# **Lodge Complex on Farms Hogensee and Otjahevita**

(Ondili Waterberg Lodge)

# **Environmental Management Plan**

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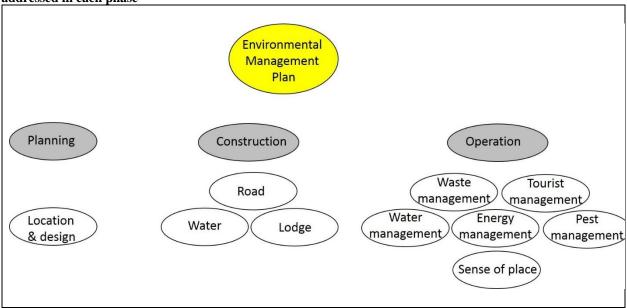
#### Introduction

This Environmental Management Plan (EMP) contains practical measures that must be taken to ensure that potentially negative impacts upon the environment (ecological and social) are minimized or completely avoided.

Namibia's Environmental Management Act (2012) requires that an EMP be put in place before a project is implemented. This is usually prepared as part of an Environmental Impact Assessment (EIA) — either at a preliminary or Scoping level, or at the level of a more thorough, full EIA. The lodge is not expected to result in significant negative environmental impacts, therefore this assessment is at the Scoping level, assuming that this will be acceptable to the Ministry of Environment and Tourism (MET).

This EMP is valid for the planning, construction and operational phases of the proposed lodge complex (Figure 1). Each phase has a number of sub-activities, which all need to be managed in a specific way.

Figure 1. The structure of this EMP, showing the various phases of the project and the components that are addressed in each phase



### Implementing the EMP

It should be remembered that the people who build the road, the lodge, the water infrastructure and other works are not the same people as those who conceptualized the idea of the lodge, those who designed it, those who will run it, and those who will visit it as tourists. The people who had the vision for the lodge probably had a strong sense of aesthetic appreciation and commitment to the conservation of nature.

By contrast, the people who build the infrastructure will be contractors who might have a different appreciation for the environment or be less motivated about conservation and its value. If the contractors are negligent in this regard, their actions could degrade the environment and spoil the attractions that make the site good for a lodge. Therefore, it is critical that the contractors and their staff be instructed in the clearest terms, so that the conditions for their work

are clearly understood. Their cooperation is vital for the successful implementation of this project.

The EMP is a set of rules which each and every person involved in the lodge must adhere to. These rules should be attached to the contract for the builder, road contractor, etc. so that they each do their job without causing unnecessary harm to the environment.

To enable this, the rules for each responsible person have been written under separate headings, so that they can be pulled out of this document and attached to the respective contracts as an appendix.

Like all rules and contracts, the EMP must be implemented and enforced in order for it to be effective. Implementation is the responsibility of the person(s) in charge of each of the following phases:

- ✓ Design: the architect
- ✓ Road building: the road construction contractor
- ✓ Water provision: the water provision contractor
- ✓ Lodge construction: the building contractor
- ✓ Lodge operation: the lodge manager

The Project Manager and Proponent, who are in charge of the whole operation, have the final responsibility for implementation of the EMP.

The Environmental Management Act requires that the EMP should be monitored. Monitoring needs to be intensive (maybe weekly) during the construction phase, while during the operational phase it can be twice per year or annual. Renewal of the Environmental Clearance Certificate (after 3 years) depends on the results of this monitoring.

## Planning phase - instructions to the ARCHITECT

**Objective:** The lodge should fit into the natural environment, making full use of the advantages of the site and adding to the 'sense of place'.

**Environmental performance indicator**: Guests visit the lodge repeatedly, and include the 'attractiveness of the lodge' as one of the main reasons why they keep on coming back.

#### Who is responsible?

✓ The Architect and the Proponent must appreciate the need for sensitivity with regards to sense of place, and they must design accordingly.

#### **Action required to minimize negative impacts (mitigation measures)**

#### **Aesthetic issues**

- Sites with social significance, such as graves or other spiritual sites, should be duly respected in the siting of the lodge facilities.
- Buildings should be aesthetically pleasing, in a style that fits in with the natural environment.
- Use shapes that do not contrast too much with the surroundings.
- Use colours that are sympathetic with the environment.
- Use natural materials as much as possible, especially rocks from the area, wooden poles and thatch.
- Place aerials, solar panels, water tanks and other prominent features at sites that make them inconspicuous from the access roads and approaches.
- Where possible, hide installations such as water tanks amongst rocks or trees, or construct a rock or rough pole screen around tanks so that they are not conspicuous.
- Specify signs that are not too intrusive, both at the entrance to the lodge, and within the lodge. For example, a parking sign could be painted on stone and hung between poles, rather than made out of metal.
- Avoid neon signs and anything 'flashy'.
- Lighting along the walkways should be modest and should be directed downwards (to minimize interference with starlight and the moon, and to prevent creating a 'glow' into the night sky). Do not place lights to intentionally light up trees or rocks.
- Avoid excessive lighting in the pool.
- Walkways should be demarcated simply by rocks along the edges.
- Walkways must not be straight, but rather winding, taking care to go around major obstacles (e.g. trees).
- Avoid razor wire, security fences and burglar bars as much as possible.
- Minimize the use of shade cloth rather use reeds or poles (shade cloth becomes shabby after a short while).
- Specify that all services (e.g. pipes and cables) are to be buried underground.
- Place service areas (e.g. parking, storage, clothes drying) out of sight of tourists.
- Locate chalets as far as possible from each other, so that there is maximum privacy (at least 15 metres apart).

#### Water efficiency

- All toilets should drain into properly designed septic tanks that are at least 20 metres from any building.
- Grey water (after preliminary treatment in a septic tank) may drain into a soak-away area, which could be developed as a reed-bed.
- Lawns or cultivated gardens that require water should be avoided or minimized. Their irrigation should be only from grey water.
- Specify showers only in the chalets, no baths, in order to reduce water consumption.
- Specify low-flow shower-heads for the showers.
- Specify appropriate minimal-water flushing devices in the toilets.

#### **Energy efficiency**

- Design all buildings so that there is as much cross-ventilation as possible, making maximum use of cooling breezes, ensuring that west-facing windows are as small as possible, and west-facing walls are in as much shade as possible (to minimize heat absorption in the afternoon).
- Design the systems where as much solar power can be used as possible (e.g. water heating and lights). Generators should be used as little as possible.
- Liaise with the water driller to design a system for pumping using solar power.

#### **Pest control**

- Specify fly-screens on open-able windows in the chalets, lodge area, kitchen area etc., so that there is less need to use insect repellants.
- Design scavenger-proof storage areas for food and waste. In particular, any areas where there will be food or waste should be designed to be baboon-proof.

## **Construction phase - instructions to the ROAD BUILDER**

#### **Objective:**

Roads must provide safe access to the lodge sites and around the farm but must not become scars on the landscape.

**Environmental performance indicator**: There are no complaints from visitors or passers-by that the access road has compromised 'sense of place'

#### Who is responsible?

- ✓ The road building contractor must be instructed <u>in writing</u> by the Proponent to implement the mitigation measures. It is then his responsibility to ensure that ALL the measures are implemented.
- ✓ The Project Manager must inspect the site at least twice per week to make sure that the measures are being implemented.
- ✓ The Project Manager must do a final inspection once the roads are built and issue the road contractor with a completion letter once s/he is satisfied that the job has been done in accordance with this EMP.
- ✓ Final payment (10%) should only be made after the completion letter has been issued.

#### **Action required to minimize negative impacts (mitigation measures)**

- 1. Wherever possible, place access roads on existing tracks.
- 2. Excavate the road as little as possible in order to reduce the scar effect (though it is accepted that excavation will be necessary).
- 3. Do not scrape any areas other than the road itself (i.e. the earthmoving equipment should only work in the road area, and not venture into the veld).
- 4. If the road is to be surfaced, use natural materials (rocks with concrete) so that the colour of the road is similar to the surrounding area.
- 5. Do not demarcate the road with any artificial or unnatural barriers that are visually prominent e.g. metal railings or lights of any kind.
- 6. Borrow pits for road-building material should be rehabilitated after use.

## Construction phase - instructions to the WATER DRILLER

**Objective:** To provide water for the construction and operation of the lodge without (a) over-exploiting the water source, (b) significantly damaging the environment or (c) creating unsightly infrastructure.

**Environmental performance indicator**: Water infrastructure is located in such a way that it is not distracting to visitors and the water level of the borehole does not drop in the medium- to long term (over approximately 5 years or more).

#### Who is responsible?

- ✓ The water drilling contractor must be instructed <u>in writing</u> by the Proponent to implement the mitigation measures. It is then his responsibility to ensure that ALL the measures are implemented.
- ✓ The Project Manager must inspect the site at least twice per week to make sure that the measures are being implemented.
- ✓ The Project Manager must do a final inspection once the water infrastructure is built and issue the water drilling contractor with a completion letter once s/he is satisfied that the job has been done in accordance with this EMP.
- $\checkmark$  The final payment (10%) should only be made after the completion letter has been issued.

#### Action required to minimize negative impacts

#### a. Finding water (divining and drilling)

- Use existing boreholes where possible.
- A single track must be used to get to and from the drilling site(s).
- The drilling team must comply with requirements for all staff on site (see Instructions to the Lodge Builder)

#### b. Equipping the borehole

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

- Water should be pumped by wind or solar pumps.
- If possible, the pump should be hidden from view of tourists or general traffic.
- Whatever pump and storage reservoirs are used, they should be protected from being damaged by large animals, either by a fence or by packing rocks around them.
- Reservoirs should be closed on top to prevent drownings by large birds.

#### c. Laying the pipeline

- 1. Pipelines must be buried underground.
- 2. Where possible, pipelines should be laid next to roads. This is for two reasons firstly it avoids the need to make another scar on the landscape (the road scar already exists), and secondly, it makes it easier for the lodge manager to inspect the pipeline on a daily basis.

However, take care not the make the pipeline vulnerable to damage during road maintenance.

# Construction phase - instructions to the LODGE BUILDER and other SUBCONTRACTORS

**Objective:** To construct the lodge with minimal disturbance to the surrounding natural environment.

**Environmental performance indicator**: The 'environmental footprint' of the lodge is limited to the lodge area itself, with the surrounding veld largely untouched.

#### Who is responsible?

- ✓ The building contractor must be instructed <u>in writing</u> by the Project Manager to implement the mitigation measures. It is then his responsibility to ensure that ALL the measures are implemented.
- ✓ The Project Manager should inspect the site at least twice per month to make sure that the measures are being implemented.
- ✓ The Project Manager must do a final inspection once the lodge is built and issue the building contractor with a completion letter once s/he is satisfied that the job has been done in accordance with this EMP.
- $\checkmark$  The final payment (10%) should only be made after the completion letter has been issued.

#### **Action required to minimize negative impacts (mitigation measures)**

#### a. Site preparation

- The building contractor should mark out (on the ground or with hazard tape) the areas of all lodge buildings before any workers, equipment or building materials are brought in. A 2-metre buffer can be allowed around the perimeter of buildings to allow building activities, but no trees should be cut or damaged within this buffer zone.
- The marked-out area should be inspected and approved by the Project Manager. Thereafter, all site staff should be clearly informed that they may not move or disturb any areas beyond those limits.

#### b. Sourcing of building materials

- Building sand and other locally-derived building materials should only be procured from sites which have Environmental Clearance Certificates.
- Rocks that will be used for construction or cladding may be collected from the lodge site.

#### c. Clearing of land

- The only land that may be cleared is the roads, the areas where buildings will be erected, parking bays, driveways and pathways, and the air strip.
- As much land clearing as possible (e.g. the removal of stones and rocks) should be done by hand. Heavy earthmoving equipment, which will disturb the soil, create much dust, and leave tracks and scars, should be used minimally or not at all.
- As far as possible, all lay-down areas, such as the areas where building materials and equipment are stockpiled, should be areas that will later be used for parking, building, or

- driveways. In other words, do not stockpile materials in the natural veld. The same applies to the areas where cement is mixed.
- The builder may only disturb an area of up to 2 metres around each building site or development area (e.g. the main lodge, chalets, staff quarters, driveway, parking area). This is enough space to move around with wheel barrows, scaffolding and other equipment. As noted earlier, this 'footprint area' should be demarcated from day 1, with metal droppers and hazard tape so that everyone on site knows exactly which areas are off-limits.

#### d. Facilities for workers

- All workers should be housed in existing buildings or tents or caravans. The preferred choice is that the workers' camp should be established on a site that is close to the working area, on a brownfield site, and where facilities such as water and energy are easily available.
- Wherever the workers are housed, they must be provided with water, proper toilets and washing facilities.
- Cooking facilities must be provided, with gas cookers rather than open fires to prevent the need to gather firewood. If open fires are used, these must be made in a designated cleared kitchen area so that there is no possibility for a veld fire occurring.

#### e. Management of waste

- No paint, solvents, thinners, diesel, oil or any other harmful substances may be poured onto the ground. They must be collected in a container and removed from site for proper disposal.
- All fuels and other chemicals must be stored in leak-proof containers, ensuring that they cannot react with each other or be spilt into the ground.
- If vehicles or other equipment are serviced or repaired on-site, any grease, oil etc. must be collected in a container and removed from the site for proper disposal (see waste management section for details).
- Separate all organic waste (e.g. kitchen waste), and dump this in a designated compost heap. This should be an enclosed place where it cannot be dug out and messed up by scavengers.
- All combustible waste (e.g. empty cement bags), should be burned in a drum or enclosed container, with the necessary care taken to avoid the possibility of starting a veld fire.
- All non-combustible but recyclable waste (e.g. bottles, tins, plastic packaging) should be neatly stored to optimize re-use and recycling, or must be removed from site at least once a week.
- Any waste that is stored temporarily at the site must be secured to avoid it being blown into the veld, and to prevent it being scavenged by animals such as jackals, hyaenas, crows.
- Measures must be taken to prevent any waste from attracting scavengers (e.g. kitchen waste should not be left to rot in the open so that it generates smells which will attract animals).

• Any waste that cannot be composted or re-used or recycled or burned should only be dumped at a properly managed rubbish dump (e.g. at Otjiwarongo or Okakarara).

#### f. Use of water during construction

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

- Although water is needed for many aspects of construction, it must be used sparingly at all times
- All taps, pipes and tanks must be managed and maintained so that they do not leak.

#### g. Protection of wildlife

• No wild animals may be trapped or killed for any reason whatsoever.

#### h. Transport and storage of fuel and other materials

- Loads upon vehicles must be properly secured to avoid items falling off the vehicle at any time.
- All materials (e.g. cement, bricks, poles, stones, pipes, etc.) must be stored at a central storage area on site so that the site is neat and orderly, and to avoid a situation where materials are lying about all over the place.
- All fuels, paints, solvents and other chemicals must be stored in watertight containers, ensuring that they cannot react with each other or be spilt onto the ground.

#### i. Servicing of vehicles and other equipment

• If vehicles or other equipment are serviced or repaired on-site, any grease, oil etc. must be collected in a container and removed from the site for proper disposal (see waste management section for details).

#### j. Induction procedure for all staff and workers coming on to the property

- All people coming on to the property for whatever construction or maintenance purposes should be given a brief induction session about the overall aims and regulations on the property.
- A register of all such people should be maintained, and anyone who must stay on the site
  for more than a day should provide their ID card so that the number and photo are kept on
  record.
- All people coming to work on site for more than 5 days should be given a background check before being allowed to come on to site. This is to minimize the risk of wildlife crime on the main and adjacent properties.

#### j. Maintaining the condition of D2512 during construction

• In order to minimise degradation of the D2512 public road, which is used to access the Waterberg Plateau National Park and other farms and lodges in the area, the proponent should contribute to maintaining the condition of the road, possibly with additional road gradings, during the construction phase.

## Implementation phase – instructions to the LODGE MANAGER

**Objective:** To manage the lodge with minimal disturbance to the surrounding natural environment, and to ensure that guests to the lodge behave in a way that does not impact negatively on the environment, wildlife and local communities.

The term 'environment' includes the natural (biological and physical) and social environment, which is why this EMP deals with both. However, the EMP does NOT cover equally important aspects such as customer care, financial management, stock control, etc. These 'business management' issues are outside the scope of an EMP, though of course they are critical in running a lodge properly.

#### **Environmental performance indicator:**

✓ Visitors notice the efforts being made by the lodge to be 'environmentally friendly' and they cite this as one of the main reasons why they return to stay at the lodge in future.

#### Who is responsible?

- ✓ The lodge manager is responsible for ensuring that the entire operation (on and off-site) of the lodge conforms to the standards usually ascribed to 'eco-tourism'.
- ✓ The lodge owner or Proponent should write the job description for the lodge manager, ensuring that the relevant sections of this EMP are included as his/her duties
- ✓ The lodge manager should complete a 3-monthly environmental report according to a prescribed format. This will be required when renewal of the Environmental Clearance Certificate is needed after 3 years.

The following environmental management issues require attention:

- A. Waste management
- B. Water management
- C. Energy management
- D. Tourist management
- E. Pest management
- F. Maintaining sense of place
- G. Prevention of illegal activities

#### A. Waste management

#### **Human waste**

- All toilets should drain into two- or three-chambered septic tanks, which are designed to cope with high and low flow rates. The bacteria within a septic tank require a certain minimum flow to keep active.
- Notices must be placed at each toilet to remind guests not to flush foreign objects down the toilet.
- Each septic tank should have a grate trap at the inflow, and this should be cleaned regularly.
- The overflow from the septic tank should be into an evaporation pond or a reed-bed soak-away. If a soak-away option is used, it must be sited with expert input so that there is no risk of contamination of groundwater.
- Use appropriate, bio-degradable toilet cleaners that do not kill the bacteria in the septic tank (various products are available on the market).
- Drains from kitchens must have an oil trap and a grate trap. The purpose of these is to trap oily waste, which can clog up or slow down decomposition in the septic tank, and to catch kitchen off-cuts such as scraps of meat, vegetables etc. The traps must be cleaned daily, and the scraps must be thrown into the appropriate bin.
- Any sewerage disposal systems require a waste disposal permit from the Ministry of Agriculture, Water and Land Reform.

#### **Domestic waste** (kitchen scraps, tins, bottles, plastics, paper, etc.)

- Reduce the amount of waste that is generated. In this regard, try to:
  - Buy supplies in large containers (e.g. cooking oil, tinned food, cleaning materials) so as to avoid too many empty bottles, tins, etc.
  - Avoid purchases that are packaged excessively e.g. rather buy 5 loose, unpackaged lettuces and put them in a cool box than buying 5 lettuces packaged individually in plastic and Styrofoam.
- Separate all organic waste (e.g. kitchen waste), and dump this in a designated compost heap on site. This should be an enclosed place where it cannot be dug out and messed up by scavengers or baboons.
- All recyclable waste (e.g. bottles, tins, plastic packaging, cardboard boxes, paper) should be neatly stored to optimize re-use and recycling, or must be removed from site at least once a week.
- Any waste that is stored temporarily at the site must be secured to avoid it being blown into the veld, and to prevent it being scavenged by animals such as jackals, hyaenas, baboons, crows.
- Measures must be taken to prevent any waste from attracting scavengers (e.g. kitchen
  waste should not be left to rot in the open so that it generates smells which will attract
  animals).
- Special care must be taken to prevent baboons getting access to food and waste at any of the lodge facilities.

#### **Bulky** waste (e.g. building scraps)

- All combustible waste (e.g. empty cement bags), should be burned in a drum or
  enclosed container, with the necessary care taken to avoid the possibility of starting a
  veld fire.
- Bulky materials that can be re-used (e.g. wooden planks, metal offcuts, tyres) should be stored separately and neatly, so that they can readily be found and used when needed.

Hazardous waste (batteries, paints, solvents, thinners, used or expired medical equipment)

- These types of waste must be kept separate from other waste, and should not be dumped in the general waste dump.
- They must be taken to Windhoek periodically and placed in the hazardous waste dump there.

#### Waste disposal

- Any waste that cannot be composted or re-used or recycled or burned should only be dumped at a properly managed rubbish dump (e.g. at Otjiwarongo).
- When transporting the waste to the dump site, ensure that there is no possibility of waste blowing or falling off the vehicle. The best solution is to load the bins onto the vehicle so there is no need to transfer the waste from one drum to another. This means that at least 2 sets of bins will be required, because set number 2 will be in operation while set number 1 is being transported to and from the dump.
- At the dump, the bins should be completely emptied and dried. They must be returned to the lodge clean and dry.

#### General

- Make collaborative arrangements with neighbouring establishments to streamline waste management and improve economies of scale.
- All chemicals used on the site (e.g. for cleaning and polishing) should be of the biodegradable type.
- Compile a purchasing policy that emphasizes:
  - Organic, biodegradable products or with non-toxic ingredients
  - Buying in bulk
  - Using containers that can be re-used
  - Minimal packaging
  - Avoiding disposable items which add to the amount of waste that must be recycled or disposed of.

#### B. Water management

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

#### **Minimise water consumption**

Aim to keep water consumption to below 100 litres of water per day per person (divide total daily consumption by the number of people at the lodge – guests and staff). Adopt the following strategies:

- Install low-flow shower heads.
- Insert aerators in showers and taps these add air to the water and reduce the amount of water that flows through.
- Install dual-flush toilet systems. Do not install any automatic flushing devices anywhere.
- Place a prominent notice in each chalet and in all staff quarters informing users about the importance of saving water. Specifically request guests to:
  - o Take short rather than long showers
  - o Turn taps off after washing
  - o Use towels more than once before asking for them to be laundered
  - Not wash their vehicles whilst at the lodge
  - o Only flush the toilet when necessary
- Do not create any lawns or gardens that need to be watered (a small vegetable garden using grey water is permitted).
- Ensure that the pool is covered when not in use.
- Wash vehicles with a bucket, not a hose.
- Clean driveways and parking areas with a broom, not with water.
- Ensure that all pipes are well maintained, and leaks are repaired immediately.
- Ensure that all taps are turned off after use.
- Install water metres at places where consumption can be usefully monitored. Keep a register of water consumption (daily / weekly measurements) so that trends can be monitored. Use this information to gradually improve consumption levels.
- Create incentive schemes for staff to reduce their water consumption.

#### **Prevent water pollution**

See waste management notes above.

#### C. Energy management

#### Promote renewable energy

Use as much renewable energy as possible, and limit the use of fossil fuels in the generation of energy. This can be achieved by:

- Combine both diesel-generated power and solar power.
- If solar energy systems are in place, make sure that they are well maintained so that they remain efficient.
- If the same generator is used for pumping water and for powering the lodge, try to combine both tasks at the same time, so that the generator runs at maximum load, and so that is does not run unnecessarily.
- Where fires are used for creating ambience in the lodge, or for warmth (during winter), use wood that comes from bush encroaching species, if possible. Ensure that there are no significant negative environmental impacts associated with the supply of wood (e.g. cutting of protected species).

#### Reduce energy consumption, avoid energy wastage

#### Lights:

- Install only power-saving bulbs (e.g. compact fluorescents or LEDs).
- Use daylight switches on all outside lights that must be on at night (so that they switch off during the day).
- Use movement-activated lights outside as much as possible.
- Instruct staff to switch off lights and air-cons if guests do not do so when leaving their rooms.

#### Air-conditioning:

- Establish passive systems that use natural sunlight for light and warmth, and natural airflow for cooling.
- Install overhead fans rather than air-conditioning units.

#### D. Tourist management

#### At the lodge

Place information materials in each chalet, in which tourists are informed about:

- The importance of conserving water
- How to be energy-efficient
- The rules regarding feeding of animals
- Appropriate pest control (e.g. swot a fly rather than spray insecticide)
- Not placing foreign objects down the toilet
- Respecting the rights of other guests (e.g. refraining from making a noise, playing radios, musical instruments, etc.)

#### On game drives with the lodge vehicle

- The guide should not drive off the roads.
- The guide must maintain an appropriate level of control during the drive specifically:
  - No littering allowed (always have a refuse bag in the vehicle)
  - o No noise
  - o No throwing of objects at wildlife
  - o No throwing of burning objects off the vehicle (e.g. cigarette butts).

#### On game drives with own vehicles

Whilst the lodge has no control over what people do when they are in their own vehicles, they can encourage good behavior by providing guidelines. These should be set of 'dos and don'ts' that people can take with them on their drive. The guideline should strongly discourage:

- Off-road driving
- Littering
- Harassing of wildlife
- Speeding
- Excessive noise (e.g. hooting, revving the engine, etc.)
- Throwing of burning objects off the vehicle (e.g. cigarette butts)
- Going to the toilet in the veld

#### Visitors brought in by aeroplane

- The pilot should approach the landing strip over the farm itself and not over the Waterberg Plateau National Park, in order to minimize noise disturbance in the Park.
- When taking off the pilot should climb to over 1,000 ft above ground level as quickly as possible, to avoid low-flying over the Park and to avoid disturbing neighbouring farms as far as possible.
- No flying is permitted at low level to give visitors a 'closer view' of animals or features.

#### E. Pest management

Since the lodge is located in a wildlife area, it is to be expected that various species of wildlife will be attracted to the lodge, and some (e.g. birds, lizards) may even live in and close to the lodge. It is important that the right balance be maintained in ensuring the comfort and safety of staff and guests, while at the same time accepting that the presence of wildlife is inevitable and, in some cases, desirable. Specific management safeguards are:

- NEVER feed wildlife (except birds, and then place food in hanging bird feeders, but beware of the risk of attracting baboons).
- NEVER leave food uncovered or in a place where it is accessible to wildlife.
- Manage waste properly, so that it does not attract scavengers or baboons.
- Try non-poisonous remedies or direct hitting for insect control, before using insecticides.
- Use traps for rodents, NEVER poison.
- Capture and remove dangerous snakes, rather than killing them.
- NEVER kill useful animals, such as chameleons, lizards, bats, etc. which will help the lodge to control unwanted insects such as flies and mosquitoes.
- Maintain high levels of cleanliness, especially in the kitchen.
- Install fly gauze doors and fly screen over selected windows to reduce the numbers of flies and other insects entering buildings.
- Switch off lights when they are no longer needed (lights attract insects).
- Supply mosquito nets.
- Do not have lawns or beds of exotic plants, since these often require intensive pest control.

#### F. Maintaining sense of place

Sense of place is a vague term, and can be interpreted differently by different people. It covers a number of aspects such as the general atmosphere or ambience, vibe and style. Whilst it is difficult to define exactly, it becomes very obvious when a lodge loses its sense of place. This usually happens if the lodge is poorly designed in the first place (see instructions to Architect), but it can also happen as a result of bad management.

Management must not cause the lodge to lose its sense of place, and in this regard they must specifically avoid:

- Inappropriate furniture (plastic tables and chairs, etc.).
- Shabbiness dirty linen, dust, dirt, poorly-dressed or unclean staff, untidiness, unemptied ash-trays, etc.
- Disrepair delapidated infrastructure creates a very poor impression.
- Noise no radios, TVs, hi-fi's, noisy staff, revving vehicles, rattling air conditioners, low-flying aircraft, motorcycles, quad bikes, etc.
- Smells make sure that waste is properly managed so that people do not smell the rubbish bins. Also keep drains etc. clean so that these are not smelly. However, avoid the use of highly potent cleaners guests do not want to smell detergents either!
- Over development do not have too many signs, or any other objects that detract from the natural beauty of the area. Visitors to the Waterberg area want a nature experience, with an uncluttered atmosphere.
- Scrap make sure there are no old vehicles or pieces of old equipment lying around.
- Sterility whilst it is important to keep the lodge clean, do not sterilize it this is a lodge, not a hospital.
- Too many people this will quickly destroy sense of place. Guests to the lodge want a certain degree of privacy. Also, there should not be people loitering around at the lodge, whether visiting staff or looking for work.

#### G. Prevention of illegal activities

Any area which carries high value wildlife, or just natural habitat where certain valuable species such as pangolin or tortoises occur naturally, is prone to illegal activities by people who are both resident in the area and who are brought in as temporary workers. Poaching of wildlife and any associated illegal activities need to be actively prevented.

- Induction procedures for all staff and workers coming on to site should be mandatory. This should emphasise the overall aim of nature conservation on the property and that anyone who gets involved in trapping or poaching activities will be severely dealt with.
- All people coming on to site for more than one day should provide their ID details, to be recorded in a legible and properly maintained register.
- All people coming on to site for more than 5 days should also be screened beforehand for any criminal record.