ANNEXURE D

ENVIRONMENTAL MANAGEMENT PLAN

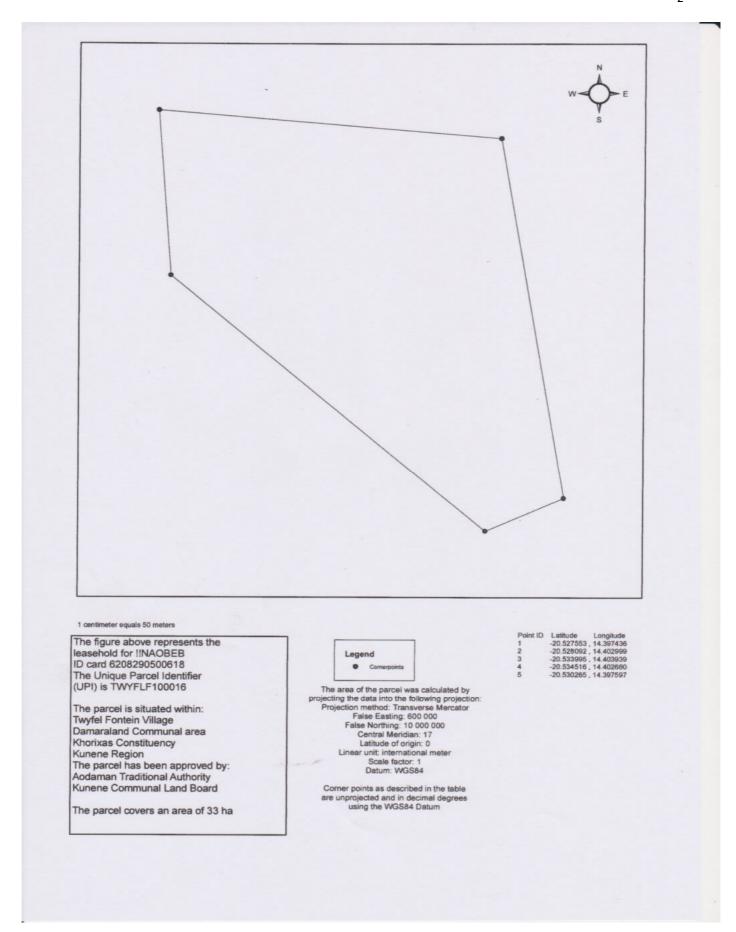
Twyfelfontein Adventure Camp

Environment Management Plan Mitigation Tables for Tented Camp called "Twyfelfontein Adventure Camp" within the Leasehold area of Hans Bernhard Naobeb.

The purpose of the Environmental Management Plan (EMP) is to list the actions required to mitigate the environmental and social impacts arising from the tented camp on Hans Bernhard Naobeb's Leasehold in the Uibasen Conservancy. The aim of the document is to guide all activities and promote sound environmental management during the lifespan of the project. The responsibility for its implementation lies with Joint Management Committee as outlined in the Joint Venture Agreement between The Operator of Twyfelfontein Adventure Camp and Hans Bernhard Naobeb as leasehold owner. The Joint Management Committee would ensure that the measures listed under the EMP are implemented and that all personnel are familiar with the terms of the document.

Mitigation tables outlining the measures to address likely environmental and social impacts are listed in the following section. The mitigations are categorised according to the various activities to be carried out.





Aspect	Management Objective	Management Action	Responsibility
Statutory Requirements	Ensure compliance with the relevant legislation	Check whether there are any environmental legislated requirements	The Operator
Environmental Best Practice	Ensure that mitigation measures and recommendations from the EMP are implemented	A copy of the EMP is to be issued to the Site Manager, who will sign acknowledgement of receipt and certify that the mitigation measures described have been noted and a commitment to undertake activities in the manner prescribed is given.	JMC
Supervising, management and monitoring of Environmental Issues	Ensuring continuous supervision, monitoring and management	The Site Manager will be responsible for access route planning, camp set up area and access route demarcation, implementation of appropriate remedial actions with respect to waste, dust, ecological impacts amongst others	The Operator in consultation with Hans
Competence training and awareness	Ensure all staff, contractors and suppliers are made aware of the environmental	An induction talk needs to be given to all staff on the contents of the EMP, the importance of the environment, and likely impacts the activities will have on the environment. A list of protected plants and animal species with photographs will be made available to the staff.	Hans
	issues on site	All managers should be given a copy of the EMP including site specific aspects that need to be avoided.	The Operator or designated representative
		Contractors and suppliers must be informed of the EMP and the requirements to keep vehicles on demarcated access roads.	The Operator or designated representative
	Building environmental competency of workers	A toolbox talk should be given regularly informing staff of environmental limitations or constraints for that site and touching on do's and don'ts as outlined in the EMP.	The Operator or designated representative
Health and Safety	Accident Prevention	Ensure that the Health and Safety policy is communicated to all staff and that they are familiar with the details of the policy. The site should be equipped with suitably sized multipurpose fire extinguishers.	The Operator or designated representative The Operator or designated
		No open fires should be lit and due care needs to be taken to prevent the creation and spread of a bush fire.	representative The Operator or designated representative
	Ensuring accidents are responded to promptly	There should be a comprehensive first aid box on site at all times.	The Operator or designated representative
Setting up access routes	Reducing the impact associated with the use or construction of	Existing access routes should be utilized. Where possible, limit vehicle traffic along minor access routes by using well established routes even if it means making increasing travel times.	The Operator in consultation with Hans
	access routes	Graders should preferably not be used to widen roads. The use of large rubber tyres pulled behind a vehicle should rather be used to maintain gravel roads. This could be done usi1ng teams to manually clear road and where require use light rubber-tired earth moving equipment.	The Operator in consultation with Hans
		Access roads should be clearly marked and signage to remind vehicle drivers to remain within the allocated tracks and speed limits. Speeds should be strictly controlled and kept to a limit of	The Operator The Operator/Hans

Aspect	Management Objective	Management Action	Responsibility
		20 km/h on non-proclaimed roads and tracks. Additional signage must be put in place along main access routes.	The Operator
		All access routes off major roads to camp must be demarcated. There should be signposting clearly indicating what no-go areas are. No nearby rocks or	The Operator
Setting up location	Identifying a suitable location	wooden branches may be used for demarcation. Prior to setting up, a photograph of the location with GPS co-ordinates needs to be taken for comparison purposes	The Operator
		for rehabilitation. Especially in areas of known sensitive plant populations, strict control of movement is to be maintained. If necessary, paths need to be narrowed, or camp area reduced, to protect sensitive plants on the fringe. This is critical for any location occurring on	Hans/The Operator
		or near rocky ridges. In such sensitive areas, vehicles are to stay on existing tracks at all times – even when parked. This is to avoid further trampling.	The Operator/Hans
		Individual plants and areas of conservation importance must be flagged. Their management i.e. through protection by demarcating, covering or removal and transplanting needs to be determined and recorded.	The Operator/Hans
		The location teams need to do a walk-over of the area to ensure that all visible fauna species within the area are removed.	The Operator/Hans
		Repeat passes to be limited, and if necessary, to use the same track repeatedly, to avoid destruction of other tracks.	The Operator/Hans
		Fixed point photography should be done prior to the commencement of any activities, during and then following the completion of rehabilitation.	The Operator
		A list of protected plants species with photographs should be made available to the staff.	The Operator
	Reducing the impact on ecology	Demarcate camp and access tracks. For these areas and along all access tracks there should be signposting clearly indicating what are no-go areas.	The Operator/Hans
		All sensitive flora species must both be protected and cordoned off to ensure that they are not damaged by activities. The relocation of any endemic/protected species must be done together with the consultation of a botany specialist. For species like grasses and herbs that have gone to seed, these may be removed, stored and rescattered in the area once rehabilitation of tracks has been completed. The removal and later transplanting must be done sensitively and in accordance with the listed measures. These plants should either be returned to the location following rehabilitation or planted in a similarly disturbed location	The Operator
	Reducing the impact on stakeholders	Stakeholders must be provided with adequate prior warning and communication of the proposed development. Conservancy leaders needed to be consulted. Neighboring properties should also be consulted to ensure that they are aware of any increased	The Operator/Hans

Aspect	Management Objective	Management Action	Responsibility
	•	traffic activity and tourist movement in the area.	
Waste management and pollution prevention	Responsible handling and disposal of general waste	All general waste generated on a day-to-day basis should be collected in animal and weather proof bins (with a secure lid), removed off site daily and disposed of at the appropriate waste dumps.	The Operator
prevention	Waste	No food waste or residues may be left on site. All litter should be collected and disposed of in the bins provided. All waste generated on site must be removed daily and disposed of.	The Operator
		Designated smoking areas must be set up to reduce the amount of cigarette 'butts' are being left on the ground.	The Operator
	Responsible handling of hazardous wastes	Any hazardous waste including contaminated soil generated by the activities or due to accidental spills must be cleaned up immediately, stored in a suitable container and removed off site. These can be disposed of at an approved Hazardous Waste Site.	The Operator
		Ensure that any mechanical devices like diesel pumps, generators etc. have drip trays underneath to catch any oil spills.	The Operator
		All waste water and left-over waste material must be stored in drums prior to removal off site.	The Operator
	Human Waste	Septic tanks to be installed for all human waste and gray water. Gray water to be disposed of through French drains in areas a minimum of 500m from any borehole or human ground water access.	The Operator
		Wastewater from dishwashing and washing machines to be collected and disposed of through the septic tank and French drain. All wastewater of whatever nature must be routed through a septic tank and/or French drain system.	The Operator
Disturbance to local ecology, archaeological sites	Protection of fauna and flora	In terms of the Nature Conservation Ordinance (14 of 1975) no person may hunt any wild animal or pick any flora unless in possession of a permit. Thus the crew may not hunt, feed, harm or kill any animals.	Hans/The Operator
		No living plants or trees of any kind may be removed for the purposes of placing camp infrastructure.	The Operator/Hans
		Rocks, pebbles or dead wooden branches may be moved to create pathways or access routes or for any other purpose.	The Operator
		Any archaeological remains found on the locations, must not be disturbed until a permit is obtained from the National Heritage Council.	The Operator
		Access routes to allow free movement of animals.	The Operator
		No food or waste products should be left out in camp as this will attract scavengers.	The Operator
		Any 'holes' created for the camp establishment must be covered over or cordoned off to prevent animals being entrapped.	The Operator
	Dust	All traffic along main access roads needs to be limited to 40 km/hr.	The Operator
		Driving after dark should be avoided if possible. If unavoidable, then special care must be taken to drive at reduced speeds. Care should be taken especially during low light conditions to watch out for animals along roads	The Operator/Hans

Aspect	Management Objective	Management Action	Responsibility
		and minimise the occurrence of road kills.	
	Artificial Lighting	Any vehicles travelling in the dark should keep their headlights on dim setting, to limit the occurrence of road kill.	The Operator/Hans
		Lighting within the camp area should be kept to a minimum to limit impact on wildlife and surrounding properties.	The Operator
	Safety	Fuels and other potentially hazardous materials shall be safely stored and secured against theft.	The Operator
Public consultation	Managing complaints from public or officials	A register of all complaints should be kept and where possible or reasonable mitigations measures should be implemented and the complainant informed of these measures.	The Operator
Decommissioning and cleanup	Reduce or eliminate residual visual impact of camp area	All materials, equipment and waste must be removed from the location during the dismantling of the tented camp. All waste must be disposed of at a municipal waste dump.	The Operator
		All disturbed areas must be rehabilitated where appropriate.	The Operator
		Any contaminated soil needs to be removed and disposed of at a Hazardous Waste Disposal site.	The Operator
	Decommissioning and rehabilitation of access routes	Main access routes should be left intact i.e. in a condition that other users can continue to use them. Any rocks pushed to edge of the access routes must be redistributed in a random fashion so to avoid visual anomalies. All compacted areas must be loosened manually and reshaped using nets, rakes and brooms.	The Operator/Hans
		Any relocated plants, must be watered over a period of 6 months following planting. Any plant that need to be replanted in the existing locations	The Operator/Hans
		The Site Manager will need to return to the rehabilitated sites after a period of 6 weeks to examine the work done and determine whether it has been effective. If there are still tracks present, then further work may be required	The Operator
	Final Inspection and sign off	A final inspection of the location to be photographed with associated GPS reading and instruct any additional corrective actions if required.	Hans

Attached Below are the images of the site, for inspection and rehabilitation reference, once the camp is removed.

