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Environmental Assessment for the Proposed Development of a Lodge near Waterberg Plateau National Park, Otjozondjupa Region

Final Scoping Report

February 2022

Ondili Lodge Management (Pty) Ltd Schuckmann Str 27 Windhoek

Executive Summary

Ondili Lodge Management (Pty) Ltd intends to establish and operate a lodge complex near the Waterberg Plateau, in Otjozondjupa Region. This Scoping Report is part of the Environmental Impact Assessment for obtaining an Environmental Clearance Certificate (ECC) for the proposed lodge. It is compiled by Resilient Environmental Solutions cc, which was appointed by Ondili to apply for the ECC for the project.

Project details

The proposed lodge will be on Farms Hogensee 525 and Otjahevita 304, coordinates 20.368184°S, 17.474335°E, located approximately 20 km north-east of the entrance of the Waterberg Plateau National Park (Figure 3-1). The project site is accessed from the D2512 gravel road. The farms are approx. 3,800 hectares in size, and the infrastructure developments will be spread out over an area of approx. 100 hectares.

The lodge complex will comprise two separate lodges and a camp site, and the following facilities:

- A main building with reception, dining and lobby area, and 26 individual chalets, aligned along the escarpment over a distance of about 1.5 km. Part of this luxury development will include an isolated house, on a sandstone outcrop located about 3.3 km away from the main lodge site.
- A separate, tented camp consisting of 20 fixed tents, situated in the valley behind the main lodge area.
- A camping area with 25 campsites including ablution facilities.
- Establishment of a new borehole for water supply. Water will be used from this and another existing borehole, as well as from the artesian spring located close to the camp site, and from the NamWater canal+pipeline that runs parallel and alongside the D2512 road.
- Sewage and wastewater facilities, to be treated in septic tanks.
- All domestic and construction solid waste that cannot be re-used on site will be separated and appropriately disposed.
- Solar power arrays to generate electricity for the buildings. No new power lines will be installed.
- A game fence around the perimeter of the farms, part of which is shared with the Waterberg Plateau National Park. All internal fences will be removed.
- Establishment and upgrading of roads for access and scenic routes, not exceeding 20 km, and using existing tracks as much as possible.
- A 1.4 km long airstrip situated below the plateau between the D2512 road and the cliff.

• All buildings will be positioned, designed and constructed to blend into the natural environment and to minimise environmental harm to the surroundings. There will be very little concrete-and-brick work.

Construction phase

- There will be about 40-60 workers on site during the construction phase, which is expected to last about 2 years.
- Water consumption during construction will average 18,000 litres per day, temporarily increasing to maximum 25,000 litres of water per day for the short periods of concrete work.
- Diesel fuel will be dispensed from a 2,200 litre storage tank.
- Small-scale electricity generators will be used when required.

Operations phase

- The entire complex will provide 96 beds and 25 campsites. General hospitality and maintenance services will be carried out.
- Estimated water consumption will average about 18,000 litres per day.
- Small-aircraft traffic at the airstrip will be maximum 10 flights per month.
- There will be access control for security at the entrance gate on the D2512. Security around the farm will be managed in collaboration with neighbours.
- Wildlife will be introduced onto the farm, including priority species such as rhino.

Alternatives

The 'no-project alternative' carries opportunity costs (such as absence of economic diversification and employment possibilities) and relatively little comparative advantage over the proposed development. Consequently, the no-go alternative is not recommended. No specific aspects of the situation and design of the proposals require significant adjustment or alternatives for biophysical or social reasons.

Legislation

The legislation relevant to the project is listed in Sec 4. This Scoping Report covers the requirement of the Environmental Management Act; any additional permits or licenses for the operation of the project are the responsibility of the Proponent.

Receiving environment

The climate is semi-arid with summer rainfall. Geologically, the Waterberg escarpment comprises resistant Etjo sandstone. The dominant soil is ferralic arenosol. The area has

moderate to poor groundwater potential. The name 'Waterberg' comes from springs in the overall area, and there is a (permanently flowing) artesian spring on Otjahevita.

The vegetation is Northern-Kalahari and Thornbush Shrubland, and plant diversity on the Waterberg Plateau is relatively high, with a number of species listed as Protected Plants under the Forest Act and the Nature Conservation Ordinance. Animal life on the farm is typical of thornbush savanna of central Namibia, with a number of conservation priorities including carnivores, raptors and reptile species.

The predominant land uses in the area are commercial cattle farming and conservation. Settlements are sparsely scattered, with the nearest being Wabi Lodge approximately 5 km to the east of the proposed developments. Infrastructure in the area is the D2512 gravel road, and the Eastern National Water Carrier (canal + pipeline) running parallel to the D2512, from which local farms can abstract water. There are no known archaeological or heritage resources on Hogensee and Otjahevita. The Waterberg Plateau is an important landmark in the overall area.

Public consultation for this EIA

Interested and affected parties (IAPs) for this development were identified and invited to register as part of the public consultation process. Public announcements were provided in newspapers and notice boards. The stakeholder register listed 53 IAPs, which included government departments (including Otjozondjupa Regional Council, the Omatako Constituency Councillor, MAWLR, MEFT, MURD and the National Heritage Council) and parastatals (including NCAA and Roads Authority).

Focus meetings were held with local farm owners, including the legal representative for Wabi Lodge, to discuss the water situation and potential impacts of abstraction for the proposed lodge development. An issues and response table is provided in Sec 6.1.2. Issues raised during the public consultation process included:

- The poor condition of the D2512 road and the impact of increased traffic on this road;
- The impact of noise pollution on guests at surrounding lodges and on local wildlife;
- Concern over potential local water shortages arising from consumption by the proposed development. Consultations were undertaken with a geohydrologist (Mr Greg Christelis of CHR Water Consultants). It was argued that the lodge development would not consume more than the existing consumption of a cattle farm. The issue of excessive water consumption was withdrawn.

Impact assessment

The identified negative impacts, mitigation measures and final significance of impacts are summarised:

Waste generation

Recommendations: Waste disposal procedures should be included in induction;

Facilities for appropriate disposal should be put in place, together with waste separation and recycling procedures;

Waste-holding areas must be fully animal-proofed, especially against baboons.

Significance after implementation of EMP conditions: LOW

Soil and groundwater pollution

Recommendations: The construction code of practices should include specifications for dispensing and refilling fuel, and adequately bunded storage facilities must be provided.

Spillages must be cleaned up and correctly disposed of.

Significance after implementation of EMP conditions: LOW

Increase in noise levels

Insignificant impact. Possible disturbance from (illegally) low-flying aircraft.

Significance after implementation of EMP conditions: LOW

Disturbance to and poaching of animals

Recommendations: All staff on site must get induction training on environmental awareness and prevention of wildlife crime.

Details of all staff and contract workers must be recorded to reduce poaching, and be able to follow up if it occurs.

Management staff must be vigilant for signs of wildlife crime.

Significance after implementation of EMP conditions: LOW

Clearing of vegetation

Recommendations: Cutting of trees must be minimised, and unnecessary damage prevented. All necessary Forest Act permits must first be obtained.

Rehabilitation of any cleared ground should be quickly implemented.

Significance after implementation of EMP conditions: VERY LOW

Groundwater consumption

The consumption by Ondili is not expected to increase the local groundwater abstraction. The suggestion for all the IAPs potentially affected by local groundwater consumption, to contribute towards pump tests on all boreholes to ascertain their capacity, was rejected. The sustainable abstraction rate for all local boreholes therefore remains unknown.

Recommendation: All local boreholes should be fitted with water meters, and consumption should be recorded.

Significance after implementation of EMP conditions: Low - High, depending on whether abstraction from all the boreholes in the local groundwater aquifer are within the sustainable yield.

Deterioration of the D2512 gravel road

Recommendations: Ondili should carry its share of the responsibility for jointly addressing the state of the road, together with Roads Authority and the other main users.

All land users in the Waterberg Landscape Conservation Area should get involved in the business of the landscape, and should collaborate with service providers (eg Roads Authority) to ensure that required services are carried out.

Ondili must seek authorization from Roads Authority to create an access onto the D2512 from the lodge complex.

Significance after implementation of EMP conditions: LOW

Light pollution

Recommendations: Reduce the area and intensity of flood lighting; cast outdoor lighting downwards; keep lights off when not necessary.

Significance after implementation of EMP conditions: LOW

Visual impact of the lodge buildings

Recommendations: Keep the design of the lodge buildings in a natural style.

Significance after implementation of EMP conditions: LOW

Positive impacts

Employment creation and transfer of skills - LOW to MEDIUM SIGNIFICANCE Growth of tourism sector and diversification of the local economy - LOW to MEDIUM SIGNIFICANCE Re-introduction of wildlife - LOW to MEDIUM SIGNIFICANCE Bush thinning and restoration - LOW to MEDIUM SIGNIFICANCE

Cumulative impacts

Impacts that might become more severe depending on other developments and human activities in the area, include:

- Increased risk of groundwater over-exploitation, to the detriment of local aquifers.
- Increased volumes of waste, that might exceed the capacity for managed disposal at the local Otjiwarongo landfill.
- Increased light pollution.
- Deterioration of the public road D2512 due to increased traffic.

It is recommended that all local land-owners and users should participate in the Waterberg Landscape Conservation Area initiative, to monitor and address these potential problems.

Conclusions and recommendation

The positive impacts arising from establishment of the Ondili Waterberg Lodge complex are beneficial to the local economy and Namibia's tourism industry.

The negative impacts from the development are significant enough to warrant mitigation measures, but none of them are likely to seriously damage or degrade any local resources. All the negative impacts can be reduced to manageable levels by thorough implementation of the mitigation measures.

The mitigation suggestions for the lodge complex are based on accepted good practices in the tourism industry, and can be implemented without incurring significant costs. These are captured in the Environmental Management Plan, Appendix B.

There are no reasons to withhold an Environmental Clearance Certificate from the Ondili Waterberg Lodge complex.

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Abbreviations and Acronyms

CV	Curriculum Vitae
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
ENWC	Eastern National Water Carrier
EPL	Exclusive Prospecting License
GG	Government Gazette
GN	Government notice
I&AP	Interested and Affected Party
MAWF	Ministry of Agriculture, Water and Forestry
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
NP	National Park
NSA	Namibia Statistics Agency
RA	Roads Authority
ToR	Terms of Reference

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Glossary

Cumulative Impacts - in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Environment - As defined in Environmental Management Act - the complex of natural and anthropogenic factors and elements that are mutually interrelated and affect the ecological equilibrium and the quality of life, including – (a) the natural environment that is land, water and air; all organic and inorganic matter and living organisms and (b) the human environment that is the landscape and natural, cultural, historical, aesthetic, economic and social heritage and values.

Environmental Management Plan – as defined in the EIA Regulations, a plan that describes how activities that may have significant environments effects are to be mitigated, controlled and monitored.

Interested and Affected Party (I&AP) - in relation to the assessment of a listed activity includes - (a) any person, group of persons or organisation interested in or affected by an activity; and (b) any organ of state that may have jurisdiction over any aspect of the activity.

Mitigate - practical measures to reduce adverse impacts.

Proponent – as defined in the Environmental Management Act, a person who proposes to undertake a listed activity.

Significant impact - means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

1 Introduction

This chapter of the report provides a background and motivation to the project; the study's terms of reference; purpose of this report; the assumptions and limitations of the study; and an outline of the remainder of the report.

1.1 Project Background

Ondili Lodges Management (Pty) Ltd (the Proponent) intends to construct and operate a lodge complex (two separate lodges and a camp site) on Farms Hogensee 525 and Otjahevita 304 (see Figure 3-1 below) located in the Otjozondjupa Region, Namibia.

1.2 Terms of Reference

Resilient Environmental Solutions cc (RES) was appointed by the Proponent to undertake an environmental impact assessment (EIA) for the purpose of applying for an Environmental Clearance Certificate (ECC) for the project.

No formal Terms of Reference (ToR) were provided by the Proponent. Therefore, the ToR for conducting this EIA were taken to be the requirements of the Environmental Management Act (EMA) and its Environmental Impact Assessment (EIA) Regulations (see Chapter 4).

This EA has been conducted with the aim of obtaining an ECC only. Any additional permits or licenses and/or approvals that are required (see Chapter 4) for the operation of the project should be applied for by the Proponent.

1.3 Environmental Assessment Process

The steps followed as part of this EA process are: registration of application for an ECC and carrying out the scoping phase of the EA process as prescribed by the EIA Regulations.

1.3.1 Registration of Application for Environmental Clearance Certificate

The first step was to identify the listed activities which the proposed project entails, as stipulated in the 'List of Activities that may not be undertaken without an Environmental Clearance Certificate' (GN. No. 29 of 2012). These activities are listed below.

• WASTE MANAGEMENT, TREAMENT, HANDLING AND DISPOSAL ACTIVITIES

2.1 The construction of facilities for waste sites, treatment of waste and disposal of waste.

2.3 The import, processing, use and recycling, temporary storage, transit or export of waste.

• LAND USE AND DEVELOPMENT ACTIVITIES

5.3 Construction of veterinary protected area or game proof and international boundary fences.

• TOURISM DEVELOPMENT ACTIVITIES

6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.

• WATER RESOURCE DEVELOPMENTS

8.1 The abstraction of ground or surface water for industrial or commercial purposes.

8.6 Construction of industrial and domestic wastewater treatment plants and related pipeline systems.

• INFRASTRUCTURE

10.1 The construction of-

(d) airports and airfields.

In accordance with Section 32 of the EMA, applications for an ECC should be submitted to the relevant Competent Authority. The Competent Authority is defined as that authority having the jurisdiction to approve or permit a particular listed activity in accordance with the relevant national legislation. The Ministry of Environment and Tourism (MET) was identified as the Competent Authority. Therefore, the application for an ECC was submitted on 20 August 2019 to the MET (Appendix A), as prescribed by Regulation 6 (Form 1 of Annexure 1) of the EIA Regulations (GN. No. 30 of 2012), as provided for under Section 56 of the EMA.

1.3.2 The Scoping Phase

After submitting an application for an ECC the scoping phase commenced, culminating in the production of a scoping report (i.e. this report). This report includes the following:

- Details of the Environmental Assessment Practitioner that carried out the assessment (Chapter 2);
- A description of the proposed project (including need and desirability of the proposed activity and no-action alternative) (Chapter 3);

- Legislative provisions that have relevance to the proposed project (Chapter 4);
- A description of the existing biophysical and social conditions of the receiving environment (Chapter 5);
- A description of the public consultation process followed (as described in Regulations 7 and 21 of the EIA Regulations) (Chapter 6);
- A description and significance assessment of all identified potential impacts (positive and negative) associated with the proposed project (Chapter 7); and
- Management and mitigation measures required to avoid or minimise the potential negative impacts as outlined in the Environmental Management Plan (EMP) (Appendix B).

2 Project Team

This EIA project is undertaken by Resilient Environmental Solutions (RES). The individuals within RES are John Pallett and Sheldon Husselmann, both of whom have significant experience conducting EIAs (scoping and full assessment level) within the Namibian environmental context. RES has sub-contracted Bonnie Galloway for part of the work.

2.1 John Pallett

John Pallett is a certified Environmental Assessment Practitioner (EAP), with qualifications in geology (BSc) and zoology (BSc Honours). He specialises in providing environmental advice and evaluating environmental issues, particularly through Environmental Impact Assessments (EIAs) and Strategic EAs (SEAs), for the benefit of managers, decision-makers and the lay public. He has been affiliated to the Southern African Association for Impact Assessment (SAIEA) since 2008 and worked for the Desert Research Foundation of Namibia – Environmental Evaluation Associates of Namibia (DRFN-EEAN) for 14 years up to 2008. See CV (Appendix C1).

2.2 Sheldon Husselmann

Sheldon Husselmann is the holder of BSc, BSc (Honours) and MSc in Environmental and Geographical Science (2010, 2011 and 2016 respectively).

During his 6 years as an EAP with Enviro Dynamics cc, GCS Water Environmental Engineering (Pty) Ltd and Urban Green cc, he has gained valuable experience in conducting EAs (including public consultation), both in team set-up as well as individual team leader. Find attached his CV (Appendix C2).

2.3 Bonnie Galloway

Bonnie Galloway is a qualified environmental scientist with master's degree in Environment, Society and Sustainability (2014) and a Bachelor of Science in Conservation Ecology (2008). She has a wide range of experience in environmental science, conservation and research while working in Southern Africa and abroad. She has previously worked as an EAP for Aurecon Engineers in Cape Town where she conducted impact assessments for national and provincial government projects (CV attached as Appendix C3).

3 Project Description

3.1 Project Location

The Farms Hogensee 525 and Otjahevita 304 are located approximately 20 km north-east of the entrance of the Waterberg Plateau National Park, Omatako Constituency, Otjozondjupa Region (Figure 3-1), coordinates 20.368184°S, 17.474335°E. The project site is accessed from the D2512 gravel road which links to the C22, Okakarara road. The farms are approx. 3,800 hectares in size, and the infrastructure developments will be spread out over an area of approx. 100 hectares. Layout of the various lodge components is shown in Figure 3-2.

3.2 Construction phase activities

The Proponent intends to establish the following infrastructure:

- A camping area with 25 campsites including ablution facilities, covering approximately 2 hectares altogether.
- A lodge building with main reception, dining and lobby area, and 26 individual chalets. All of these buildings will be aligned along the escarpment over a distance of about 1.5 km. One of the chalets will be an exclusive luxury chalet located a distance away from the other buildings. There will be two swimming pools built on the escarpment, one at the main lodge building and another at the exclusive chalet. This area also includes housing for approximately 50 staff members in a central building, each worker will be accommodated in his/her own room, and there will be a communal kitchen dining recreation area. In addition there will be a managers house and tour guide houses.
- An isolated house, called the 360° villa, on a sandstone outcrop located about 3.3 km away from the main lodge site, measuring approximately 1 ha. This house will be constructed using mainly steel and glass.
- A separate, tented camp consisting of 20 fixed tents, situated in the valley behind the main lodge area. This area will also have a reception, dining and lobby building as well as a laundry room and staff housing, measuring approximately 4.5 ha. Each worker will be accommodated in his/her own room, and there will be a communal kitchen dining recreation area. This will be a slightly cheaper accommodation establishment than the lodge located on the escarpment.
- An additional borehole, possibly on top of the escarpment to provide water to the luxury lodge.
- Three septic tank facilities for treatment of sewerage water, distributed at the accommodation sites where bedrock conditions allow relatively easier excavation into

the substrate. Each will comprise an underground 3-chambered septic tank (max. 20m³), with effluent in the final chamber flowing out to an evaporation basin. There will be three evaporation basins, one at each of the development sites. The final stage water will be at a purification level where it can be used for irrigation.

- Sewage will be collected in septic tanks at the guest suites, kitchen, laundry, and staff accommodations. Grease traps to be provided for kitchen and related facilities prior to discharge to sewer treatment. The supernatant from each septic tank will then be pumped to the sewage treatment plant. The sewage treatment plant will treat the effluent to a stage where the final output is clear, odourless and non-polluting.
- Three small photovoltaic solar arrays sized according to the demand at each of the sites, to generate electricity and store it in batteries. No aerial power lines will be established on the farm. The largest solar panel array will be located on top of the plateau and will have a footprint of about 600m². The smaller array, at the less luxurious lodge, will be about 400m² in size, while the campsite solar panel array will take up an area of about 50m². Power will be generated by these photovoltaic solar panels and stored in batteries. Hot water will be generated either by solar geysers, heat pumps or a combination of the two.
- A 2.5 m high game-fence around the perimeter of the farm (approx. 36 km). The border that is shared with the Waterberg Plateau National Park will share a fence with the Park.
- Construction activities will avoid, wherever possible, the existing trees so that no large trees will be damaged or cut down.
- All internal fences demarcating grazing camps on the farm will be taken down.
- Environmental provisions: All buildings will be carefully positioned and designed (i.t.o. height and style) to blend into the environment. The majority of the lodge buildings will be constructed on elevated floors to minimise the impact and disturbance to the environment. Energy-efficient building materials, including local and recycled materials, will be used as far as possible. Buildings will be positioned and designed to optimise passive heating and cooling methods. Care will be taken during construction and immediately after construction is completed, to rehabilitate the sites as close as possible to their original state.
- Establishment and upgrading of access and scenic roads, not more than 20 km.
 - Roads will be kept to a minimum and existing farm roads will be used instead of building new roads as far as reasonable. The existing entrance gate will form the official entry point to the lodge. The main farm track will be reconditioned and used as the main road to the lodge.
 - The existing track from the top of the plateau to the lodge will be used as a construction road and after completion as a staff circulation road. A new scenic route will be built from the top of the plateau to the lodge.

- The existing road running parallel to the cliff will be used for guest circulation to chalets. Shared parking spaces will minimise additional roads to each chalet. Guests will walk from the shared parking space to their chalet.
- An airstrip approximately 1.4 km long. This was originally proposed to be situated on the plateau, using an existing cleared strip near the western boundary of the farm. This site has been changed: the airstrip is now proposed for the area below the plateau, between the D2512 road and the cliff, where land has originally been cleared. This will be oriented WSW-ENE, 1.4 km long, centred on coordinates 20.364614 S; 17.486526 E.

The construction workforce will use the following facilities:

- On-site accommodation for the construction workers will be provided in the existing farm house. Water and kitchen facilities are already available at this site.
- Two subcontracted teams will be on site temporarily for the fence construction and specific components of the building. They will gather and use firewood for cooking, but will not be permitted to collect wood from the larger trees.
- Environmental provisions: Staff accommodation will be designed to optimise
 - Management efficiency
 - Proximity to the entrance gate
 - Proximity to visitors areas
 - Desirability of being accommodated in nearby towns and formal settlements
 - Minimisation of environmental disturbance and maximising energy and water efficiency.

Construction workforce and duration

There will be approximately 40 workers, increasing temporarily to approximately 60 when sub-contracted teams are also on site. Construction workers will work in shifts of 7 weeks on, 1 week off for the duration of the 2-year construction phase.

3.2.1 Construction Services and Utilities

The services and utilities required during the construction phase include:

Water – maximum 25,000 litres of water per day when doing concrete work for construction of the buildings. This will be for short periods only (maximum 2 months), as there is relatively little brick-and-mortar work in the buildings which will mostly be made of wood. Water will be sourced from the existing spring on the farm and the NamWater pipeline.

- Sewage treatment and effluent discharge.
 - Sewage will be collected in septic tanks at the guest suites, kitchen, laundry, and staff accommodations.
 - Grease traps will be installed at the kitchens and related facilities, to separate grease and oils prior to discharge to the sewer treatment.
 - The supernatant from each septic tank will then be pumped to the sewage treatment plant.
 - The sewage treatment plant will treat the effluent to a stage where the final output is clear, odourless and non-polluting.
- **Fuel** a 2,200 litre diesel storage tank will be established at the existing shed. Fuel will be dispensed from this tank.
- Electricity electricity will be supplied by solar power, plus diesel or petrol generators will be used for high-demand construction needs.
- **Toilets** toilet and sewage facilities located at the existing chalets and workers houses and will be used by the construction workers.
- **Solid waste** All solid waste that cannot be re-used on site will be separated and appropriately disposed.
 - Waste from the lodge will be collected and transported in appropriate containers to a sorting station on the farm.
 - Waste will be sorted for recycling, safely stored for a maximum of 28 days and transported to a formal waste management site in Otjiwarongo.
 - Biodegradable waste will be separated at the source and composted for re-use.

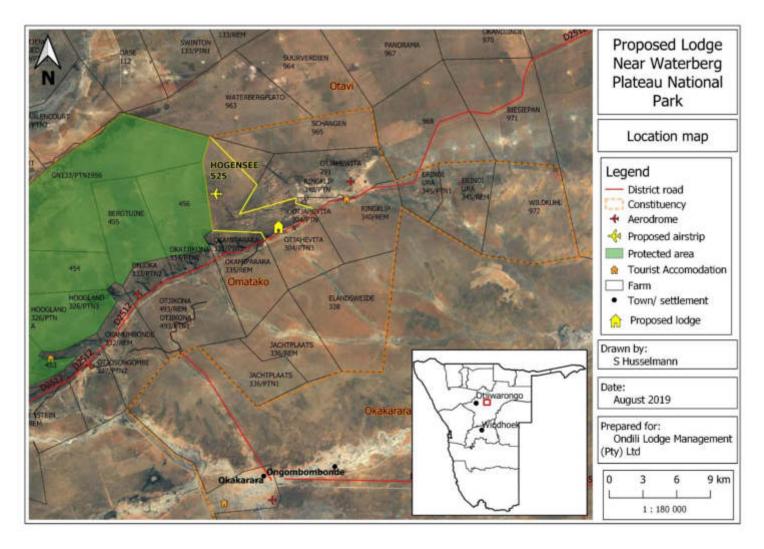


Figure 3-1. Location of Farms Hogensee 525 and Otjahevita 304 and the proposed lodge complex in the Otjozondjupa Region

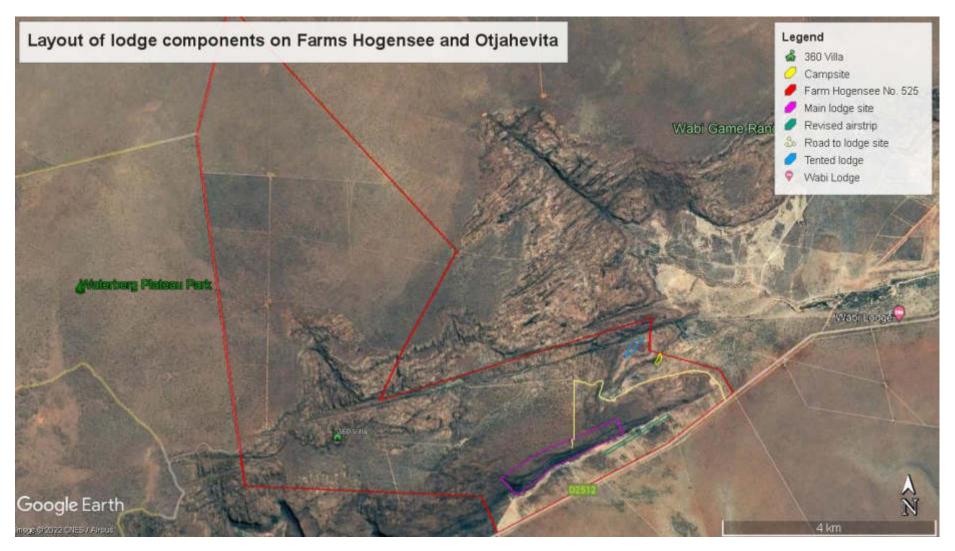


Figure 3-2. Layout of the various lodge components on the farms Hogensee and Otjahevita.

3.3 Operation phase

The Proponent will manage the operation of the proposed lodge. The following activities will take place on site:

- Vehicle traffic of guests and management to and from the accommodation areas, and possibly with a shuttle service to and from the Waterberg Plateau National Park. The entire complex will provide 96 beds and 25 campsites.
- Small-aircraft traffic at the airstrip, estimated max. 10 flights per month.
- General hospitality services (restaurant, reception and administration, laundry etc.).
- General maintenance works.

3.3.1 Operation Workforce

The lodge operations will require a total of approximately 100 permanent employees. All of the lodge workforce will be accommodated on-site in the staff accommodation.

3.3.2 Operational Phase Services and Utilities

The services and management activities during the operational phase include:

- **Road access** the existing access point off the C22 road onto the D2512 road, then on to farm Otjahevita, will be used to access the lodges.
- Water Estimated average water consumption will be approximately 18,000 litres per daymax. 25,000 litres per day (when all 3 sites are fully occupied).
- Wastewater Wastewater produced by toilets and washing facilities will be treated in the separate septic tank systems. Surplus water will possibly be used for irrigation (small areas of lawn, vegetables for the kitchen), and any excess will go to the three individual evaporation ponds.
- Solid waste management The lodge complex will, if possible, collaborate with neighbouring lodges (such as Wabi Lodge and Waterberg Wilderness Lodge) to share facilities for sorting, recycling and disposal of solid waste.
- **Security** There will be a security presence for access control at the entrance gate. Security around the farm will be managed in collaboration with neighbours (a neighbourhood watch system).
- **Electricity** electricity will be supplied by the three photovoltaic solar power plants and battery storage systems, with solar water heaters on each building.
- **Rehabilitation.** At the end of the construction period the working and laydown areas will be rehabilitated so that the areas outside of the lodges will be as natural as possible. The existing unfinished chalets, shed and workers houses which are aggregation of a few buildings, with little aesthetic value will be demolished.

• Wildlife will be introduced onto the farm. The proposed species to be held here include white rhino and black rhino, the common medium-sized herbivores that are found in the Waterberg Plateau NP such as giraffe, eland, oryx, hartebeest, impala, blue wildebeest, zebra and springbok. The proponent will propose to the Waterberg Plateau National Park that the fence between the two wildlife areas be dropped to extend range and habitat.

3.4 Water consumption

The proposed water consumption for the lodge complex will be, on average, about 18,000 litres per day during both the construction and operational periods. Higher consumption, up to about 25,000 l/day, will be experienced during water-intensive phases of the construction, but these periods will last for less than 2 months in total since there is relatively little foundation and brick-and-mortar work in all the buildings.

The average consumption figure is based on the Eco-Awards standard (2005), where the average daily consumption for all direct and indirect use, including all the water re-use and water conservation measures that should be applied at Namibian lodges, is just less than 100 litres per person per day. The estimated use during the construction period is based on experience of lodge construction activities by Ondili.

Ondili claims that the water consumption will not exceed the average consumption of a cattlefarm of the same size in the Waterberg area, since Hogensee was a cattle-farm before it was purchased by Ondili. The argument is that the water consumption of the proposed lodge complex will not be higher than it was under its previous land use.

The original water consumption from groundwater, when the farm was used as a cattle and wildlife farm, is estimated below. This is based on figures supplied by the previous owner, Mrs Roets.

3.4.1 Water consumption of a cattle farm of 4,000 ha

The estimated total water consumption is calculated as follows:

Consumption by livestock:

Farm area:	4,000 ha
Recommended stocking rate (MAWF 2006):	12 - 18 ha / Large Stock Unit
Number of cattle on the farm:	220 – 330 cattle
Water consumption per cow per day (DWAF 2006):	45 litres

Water consumption per day:	9,900 – 14,850 litres
Consumption by people:	
Assume 5 households on a farm	
Assume average household contains 6 people	30 people
Water consumption per person per day	100 litres
Water consumption per day:	3,000 litres

Total consumption for the cattle farm: 12,900 – 17,850 litres/day

3.4.2 Water consumption on the proposed Ondili Waterberg lodge complex

Assume full occupancy to establish maximum consumption.

Accommodation units:

26 luxury chalets, 2 beds each:	52 guests
20 tented camp units, 2 beds each:	40 guests
25 camping sites, 2 people each:	50 guests
Total number of guests:	142

<u>Staff:</u>

Assume 2 people per accommodation unit, excluding the camp site: 46 x 2 = 92 people		
< 10 people		
100 people		
242 people		

Water consumption per person per day (Eco-Awards estim	nate):	100 litres
Total water consumption for entire lodge complex:	24,200 litres/	day

But occupancy will not constantly be 100%, and the business model is based on 60% occupancy to allow for peaks of full occupancy (such as a busload of visitors) and other periods when occupancy is much lower. Based on 60% occupancy, the calculation is as follows:

Total number of guests:	85 people
Total number of staff:	100 people
Total number of people, including guests + staff:	185 people

Total average water consumption for entire lodge complex at 60% occupancy: 18,500 litres/day.

Conclusion: The average water consumption of the proposed lodge complex (18,500 l/d) is only marginally higher than the water consumption of the cattle-farm (12,900 – 17,850 l/d). It must be remembered that there is supplementation of the groundwater from the NamWater canal, which is used whenever possible, but this source has only been functional for about half the time over the past 5 years (NamWater 2020, pers. comm.).

3.5 Alternatives

3.5.1 No-Action Alternative

In the event that the proposed project is denied an Environmental Clearance Certificate (ECC) no tourism development would take place on Farms Hogensee and Otjahevita. The default activity taking place within the area would be commercial livestock farming. This would entail the following (among other consequences):

- Negative:
 - The absence of potential skilled, semi- and unskilled jobs and associated tourism-related income for a number of individuals and their dependents.
 - The loss of a potential buffer area on this part of the periphery of Waterberg Plateau NP, where farming activities would continue to conflict with conservation activities in the Park.
 - Loss of economic diversification in this area.
- Positive:
 - \circ No added nuisance or inconvenience from additional traffic on the gravel roads.
 - No waste generation.

The absence of economic diversification, if the proposed tourism development does not take place, represents an opportunity cost. Similarly, the absence of a few potential jobs represents a small opportunity cost given the current employment situation within the Omatako Constituency and the Otjozondjupa Region at large. The increase in pressure on existing infrastructure will be relatively small, considering that the gravel road carries much traffic to and from the Waterberg Plateau NP and surrounding lodges. Based on the above, the "no-go" alternative carries opportunity costs and relatively little comparative advantage over the proposed development. Consequently, the no-go alternative is not recommended.

3.5.2 Project design alternatives

No specific aspects of the situation and design of the components of the lodge development proposals require adjustment or alternatives for biophysical or social reasons.

4 Legislation Relevant to the Project

The legislative and regulatory framework relevant to the proposed lodge is described below.

4.1 The Environmental Management Act (2007) and Regulations (2012)

The Act gives effect to Article 95(I) of the Constitution by establishing general principles for the management of the natural and social environment. Environmental impact assessments and consultations with communities and relevant national and local authorities are provided for, to monitor the development of projects that potentially have an impact on the environment. It provides a broad definition to the term "environment" to include all biological and physical resources, as well as social, archaeological, aesthetic, cultural, historic, economic and palaeontological values. For any activities or projects which have or will have an environmental impact, an Environmental Clearance Certificate (ECC) is required.

The Regulations provide a list of projects requiring an ECC under section 27 of the Act. Various activities that will take place at the Oberland Lodge complex (as set out in Chapter 1.4 above) trigger the need for an ECC.

Section 40(1) stipulates that an ECC remains valid for a period not exceeding three years, subject to cancellation or suspension.

4.2 The Water Act (1956)

This Act remains in force until the new Water Resources Management Act of 2013 comes into force. It governs the protection, allocation and conservation of all water resources, the implementation of water supply infrastructure and water schemes, and water pollution. The Act makes the Department of Water Affairs (DWA) responsible for the use, allocation, control and conservation of Namibia's surface- and groundwater resources. A permit must be obtained from DWA for the establishment of wastewater treatment facilities.

4.3 The Water Resources Management Act (2013)

This Act is not yet in force as its Regulations have not been gazetted. It provides for the management, protection, development, use and conservation of water resources; and for the regulation and monitoring of water services.

The objectives of this Act are to ensure that the water resources of Namibia are managed, developed, used, conserved and protected in a manner consistent with, or conducive to, the

fundamental principles of sustainable management of water resources. Of special note are two principles:

(k) prevention of water pollution and implementation of the principle that a person disposing of effluent or waste has a duty of care to prevent pollution;

(I) a polluter is liable to pay all costs to clean up any intentional or accidental spill of pollutants.

4.4 The Soil Conservation Act (1969)

This Act makes provision for the prevention and control of soil erosion, and the protection, improvement and conservation of soil, vegetation and water supply sources in Namibia. Removal of vegetation cover and contamination of soil must be minimised as far as practicable.

4.5 The Forest Act (2001)

Part IV of this Act provides for the general protection of the environment. Permits are required for the removal of protected plant species.

4.6 The 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; and it will establish a framework for integrated pollution prevention and control.

Under this Act, pollution to the air and water should be avoided, and dust pollution should be prevented. Waste management should be applied.

4.7 Atmospheric Pollution Prevention Ordinance No. 11 of 1976 (as amended)

This Ordinance provides for the prevention of pollution of the atmosphere. Part IV Ordinance deals with control of dust and provides for the proclamation of dust control areas.

4.8 The National Heritage Act (2004)

The Act is aimed at protecting, conserving and registering places and objects of heritage significance. All heritage resources (such as graves, rock art, ancient human remains) that are discovered on a development site, need to be reported immediately to the National Heritage Council (NHC). A permit is required from the NHC before any grave or archaeological artefacts can be disturbed or relocated.

4.9 The Roads Ordinance (1972)

The Roads Ordinance prescribes the requirements for all public roads and road servitudes. Section 3.1 deals with the width of proclaimed roads and road reserve boundaries. Section 37.1 deals with Infringements and obstructions on and interference with proclaimed roads.

4.10 The Hazardous Substances Ordinance (1974)

The Ordinance applies to the manufacture, sale, use, disposal and dumping of hazardous substances, as well as their import and export. It is administered by the Ministry of Health and Social Welfare. Its primary purpose is to prevent hazardous substances from causing injury, ill health or the death of human beings.

4.11 The Nature Conservation Ordinance (1975)

The NCO governs the conservation of wildlife and protected areas. It deals with game parks and reserves, hunting, problem animals and the protection of indigenous plants.

Under the Ordinance, permits are required for the removal of protected plant species.

4.12 Namibia Tourism Board Act (2000)

This act makes provision for the registration and grading of accommodation establishments; and for the registration of businesses falling within a regulated sector; and to provide for matters incidental thereto. The Proponent should ensure that the proposed lodge development complies with all the relevant provisions of this Act.

4.13 Petroleum Products and Energy Act (No. 13 of 1990) and Regulations (2000)

Regulation 3(2)(b) states that "No person shall posses [sic] or store any fuel except under authority of a licence or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area." A permit must be obtained from MME for the intended fuel storage facilities.

4.14 Aviation Act (1962) and Regulations (2001)

This Act gives effect to International Aviation Conventions and makes provision for the control, regulation and encouragement of flying within Namibia. The regulations to the Act provide for the registration of aerodromes such as the one proposed as part of the lodge complex facilities. The Proponent should ensure the proposed landing strip/aerodrome complies with the provisions of these legal instruments.

5 Description of the Receiving Environment

5.1 Biophysical Environment

5.1.1 Climate

The project area receives summer rainfall with typical rainfall amounts ranging from 325 – 350mm per year (Mendelsohn, et al., 2009). The broader area (on a regional scale) is characterised by sporadic and erratic rainfall season and droughts are considered common.

Average maximum temperatures are approximately 30-32°C and range between 4 – 6°C for the average minimum temperatures (Mendelsohn, et al., 2009).

A weather monitoring station located at the Waterberg Plateau National Park, has been measuring wind data since September 2011. Wind speeds in the area are generally low with average speeds of less than 3 m/s and maximum speeds rarely exceeding 6 m/s. The dominant directions are north-westerly and north-easterly and these conditions persist for approximately 10 months a year (BIOTA Africa, 2017).

5.1.2 Geology, topography and soils

Surface cover in the project area consists of geological deposits of the Kalahari Group (PF5 and PF6), which includes sands, gravel and/or calcrete. The Waterberg Plateau is an erosion relic of sandstone which covered Namibia millions of years ago. At the end of the Karoo Era, pressure on the earth's crust elevated the Karoo sediments giving rise to a plateau. Most of this plateau was erodes away over aeons, but the resistant Etjo sandstone prevented erosion on the Waterberg Plateau. The oldest rock stratum in this area is over 850 million years old and dinosaur tracks dating from 200 million years ago have been found on the Plateau (NAMPLACE 2016)

The farms Hogensee and Otjahevita are located on the Waterberg Plateau with a small section of southern Otjahevita at the base of the escarpment. This southern section of Otjahevita is relatively flat. The Waterberg Plateau is a prominent feature in the landscape and rises steeply to about 1,885 m above sea level on the farm Otjahevita. Parallel to the D2512 there are dramatic sheer cliffs, but the top of the plateau can be accessed along a gentler gradient to from the north-eastern side. The farm Hogensee is entirely situated on the Plateau.

The project area consists of a mosaic of soil types with the dominant type being Ferralic Arenosols (Mendelsohn, et al., 2009). This type of soil consists of high levels of oxides of iron and aluminium. Arenosols are formed from wind-blown sand. This sandy texture allows water to drain through the soil quickly, which leaves little moisture and nutrients for plant growth.

The soil has a loose structure which means there is little run-off and water erosion, however, it is susceptible to wind erosion.

5.1.3 Hydrogeology

The Eastern National Water Carrier (ENWC) runs along the southern boundary of the farm Otjahevita, parallel to the D2512 gravel road. The section that runs across the farm is a covered pipeline.

The Waterberg Plateau is a major hydrogeological structure. The Etjo sandstone lies on the underlying Omingonde argillite which gives rise to a series of contact fountains that drain water from the porous sandstone. The general dip in the contact plane causes springs to emerge on the southern slopes of the Waterberg Plateau (Christelis and Struckmeier 2001). There is one such spring in the project area which provides year round fresh water on the Farm Otjahevita (W.Kaiser 2019 pers. comm.). These springs give a general impression that there is an abundance of groundwater, however, this area generally has moderate to poor groundwater potential. The springs collect groundwater over a large area of sandstone outcrop and concentrate the flow along a shallow contact zone (Christelis and Struckmeier 2001).

5.1.4 Biodiversity

5.1.4.1 Flora

The farm is situated in the Tree-and-Shrub Savanna biome, with the vegetation type classified as Northern-Kalahari and Thornbush Shrubland (Mendelsohn, et al. 2002). The Waterberg Plateau has one of the highest levels of plant diversity in Namibia with over 500 species recorded in the area. Bush encroachment is evident throughout the Waterberg landscape (NAMPLACE 2016). Approximately 600 tree species have been recorded within the Waterberg Plateau National Park and 139 species have been recorded throughout the greater area. On top of the plateau the flora is dominated by *Terminalia sericea*, *Burkea africana*, *Combretum collinum*, *C. psidioides* and *Peltophorum africanum*. A variety of acacia species (*Acacia erioloba*, *A. erubescens* and *A. tortilis*) occur on the plateau and more densely in the valleys. *Ficus ilicina* is found in rocky areas and on cliff faces and about 140 lichen species are found in the area.

Plants found on the farms that are protected or carry conservation status are listed in Table 5-1 below, drawn from NAMPLACE (2016).

Plant species	Relevant legislation and its implications
Acacia erioloba (Camelthorn)	Forest Act. May not be cut down or damaged
Albizia anthelmintica (Worm-cure Albizia)	 without a permit from the Directorate of Forestry, MEFT.
Berchemia discolour (Bird plum)	
Boscia albitrunca (Shepherds Tree)	
Burkea africana (Burkea)	
Combretum imberbe (Leadwood)	—
Elaeodendron transvaalense (Transvaal saffron)	
Erythrina decora (Namib Coral Tree)	_
Ficus burkei (Strangler Fig)	
Ficus cordata (Namaqua rock fig)	
Ficus sycomorus (Sycamore Fig)	
Lannea discolour (Live-long)	
Maerua schinzii (Ringwood Tree)	
Ochna pulchra (Peeling Bark ochna)	
Olea europaea (Wild Olive)	
Ozoroa crassinervia (Namibian Resin-tree)	
Peltoforum africanum (African Wattle),	
<i>Philenoptera nelsii =Lonchocarpus nelsii</i> (Kalahari apple-leaf)	
Ruhs lancea (Willow rhus)	
Sclerocarya birrea (Marula)	
Securidaca longepedeunculata (Violet Tree)	
Strychnos cocculoides (Corky monkey-orange)	

Table 5-1. Protected plants found on Farm Hogensee and Otjahevita

Spirostachys Africana (Tamboti)	
Sterculia africana (Tick Tree, African Chestnut)	
Moringa ovalifolia (Phantom tree)	
Aloe littoralis (Aloe)	Nature Conservation Ordinance. May not be picked or damaged or transported without a permit from MEFT.

5.1.4.2 Fauna

The farms were previously used for cattle farming, however, there are currently a few large mammals including kudu, gemsbok and some giraffe on the farm (W. Kaiser, pers. comm.). The new owner plans to re-introduce game species found in the area. Animals occasionally escape from the Waterberg Plateau National Park and venture onto the farm, including buffalo and rhino (W. Kaiser, pers. comm.).

Smaller mammals, such as steenbok and warthog, and even smaller still, such as ground squirrel, porcupine and yellow mongoose, also occur on the farm and in the wider area. Such animals easily cross farm fences by crawling underneath. Mammal species of conservation priority, according to Griffin and Coetzee (2005), are listed in Table 5-2.

The conservation priority species that might occur on Hogensee and Otjahevita will all add to the tourism attraction of the game farm and are unlikely to come under increased threat due to the project. The only exception is the pangolin, which is targeted for illegal poaching due to its high black-market value and might especially be at risk of poaching during the construction phase. All species of conservation concern which occur in the Waterberg Plateau National Park are included in this list as animals could move across the fence into the project area.

Table 5-2. Conservation priority species of mamn	nals expected to occur on Farms Hogensee and
Otjahevita	

Common name	Scientific name	Conservation priority
Mammals		
Hildebrandt's Horseshoe Bat	Rhinolophus hildebrandtii	Not yet recorded
Ansorge's Free-tailed Bat	Chaerephon ansorgei	Not yet recorded

Common name	Scientific name	Conservation priority	
Namibian Wing-gland Bat	Cistugo seabrai	Endemic and insufficiently known, possibly rare.	
Woosnam's Desert Mouse	Zelotomys woosnami	Rare	
Southern lesser bushbaby	Galago moholi	Protected Game, CITES Appendix II	
Southern African Hedgehog	Atelerix frontalis angolae	Protected Game	
Ground Pangolin	Manis temminckii	Vulnerable, Protected Game, CITES Appendix I	
Aardwolf	Proteles Cristatus	Insufficiently known (possibly vulnerable) and peripheral	
Brown Hyena	Hyaena brunnea	Endangered, Protected Game	
Spotted hyaena	Crocuta crocuta	Near Threatened, Protected Game	
Cheetah	Acinonyx jubatus	Vulnerable, Protected Game, CITES Appendix I	
Leopard	Panthera pardus	Protected Game, CITES Appendix I	
African wild cat	Felis lybica	Vulnerable, CITES Appendix II	
Black-footed Cat	Felis nigripes	Indeterminate (possibly rare) and peripheral	
Serval	Leptailurus serval	Indeterminate and peripheral	
African Civet	Civettictis civetta	Indeterminate (possibly rare) and peripheral	
Bat-eared fox	Otocyon megalotis	Vulnerable, Protected Game	
Namibian pygmy rock mouse	Petromyscus collinus	Endemic to Namibia, Secure.	
African Wild Dog	Lycaon pictus	Endangered, Protected Game	
Cape fox	Vulpes chama	Vulnerable, Protected Game	
Giraffe	Giraffa camelopardalis Vulnerable, CITES Appendix II		
Damara Dik-Dik	Madoqua damarensis	Insufficiently known	

The **bird** list for Farms Hogensee and Otjahevita is probably similar to that of the Waterberg Plateau National Park and for the general biome. There are a number of conservation priorities that occur in the area, although usually only as individuals passing overhead (scavenging raptors) or spending a small proportion of their time on the farms, due to large home ranges. Nevertheless, the Hogensee and Otjahevita habitat is part of a larger area that provides resources for these birds, even if this contribution is relatively small or not critical. Species that are endemic to Namibia have more than 80% of their population in this country, therefore the responsibility for their conservation is mostly on this country. It is important to note the Waterberg hosts Namibia's only breeding colony of Cape Vultures. The bird conservation priorities are listed in Table 5-3 (drawn from Simmons, Brown and Kemper (2015); Namibia Bird Records Committee (2017); NAMPLACE (2016)).

Table 5-3. Conservation priority bird species expected to occur on the Farms Hogensee andOtjahevita.

Common name	Scientific name	Conservation priority and reasons	
Secretarybird	Sagittarius serpentarius	Vulnerable. Bush encroachment, drowning, fences, power line collisions.	
Tawny Eagle	Aquila rapax	Endangered. Poisons, declining prey base, drowing in farm reservoirs, vehicle collisions.	
Verreaux's Eagle	Aquila verreauxii	Near Threatened. Persecution by farmers, drowning in farm dams.	
African Fish Eagle	Haliaeetus vocifer	Vulnerable. Overfishing, pesticide abuse, degradation of riverine habitat.	
Bateleur	Terathopius ecaudatus	Endangered. Poisons, declining prey base, human disturbance at nests.	
Booted Eagle	Hieraaetus pennatus	Endangered. Few in Namibia, but vagaries could critically reduce the already small population.	
Martial Eagle	Polemaetus bellicosus	Endangered. Shooting, drowning, poisons, diminishing food resources.	
Cape vulture	Gyps coprotheres	Critically Endangered. Poisons, nest disturbance, traditional medicine trade, drowning in reservoirs, power line collisions	

Common name	Scientific name	Conservation priority and reasons
Lappet-faced vulture	Torgos tracheliotos	Endangered. Poisons, nest disturbance, traditional medicine trade, drowning in reservoirs, power line collisions
White-backed vulture	Gyps africanus	Critically Endangered. Poisons, nest disturbance, traditional medicine trade, drowning in reservoirs, power line collisions
White-headed vulture	Trigonoceps occipitalis	Vulnerable. Poisons, decline in prey abundance, disturbance.
Red-footed Kestrel	Falco vespertinus	Near Threatened. Pesticides and habitat loss in Eurasia.
Pallid Harrier	Circus macrourus	Near Threatened. Agriculture, pesticides, climate change.
Peregrine Falcon	Falco peregrinus	Near Threatened. Pesticides, collisions with power cables and fences.
Great White Pelican	Pelecanus onocrotalus	Vulnerable. Single mass breeding sites vulnerable to fluctuating water levels, disturbance, pollution.
Greater Flamingo	Phoenicopterus ruber	Vulnerable. Low breeding frequency and success, water abstraction, reduced rainfall, pesticides, hydrogen-sulphide eruptions, collisions with powerlines, disturbance by aircraft.
Black-necked Grebe	Podiceps nigricollis	Near Threatened. Wetland degradation, marine pollution, entanglement.
Maccoa Duck	Oxyura maccoa	Near Threatened - Central & north-central (Etosha), & along central & northern coast
Black-winged Pratincole	Glareola nordmanni	Near Threatened. Grassland transformation, pesticides, loss of food source.
Black Stork	Ciconia nigra	Endangered. Drying of ephemeral rivers, disruption of flow in perennial rivers.
Marabou stork	Leptoptilus crumeniferus	Near Threatened. Decreasing food availability.
Orange River Francolin	Scleroptila gutturalis	Namibian Near Endemic
Hartlaub's Spurfowl	Francolinus hartlaubi	Namibian Near Endemic.

Common name	Scientific name	Conservation priority and reasons
Kori bustard	Ardeotis kori	Near Threatened. Power line collisions, habitat loss and fragmentation, illegal hunting
Monteiro's hornbill	Tockus monteiri	Endemic to Namibia.
Violet wood- hoopoe	Phoeniculus damarensis	Endangered, Near endemic to Namibia. Hybridisation with green wood-hoopoe, wood collection.
Rüppell's Parrot	Poicephalus rueppellii	Endemic to Namibia.
European roller	Coracias garrulus	Near Threatened. Loss of habitat, reduction of food availability (invertebrates).
Bare-cheeked Babbler	Turdoides gymnogenys	Namibia Near Endemic
Carp's tit	Parus carpi	Endemic to Namibia. Not threatened.
Rockrunner	Achaetops pycnopygius	Namibian Near Endemic.

Reptiles found in this area will also be typical of the Waterberg Plateau National. There are numerous Namibian endemic and priority species amongst them (M. Griffin 2005); (NAMPLACE 2016). These are listed in Table 5-4.

Table 5-4. Reptile species that are conservation priorities that are likely to occur on Farm Hogensee
and Otjahevita.

Common name	Scientific name	Conservation priority
Flap-neck Chameleon	Chamaeleo dilepis	CITES Appendix II. Secure
Jordan's Girdled Lizard	Cordylus jordani	Namibian Endemic. Secure. CITES Appendix II
Dwarf Beaked Snake	Dipsina multimaculata	Namibian Endemic. Secure
Bradfield's Dwarf Gecko	Lygodactylus bradfieldi	Namibian Endemic. Secure
Kalahari Tree Skink	Mabuya spilogaster	Namibian Endemic. Secure

Common name	Scientific name	Conservation priority
Festive Gecko	Narudasia festiva	Namibian Endemic. Secure
Velvety Thick-toed Gecko	Pachydactylus bicolor	Namibian Endemic. Secure
South-western Shovel- snout	Prosymna frontalis	Namibian Endemic. Secure
Kalahari tent tortoise	Psammobates oculiferus	Vulnerable; Protected Game (Specially Protected); CITES Appendix II.
Southern African python	Python natalensis	Vulnerable; Specially Protected; CITES Appendix II
Schinz's Beaked Blind Snake	Rhinotyphlops schinzi	Namibian Endemic. Secure
Leopard tortoise	Geochelone pardalis	Vulnerable; Protected Game (Specially Protected); CITES Appendix II.
Rock or White-throated Monitor	Varanus albigularis	Vulnerable and peripheral; Protected Game (Specially Protected), CITES Appendix II.
Zebra snake	Naja nigricincta	Namibian endemic. Secure
South-western shovel- snout	Prosymna frontalis	Namibian endemic. Secure

The priority reptile species have this status because of a few factors: tortoises are illegally picked up and either kept as pets or eaten; while relatively larger lizards (e.g. veld leguaan) and snakes (e.g. dwarf python) are either killed because that is what people traditionally do when they see them, or they are captured to be traded as pets on the international market. The many relatively smaller species that are endemic to Namibia are listed for their endemic status but are not likely to be threatened by any of the proposed development activities.

5.2 Socio-Economic Environment

5.2.1 Omatako Constituency and the local area around Farms Hogensee and Otjahevita

5.2.1.1 Demographic Profile

The project is located within the Omatako Constituency which had an estimated total population of approximately 17,619 in 2011, which was about 12.2% of the total of the Otjozondjupa Regional population at the time. Population density was 0.7 people/km² in 2011 which is lower than the regional average of about 1.4 people/km² (Namibia Statistics Agency 2011).

The Omatako Constituency consists of a relatively young population, with 38% of the population being younger than 15 years of age. This is fairly consistent with the regional population composition of 36% being younger than 15 years. Of those 15 years and older (i.e. the labour force) 78% are employed and 22% unemployed. The percentage of those unemployed in Omatako Constituency is significantly lower than the regional percentage for the same, which was 37% in 2011 (Namibia Statistics Agency 2011). This is probably due to the positive impact of employment on tourism establishments in the greater Waterberg area (see Sec 5.2.1.2 below).

5.2.1.2 Land use and economic profile

The nearest urban centres include the town of Okakarara, which is located approximately 25km to the south of the project site and Otjiwarongo, located approximately 90km to the west.

The most significant land uses in the Otjozondjupa Region are conservation/tourism, and agriculture. Land use for conservation and tourism are prominent within the Omatako Constituency evidenced by the Waterberg Plateau Park (under the ownership of the Namibian Government) and tourist accommodation facilities.

The project area, being close to the main entrance to Waterberg Plateau National Park, has a number of tourism establishments. The following establishments are located along a 42km stretch of the D2512 on which the project site is accessed; NWR Waterberg Resort, Waterberg Andersson Camp, Waterberg Valley Lodge, Waterberg Plateau Campsite, Waterberg Camp, Waterberg Wilderness Lodge and Wabi Lodge.

Some of these establishments are within the Waterberg Plateau National Park while others are located nearby and offer day-trips into the Park. The demand for tourism facilities around Waterberg Plateau NP appears to be on an upward trend judging by the recent and continuing growth of such establishments. Apart from wildlife-based tourism, the farms in the area also farm with livestock, mainly cattle.

The area lies within the Exclusive Prospecting Licence number 6470 (MME 2018), covering base and rare metals (e.g. copper, iron, tin, lead), industrial minerals (e.g. limestone, salt, calcium carbonate) and precious metals (e.g. gold, silver). The licence is valid for 3 years till Aug 2020.

5.2.1.3 Infrastructure

The area is served by the main tarred road (C22) linking the B1 with Okakakara. A gravel road, the D2512, links the project site to the C22. The D2512 turns off the C22 about halfway between the B1 and Okakarara, it runs south of the Waterberg Plateau National Park before veering in a more northerly direction where it merges with the D2804 eventually ending at the B8 between Kombat and Grootfontein.

Water is provided in this area largely from boreholes on private land; but also via a pipeline provided by NamWater. The Eastern National Water Carrier (ENWC) is an integrated longdistance water supply scheme. One of the sections of the ENWC, namely the Grootfontein-Omatako Canal (GOC), starts at Grootfontein and ends at the Omatako Dam, passing south of the project site. Offtakes to local farms are available off the canal.

The Ondili lodge complex intends to abstract water from the canal, using an existing offtake. The water supply in the canal is not consistent, and the canal was actually dry for most of 2018 (Anonymous 2020), while the average over the past 5 years is that this source has been available for approximately 50% of the time (NamWater 2020). Also, animals fall into the canal and decompose there so the water quality standard is questionable.

Telecommunications are provided to the overall area by land-lines owned and managed by Telecom, and by the cellular phone network provided by MTC. There is no direct land-line connection to Farm Hogensee and Otjahevita. Coverage by the MTC network over the surrounding area is patchy.

5.2.2 Archaeology and Heritage Resources

The Waterberg Plateau is the main feature of cultural, archaeological and heritage significance in the area. There are fossilised dinosaur footprints imprinted on mudstone on top of the plateau, and rock engravings of animal tracks on a rock slab at Okarakuvisa waterhole (Schneider 1998). Both of these features are within the National Park. It is possible that there are additional, similar heritage features on the farms Hogensee and Otjahevita, but to search for and locate them would require a dedicated survey beyond the scope of this

assessment. A commitment has been made by the proponent to follow the mandatory chance-find procedure if any such features are discovered in the course of lodge establishment and future tourism activities on the farms. Any such features would add to the attractions for tourists.

The Waterberg Plateau is of historical significance as the Battle of the Waterberg took place here in 1904 between German and Herero forces on the plains surrounding the plateau. The Herero forces lost the battle and this event marks the end of the Herero uprising against the colonial government (Schneider 1998).

5.2.3 Visual Characteristics and Sense of Place

The Waterberg Plateau National Park has significant visual and sense of place value. The imposing flat-topped mountain, set in a mostly flat surrounding plain, with impressive cliffs and gorges is of high visual importance to many Namibians.

6 Public Consultation

Public consultation is an important aspect of an EA process. During public consultation, potential impacts that the proposed project may have on the receiving environment, were identified. Consultation with Interested and Affected Parties (I&APs) (state and non-state) enables transparent decision-making.

This chapter describes the details of the public consultation process that was followed and the I&APs that were notified of the study being undertaken. It also includes the main issues and concerns raised during the public consultation process and comments received on the Background Information Document (BID) distributed during the first round of public consultation.

Public consultation for the purposes of this project was done as prescribed by Regulations 21 to 24 of the Environmental Impact Assessment Regulations (GN. 30 of 2012).

6.1 First round of public consultation

Engagement with I&APs as part of the first round of public consultation commenced on 22 August 2019 and concluded on 9 September 2019. During the first round of consultation, I&APs and authorities were given an opportunity to register and submit comments on the proposed project.

6.1.1 Public consultation activities

Activities undertaken to ensure effective and adequate I&AP involvement, were as follows:

- A register of I&APs was compiled and maintained (Appendix D1). A total of 53 I&APs are included in the database.
- A notification email (Appendix D2) with the BID (Appendix D3) was distributed to all registered I&APs between 22 August 2019 and 30 August 2019.
- A notification letter was sent via courier to the Otjozondjupa Regional Council and the Omatako Constituency Councillor on 23 August 2019 (Appendix D4).
- A notification letter was hand delivered on 22 August 2019 to the relevant national ministries situated in Windhoek (Appendix D4). These were MET (neighbour to the farm), MAWF (for input re water abstraction and wastewater treatment), MWT (for input re the proposed airfield), MLR, MURD, MAWF and the National Heritage Council.
- Notification letters were also sent to the parastatals Namibia Civil Aviation Authority (NCAA) and the Roads Authority for their input on the airfield and road issues (Appendix D4).

- Public notices announcing the commencement of the EA and an invitation to register as an I&AP were placed in "Algemeine Zeitung" and "The Namibian" on 20 and 27 August 2019 (Appendix D6).
- A notice board (with the dimensions 60cm x 42cm) was placed at the access road (D2512) to the site (Figure 6.1) (Appendix D7).



Figure 6-1. Public notice for the EIA of the Hogensee and Otjahevita Lodge complex, situated at the entrance to the farms.

- A meeting was held with the legal representative, Mr. Philip Swanepoel, of the Wabi Lodge owners on 10 September 2019. A letter describing the comments discussed during the meeting is attached in Appendix D8 along with correspondence from other I&APs.
- Another meeting was held with the Mr. P. Swanepoel and Mr. J. Katjivena, owner of the neighbouring farm Ringklip, on the 9 October 2019 to discuss issues over water abstraction, it was decided that a meeting with the hydrogeologist, Greg Christelis, should be arranged to discuss the issue further (Appendix D8).
- A final meeting was held with G. Christelis, P. Swanepoel and J. Katjivena on 18 October 2019 to discuss what the output of a groundwater study would be and how it could assist landowners in the area to manage groundwater sustainably (Appendix D8).

6.1.2 Comments received and responses provided

All comments and feedback received from I&APs are summarised in Table 6-1 below.

 Table 6-1: Comments received and responses provided during public consultations.

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
1.	EAM de Paauw Roads Authority (23/08/2019)	Morning Mr Galloway As regards the proposed use of an existing access point from the D2512 district road as the public access point to the lodges, the proponent will need to approach the Roads Authority Otjiwarongo Regional Office for an on-site inspection to determine/confirm the suitability of the access point as an access to the lodges. Regards EAM de Paauw	RES response 27/08/2019: Good day Mr de Paauw Thank you for submitting this comment on behalf of the Roads Authority, we take note thereof. Kind regards Bonnie	
2.	Joachim Rust Waterberg Wilderness (28/08/19)	Good day Mr. Galloway, good day Mr. Pallett Thank you for informing us about the intention of Ondili Lodge Management Pty to construct and operate a lodge complex on farm Otjahevita.	RES response 28/08/2019: Good day Mr Rust Thanks for your inputs. We note the concern about the road and had already mentioned this to the developers in a discussion last Friday. We have also had some	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		We do welcome development in this specific	feedback from Roads Authority – although not	
		area, however we would like to raise one	specifically on this point about the road	
		concern and one invitation / proposal:	deterioration – so will use that open door to	
		The access road D2512 is in a very bad shape.	take up your issue. We will keep you copied in	
		With the expected higher loads of traffic the	to any correspondence.	
		condition of the road is to deteriorate even	We will pass on the invitation to collaborate on	
		further. I urge you to not only inform the	security issues.	
		office of the Roads Authority in Otjiwarongo about Ondili's plans, but that you also request for appropriate investment and servicing of the road. Please confirm receipt of this concern and infor us about you having informed RA about your plans. We shall welcome collaboration in our efforts to combat poaching and theft along the D2512	On a related point, can you advise who is the appropriate contact for the Greater Waterberg Conservation Landscape Area? Is there an active committee for the Landscape, or any coordination amongst members? Please let us know what is the situation. Do feel free to call me or Bonnie if you would like to discuss any of the above.	
		road. We do invite Ondili – management to meet with us, enabling us to share views on both points.	Best regards John	
		Kind regards		
		Joachim Rust		
	Joachim Rust	Good day John	RES response 28/08/2019:	RES investigation: From B.Galloway to J.Pallett (04/09/2019)

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
	Waterberg Wilderness (28/08/19)	 Thanks for the positive reply. The condition of the road is very, very bad. In the rainy season it gets impassable at times, especially to the north of our property. Urgent attention (cement slip ways) is needed at river-crossings, to do the least. In fact the road actually needs urgent resurfacing with lime – gravel. In the dry season it gets corrugated to such extend, that vehicles fall apart. Some operators tend not to use the road anymore, and rather visit other Lodges. The coordinator for the Greater Waterberg Landscape = Cheetah Conservation Fund / Laurie Marker. The coordinator for the Waterberg Conservancy = Sonja Schneider – Waterberg / Farm Okosongomingo. Kind regards Joachim 	Thanks to you too Joachim. Admittedly the road is in bad condition but we can't put pressure on Ondili to take responsibility for that until they actively start construction, and even then they will be only one party amongst many that contribute to the poor condition of the road. I just want to keep your expectations within limits! When you say "the road to the north of our property", which road do you mean? The D2512 goes roughly SW-NE parallel to the mountain, and its condition actually improves in the direction of the proposed Ondili lodge, after passing through the Waterberg Conservancy. Please clarify which part you are referring to. Regards John	Hi John I've just spoken with Mrs van Vuuren from the Roads Authority in Otjiwarongo. The first (from west to east) 61km of the D2512 falls under the jurisdiction of Otjiwarongo. Most of the road is earth road and only a few sections are graveled, this contributes to the poor state of the road. The road is graded once a month, sometimes if they have time and budget they will grade for a second time up to the Waterberg Park gates. Mrs van Vuuren says they are unable to do more than this for the foreseeable future. Thanks Bonnie Addressed in s7.2.2.7
3.	Martin Rust Waterberg Wilderness	Good day Mr. Galloway, good day Mr. Pallett. I just had a chat with Mr. Kandjii – chief warden of the Waterberg Plateau Park. He	RES response 29/08/2019: Good day Mr. Rust	M.Rust response 5/09/2019: Dear Mr. Pallet,

NO. NAME	COMMENTS	RESPONSE 1	RESPONSE 2
(28/08/19)	 was not aware of the possible development described below. He likes to be included in the conversation. His contact number is 081- 2805146. We would like you to clarify the possible effects of the proposed air traffic over the national park and our wildlife reserve. We have concerns regarding the noise pollution for our guest and animals (especially the rhinos). Kind regards Martin Rust 	Thank you for the contact details of Mr. Kandjii, much appreciated. I spoke with him about the project today and I have sent him the background information document. As to your second point - we take note of your concern and we will investigate the possible impact of air traffic in the area and revert back to you on this matter. Kind regards Bonnie Galloway	Thank you for your quick answer. I am currently on tour and have limited net. Thus, my preferred way of communication is by e-mail. What we are a bit concerned about is, if the planes are flying close to the edge of the mountain or even fly at low altitude over our park. We already had pilots who wanted to give their guest the best scenic experience and flew close over our farm chasing the rhinos around. We would like to know at what altitude are airplanes allowed to fly over our valley? Will it be a disturbance for our clients / wildlife? If I am not wrongly informed, it is forbidden to fly drones in national parks. What are the rulings for airplanes? Kind regards Martin Rust

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
			RES response (12/09/2019):	RES response (this Scoping Report):
			Good day Martin Rust	i) Operation of drones is forbidden in
			Sorry for my slow response, lots on the go at the moment.	National Parks. ii) Private aircraft must not fly lower
			Your enquiry will be dealt with more thoroughly than this short response I give	than 1,000 ft above ground level over National Parks.
			below, when we compile all the info in the	iii) See point 6 below: MEFT response
			Scoping Report. For now, here is quick feedback:	to the airstrip. iv) It is also worth noting that both
			There is a 1,000 ft 'ceiling' over National Parks, which rises to 1,500 ft over accommodation	MEFT and Waterberg Wilderness Lodge have air strips on their land,
			establishments in NPs. As far as I am aware, there is no restriction, apart from normal flying	and they are both in closer proximity to areas frequented by tourists and
			regulations, over normal land eg farms and this	wildlife.
			probably also applies to nature reserves and conservancies. We will confirm with NCAA.	
			The issue of planes flying at low level along the	
			Waterberg cliff is beyond the scope of this EIA but we will include this concern in our	
			conclusions, and in the Environmental Management Plan for the Ondili Lodge, so that	
			pilots flying to/from the Ondili lodge are requested to not make this disturbance. That is	
			as far as we can stretch our mandate.	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
4.	Reinette Steyn Attorney for Wabi Lodge (29/08/2019)	Good day Ms. Galloway / Mr. Pallett With regards to the above-mentioned subject matter, kindly take note that Wabi Game Lodge has appointed us as their legal representatives and we herewith request a public consultation meeting. Kindly take further note that we will provide you with our written submissions by no later than the 9th day of September 2019. Yours faithfully, Reinette Steyn (Candidate Attorney) Per: Philip Swanepoel	I hope this answers your concerns. Best regards John RES response 30/08/2019: Dear Ms. Steyn Thank you for your email, we take note of it. We will revert back to you on the request for a public meeting. Kind regards Bonnie Galloway	RES response 30/08/2019: Good day Reinette Steyn Thanks for contacting us about the Waterberg lodge development. We will be happy to provide more information. So far you are the only stakeholders to have requested a meeting, so can we do this at your Windhoek office? Next week (2-6 Sep) is fairly open for me, please suggest a time. Please give me a call if you would like to discuss. Regards John Pallett
5.	Reinette Steyn Attorney for Wabi Lodge (03/09/2019)	Good day Ms. Galloway Would you please be so kind as to indicate where in the process you currently are? Would it be possible that you can send us a copy of the	RES response 3/09/2019: Good day Reinette Steyn	RES response 5/09/2019: Dear Reinette

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		complete application for the environmental clearance certificate? Yours faithfully, <i>Reinette Steyn</i> (Candidate Attorney) Per: Philip Swanepoel (B.Com, LLB, LLM)	We are in the early stages of the EIA, the first advert to the public went out 2 weeks ago just before we visited the site and I stayed at Wabi. The Application submitted to DEA is attached. Best regards John Pallett	As discussed on the phone a moment ago, there will not be a public meeting for the EIA but we are happy to brief you individually on the project if you wish. We have tentatively suggested Monday 9 September, or Thursday 12 th . I would prefer an afternoon slot. Please let me know when and where suits you best. Thanks and regards John
6.	Johnson Ndokosho MET, Windhoek (04/09/2019)	 Good day. The Ministry of Environment and Tourism has no objection to the construction of a proposed lodge development near Waterberg. If the lodge is going to have an airstrip, we suggest that the approach of airplanes to land and take-off should away from the Waterberg Park as these activities may disturb our wildlife and visitors to the park who need a tranquil environment. 	RES response 5/09/2019: Dear Mr. Ndokosho Thank you for your comments regarding the proposed lodge near the Waterberg Plateau National Park. We take note of your comments and I will share your second point with the proponent. I will include these comments as part of the Environmental Scoping Assessment. Kind regards Bonnie Galloway	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		Best regards, Johnson Ndokosho		
7.	Gerson Katjivena Neighbour 09/09/2019	Good day PROPOSED LODGE - WATERBERG AREA I believe that I missed the date to propose a consultation meeting but due to the fact that after I have study the map you provided I could not make out the proposed airfield, the road to the Lodge and all the other developments. The information provided is not clear on the location of each of the developments envisaged and one could not determine the effects it might have on the environment hence a request for a consultation meeting. Hoping for a positive response to my request. Regards G.M.B. KATJIVENA (Ringklip/ Otjahevita 340) Mobile: 0812488514	RES response 9/09/2019: B.Galloway to J.Pallett Hi John I phoned Mr. Katjivena after receiving the email below, he is available to meet in Windhoek this week to discuss the project in person. I said that you would contact him to set up a time and place for the meeting. His number is: 0812488514 I also received a text today from the daughter of Mr. Mungendje, the owner of Farm Okamiparara No 335, requesting a meeting. He has been communicating via his daughter as he does not speak English. I called his daughter to find out if there is a possibility of meeting with either of them in Windhoek, but he lives on his farm and his daughter lives in Okakarara. He did mention previously that he would like us to communicate with him through Mr. Katjivena, so it is possible that he will be satisfied as long as we meet with Mr. Katjivena.	

NO. NAME	COMMENTS	RESPONSE 1	RESPONSE 2
NO.NAMENO.NAMENO.Philip SwanepoelLawyer for WabiLodge09/09/201909/09/2019	 (Full letter in Appendi D8) With regard to the above-mentioned subject matter, kindly take note that we have been appointed by our client Wabi Game Lodge to object to the issue of an environmental clearance certificate to Ondili Lodge Management (Pty) Ltd ("Ondili Lodge"). We understand that Ondili Lodge intends to develop a lodge adjacent to Waterberg Plateau National Park and our client's premises. Furthermore, we understand that Ondili Lodge has made application for an environmental clearance certificate and submitted a form dated 20 August 2018. We also understand the deadline for submission of comments is 9 September 2019. Having regard to regulation 7(1) it is clear that public consultations should first be held where after objections and representations are to be submitted. We had a consultation with Mr Pallett of Resilient Environmental Solutions CC, Mr Keding representing Ondili Lodge and Mr Kandji of Ministry of Environment and 	 Thanks Bonnie RES response: (11/09/2019) Good day Phillip Thank you for the quick written response after our meeting on Monday; we will address the issues you raise in the Scoping Report. For now, our immediate feedback is as follows: 1. The register of I&APs is attached. All direct neighbours have been contacted, as required by the Environmental Management Act, as well as other IAPs in the area who we have been told about. If there is anyone else you know of who is potentially interested, please let me us know. Our colleague, Ms Bonnie Galloway, had actually spoken to Mr Kandjii and had sent him the Information Document on 29 August. 2. All relevant authorities have been contacted. See the IAP list. Proof of the emails and registered letters will be compiled in the Appendices of the Scoping Report. 3. Groundwater issue will be addressed by a 	RESPONSE 2 RES response (this Scoping Report): 1. I&APs: - All direct neighbours of the Ondili property and relevant authorities potentially interested or affected by the proposed development were notified, as shown in Appendices D1 to D5. - Public notices were published in local newspapers as shown in Appendix D6. - The owner of Okamiparara 335, who could not understand English and could not be present at the consultation meetings, agreed with Mr Katjivena that he would be represented by Mr Katjivena at the consultations (see point 7 above).
	We also understand the deadline for submission of comments is 9 September 2019. Having regard to regulation 7(1) it is clear that public consultations should first be held where after objections and representations are to be submitted. We had a consultation with Mr Pallett of Resilient Environmental Solutions CC, Mr Keding representing Ondili Lodge and	 know. Our colleague, Ms Bonnie Galloway, had actually spoken to Mr Kandjii and had sent him the Information Document on 29 August. 2. All relevant authorities have been contacted. See the IAP list. Proof of the emails and registered letters will be compiled in the Appendices of the Scoping Report. 	and could not b consultation me Mr Katjivena tha represented by

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		8.1. Affected and interested parties, it seems, have not all been informed of the proposed development and should accordingly be informed of the application for a clearance certificate. Without derogation from the generality of the aforesaid, we understand that other adjacent farm owners, who will be directly affected, have not been informed as they are not even aware of the proposed development. We would like to obtain a copy of the register of all interest parties informed.	 4. Issues 4-7 are noted. MET must get back to us about the minimum distance of the airstrip from the Park fence. Finalisation of the Scoping Report will now be delayed due to the need for the groundwater study. We have not yet created a schedule for that work, so the date for finalisation of the Scoping process is also undefined for now. Best regards John 	
		8.2. Affected authorities must also be informed of the proposed development in order to consider the impact it may have on resources and public assets under their control and management. The Minister of Agriculture, Water and Rural Development, Namibia Wildlife Resorts the Namibia Water Corporation Ltd and Nature Conservationist of Waterberg Plateau National Park should be informed and consulted with regard to the water resources and water scarcity in the relevant area. Similarly, the Minister of Works and Transport and Roads Authority should be informed and consulted with regard to the public road affected more specifically the D2512 with regard to the carrying capacity and maintenance thereof. We would like to have a copy of their reports and/or assessment of the situation.	RES response (this Scoping Report): MAWF, NWR, NamWater, MET, MWT and Roads Authority were all notified of the proposed development (see Appendices D1 to D5). Some of them have provided inputs (see above point 1 – Roads Authority; point 6 – MET).	
		8.3. Water in the relevant area is scarce and might not be sustainable. All boreholes and	RES response (this Scoping Report):	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		water sources in the surrounding area must be tested and monitored to determine the underground levels and whether waters sources are connected and sustainable. Water pump tests will have to be conducted and the sustainability of water resources will have to be assessed.	The water situation was extensively discussed at meetings dedicated to resolving this issue. Meetings were held on 09/10/2019 and 18/10/2019, with a geohydrologist to explain and answer questions. Minutes of the meetings are shown in Appendix D8.	
		Our client has confirmed the water scarcity in the area and it is the main reason for not developing Wabi Game Lodge in excess of their existing bungalows. With the water scarcity in mind, our client has on previous occasions drilled with no or minimal success. In 1996, the Namibian Government approached the German Government for support to prepare a national hydrogeological map. After two years of close corporation between the staff of the Federal Institute of Geoscience and Natural Resources in Germany, the Ministry of Agriculture, Water and Rural Development, the Geological Survey of Namibia and the Namibia Water Corporation, the Hydrogeological Map of Namibia has become a reality, which was first published in December 2001. In the process of creating the Hydrogeological Map, it was found that the Waterberg Plateau environment in question creates an impression of an abundance of groundwater, however, this area generally only has		
		approached the German Government for support to prepare a national hydrogeological map. After two years of close corporation between the staff of the Federal Institute of Geoscience and Natural Resources in Germany, the Ministry of Agriculture, Water and Rural Development, the Geological Survey of Namibia and the Namibia Water Corporation, the Hydrogeological Map of Namibia has become a reality, which was first published in December 2001. In the process of creating the Hydrogeological Map, it was found that the Waterberg Plateau environment in question creates an impression of an abundance of groundwater,		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		tourist camp of the Waterberg PlateauNational Park leaves no water to sustain whatwas once a productive wetland.Water from Namibia Water Corporation("NamWater") is also not a reliable source, asfrom our client's experience the water flow isnot guaranteed at all times due to regularlyoccurring blockages and/or broken pumps forwhich spare parts can take several weeks tobe delivered. NamWater must be consultedand a report provided with regard to thesupply of water and the allowable andsustainable subtraction of water from theOmatako canal.Our client is concerned, having regard to thecurrent drought across Namibia, that thecurrent water levels of the surroundingboreholes will drop and water sources will dry		
		up. 8.4. Poaching is a serious threat to Wabi Game Lodge and the nearby Waterberg Plateau National Park and to all other farms and lodges along the Waterberg. With up to 60 proposed workers for the expected construction period of 2 years, which in all probability is expected to be extended due to unforeseen circumstances, poaching will become uncontrollable. All workers must be identified and police clearances must be obtained and kept on record. The question which arises is how poaching would be prevented.	RES response (this Scoping Report): Standard procedures for minimising poaching threats are identified in Section 8 of this report and in the EMP. They include: Identification and background checks on staff and contract workers coming to site; Induction procedure for all staff and contract workers, before coming on to site; Vigilance by farm management for signs of snares, cleaning carcasses, and other signs of poaching;	

COMMENTS	RESPONSE 1	RESPONSE 2
Furthermore, how culprits would be caught, charged and convicted.	Swift response to identify any illegal activities and to expel any staff or contract workers involved in them.	
 8.5. The aircraft operating from the intended airfield will result in excessive noise pollution. Aircraft disturbances, taking-off, landing and low altitude flyovers will increase significantly. This will disturb the wildlife in the area, bewildering the animals and causing, especially the buffalos and rhinos of the Waterberg Plateau National Park, to break through fences. The intended airfield's proximity is very close to the fence of the National Park and the take-off and landing approach are also over our client's premises and the Waterberg Plato No. 963 area in which rhinos are being held. Our client has in the past already experienced problems with buffalos breaking through fences and entering its premises which was shot on their lodge by state regulatory authorities. This created an unsightly disturbance to tourists and should be prevented at all costs as it has a significant impact. The Cape Buffalo may only roam in the National Park and it is illegal to allow such buffalo roaming on your farm or lodge in terms of Government Notice 178 of the Animal Health Act 1 of 2011. The cape buffalo is also a carrier of certain diseases and if they 	RES response (this Scoping Report): See point 3 above. The aircraft will be above the mandatory 1,000 ft above ground level if they fly over the Plateau Park at all. The EMP emphasises that pilots using the Ondili landing strip must avoid overflying the Park.	
	Furthermore, how culprits would be caught, charged and convicted.8.5. The aircraft operating from the intended airfield will result in excessive noise pollution. Aircraft disturbances, taking-off, landing and low altitude flyovers will increase significantly. This will disturb the wildlife in the area, bewildering the animals and causing, especially the buffalos and rhinos of the Waterberg Plateau National Park, to break through fences. The intended airfield's proximity is very close to the fence of the National Park and the take-off and landing approach are also over our client's premises and the Waterberg Plato No. 963 area in which rhinos are being held.Our client has in the past already experienced problems with buffalos breaking through fences and entering its premises which was shot on their lodge by state regulatory authorities. This created an unsightly disturbance to tourists and should be prevented at all costs as it has a significant impact. The Cape Buffalo may only roam in 	Furthermore, how culprits would be caught, charged and convicted.Swift response to identify any illegal activities and to expel any staff or contract workers involved in them.8.5. The aircraft operating from the intended airfield will result in excessive noise pollution. Aircraft disturbances, taking-off, landing and low altitude flyovers will increase significantly. This will disturb the wildlife in the area, bewildering the animals and causing, especially the buffalos and rhinos of the Waterberg Plateau National Park, to break through fences. The intended airfield's proximity is very close to the fence of the National Park and the take-off and landing approach are also over our client's premises and the Waterberg Plato No. 963 area in which rhinos are being held.RES response (this Scoping Report): See point 3 above. The aircraft will be above the mandatory 1,000 ft above ground level if they fly over the Plateau Park at all. The EMP emphasises that pilots using the Ondili landing approach are also over our client's premises and the Waterberg Plato No. 963 area in which rhinos are being held.Our client has in the past already experienced problems with buffalos breaking through fences and entering its premises which was shot on their lodge by state regulatory authorities. This created an unsightly disturbance to tourists and should be prevented at all costs as it has a significant impact. The Cape Buffalo may only roam in the National Park and it is illegal to allow such buffalo roaming on your farm or lodge in terms of Government Notice 178 of the Animal Health Act 1 of 2011. The cape buffalo is also a carrier of certain diseases and if they

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		 farms it will create a health and safety risk for the surrounding farms and lodges. In light of the above, the noise disturbance would definitely disturb the animals and more specifically the rhinos and cape buffalos which would have a significant impact on farms and lodges in the area. 8.6. We understand there are a decline in tourism and a new lodge would dilute the number of tourists amongst competing lodges. Mr Kandji of MET confirmed the decline. This could have a negative economic and social impact on the surrounding lodges including Waterberg Plateau National Park. A study should be done on the current occupancy rate of surrounding lodges, the impact of the new lodge and whether it could result in other lodges and the National Park being closed down. Therefore, having a significant impact on the current employers and employees being negatively affected thereby. 	RES response (this Scoping Report): It is true that an additional lodge in the area will possibly cause a decline in occupancy in neighbouring lodges. This is the private sector and no one lodge has the authority or right to exclude others from competing in the same market.	
		 8.7. The D2512 is the only road to serve the farms and lodges along the Waterberg Plateau. The Roads Authority must maintain the road regularly, but it is only done every 6 to 12 weeks. Having regard to the poor economic situation 	RES response (this Scoping Report): The impact of corrugations on vehicles in this account is exaggerated. The issue of road maintenance is addressed in point 2 above and s7.2.2.7 below, and in the EMP.	
		of Namibia and the budgets being cut, it is a given fact that in all probability the road will not be properly maintained. The carrying capacity of the road is a concern as the road has a wash board effect namely ripples and		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		drop holes which can render vehicles uncontrollable. Definitely during the construction of the new lodge, significantly more traffic will be experienced and heavy vehicles off-loading building material will also deteriorate the road. The road could be so severely affected, in that, sedan cars would not be able to travel on the road. This will have a negative impact on the number of tourists visiting the area and is also a safety concern for the locals and tourists whose cars can be rendered uncontrollable on the deteriorated road. 8.8. Having regard to the above, especially the reality of water resources drying up and the deteriorating road, the economic value and income potential of farms and lodges will depreciate which will have a significant effect on the economic and social factors of the employers and employees in the relevant area. With regard to the above, please keep us informed of the process forward and provide	RES response (this Scoping Report): Each of the issues raised by Mr Swanepoel is addressed above. Obviously the proposed Ondili lodge complex will introduce changes and possibly increase risks for the neighbouring farms. However, those concerns that are legitimate can be minimised through the mitigation measures stated in Section 7 and the EMP.	
		us with the requested reports and/or assessments and responses to any objections and comments.		
		Yours faithfully, philip swanepoel legal practitioners		
9.	Mr John Pallet	Good day Wabi and Ringklip representatives	Mr Swanepoel response (29/10/2019):	Mr Katjivena response (29/10/2019):
	(29/10/19)	The proponent of the Ondili Waterberg Lodge	Dear Mr Pallett	Good afternoon Mr. Pallet
	(,,	has agreed to carry a proportion of the cost of		Your email below is well noted and
		the geohydrology assessment. Since there are	With regard to your email below.	our last meeting dated 9 th October

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
	Response to water concerns discussed in meetings with Mr Swanepoel (Wabi Lodge) and Mr Katjivena (Farm Ringklip)	3 parties seeking the groundwater information, it follows that this should be split into thirds. The revised cost of the assessment by CHR Water Consultants (attached) is N\$ 134,102.00. The cost to each party would therefore be N\$44,700.67. Please indicate whether you are prepared to pay this cost for the geohydrology assessment to proceed. We would like this to be resolved as soon as possible, as Greg Christelis and his team are available to do this only until 11 November. Thereafter there will be delays. We look forward to hearing your decision. Best regards John	My client is not inclined to agree to share such costs as it is ultimately Ondili Lodge which must comply with the Environmental Management Act in order to obtain an Environmental Clearance Certificate. Furthermore, the additional costs for monitoring one extra borehole namely the neighbours borehole can also not amount to N\$44,700.67. Furthermore, please take note that my client would like to reiterate that they reserve all their rights should the water resources decline or completely dry up during or after construction. Our client will aggressively involve the courts, to halt further construction of the complex and/or seek compensation for the loss of water resources, death of animals and therefore the depreciation the surrounding property values. We trust the above would not be necessary and the the necessary pump tests would be done accordingly and out client will avail one of its boreholes for monitoring. Yours faithfully, Philip Swanepoel (B.Com, LLB, LLM)	 2019 bears reference. We need to put the following on record for the benefit of all relevant stakeholders: 1. Our participation or involvement on this specific Environmental Impact Assessment was on invitation from Resilient Environmental Solutions CC , in our capacity as immediate neighbours of Farm Hogensee 525 whereby the envisaged Lodge is intended to be developed. 2. The concerns we raised during this engagements were merely based on our experience as commercial livestock farmers reliance on underground water and the impact thereof. 3. We therefore did not anticipate any legal or cost implications whatsoever in this regard and we are therefore not in any position to commit ourselves towards this specific cost by CHR Water Consultants.

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
				Hope the above will suffice and please do not hesitate to contact me for any further clarity in this regard. Regards Mr. Jeffrey Katjivena for and on behalf Farm Ringklip Nr.340
10.	Mr Hermann Rohlfs (29/20/2019) Response by the Proponent to the objections raised by IAPs in Issue 9 above:	Dear Mr Pallet (copied to Mr Phillip Swanepoel and the Katjivena brothers), As you can see now, and as promised by me, NOBODY is interested in paying the costs for a pump test that is requested by my neighbours. So as we do not use more water than our neighbours do, we can go ahead without that study. And if we find a loss of water resources later in future, we all can sit and think what might be reason for it. The use of water by a cattle farm? The use of water by a lodge? The use of water by another lodge? The use of water by a zoo for water depending animals like hippos? No or less rainfall by climate change? We can discuss that in future. We do not intent to use more water than a cattle farm of that size would do. And please Mr Pallet ,find out if the WABI Lodge complies with the Environmental Management Act.		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
NO.	NAME Mr Swanepoel (1/11/2019)	Best regards, Hermann Rohlfs Dear Mr Pallet I did not receive a reply to my email and would like to inquire on the way forward. I hope and trust that pump test would be done as it would be essential to assess the water sustainability in the area. Furthermore, we would also like to enquire whether any final report has been complied, and if so please provide us with same before submitting it to the Commissioner.	RESPONSE 1 RES response (1/11/2019): Good day Phillip Sorry for no reply yet. We received your response on Tuesday and forwarded it to the Proponent. Mr Rolfs is not prepared to undertake the suggested hydrology assessment (including pump test) and is not under any legal obligation to do so. His point is that the proposed lodge will not abstract any more water than would normally be the case for a standard cattle farm. We are in the process of	RESPONSE 2
12.	Mr Swanepoel	Thank you for your understanding. Yours faithfully, philip swanepoel	draughting a formal response and will circulate that to the group of concerned stakeholders shortly. The Scoping Report will document the correspondence and meetings that have taken place, and will be circulated to all IAPs as a mandatory step before submitting to the Environmental Commissioner. You will have an opportunity to give feedback and further comments. Best regards John	
12.	Mr Swanepoel (1/11/2019)	Dear Mr Pallett Thank you for your reply. However, with regard to our clients other concerns raised, we have	RES response (1/11/2019): Good day again Philip	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		never further addressed those as we only focused on the water issue in the consultations Will there be further public consultations with regard to the other concerns raised? Yours faithfully, philip swanepoel	We have not identified any other issues which need <u>public</u> consultations, so our intention was to respond to the various concerns in the written Scoping Report, which is almost complete. It will be circulated to you next week, and we can address other issues then if you see the need. Best regards John	
13.	Mr J Pallett (6/11/2019) In response to water concerns raised by Wabi Lodge and Farm Ringklip	Dear stakeholders Thank you to Mr J Katjivena and Mr P Swanepoel for raising your concerns in the EIA of the proposed Ondili Lodge at Waterberg. Your decision to not contribute to the cost of a geohydrological assessment is recorded. The Proponent has argued that the water consumption of the proposed lodge complex will not exceed the amount of water that would be abstracted if the farm was run as a cattle farm. On this basis, the Proponent has stated that there is no reason for concern that the development will jeopardise the existing groundwater resources that are used by the neighbouring farms. By the same argument, he has requested that if a geohydrological assessment is still requested by the stakeholders, that the cost should be split between all three parties who have an interest in the issue. Since neither Wabi Lodge nor		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		Ringklip wish to pay this cost, the geohydrology assessment has been abandoned.		
		The Scoping Report is being compiled at the moment, and will be circulated to all the stakeholders before the end of this month. This will record all the issues that were raised during the first public consultation phase, and the responses. It will also provide information on the expected impacts of the development and suggest mitigation measures to reduce their severity. All stakeholders will have an opportunity to comment on the Draft Scoping Report before it is finalised. Best regards John Pallett		
14.	Mr J Pallett to all registered stakeholders 29/01/2020	Dear Waterberg Lodge EIA stakeholders Please find the Public Consultation Report of the EIA for the proposed lodge complex near Waterberg National Park. This summarises the inputs and correspondence with interested and affected parties who have registered for this EIA. This email is blind- copied to the 47 IAPs who are registered for this project. Please do not hesitate to get hold of me if there are queries. The appendices for this report can be found at the following link:	Mr P Swanepoel response (30/01/2020): Dear John Thank you. We would like to addres and add to the report and submit our clients concerns to the Ministry. Please inform me to whom at the Ministry we can submit our clients concern in a seperate letter. Thank you.	RES response (31/01/2020): Good day Philip Your letter to MET should be addressed directly to the MET Executive Director, Mr Nghitila. <u>tnghitila@yahoo.com</u> If you have any difficulties or queries please let us know. Thanks and best regards John

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		https://1drv.ms/u/s!AvmbFHJcv- Q2g5h81WlOgmNER9bSWQ?e=R2GXVU The main Scoping Report for this EIA will be circulated to this address list shortly. Best regards John		
15.	Mr P.Swanepoel 6/02/2020 Email letter to the Environmental Commissioner and MET staff, copied to RES.	ONDILI LODGE MANAGEMENT (PTY) LTD OBJECTION TO THE APPLICATION FOR ENVIRONMENTAL CLEARANCE CERTIFICATE 15.1 With regard to the above-mentioned subject matter, kindly take note that we have been appointed by our client Wabi Game Lodge to object to the issue of an environmental clearance certificate to Ondili Lodge Management (Pty) Ltd ("Ondili Lodge"). We understand that Ondili Lodge the proponent intends to develop a lodge adjacent to Waterberg Plateau National Park and our client's premises. Furthermore, we understand that Ondili Lodge has made application for an environmental clearance certificate and submitted a form dated 20 August 2018. Out client objects to such development and has raised several valid concerns with regard to the main environmental principles of "sustainable use" and "sustainable development". We have submitted on behalf of our client an objection letter dated 9 September 2019.	RES response (this Scoping Report): 15.1 The objection letter written on 9/09/2019 was responded to by RES (see point 8 above). The report circulated on 29/01/2020 was a Public Consultation Report only. As such, it was not intended to address all the issues raised by the IAPs. Its purpose was to show the full record of concerns raised by the IAPs. This was done. The proponent is not obliged to carry out a water assessment, or a "proper environmental assessment" during the Scoping Phase. This would only be necessary if the Environmental Commissioner decides, at the end of the Scoping Phase, that a full environmental assessment is necessary. The purpose of this Scoping Report is to provide enough information for the Environmental Commissioner to make that decision.	

NO. NAME	COMMENTS	RESPONSE 1	RESPONSE 2
	In terms of the Environmental Act 7 of 2007 ("the Act") it is the responsibility of the proponent to comply with the Act and adhere to the principles of environmental management. The proponent has engaged in public consultations, but failed to carry out a proper environmental assessment. The Commissioner should, if not already, demand an environmental assessment and notify the proponent that it should be carried out at the proponent that it should be carried out at the proponent's own expense in terms of section 33 and 35 of the Act. Clearly the proponent is obliged to carry out a water assessment which is part and parcel of an environmental assessment. 15.2 A Public Consultation Report Draft (Dec 2019) has been prepared on behalf of the proponent which was received on 29 Jan 2020. I am not sure whether this is the final Scoping Report and/or Assessment Report, but the document lacks the content required for an Assessment Report. Although the concerns raised in our objection letter dated 9 September 2020 have been listed in the draft report (Dec 2019), all the concerns have not been dealt with or resolved in the report. No solution or sustainable management plan has been set out or agreed to. It seems the objections have been listed and then ignored with no forthcoming solution for "sustainable development".	15.2 RES agrees that neither the Public Consultation Report nor this Scoping Report contain the content required for an Environmental Assessment Report. It was never the intention for either of these to provide a full EA report. The decision to go ahead with a full EA or not is made by the Environmental Commissioner at the end of this Scoping Phase.	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		15.3 A proper assessment of the concerns	15.3 The issues raised here:	
		raised is required. More specifically a proper water assessment by a hydrologist is required,	i) water assessment,	
		which is an essential requirement to ensure "sustainable use" of the scarce water sources.	ii) airstrip impacts, and health impacts as a consequence of aircraft disturbance to wildlife,	
		Furthermore, a proper assessment of the airstrip's construction, and flight path of the	iii) road deterioration;	
		aircraft is required. Aircraft will cause animals to break through fences and especially the	are identified in this Scoping Report.	
		rhinos and buffalos in the area. The cape buffalo which movement is restricted by law,		
		carries various deceases, and are a great concern as they spread it. This is a major		
		health risk which can cost life's and cost the Namibian meat market and other farmers		
		thousands if not millions. This has not been properly assessed and seems to be down		
		played rather. The catastrophic health risks are ignored, therefore, a proper assessment is		
		required in this regard. Similarly, the D2512 road with regard to its carrying capacity and		
		maintenance thereof are ignored, which can cost life's of tourist and locals.		
		15.4 I, on behalf of my client, had public consultations with Mr Pallett of Resilient Environmental Solutions CC, Mr Keding representing Ondili Lodge and Mr Kandji of Ministry of Environment and Tourism ("MET")	15.4 It is true: i) the only way that water sustainability can be determined is by a water assessment, and ii) that the hydrologist Mr Christelis did not decide against a water assessment.	
		on some of our client's concerns raised. However, the discussions were mainly focused	The response by the Proponent was that i) the proposal does not threaten or add to the water	
		on the water scarcity in the area which has not been resolved.	consumption that presently exists, therefore ii) a water assessment is the responsibility of all	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		It is an undisputable fact that water in Namibia is scarce as we are experiencing 4 years drought. It has been confirmed in a report complied for the Ministry of Agriculture that the Waterberg Plateau environment in question creates an impression of an abundance of groundwater, however, this area generally only has moderate to poor groundwater potential. The appointed hydrologist, Greg Christelis, at one of the public consultations stated that the only manner by which the water sustainability can be determined is by a water assessment and pump tests of the relevant area. He pertinently stated that it is required for an assessment and, in fact, did not decide against the water assessment. See his email attached hereto. The water issue is not withdrawn and it remains an issue. Ondili Lodge elected not to do such pump tests, but without such water assessment an environmental clearance certificate cannot be issued.	the neighbours who share the water resource. The decision by the neighbours, when faced with this challenge, was to decline that responsibility (see point 9 above). Furthermore, iii) the Proponent challenged Wabi Lodge, as one of the neighbours, to reveal their own Environmental Clearance Certificate (see point 10 above). RES has not received a response from Wabi Lodge on this point.	
		We must look after our water resources and a water management plan is a necessity for the relevant area. The statement of Mr Rohlfs, that, they would not use more water than		
		cattle farm of that size, is not a solution. Even, if they use water for a cattle farm that size for the lodge it could be catastrophic. It might be, that one extra borehole's abstraction dries up the neighbours' boreholes. He cannot		
		the neighbours' boreholes. He cannot determine the impact of such water		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		 abstraction without a proper water assessment. We understand Ondili Lodge has sink two or more boreholes with no success. This is clearly a further indication that water is truly scarce in the area and the development will have a prejudicial if not a disastrous effect on the surrounding area if not properly assessed. Waterberg Plateau National Park and the surrounding neighbors will definitely feel the consequences of bore holes drying up, if there is no sustainable use. Please peruse the various concerns, which have a significant effect on the environment, raised in the objection letter attached hereto dated 9 September 2019. With regard to the above, please keep us informed on the application and outcome for a environmental clearance certificate. If further info is required please do no hesitate to contact us. Yours faithfully, <i>philip swanepoel legal practitioners</i> 		
16.	Mr J Pallett (RES) Email 13/02/2020 to NamWater	Hi NP, I trust you are well. RES is busy wi th the EIA of a proposed lodge complex in the Waterberg, and you should have received some information about this last year. The	NamWater response (09/03/2020) (Mr George Diergaardt): Good day NamWater officials	

NO. NAME	COMMENTS	RESPONSE 1	RESPONSE 2
	 water situation has caused quite a lot of discussion, and has raised the issue that I'm enquiring about here: The proposed lodge intends to abstract water from the ENWC, which flows close to the Ondili property. Is this a reliable source? We have heard from neighbouring farmers that flows in the canal sometimes stop, so that they are forced to rely on other sources. Specifically, can you give me an indication of how much time in the last 5 years has offtake from the canal not been possible. Secondly, is there a daily limit to offtake from the canal, both cumulatively (i.e. total offtake) or for each individual offtake? Our purpose in asking this question is not to make any accusations against NamWater, but to find out realistically whether the canal can be regarded as a reliable source of water. This has consequences for how much the alternative sources, such as groundwater, need to be utilised. Thanks for considering this request. Best regards 	NP du Plessis has copied you in to the mail below (Thanks NP). Please reply to the queries, specifically: 1. Can you give me an indication of how much time in the last 5 years has offtake (for local farms in the Waterberg area) from the canal not been possible. (On average around 6 months of the year we cannot supply water) 2. Is there a daily limit to offtake from the canal, both cumulatively (i.e. total offtake) or for each individual offtake? (We prefer not to make new connections on the canal due the on/ off nature of the supply, and also the fact that the demand in Whk increased to such an extent that we are struggling to keep up with it) And a third question: Is the water quality in the canal suitable for human consumption? (No, chlorine should be added to it to make it drinkable)	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		John		
17	Ms Jolanda Kamburona, NamWater Email 25/02/2021	Dear John, The draft scoping report is well received. NamWater has no comments. Regards, Jolanda		
18	Mr Joachim Rust, Waterberg Wilderness Lodge Email 25/02/2021	Good day Mr. Pallett Yes, we do confirm that we did receive the report. Thank you very much. However, we still need to study and discuss it. However, at this point of time, we do not foresee any problems / queries. Kind regards Joachim Rust		
19	Mr P.Swanepoel Email 10/03/2021 Copied to T. Nghitila, Environmental Commissioner , and Kornela Eklas, MET Points 20-25 below.	Dear Mr Pallett With regard to your email below and the Draft Scope Report for Public Review [February 2021]. See attached a reply thereto whereby objections are raised in respect of the proposed development which is self explanatory. Yours faithfully, philip swanepoel	RES response 10/03/2021: Thanks Philip, received John	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
20	Letter from Phillip Swanepoel 10/03/2021	With regard to the above-mentioned subject matter, kindly take note that we have been appointed by our client Wabi Game Lodge to object to the issue of an environmental clearance certificate to Ondili Lodge Management (Pty) Ltd ("Ondili Lodge"). The Commissioner should, if not already, demand an environmental assessment and notify the proponent that it should be carried out at the proponent's own expense in terms of section 33 and 35 of the Act. Clearly the proponent is obliged, to carry out an actual environmental assessment, which is part and parcel of an environmental assessment. We noted that Resilient Environmental Solutions CC (RES) founded in its public consultation outcome as stated in the Draft Scoping Report for Public Review, that, no critical issues with the potential to stop the development of the Hogensee and Otjahevita lodge complex, were raised during the public consultation process. We strongly disagree with this conclusion. Our client objects to such development and has raised several valid concerns with regard to the main environmental principles of "sustainable use" and "sustainable development" which seems to have been	 RES response 3/02/2022: Dear Philip Swanepoel Your objections to the Draft Ondili Lodge EIA Scoping Report refers, dated 10 March 2021. Thank you for your comments. 1. The water issue: The proponent has agreed to conduct a water assessment if all the affected parties contribute to the cost. This offer still stands. As stated in the Scoping Report, the water consumption will not increase from its present allowance for a cattle farm. This ceiling will be stipulated in the EMP and subsequent (mandatory) monitoring will reveal if that limit is being exceeded. The farm owner is connected to the NamWater canal, to supplement any consumption from groundwater. As part of the Environmental Clearance process, the proponent must comply with any requirements stipulated by Department of Water Affairs. The 'no-project' alternative to this project is continuation of the farm as a cattle farm, which would mean the 	Phillip Swanepoel response 14/02/2022: Dear Mr Pallett I have received it and I am awaiting instructions from my client. Please take note that I understand the Wabi Lodge has been sold and there are now new owners. I am not representing the new owners and do not have their contact details. Yours faithfully, philip swanepoel

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		ignored. Therefore we reiterate same hereunder with further facts.	same consumption as for the	
		hereunder with further facts. With regard to:- 1. Scarce water sources The appointed hydrologist, Greg Christelis, at one of the public consultations stated that the only manner by which the water sustainability can be determined is by a water assessment and pump tests of the relevant area. RES stated in the scope report in reply the following: <i>"It is true: i) the only way that water</i> <i>sustainability can be determined is by a water</i> <i>assessment, and ii) that the hydrologist Mr</i> <i>Christelis did not decide against a water</i> <i>assessment."</i> Clearly RES agreed and Mr Christelis in fact strongly recommended such assessment and that all neigbours in the surrounding area should enter into a water management plan. There was no water assessment done!	proposed lodge. The EIA Scoping Report will make these points clear, thereby addressing your objections on the water issue.	
		There are no other reliable water resources except the ground water which is scarce. NamWater stated that they prefer not to make new connections on the canal due to the on/off nature of the supply and around 6 months of the year the offtake (for local farms in the Waterberg area) from the canal has not been possible. NamWater also confirmed that the water quality in the canal is not suitable for human consumption as chlorine should be added to it to make it drinkable). Therefore,		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		there are no other reliable water source except the ground water which is not sustainable. In 1996, the Namibian Government approached the German Government for support to prepare a national hydrogeological		
		map. After two years of close corporation between the staff of the Federal Institute of Geoscience and Natural Resources in Germany, the Ministry of Agriculture, Water and Rural Development, the Geological Survey of Namibia and the Namibia Water Corporation, the Hydrogeological Map of Namibia has become a reality, which was first published in December 2001.		
		In the process of creating the Hydrogeological Map, it was found that the Waterberg Plateau environment in question creates an impression of an abundance of groundwater, however, this area generally only has moderate to poor groundwater potential. (Groundwater in Namibia – an explanation to the Hydrogeological Map, December 2001). The report stipulates that water used by the tourist camp of the Waterberg Plateau National Park leaves no water to sustain what was once a productive wetland.		
		We must look after our water resources and a water management plan is a necessity for the relevant area. The statement of Mr Rohlfs,		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		 that, they would not use more water than cattle farm of that size, is not a solution. Even, if they use water for a cattle farm that size for the lodge it could be catastrophic. It might be, that one extra borehole's abstraction dries up the neighbours' boreholes. He cannot determine the impact of such water abstraction without a proper water assessment. We understand Ondili Lodge has sink two or more boreholes with no success of water! This is clearly proof my clients fears. Water is truly scarce in the area and the development will have a prejudicial if not a disastrous effect on the surrounding area if not properly assessed and managed. Waterberg Plateau National Park and the surrounding neighbors will definitely feel the consequences of bore holes drying up, if there is no sustainable use. 		
		It is also clearly stipulated in the report that the conclusion on the ground water consumption remains unresolved until the sustainable yield from the local ground water basin is determined. Clearly the water crises is a critical issue! The		
		magnitude is high with a high probability in that natural and social functions will be severely altered and may temporarily or permanently cease.		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		The development of the project should not proceed, before this critical issue is assessed.		
21	Letter from Phillip Swanepoel	2. Wild life disturbance [noise pollution and health risk]	RES response 3/02/2022:	
	10/03/2021	An airstrip is to be developed and operated adjacent to the Waterberg Plateau National Park. Aircraft operating from tis airstrip will cause animals to break through fences and especially the rhinos and buffalos in the area. The cape buffalo which movement is restricted by law, carries various deceases, and are a great concern as they spread it. This is a major health risk which can cost life's and cost the Namibian meat market and other farmers thousands if not millions. This has not been properly assessed and seems to be down played rather. The catastrophic health risks are ignored, therefore, a proper assessment is required in this regard. Our client has in the past already experienced problems with buffalos breaking through fences and entering its premises which was shot on their lodge by state regulatory authorities. This created an unsightly disturbance to tourists and should be prevented at all costs as it has a significant impact. The Cape Buffalo may only roam in the National Park and it is illegal to allow such buffalo roaming on your farm or lodge in terms of Government Notice 178 of the Animal Health Act 1 of 2011. The cape buffalo	2. The situation of the air strip has been moved to below the escarpment, which is a distance of 6.5 km from the nearest part of the Waterberg National Park. The EIA stands by its conclusion that this is adequate distance for aircraft to not penetrate the 1,000 ft ceiling over the Park. This will also be stipulated in the EMP and will then be an auditable requirement for future monitoring of EMP compliance.	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		is also a carrier of certain diseases and if they		
		break through a fence and cross adjacent		
		farms it will create a health and safety risk for		
		the surrounding farms and lodges.		
		In light of the above, the noise disturbance		
		would definitely disturb the animals and more		
		specifically the rhinos and cape buffalos which		
		would have a significant impact on the animals		
		breaking through fences onto adjacent on		
		farms and lodges in the area.		
		We understand airstrip will be located below		
		the level of the plateau, and at its nearest		
		point will be 6.5 km from the border of the		
		Waterberg Plateau Park, and more than 10 km		
		from the Waterberg Wilderness Lodge, which		
		is a concern. This does not give ample distance		
		for incoming and taking off flights to be above		
		the 1,000 ft height restriction in airspace over		
		the plateau area. The average height of the		
		plateau is around 5500 ft above mean see		
		level and it is not clear what the lower height		
		of the airstrip is. Due to the lower elevation of		
		the airstrip it is clear that the aircraft would be		
		required to climb more than 1,000 ft to clear		
		the airspace and, therefore more distance		
		would be required. The take-off and landing		
		path also extends to over the concerned areas		
		and smaller aircraft also climb at a much lower		
		climbing rate than bigger aircraft and this		
		could have a significant impact on the		
		surrounding area. The impact is significant and		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		should properly be assessed by an aviation expert. The airstrip's construction and operations should be stopped immediately. A proper assessment of the airstrip's construction and flight path of the aircraft is required.		
22	Letter from Phillip Swanepoel 10/03/2021	3. Risk of road safety The D2512 road with regard to its carrying capacity and maintenance thereof has been ignored, which can cost life's of tourist and locals. The D2512 road is the only road to serve the farms and lodges along the Waterberg Plateau. The Roads Authority must maintain the road regularly, but it is only done every 6 to 12 weeks. Having regard to the poor economic situation of Namibia and the budgets being cut, it is a given fact that in all probability the road will not be properly maintained. The carrying capacity of the road is a concern as the road has a wash board effect namely ripples and drop holes which can render vehicles uncontrollable. Definitely during the construction of the new lodge, significantly more traffic will be experienced and heavy vehicles off-loading building material will also deteriorate the road. The road could be so severely affected, in that, sedan cars would not be able to travel on the road. This will have a negative impact on the	RES response 3/02/2022: 3. The EIA stands by its conclusion that there is a low significance risk of road accidents caused by increased traffic to the proposed lodge. The condition of the D2512 road is caused as much from local farmers and visitors to Wabi Lodge and others.	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		number of tourists visiting the area and is also a safety concern for the locals and tourists whose cars can be rendered uncontrollable on the deteriorated road.		
		Neighbouring farms along the D2512 have requested that Ondili should commit to scraping the road when necessary, to compensate for the increased deterioration that will be caused by the Ondili construction traffic, but it seems they refuse and want all parties to share the costs. However, during the construction face the negative impact would be solely as a result of the construction by Ondili. Therefore they must maintain the road during the contraction face if the Roads Authority does not in writing confirm and undertake to maintain the road more regularly during.		
		RES responded by stating The impact of corrugations on vehicles in this account is exaggerated. RES is not an expert on road corrosion and a road and/or civil works expert should provide an opinion on this.		
		The Roads Authority confirmed that the road is graded once a month, sometimes if they have time and budget they will grade for a second time up to the Waterberg Park gates. Mrs van Vuuren says they are unable to do more than this for the foreseeable future. Having regard to our countries economic		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		situation, the position has in all probability worsen as government does not have the finances anymore.		
		Clearly the road safety is a critical issue! The magnitude is high negative impact with a high probability in that the road condition will be severely altered and may temporarily or permanently deteriorate.		
23	Letter from Phillip Swanepoel 10/03/2021	 4. Economic survival There has been a drastic decline in tourism and a new lodge would dilute the number of tourists amongst surviving lodges. The concern is not competition, but the hard reality of economic survival. A new lodge will draw more employees to the area in search for economic survival which is not sustainable. Mr Kandji of MET confirmed the decline during 2019 and now with the COVID 19 	RES response 3/02/2022: 4. The increased competition for visitors that Wabi Lodge will face is no grounds for opposing the proposed new lodge. This point is disregarded.	
		(pandemic) it is a reality with a definite negative impact on the specific area. A new lodge will have bigger negative economic and social impact on the surrounding lodges including Wabi Lodge and the Waterberg Plateau National Park. A study should be done on the current occupancy rate of surrounding lodges, the impact of the new lodge and whether it could result in other lodges and the National Park being closed down. Therefore, having a significant impact on the current		

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		employers and employees being negatively affected thereby.		
		RES responded by stating, it is true that an additional lodge in the area will possibly cause a decline in occupancy in neighbouring lodges. Furthermore, that this is the private sector and no one lodge has the authority or right to exclude others from competing in the same market. With regard to the aforementioned, yes competition is good, but this is a question of economic survival, which will be to the detriment of the people already living in the area who are currently fighting for survival.		
		A good example of lodges economically struggling is Waterberg Plateau National Park, more specifically, whereby Namibia Wild Life Resort (NWR) received an amount of around N\$40 million from the government for economic survival. Other private lodges does not have this benefit of a bail out and, therefore, it is highly likely that many lodges in the surrounding could go bankrupt and be placed under liquidation like Air Namibia. Clearly economic survival is a critical issue which must be assessed in depth!		
24	Letter from Phillip Swanepoel 10/03/2021	5. Poaching of Animals Poaching is a serious threat to Wabi Game Lodge and the nearby Waterberg Plateau National Park and to all other farms and	RES response 3/02/2022:	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		lodges along the Waterberg. With up to 60 proposed workers for the expected construction period of 2 years, which in all probability is expected to be extended due to unforeseen circumstances, poaching will become uncontrollable. All workers must be identified and police clearances must be obtained and kept on record. The question which arises is how poaching would be prevented. Furthermore, how culprits would be caught, charged and convicted. The mitigation set out in the report is not acceptable, in that, the Proponent should stay alert for signs of poaching such as snares in the veld, evidence of slaughtering at the staff quarters or where workers are active, or suspicious signs of covering up evidence. A management plan should be set in place whereby Ondili undertake to manage and implement it. All workers must be identified and police clearances obtained and kept on record. Without such undertaking and management agreement in place, the project should not proceed, otherwise their will be no accountability and poaching will not be managed.	5. The EMP for the proposed lodge includes measures to prevent poaching and similar disturbances on neighbouring land. If reasonable additional measures are suggested, the EMP can consider them and include them in the Scoping Report.	
25	Letter from Phillip Swanepoel 10/03/2021	In terms of the Environmental Act 7 of 2007 ("the Act") it is the responsibility of the proponent to comply with the Act and adhere to the principles of environmental	RES response 3/02/2022:	

NO.	NAME	COMMENTS	RESPONSE 1	RESPONSE 2
		management. The proponent has engaged in public consultations, but must continue to carry out a proper environmental assessment.	We intend to submit the Scoping Report to the authorities as soon as possible; your response to these queries will be appreciated.	
		No solution or sustainable management plan has been set out or agreed to. It seems like my clients objections have been listed and then	Regards	
		ignored with no forthcoming solution for "sustainable development". This reminds me of the old words of wisdom namely:- <i>"if you</i> <i>fail to plan you plan to fail"</i> . No proposal has been made for a management plan for	John Pallett	
		sustainable development whereby the neigbours part take in such management plan.		
		Please also peruse the various concerns, which have a significant effect on the environment, raised in the objection letter attached hereto dated 9 September 2019.		
		With regard to the above, please keep us informed on the application and outcome for a environmental clearance certificate as my client has instructed us to oppose the issue of such clearance certificate in the High Court of Namibia, if there was no proper environmental assessment done.		

6.2 Public consultation outcome

No critical issues, with the potential to stop the development of the Hogensee and Otjahevita lodge complex, were raised during the public consultation process.

Issues raised by I&APs require attention during the remainder of the EIA Scoping process. These are:

- The need for an inspection of the suitability of the access point to the lodges by the Roads Authority
- The poor condition of the D2512 road and the impact of increased traffic on this road during construction and operation phase.
- The impact of noise pollution on guests at surrounding lodges from the proposed airfield, particularly at Waterberg Wilderness Lodge and in the Waterberg Plateau National Park. Noise pollution from air traffic was also raised as a possible disturbance for wildlife and particularly rhino.
- Water in the area is potentially scarce and the concern was raised that a new lodge may lead to water shortages. The owners of the adjacent Wabi Lodge, along with Mr J Katjivena of the neighbouring Ringklip farm, requested that a hydrogeological specialist study be done to investigate the sustainable offtake from the groundwater. After consultations over this issue, including with a geohydrologist (Mr Greg Christelis of CHR Water Consultants), the proponent decided against this assessment on the basis that water consumption from the proposed lodge complex will not exceed the amount of water that would be abstracted if the farm was run as a cattle farm. The proponent offered to pay one-third of the price of the specialist study, and invited the other two parties to contribute the remaining two-thirds, but both other parties did not agree. Therefore the issue of excessive water consumption was withdrawn.

7 Impact Assessment

The proposed project is expected to have impacts on the immediate and surrounding receiving socio-economic and biophysical environment. An understanding of these impacts, together with effective mitigation measures, can help to minimise or preferably avoid such impacts.

The purpose of this chapter is to identify potential impacts that the project is expected to have on the receiving environment and determine their significance. Some impacts might be insignificant while others might need special attention or even further investigation.

This chapter provides a description and assessment of potential impacts associated with the project. Mitigation measures, where appropriate, are recommended. These are aimed at avoiding, minimising or mitigating negative impacts and enhancing potential benefits. The significance of potential impacts without and with enhancement is also provided.

7.1 Assessment Method

7.1.1 Comprehensive assessment

The identified impacts are assessed according to a synthesis of criteria required by the integrated environmental management procedure. This entails the establishment of the expected impact's extent (spatial scale), duration (time scale), magnitude (intensity), probability, and status, in combination providing the expected significance (see Table 7-1).

CRITERIA CATEGORY Impact This is a description of the expected impact. Nature Positive: The activity will have an environmental (social or biophysical) benefit. Describes the type of impact. Neutral: The activity will have no effect. Negative: The activity will have an environmentally (social or biophysical) harmful effect. Extent Site Specific: Expanding only as far as the activity itself (on-site) The area affected by the Small: Restricted to the site's immediate environment within 1 km impact. of the site (limited) Medium: Within 5 km of the site Large: Beyond 5 km of the site (regional) Duration Temporary: < 1 year Predicts the lifetime of the Short-term: 1 – 5 years impact. Medium term: 5 – 15 years Long-term: >15 years (impact will stop after the operational or running life of the activity, either due to natural causes or by human interference) *Permanent:* Impact will be where mitigation or moderation by natural causes or by human interference will not occur in a particular means or in a particular time period that the impact can be considered temporary. Magnitude Very low: Affects the environment in such a way that natural and/or social functions/processes are not affected. Describes the scale/size of Low: Natural and/or social functions/processes are slightly altered. the impact. *Medium:* Natural and/or social functions/processes are notably altered in a modified way. *High:* Natural and/or social functions/processes are severely altered and may temporarily or permanently cease.

Table 7-1. Criteria applied to each potential impact.

CRITERIA	CATEGORY
Probability of Occurrence Describes the probability of the impact actually occurring.	Improbable: Not at all likely. Low probability: Possible but not very likely Probable: Distinct possibility. Highly probable: Most likely to happen. Definite: Impact will occur regardless of any prevention measures.
Degree of Confidence in Predictions States the degree of confidence in predictions based on availability of information and specialist knowledge	<i>Unsure/Low:</i> Little confidence regarding information available. <i>Medium:</i> Moderate confidence regarding information available. <i>High:</i> High confidence regarding information available.
Significance The impact on each component is determined by a combination of the above criteria.	 No change: A potential concern which was found to have no impact when evaluated. Very low: Impacts will be site-specific and temporary with no mitigation necessary. Low: The impacts will have a minor influence on the project and/or environment. These impacts require some thought to adjustment of the project design where achievable, or alternative mitigation measures. Moderate: Impacts will be experienced in the local and surrounding areas for the life span of the development and may result in long term changes. The impact can be lessened or improved by an amendment in the project design or implementation of effective mitigation measures. High: Impacts have a high magnitude and will be experienced regionally for at least the life span of the development, or will be irreversible. The impacts could have the no-go proposition on portions of the development in spite of any mitigation measures that could be implemented.

Significance is determined through a synthesis of impact characteristics as described in Table 7-1 above. It provides an indication of the importance of the impact in terms of both tangible

and intangible characteristics. The significance of the impact "without mitigation" is the prime determinant of the nature and degree of mitigation required. Where the impact is positive, significance is noted as "positive".

7.2 Potential impacts

7.2.1 Construction phase

Some of the potential environmental impacts (biophysical and social), both negative and positive, are outlined below, followed by suggested mitigation or enhancement measures.

7.2.2 Potential negative impacts

- 1. Generation of waste.
- 2. Potential soil and groundwater pollution from various waste products.
- 3. Potential increase in noise levels.
- 4. Disturbance to and poaching of wild animals, including destruction of cliff-nesting sites.
- 5. Vegetation clearing.
- 6. Groundwater consumption.
- 7. Deterioration of the shared D2512 gravel road.

7.2.2.1 Generation of waste

Construction activities and the presence of people working and living on the site, will generate wastes. Such wastes include domestic (household) waste and sewerage, building wastes, and hazardous substances such as fuels, oils and paints. If not managed appropriately, these could cause the area to look untidy and dirty, and the wastes could attract wild animals (e.g. jackals, honey badgers, crows) that might become problem individuals. This impact is assessed in Table 7-2 below

Table 7-2.	Assessment o	of the im	pact of waste	generation.
			pace of maste	Beneration

Criteria	Description
Potential impact	Poorly managed wastes could become problematic, with litter and rubbish lying around, substances causing pollution, and possibly some organic wastes attracting scavenging animals that could become a nuisance.
Nature	Negative impact through health risks and spoiling the aesthetic beauty of the natural environment.

Criteria	Description
Extent	Local
Duration	Temporary but possibly for longer if there is pollution (see next point)
Magnitude	Low
Probability	Low probability
Significance	Low-medium
Mitigation measures	Waste disposal procedures should be included in the induction of all staff working on site. Facilities for appropriate disposal should be put in place, such as adequate and functional ablutions and sewage treatment systems, provision and regular cleaning of rubbish bins, waste separation and recycling procedures, and other measures as stipulated in the EMP. Animal-proof waste holding areas should be created for temporary storage of waste until transportation to the nearest waste facility. These should be specifically designed to prevent baboons getting access to the waste.
Significance (with mitigations)	Low
Confidence level	Medium-High

Conclusion on waste generation:

ON CONDITION THAT EMP CONDITIONS ARE IMPLEMENTED, THIS IS A LOW SIGNIFICANCE NEGATIVE IMPACT.

7.2.2.2 Potential soil and groundwater pollution

Construction involves use of hazardous and corrosive substances such as hydrocarbon fuels and oils, paints and cement. Although the quantities used will be relatively small, these pose a threat from spills and throwing stuff away carelessly and can cause small-scale contamination of soil and groundwater. This impact is assessed in Table 7-3 below.

Table 7-3. Assessment of the impact of soil and groundwater pollution

Criteria	Description	
Potential impact	Use of hazardous and corrosive substances carries a risk of spills and careless dumping, which would pollute the soil and possibly contaminate groundwater.	
Nature	Negative impact on soil and groundwater, possibly also putting human health at risk.	
Extent	Local	
Duration	Temporary	
Magnitude	Low	
Probability	Low probability	
Significance	Low-medium	
Mitigation measures	 The code of practice on the building site should include the following specifications: No dispensing of fuel or refilling motors outside of the designated area in the yard. Fuel for machinery should be stored in a steel fuel tank with a bunded impermeable surface below. Measures must be in place to prevent runoff and seepage into the soil. Spillages of potentially harmful substances must be cleaned immediately and disposed of at the Otjiwarongo landfill. 	
Significance (with mitigations)	Low	
Confidence level	Medium-High	

Conclusion on soil and groundwater pollution:

ON CONDITION THAT EMP CONDITIONS ARE IMPLIMENTED, THIS IS A LOW SIGNIFICANCE NEGATIVE IMPACT.

7.2.2.3 Potential increase in noise levels

Construction work will generate noise from machinery, vehicles and people. Although this might be considerable, the nearest neighbours (a farm house) and the nearest lodge (Wabi)

are approx. 4 km away from the nearest parts of the Ondili proposed development. The impact is insignificant.

The impact of aircraft noise on tourists and wildlife was raised as a concern by IAPs. The Ondili airstrip will be located below the level of the plateau, and at its nearest point will be 6.5 km from the border of the Waterberg Plateau Park, and more than 10 km from the Waterberg Wilderness Lodge, which raised the concern. This gives ample distance for incoming and taking off flights to be above the 1,000 ft height restriction in airspace over protected areas, and for small aircraft noise to be sufficiently softened by distance. The impact is insignificant.

The concern about flights purposely flying low over neighbouring wildlife areas to give nice views for their passengers is noted. This is addressed in the EMP.

Conclusion on noise: LOW SIGNIFICANCE NEGATIVE IMPACT.

7.2.2.4 Disturbance to and poaching of animals

There is little wildlife on the farm at present. Any high priority raptors that might be nesting along the Waterberg cliffs (e.g. Verreaux's eagle) are not likely to be within the vicinity of the lodge complex, because there are higher cliffs immediately to the west, and the rock faces along the Hogensee and Otjahevita sections are much smaller (less than 5 metres high, and not vertical). The cliff faces in the vicinity of the lodge complex were conscientiously scanned for any evidence of raptors (such as whitewash demarcating a nesting or roosting site), and no signs of their presence were observed. In addition, the active nest of a Verreaux's eagle was observed on the cliffs directly above the NWR Waterberg Camp. The large territory size of Verreaux's eagle (... km²), and the much lower suitability of nest sites on the Ondili property, mean that it is highly unlikely that any nests of this species would be built on the Ondili section of the Waterberg Plateau.

Animals do occasionally escape from Waterberg Plateau NP, which makes them vulnerable to poaching by people on the Ondili property. This problem is difficult to prevent, but conscientious patrolling and alert behaviour by management can usually detect if this is happening.

The problem of construction staff setting traps and/or actively searching for high-value animals such as pangolins and tortoises, is recognised. Again, this problem should be actively mitigated. Recommended measures include active vigilance by the proponent, active

measures to deter potential illegal activities and a clear policy of zero tolerance for any infringements, and firm punishment for perpetrators should any illegal activities happen.

This impact is assessed in Table 7-4 below.

Table 7-4. Assessment of the impact of disturbance and poaching of animals	
Table 7-4. Assessment of the impact of distandance and podering of animals	

Criteria	Description
Potential impact	Construction staff brought on to the farm during the construction phase could get involved in illegal trapping or other poaching of local wildlife. If the behaviour is not detected and stopped early, then it could also extend to become a more long-lasting problem when the lodge is operational and permanent staff are installed.
Nature	Negative impact
Extent	Local
Duration	Temporary but possibly extending longer if not controlled.
Magnitude	Low
Probability	Low probability – probable
Significance	Low
Mitigation measures	All staff on site, including contract workers, should receive induction training on the overall policy of conservation that Ondili Management proposes. This should include issues of environmental awareness and the specific requirements of the Environmental Management Plan, and the implications of wildlife crime under the Nature Conservation Ordinance and the upcoming Wildlife and Protected Areas Management Act. The ID numbers and photographs of all staff and contract workers associated with the development should be recorded and held by Ondili Management. These details should be gathered during the induction session that each and every person coming on to site during the construction phase will need to undertake. All such people should be made aware that this information is collected, to act as a deterrent to any illegal activities. The Proponent should stay alert for signs of poaching such as snares in the veld, evidence of slaughtering at the staff quarters or where workers are active, or suspicious signs of covering up evidence.

Criteria	Description
	Any member of staff or contract worker should be expelled from site and dismissed immediately if found guilty of poaching.
Significance (with mitigations)	Low
Confidence level	Medium-High

Conclusion on wildlife disturbance:

ON CONDITION THAT EMP CONDITIONS ARE FOLLOWED, THIS IS A LOW SIGNIFICANCE NEGATIVE IMPACT.

7.2.2.5 Clearing of vegetation

Construction areas will be cleared of vegetation where necessary to allow building activities, but the proponent is emphatic that trees should not be cut down or cut at all, unless it is absolutely essential to allow building to happen.

Obviously, there will be some clearing that is unavoidable when, for example, excavating the pits for septic tanks and evaporation ponds, and when clearing land for the air strip. Other than this, very little clearing of trees will be undertaken, as trees will be desirable aspects in the lodge grounds. This impact is assessed in Table 7-5 below.

Thinning of invasive bush on the farm will be done. This is beneficial to rangeland health and does not constitute 'vegetation clearing' as described above.

Criteria	Description
Potential impact	Construction areas will be cleared of plants, leaving open areas prone to wind erosion and unsightly scars on the landscape. Minimisation of clearing will be emphasised in all construction activities.
Nature	Negative impact
Extent	Local
Duration	Short term. The impact lasts as long as it takes for new trees and vegetation to regrow.
Magnitude	Very Low
Probability	Probable

 Table 7-5. Assessment of the impact of vegetation clearing

Criteria	Description
Significance	Very low
Mitigation measures	As already intended by the Proponent, no trees will be cut unnecessarily. If any trees that are Protected (under the Forest Act or Nature Conservation Ordinance) are to be cut down, the necessary permits must first be obtained. Movement of vehicles and machinery must be restricted to existing roads and tracks to prevent unnecessary damage to the vegetation. Where possible, any ground left bare should be covered with rocks and dead vegetation to help mulch the soil, prevent wind erosion on the surface, and encourage regrowth of grasses, shrubs and trees. This rehabilitation and restoration should be in keeping with the natural vegetation and the ambience of the surroundings. The proponent has indicated that they intend to plant indigenous trees on some of the old farm which will no longer be used.
Significance (with mitigations)	Very Low
Confidence level	High

Conclusion on vegetation clearing: VERY LOW SIGNIFICANCE NEGATIVE IMPACT.

7.2.2.6 Groundwater consumption

The construction activities will need water, at an estimated rate of 20,000 litres per day (W.Kaiser pers. comm.). Once operational, the expected consumption, with the predicted 60% occupation at the lodges and campsite, is estimated to be about 18,000 litres per day. This is approximately equal to the average consumption of a cattle farm of equivalent size in this area. Abstraction will be from existing boreholes, the existing artesian spring, and the NamWater pipeline.

Water in the area appears to be abundant as there are numerous springs in the area and there are many large trees, however, according to Christelis and Struckmeier (2001) this area has moderate to poor groundwater. A pump test to accurately determine the capacity and the sustainable yield of the aquifer(s), and to understand the recharge situation, was proposed as part of the public consultations around water, but the Proponent has argued that he is only

willing to undertake this if the neighbouring farms contribute in equal proportions to the cost, since the development will not increase pressure on the existing water resource.

There is a risk that the groundwater reserves may be over-exploited in future by the combined activities of Wabi Lodge, Ringklip farm, the Ondili developments, and other activities in the groundwater basin. This might be exacerbated by future unpredictable situations such as extreme climate (ie drought), and diminished supply from the NamWater canal. It would therefore be in the interest of all the affected stakeholders to understand the sustainable yield of the aquifer(s) and future risks.

The impact is assessed in Table 7-6 below.

Criteria	Description
Potential impact	Groundwater consumption at the rates anticipated during construction and operations, will potentially jeopardise water availability for neighbouring farms. However, if abstraction is not higher than originally occurred on the farms Hogensee + Otjahevita, then this should place no risk on the neighbouring farms.
Nature	Neutral or Negative impact
Extent	Local to medium.
Duration	Unknown. This depends on the balance between abstraction and the rate of recharge. Potentially medium-term.
Magnitude	Very Low – Medium, depending on factors mentioned above.
Probability	Probable
Significance	Low to moderate
Mitigation measures	The suggestion for all the IAPs potentially affected by local groundwater consumption, to contribute towards pump tests on all boreholes in the groundwater basin to ascertain their capacity, was rejected. The sustainable abstraction rate for all local boreholes therefore remains unknown. All local boreholes should be fitted with water meters, and consumption should be recorded. Use this information to inform the abstraction rate and water consumption practices at the Ondili and neighbouring farms.

 Table 7-6. Assessment of the impact of groundwater abstraction.

Criteria	Description
Significance (with mitigations)	Low - High, depending on whether abstraction from all the boreholes in the groundwater basin are within the sustainable yield of the aquifer(s).
Confidence level	High

Conclusion on groundwater consumption:

NEUTRAL IMPACT AS LONG AS GROUNDWATER CONSUMPTION RATE STAYS RELATIVELY THE SAME AS BEFORE IT SWITCHED TO A TOURISM LAND USE.

WATER CONSUMPTION FROM <u>ALL</u> LOCAL BOREHOLES SHOULD BE MEASURED AND RECORDED FROM NOW ON. THIS DATA SHOULD BE USED TO DETERMINE THE GROUNDWATER TREND AND THE SUSTAINABLE ABSTRACTION RATE.

7.2.2.7 Deterioration of the D2512 road.

The condition of the D2512 public road was good when conducting the site visit, however IAPs have reported that the condition of the road is generally very poor and becomes especially bad after rains. Due to increased traffic on this road, particularly during the construction phase of the lodge, the road condition will be further affected. The impact is assessed in below in Table 7-7.

Criteria	Description
Potential impact	Deterioration of the shared earth/gravel road D2512
Nature	Negative impact
Extent	Local to medium.
Duration	Approximately 2 years during construction, becoming less severe when the lodge begins operating.
Magnitude	Medium
Probability	Probable
Significance	Moderate

 Table 7-7. Assessment of the deterioration of the shared D2512 road.

Criteria	Description
Mitigation measures	Neighbouring farms along the D2512 have requested that Ondili should commit to scraping the road when necessary, to compensate for the increased deterioration that will be caused by the Ondili construction traffic. However, Ondili is only one user of many along that road, and cannot be held responsible for the poor state of the road. It is true the rate of deterioration might increase, and Ondili should carry its share of the responsibility for jointly addressing the state of the road, together with Roads Authority and the other main users. Maintenance of the gravel roads should be one of the points to be addressed by members of the Waterberg Landscape Conservation Area, as it is in their joint interest, and no single party can be blamed or held responsible. All farmers and tourism operators in the Waterberg Landscape Conservation Area should get involved in the business of the landscape, and should collaborate with service providers (eg Roads Authority) to ensure that required services are carried out. Ondili must seek authorization from Roads Authority to create an access onto the D2512 from the lodge complex.
Significance (with mitigations)	Low
Confidence level	High

Conclusion on road deterioration:

INCREMENTAL (SMALL) INCREASE IN RATE OF DETERIORATION OF THE ROAD. LOW SIGNIFICANCE NEGATIVE IMPACT.

7.2.3 Operation phase

Impacts during the operations of the lodge will be similar to those during construction, with a few differences. The impacts are listed briefly below:

- Waste generation: will continue, with some change in the nature of the wastes generated. Domestic waste volumes likely to increase, which poses opportunities for more re-use and recycling.
- Pollution potential: Still exists from the disposal of sewerage and wastewater.
- Poaching: Still a possibility.

- Vegetation clearing: Unlikely to be done after construction is completed.
- Possible over-exploitation of groundwater: Still a possibility.

In addition to the above, there are added potential impacts:

- Light pollution at night
- Visual impact of the luxury lodge on the plateau

7.2.3.1 Light pollution

The lodge and campsite, and possibly approach roads, will be illuminated at night. Strong lights at night tend to decrease the visibility of the night sky, which is not desirable considering the clear skies and excellent star views that are part of the Namibian tourist attraction. Also, lights attract insects which has the impact of reducing insect abundance in other dark areas, creating a 'vacuum effect' for animals such as bats, bushbabies and nightjars which feed on insects at night (Gaston, et al. 2013). The impact and possible mitigations are assessed in Table 7-8 below.

Criteria	Description
Activity	Lights to illuminate the lodge areas could deteriorate the quality of the night sky views of tourists, and could negatively impact on food availability for night-hunting insect eaters such as bats.
Nature	Negative impact , depending on the strength and orientation of the lights. Flood lights tend to disperse much light upwards into the night sky, creating a 'glow effect' and reducing visibility of stars.
Extent	Local
Duration	For as long as the lodge is operational.
Magnitude	Low
Probability	Highly Probable
Significance	Low
Mitigation measures	Reduce the area and intensity of flood lighting. Orientate outdoor and pathway lights downwards and reduce the
	intensity of lighting to the minimum.

Table 7-8. Assessment of the impact of night lights at the lodge sites.

Criteria	Description
	Switch unnecessary lights off after bed-time.
Significance (with enhancements)	Low
Confidence level	High

Conclusion on light pollution:

ON CONDITION THAT BUILDING AND OPERATIONAL RECOMMENDATIONS ARE FOLLOWED, LOW SIGNIFICANCE NEGATIVE IMPACT.

7.2.3.2 Visual impact of the luxury lodge on the plateau

The impact and possible mitigations are assessed in below.

Criteria	Description
Activity	Construction of the lodge on the cliff-face, especially where some rooms jutt over the cliff, could have a visual impact from the public road running parallel to the Plateau.
Nature	Negative impact , depending on the size and orientation of the rooms, and also the colours of paint or material used in constructing the rooms, which could make the lodge more visible from the road and the farm located south of the lodge.
Extent	Local
Duration	For as long as the lodge exists
Magnitude	Low
Probability	Highly Probable
Significance	Low
Mitigation measures	Keep the design of the lodge buildings in a natural style.
Significance (with enhancements)	Low
Confidence level	High

Conclusion on visual impact: LOW SIGNIFICANCE NEGATIVE IMPACT.

7.2.4 Potential positive impacts

- Employment creation
- Diversification of the local economy, with growth of the Namibian tourism sector
- Reintroduction of wildlife onto the farm.
- Bush thinning.

7.2.4.1 Employment creation and transfer of skills

The construction activities for the lodge buildings and then the tourism-related jobs created at the lodges will provide up to 60 individuals from the project area with semi- and unskilled jobs (assuming about 2/3 of staff are at the unskilled and semi-skilled level). The income generated will benefit the individuals' households. Furthermore, these activities will result in the improvement in skills and therefore improved employability for those people. Training provided by the lodge for their staff will further help to improve capacity and employability.

Table 7-10 below presents an assessment of the impact associated with employment maintenance and income generation.

Criteria	Description
Potential impact	Employment creation (unskilled, semi-skilled and skilled posts, ranging from temporary to long-term)
Nature	Positive impact. Employment opportunities will be created during the construction and operational phases
Extent	Local to regional
Duration	Temporary to long-term
Magnitude	Low
Probability	Probable
Significance	Low
Synergies or enhancement measures	Where possible, Namibian citizens from the local area should be preferentially employed for the unskilled labour. Equal opportunities should be provided for both men and women.

Criteria	Description
Significance (with enhancements)	Low-medium
Confidence level	High

Conclusion on employment creation: POSITIVE IMPACT, LOW-MEDIUM SIGNIFICANCE.

7.2.4.2 Growth of the tourism sector and diversification of the local economy

Establishment of lodge facilities will increase the number of tourism beds in the overall area and possibly serve to increase the number of visitors entering the Waterberg Plateau Park, without burdening the accommodation facilities in the Park itself. This will help to grow the tourism industry in Namibia. The lodge will also increase the economic activity in the area where previously the Farms Hogensee and Otjahevita were stagnant and opportunities for work much more limited.

Table 7-11Error! Reference source not found. below presents an assessment of the impact associated with employment maintenance and income generation.

Criteria	Description
Potential impact	Increased tourism will help to grow and diversify the economy, where previously there was very little economic activity.
Nature	Positive impact
Extent	Local to regional
Duration	Long-term
Magnitude	Low
Probability	Probable
Significance	Low
Synergies or enhancement measures	Where possible, local Namibian citizens should be offered employment or training opportunities.

Criteria	Description
Significance (with enhancements)	Low-medium
Confidence level	High

Conclusion on diversification of the economy: POSITIVE IMPACT, LOW-MEDIUM SIGNIFICANCE.

7.2.4.3 Reintroduction of wildlife onto Farms Hogensee and Otjahevita

Ondili Management has erected a game fence around the perimeter of the farm, and intends to stock the farm with wild game such as antelope and white rhino to add to the tourism value. This has value for conservation, by adding to the total area of land in the country that is used for conservation, and by increasing the population of endangered species.

At the same time, it fragments the habitat by creating an 'island' in the landscape that has little connectivity with the surrounding habitat (Ferguson and Hanks 1981). Wild animals naturally move about while foraging, searching for mates and shelter, or dispersing due to territorial patterns. Restricting these movements or causing mortalities of the animals that die while trying to cross a fence, can reduce their populations and reduce the ecological integrity of the area. Depending on the fence design (such as number of strands and how close they are together, the presence of electric wires or razor wire, the total height and the presence of occasional breaks or holes in the fence), certain animals may be able to cross over the fence while others will not. The impact is assessed in Table 7-12 below.

Criteria	Description		
Potential impact	Reintroduction of wildlife onto the farm		
Nature	The conservation value of the area, and of the country, is increased by incrementally adding to the area managed for wildlife conservation, and by increasing the population of endangered species such as white rhino. This is a positive impact .	At the same time, the game fence limits connectivity with surrounding populations of wildlife by fragmenting the landscape, thereby decreasing the ecological integrity of the area. This is a negative impact .	

Criteria	otion		
		Introduction of non-Namibian species (e.g. black wildebeest, common impala) should be avoided.	
Extent	Local to regional. Local to regional.		
Duration	Temporary to long-term, for as longTemporary to long-term,as the game farm exists.long as the game farm exists.		
Magnitude	Low	Low	
Probability	Probable	Probable, but this depends on the fence design.	
Significance	Low	Low	
Synergies or enhancements to increase positive impacts, and mitigation measures to reduce negative impacts	Collaborate with neighbouring farms and MET to maintain high security around endangered species and to enhance their survival.	Make the fence 'porous' for those animals that can be allowed to cross over. This can be done by creating 'escape hatches' at frequent intervals, and by adapting features, depending on what behaviours are recorded, to help specific animals get through the fence.	
Significance (with enhancements)	Low-medium positive	Low negative impact	
Confidence level	High	Medium	

Conclusion on wildlife re-introduction: POSITIVE IMPACT, LOW-MEDIUM SIGNIFICANCE.

7.2.4.4 Bush thinning and restoration

Ondili Management intends to thin the thickened bush in those areas of the farm that are encroached. This is to open up the thickets for greater visibility, to encourage greater diversity of wildlife species, and to restore the habitat to open savanna which is closer to the original state before bush encroachment started. Bush thinning, as long as it is done carefully and following Namibian guidelines (De-bushing Advisory Service Namibia 2017), can have a positive impact on diversity of birds, mammals and other animals (Joubert and Zimmerman 2002), and is promoted by Government and farmers' forums as a method of improving land use values in Namibia. The impact is assessed in Table 7-13.

Criteria	Description				
Activity	Improvement of the veld condition by thinning of encroacher bush.				
Nature	Positive impact. Thinning of encroacher bush, done appropriately, helps to restore the ecological integrity of savanna habitats and at the same time it creates improved visibility for better enjoyment of the natural surroundings by tourists.				
Extent	Local				
Duration	Temporary to long-term, depending on the commitment to continue with after-care so that the bush does not thicken up again, and the veld management practices employed on the farm.				
Magnitude	Low				
Probability	Probable				
Significance	Low				
Synergies or enhancement measures	Labour-based bush thinning creates opportunities for generating local employment. Wood that is cut, depending on the species, can be put to various uses.				
Significance (with enhancements)	Low-medium				
Confidence level	Medium				

Table 7-13.	Assessment	of the i	impact of	bush thinnir	ng
		••••••			·o

Conclusion on bush thinning: POSITIVE IMPACT, LOW-MEDIUM SIGNIFICANCE.

7.2.5 Cumulative impacts

Cumulative impacts are defined as "those that result from the successive, incremental, and/or combined effects of an action, project, or activity (collectively referred to as 'developments') when added to other existing, planned, and/or reasonably anticipated future ones" (International Finance Corporation 2013).

Some of the impacts of the lodge could combine with similar impacts from other developments in the vicinity, creating a greater or more severe impact than noted in this assessment. Such cumulative impacts include:

- Increased risk of groundwater over-exploitation, to the detriment of local aquifers.
- Increased volumes of waste, that might exceed the capacity for managed disposal at the local Otjiwarongo landfill.
- Increased light pollution.
- Deterioration of the public road D2512 due to increased traffic.

All these issues can be addressed through collaboration with neighbours and thorough implementation of the measures in the EMP.

The Waterberg Landscape Conservation Area was established for precisely this purpose: for local residents and businesses to collaborate where it is in their joint interest to do so, such as water management, poaching prevention and waste recycling. Additionally, such a forum can more effectively mobilise maintenance and routine services from local service providers (eg Roads Authority).

8 Conclusions and Recommendations

This chapter presents the conclusions of the scoping phase of the EA conducted and the recommendations for consideration by the Department of Environmental Affairs (in MEFT), the Proponent and IAPs. The conclusions and recommendations presented are based on the assessment outcome presented in Chapter 7 – Impact Assessment.

8.1 Conclusions

The positive impacts arising from establishment of the Ondili Waterberg Lodge complex are beneficial to the local economy and Namibia's tourism industry.

The negative impacts from the development are significant enough to warrant mitigation measures, but none of them are likely to seriously damage or degrade any local resources. All the negative impacts can be reduced to manageable levels by thorough implementation of the mitigation measures. The one sticking point – whether a specialist groundwater assessment is required, and who should pay for it – needs to be resolved collaboratively by the IAPs and the proponent.

The mitigation suggestions for the lodge complex are based on accepted good practices in the tourism industry (Eco-Awards 2005), and can be implemented without incurring significant costs.

The mitigation suggestions are captured in the Environmental Management Plan (Appendix B).

8.2 Recommendations

The proposed development of the lodge complex on Farms Hogensee and Otjahevita is unlikely to have significant negative impacts on the social and biophysical environment, and there are no reasons to withhold an Environmental Clearance Certificate.

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