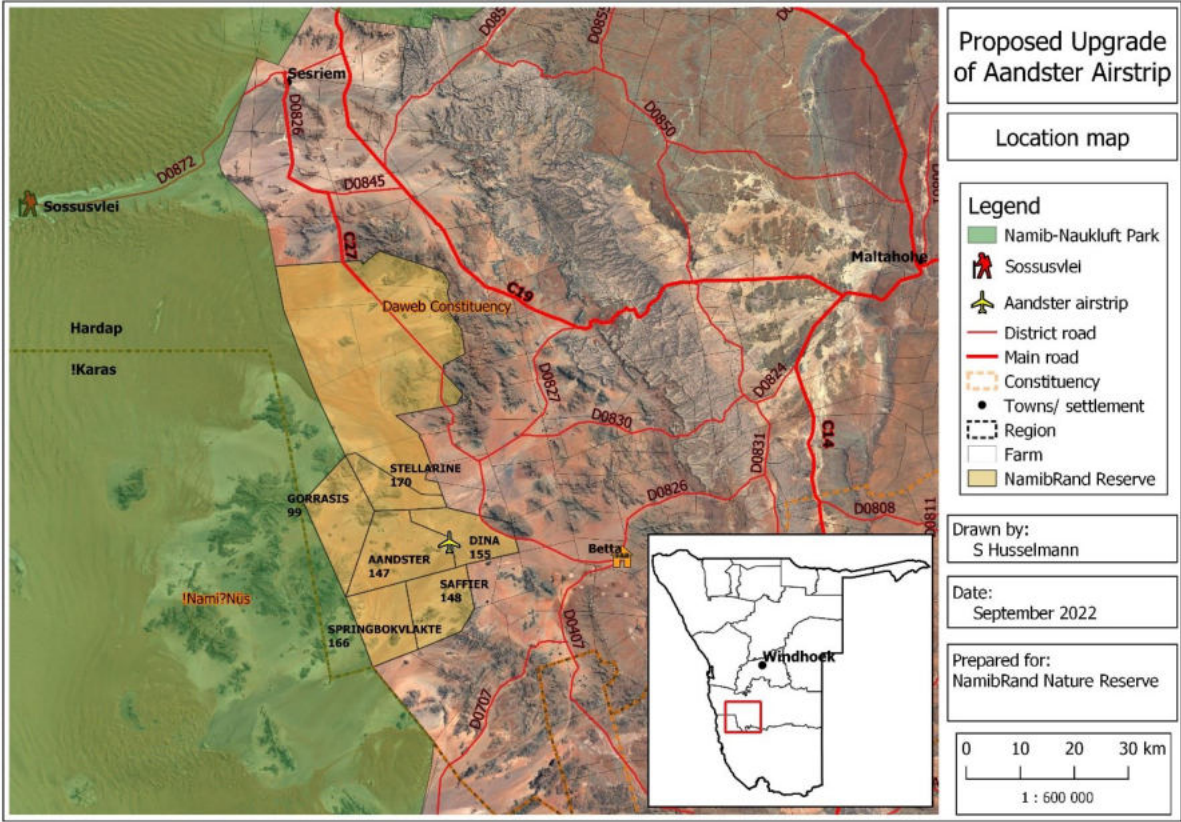


Figure 2-1: Location of the Aandster airstrip.

2.2 Construction activities

A relatively small construction crew (i.e. approximately 5 people) will be employed, and construction is expected to last 8-10 weeks. They will be accommodated at Aandstêr either in the A-frame building designed for occasional visitors, or in tents in a shaded area alongside the farm house. Toilet and ablution facilities are available at both sites. Both of these are adjacent to the farm house and very close to the airstrip.

Sand will be excavated from a nearby bare dune, to cover the existing substrate and to provide a smooth, even base for the interlock bricks. The edge of the paved surface will be lined with a narrow concrete strip to secure the interlocks. For this, aggregate and cement will be brought to site from Maltahöhe, and sand and water are available on site. The volume of water for construction and the needs of the construction team is less than 1m³ per day, which is readily available from the borehole serving the farm house.

No new lighting or buildings will be required at the airstrip.

2.3 Operational activities

The airstrip will be operational immediately construction is finished. The existing (pre-Covid) use of the airstrip is not more than roughly once per week, and this frequency is not expected to change. The Boulders tourist accommodation has been closed for over two years since the start of the Covid pandemic in early 2020, so there has been almost no air traffic whatsoever. When the facility re-opens in early 2023, visitor numbers are expected to return to pre-Covid levels, with the low frequency of flights remaining roughly the same.

Road access to the site exists through a locked farm gate on the C27 gravel road. This will remain unchanged.

3 Roles and Responsibilities

The implementation of the EMP is the responsibility of the persons in charge of each of the project phases as outlined in Table 3-1 below.

Table 3-1: EMP implementation roles and responsibilities

Role	Responsibility
Proponent	Ultimately responsible for all aspects of construction and operation of the airstrip
Contractor	Responsible for all construction activity.

The Environmental Management Act requires that implementation of the EMP should be monitored. The findings should be incorporated into 6-monthly monitoring reports for submission to the Ministry of Environment, Forestry and Tourism (MEFT): Department of Environmental Affairs and Forestry (DEAF), specifically to the Environmental Commissioner’s office. Renewal of the Environmental Clearance Certificate, after 3 years, depends on the submission and results of such monitoring.

4 Applicable Legal Requirements

The following legal requirements are applicable to the proposed crematorium.

Table 4-1: Legislation applicable to the ELSH Crematorium.

Statute	Provisions	Project Implications
Environmental Assessment Legal Framework		
The Namibian Constitution (1990)	Article 95 (l) states that <i>“the State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at... maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of natural resources on a sustainable basis”</i>	The project should support the provisions of the Namibian Constitution
Environmental Management Act (No 7 of 2007)	Section 3(2) of the EMA provides a set of principles that give effect to the provisions of the Namibian Constitution for integrated environmental management. Section 27(3) stipulates that no party, whether private or governmental, can conduct a listed activity without an ECC obtained from the Environmental Commissioner. Section 40(1) stipulates that an ECC remains valid for a period not exceeding three years, subject to cancellation or suspension.	The project should adhere to the principles provided in the EMA. An ECC should be obtained for the project. The Proponent should renew the ECC every three years.
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878)	This sets out the requirements for public consultation in the environmental assessment process (Rs21-24). It sets out the requirements for what should be included in a Scoping Report (R8) and an Assessment Report (R15).	The EIA Regulations should inform and guide this EIA.
Pollution Control and Waste Management Bill	This Bill is not yet promulgated so is not in force. The Act will regulate the discharge of pollutants to the air, water and land; it will regulate noise, dust and odour	Pollution to the air and water should be avoided, and dust pollution should be prevented. Waste

Statute	Provisions	Project Implications
	pollution; and it will establish a framework for integrated pollution prevention and control.	management should be applied.
Atmospheric Pollution Prevention Ordinance No. 11 of 1976 (as amended)	This Ordinance provides for the prevention of pollution of the atmosphere.	Pollution to the air should be avoided, and dust pollution should be prevented.
Labour Act (No. 11 of 2007)	The Labour Act of 1992 (Act 6), the New Labour Act of 2007 (Act 11) and Government Notice 156 of 1997: Labour Act, 1992: Regulations Relating to the Health and Safety of Employees at Work, governs working conditions of employees.	The Proponent should comply with health and safety regulations pertaining to the health and safety of their employees.
Road Ordinance 1972 (Ordinance 17 of 1972)	Infringements and obstructions on and interference with proclaimed roads. (S37.1)	The conditions applicable to road accesses should be adhered to.
Civil Aviation Act (No. 6 of 2016) Namibia Civil Aviation Technical Standard NAMCATS: Part 139 Aerodromes	This comprises the standards, rules, requirements, methods, specifications, characteristics and procedures which are applicable to aerodrome design and operations.	The conditions applicable to NAMCATS Part 139 should be adhered to.

5 Recommended Mitigation Measures

The following actions are recommended to minimise the negative impacts of the development and to monitor their outcome.

Table 5-1: Recommended mitigation measures and responsibilities.

Aspect	Mitigation and monitoring	Responsibility
Aircraft traffic	Keep a log of aircraft arrivals and departures. This will serve as a record that will be useful for tracking the trend in tourism numbers and preferences, and to show whether the frequency of flights remains fairly constant or otherwise.	Boulders Camp manager
Disturbance to Red Data birds	Monitor nests of Lappet-faced Vultures in the surrounds. This is part of an ongoing programme of annual vulture surveys done by NamibRand Nature Reserve in collaboration with MEFT, where active nests are recorded and chicks are tagged for future records of their movements. This work should continue, and should take particular note of potential disturbance factors affecting nesting Lappet-faced Vultures.	NamibRand Nature Reserve Wardens
Airstrip maintenance	Prevent ground squirrels and other burrowing animals from digging burrows under the brick pavers. Simply block entrances if and when they start burrows, and deter further burrowing at the entrances by spraying a chilli solution in and around the holes at and alongside the airstrip.	Aandstêr warden

6 Monitoring reports

Monitoring reports should be submitted to the Environmental Commissioner every 6 months. These should provide information on the following aspects:

Air traffic

- Log of aircraft arrivals and departures

Monitoring of Red Data birds

- Records of Lappet-faced Vulture nests on farms Aandstêr, Dina, Saffier and Springbokvlakte, and other neighbouring non-NamibRand farms if they have vulture nests. Birds should not be additionally disturbed by the activity of gathering this data. The records should indicate, where possible:
 - if nests are active or unused,
 - eggs laid and incubated
 - chicks hatched and tended by adults
 - chicks fledged
 - chicks marked for ongoing records.

Records of other priority birds nesting in the vicinity of the airstrip, such as Ludwig's Bustard and Ruppell's Korhaan. Similar records as above for Lappet-faced Vultures should be kept, but being especially careful not to disturb any breeding attempts.

Note: The frequency of the above components will not necessarily correspond with the submission of 6-monthly Monitoring Reports. The Monitoring Reports should report on the most up-to-date results of the above components, and should be kept up to date in the course of normal patrols and fieldwork by the NamibRand staff.

The monitoring reports should be submitted to:

Environmental Commissioner

Timoteus.Mufeti@mef.gov.na

Subject: EMP Monitoring Report: Aandstêr Airstrip, date

ECC Application No. 1549.
