

ENVIRONMENTAL IMPACT ASSESSMENT (EIA): FINAL SCOPING REPORT
FOR THE
CONSTRUCTION OF QUAGGA CAMP AND LEISURE
IN
OZONDATI, OHUNGU CONSERVANCY (ERONGO REGION, NAMIBIA)

SUBMITTED TO:
THE ENVIRONMENTAL COMMISSIONER

PROJECT PROPONENT:
Mrs. Silba Ndjiharine, PO BOX 8966, Bachbrecht, Windhoek, Namibia



PREPARED BY:
Trinity Environmental Solutions, 53 Henk William Street, Otjiwarongo, Namibia.
January 2024

TABLE OF CONTENTS

SECTION	PAGE
CHAPTER 1: INTRODUCTION	4
1.1 Executive Summary and Overview	4
1.2 Project Proponents	6
1.3 Purpose of the EIA	7
1.4 Scope of the EIA Study	8
1.5 Stakeholder Consultations	9
CHAPTER 2: DESCRIPTION OF PROPOSED PROJECT	15
2.1 Location	15
2.2 Project Rationale	16
2.3 Project Description and Alternatives	17
2.4 No Go Alternative	26
CHAPTER 3: LEGAL, REGULATION AND POLICY FRAMEWORK	27
CHAPTER 4: DESCRIPTION OF EXISTING ENVIRONMENT	29
4.1 Physical Environment	29
4.2 Biological Environment	33
4.3. Socio-Economic Environment	36
CHAPTER 5: POTENTIAL ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS	38
5.1 General Considerations	38
5.2 Prediction of Impacts	38
5.3 General Impacts	39
5.4 Impact Criterion and Classification	39
5.5 Potential Impacts	41
CHAPTER 6: ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN	48
CHAPTER 7: CONCLUSION	48

BIBLIOGRAPHY

49

LIST OF FIGURES


Figure 1: Public Meeting for Quagga Camp and Leisure	11
Figure 2: Quagga Camp and Leisure Location	15
Figure 3: Quagga Camp and Leisure Site Layout	17
Figure 4: Design and Facility Layout	18
Figure 5: Waterpoints and Boreholes	20
Figure 6: Typical Tents to be used for Accommodation	22
Figure 7: Administration and Leisure Area	23
Figure 8: Ohungu Conservancy Land Use Zones	25
Figure 9: Namibian Hydrogeology	30
Figure 10: Area Topography and Hydrology	32
Figure 11: Vegetation Cover: Mopane trees are most dominant	34
Figure 12: Vegetation Cover: Along the tributary	34

LIST OF TABLES

Table 1: Relevant legislations and policy guidelines	27
Table 2: Criterion and classification of impacts	40
Table 3: Evaluation of impacts during pre-construction phase	45
Table 4: Evaluation of impacts during construction phase	46
Table 5: Evaluation of impacts during operational phase	47

APPENDICES

- APPENDIX A: Facility Design and Facility Layout
- APPENDIX B: Correspondences: Request and Responses
- APPENDIX C: Background Information Document (BID)
- APPENDIX D: Environmental Management Plan (EMP)
- APPENDIX E: Stakeholder Meeting 2023 (Minutes, Register)
- APPENDIX F: Public Meeting 2024 (Minutes, Register, Agenda)
- APPENDIX G: Ohungu Conservancy AGM 2022 (Minutes, Register)
- APPENDIX H: Registered Interested and Affected Parties
- APPENDIX I: Comments and Response Trail
- APPENDIX J: Newspaper Advert
- APPENDIX K: CV D.N. Muroua
- APPENDIX L: Company Profile

Project Name	Construction of Quagga Camp and Leisure
Document Type	Environmental Impact Assessment (EIA): Environmental Scoping Report (ESR)
Lead Consultant and Author	Trinity Environmental Solutions CC: Mr. N. D. Muroua E-Mail: trinityenvir@iway.na Tel: +264811707737
Client	Mrs. Silba Ndjiharine PO BOX 8966 Bachbrecht Windhoek, Namibia E-mail: ndjiharine@gmail.com
Date of Release	26 January 2024
Signed and approved	

CHAPTER 1: INTRODUCTION

1.1 Executive Summary and Overview

The importance of environmental protection and conservation measures has increasingly been recognized over the past three decades in Namibia. It is now generally accepted that economic development strategies must be compatible with environmental goals. Specifically, this requires the incorporation of environmental dimensions into the process of development. Hence, it has become important to make choices and decisions that will eventually promote sound development by understanding the environmental functions. The proposed development by Mrs. Silba Ndjiharine, *hereafter the Proponent* aims to ensure this balance when developing the Quagga Camp and Leisure, *hereafter the Camp*. It also important to note that, this development is fully supported by the Conservancy. See support letters under **Appendix B, Appendix F and Appendix G**.

The proposed Camp will be located within Ozondati Village area approximately 30km north-west of the Omatjete on the DR 2344 road. The site is within Ohungu Conservancy (Erongo Region) and exclusive for wildlife and tourism development (Ohungu Climate and Vegetation Report, 2022). Ozondati area is very dry and also very sparsely populated. Subsistence livestock farming is the key local livelihood strategy but not very reliable due to the low and unpredictable annual rainfall (<200mm) the area receives. Hence tourism activities in the Conservancy have become more and more important for livelihoods, job creation, poverty reduction and developing the human capital of the people living in the area. The Conservancy supports about 1383 people, residents on a 1196 km² Conservancy area. Ozondati Village is the main settlement in the Conservancy and hosts at least 100 households.

Prior to Namibia's independence in 1990, communal area residents had few rights to use wildlife. Wild animals were often seen as little more than a threat to crops, livestock and infrastructure, as well as community safety. Ground-breaking legislation passed in the mid-1990s laid the foundation for a new approach to the sustainable use of natural resources. By forming a conservancy, people in communal areas could now actively

manage and generate benefits from wildlife and other resources in their area. This led to wildlife recoveries and environmental restoration. While a conservancy is a natural resource management structure, it is defined by social ties. Conservancies unite groups of people with the common goal of managing their resources. Today, there are over 90 communal conservancies registered in Namibia, including the Ohungu Conservancy, and they are a key platform for development and community empowerment in Namibia.

Due to the changes in the legislative framework, many Conservancies and individual members of these Conservancies are developing tourism facilities with the support of NGO's, Private Sector and some local community members are even using their own capital to develop ecotourism facilities.

This initiative is envisaged to operate for at least 20 years and will be an environmentally friendly tourist and leisure facility for visitors who wish to travel and experience the abundance of wildlife in the Conservancy and is perfectly situated since it is in route to the Brandberg and its famous "White Lady", Etosha National Park, Dorob National Park, Skeleton Coast, Kaokoland, Twyfelfontein Heritage Site, Organ Pipes Stones, Burnt Mountain, Petrified Forest, Palmwag, and other sites. The proposed development also aims to provide a foundation for the training of local community members in the hospitality and tourism industry, as well as in wildlife conservation in collaboration with the Conservancy.

This local business and leisure facility aims to promote and support local conservation while at the same time generate income for the local community, Conservancy and the Investor. The Camp will offer accommodation and leisure services.

The overall design of the camp shall be tastefully constructed in accordance to its surrounds using a low environment impact design and materials, accommodating up to 60 guests, 8 guides, and 5 rotating camp staff members. The proposed project's physical foot-print will be at maximum 15 ha. Over the next 5 years, at least N\$ 1,700,000.00 will be invested into the business. Average salaries are envisaged to be N\$ 1,500.00 per staff for the first 5 years.

Trinity Environmental Solutions (TES) was appointed by the Proponent to conduct an independent Environmental Impact Assessment (EIA) for the development of the Camp. In terms of Namibia's Environmental Management Act (No. 7 of 2007, Section 27(2j)), Government Notice No. 29 Listed Activities, Section 6) and Government Notice No. 30 (EIA Regulations), the above proposed activity constitutes a number of listed activities which require Environmental Clearance prior to commencement of the project.

1.2 Project Proponent

Ohungu Conservancy was gazetted in October 2006, with a membership of 1383. The area is very arid with less than 200 mm average annual rainfall. Major wildlife resources include Elephant, Leopard, Cheetah, Kudu, Gemsbok, Ostrich, Springbok and Steenbok. Over the past 10 years, the Conservancy has been trying to develop Trophy hunting; Premium hunting, and Shoot-and-sell hunting enterprises with no real success.

In terms of non-consumptive enterprises ventures, no one was ever interested in investing in the conservancy. This though changed in 2019 when they received funding to develop a Lodge in Ozondati (Ozondati Community Lodge). This lodge has not been completed yet, due to the impact of Covid-19 and its aftermath.

Mrs. Silba Ndjiharine is a child of the soil from Ozondati and has been farming mainly with livestock in the community for over 20 years. The area is draught stricken and among the worst affected areas by the recent draughts.

Due to various factors explained above, Mrs. S. Ndjiharine was prompted to diversify farming practices and explore other sustainable business opportunities such in tourism and leisure.

It is against this background that the idea of establishing a Campsite and Leisure Facility was born, in order to ease the burden of draughts, create job opportunities for the local community and to contribute to the financial growth of Ohungu Conservancy.

PROPONENT DETAILS

Mrs. Silba Ndjiharine

PO BOX 8966

Bachbrecht

Windhoek, Namibia

E-mail: ndjiharine@gmail.com

1.3 Purpose of the EIA

This EIA study serves to determine, analyse and present the environmental impacts (positive and negative) of the proposed developmental project and associated infrastructure. The EIA will also formulate remedial measures to minimise and mitigate the negative impacts and plan in such a way that enables a rational decision to be made regarding the implementation and management of the proposed project.

This EIA will further contribute to the reduction or mitigation of adverse impacts by generating a number of project alternatives for the proposed camp development. In general, the purpose of this EIA is to anticipate and prevent, minimise and/or manage, potentially significant negative impacts of development that may:

- Cost too much financial investment to rectify in the future;
- Pose risk to lives, livelihood or health of current and future generations;
- Result in irreplaceable loss of resources and reduced options for future well-being; and,
- Help to seek opportunities to optimise potential benefits of development.

As a responsible Conservancy Member, the Proponent is committed to enhancing positive biophysical and social environmental impacts of the project while mitigating negative impacts of the project. During the scoping exercise, the Proponent has emphasized that they attach great importance to environmental sustainability and human well-being. The Proponent also recognizes the strong correlation between environmental sustainability and human well-being through good health that depends on healthy ecosystems, clean water and air.

Therefore, this Environmental Impact Report has been prepared with a view to comply with Namibia's Environmental Assessment Policy of 1995, the Environmental Management Act No. 7 of 2007, Government Notice No. 29 of 2012 (Listed Activities) and the Government Notice No. 30 of 2012 (EIA Regulations).

1.4 Scope of the EIA Study

Trinity Environmental Solutions (TES) undertook to carry out the EIA study by following a well-defined framework. Owing to the importance of Interested and Affected Parties (I&APs) involvement in environmental studies. The EIA team ensured that I&APs consultations were central to every step of this EIA process.

The scope of the EIA study comprised of public meetings, I&APs consultations and detailed site-specific investigations. Details of each process component are elaborated below.

Scoping Exercise

The scoping exercise aimed at identifying and screening all relevant issues related to the project development as well as identifying at the earliest possible time whether any adverse effects existed that could render the proposed project environmentally unacceptable. Specifically, scoping assisted in:

- Focusing the impact assessment on a manageable number of important questions on which decision making is expected to focus;
- Ensuring that only key issues and reasonable alternatives are examined;
- Informing the interested and affected parties and other key stakeholders about the project and to obtain their inputs, issues and concerns; and,
- Identifying fatal flaws in the proposed project planning.

Existing Environmental Conditions

To establish prevailing environmental conditions for the project area, environmental and socio-economic data including surrounding areas was collected, compiled and analysed. Findings of the analysis are presented in the following Sections. Biological, zoological,

botanical and socio-economic studies carried out in the past for the area provided secondary data for the report.

Descriptions of Project Activities

Project inputs, activities and outputs during project preparation, construction and operational life stages were reviewed and are described in this section. This section also includes description of project alternatives.

Analysis of Potential Environmental Impacts

An assessment of environmental effects and benefits of the proposed project regarding biophysical and socio-economic environment has been undertaken as well as an analysis of the impacts' extent, duration, intensity and significance.

Formulation of Possible Mitigating Measures

Based on the analysis of findings, a number of measures and plans for mitigating the identified possible adverse environmental impacts of the project are proposed. Further, the report proposes measures and plans for enhancing positive environmental impacts of the project. And wherever possible, the costs and benefits of these environmental measures are quantified.

Elaboration of an Environmental Management Plan

An Environmental Management Plan (EMP) for implementing the proposed mitigating measures during the project preparation, construction and operation phases of the project was developed. The EMP further indicates management responsibilities and time frames.

1.5 Stakeholder Consultations

TES's approach to environmental assessment studies is aimed at ensuring that wide stakeholder participation and involvement is achieved. Recognising this, and as part of the transparent consultative process aimed at taking public views into account in determining the scope of the EIA, a public consultative process started in the

conservancy as from November 2018. A public meeting was planned for 25 November 2023. The meeting was announced locally by the Traditional Authority and the Conservancy. Advertisements were also placed in two local newspapers (New Era and The Namibian).

The planned public meeting on the 25th November 2023 was postponed due a request from the Conservancy Committee (**see Appendix E**) that explained that there was a funeral on the same day for Mr. Heinrich Uazuva Kaumbi, a well-respected member of the local community and in Namibia at large. May his souls rest in eternal peace.



The late Mr. H. U. Kaumbi

The Conservancy Committee then proposed to postpone the meeting to the 05th December 2023, were the proposed Quagga Camp and Leisure development will be discussed during the AGM as from 12:00-14:30. This session was meant exclusively for the public consultation on the Quagga Camp and Leisure.

Due to financial constraints, the AGM was again postponed. Hence, the Conservancy Committee met (see Appendix E) and resolved as follows:

- a) The Environmental Consultant will continue to finalise the EIA process.
- b) There are no concerns from the community, Traditional Authority and Conservancy Committee in terms of the 15 hectares allocated to the Quagga Camp and Leisure, since this allocation was discussed and approved at the 2022's AGM.
- c) *The Conservancy Committee will forward to me the 2022 AGM's minutes and attendance register to confirm the above (b). (See Appendix G)*

Telephonic conversation took place and Background information was sent to both the Conservancy and Ministry of Environment, Forestry and Tourism (MEFT) via email.

Eventually, a public meeting was held on the 3rd January 2024, and was attended by over 30 people (see Appendix F). The majority of people in attendance wished Mrs. S. Ndjiharine the best of luck and wished the process of her applications for the ECC and Leasehold to be approved, as they are seeing it as a “*development for the Ozondati village, the Ohungu Conservancy and the Erongo Region at large.*”



Figure 1: Public Meeting for Quagga Camp and Leisure, Ozondati (3rd January 2024)

Please Note: Only Iiping Ndelimona ndeliimonachox@gmail.com from EIA Tracking and Monitoring in Namibia (EIA Tracker) registered as an Interested and Affected Party.

During the three site visits in November 2023 and December 2023, and through formal communication with members of the Conservancy, MEFT and Traditional Authorities, no objections were raised. The proposed project is seen as a positive development desperately needed to strengthen conservation funding and activities for the

conservancy, creating much needed jobs (as there are no businesses within the Conservancy, apart from cuca shops).

Key Interested and Affected Parties consulted include:

- Senior Councilor Mr. F. Uaseuapuni - Zeraeua Traditional Authority
- Mr. Sigfried Awaeb (Chief Control Warden) - MEFT Erongo
- Ms. Else Khaises (CBNRM Warden) - MEFT Erongo
- Ohungu Conservancy Committee

1.5.1 Methodology

The Interested and Affected Parties (I&APs) consultative process involved meetings, open discussions and interviews with relevant government institutions and representatives from the NGOs. Through this interaction the EIA team tried to establish how Interested and Affected Parties understood the dynamics of the environment in which the proposed project is located and any possible underlying causes that could lead to changes over time as a result of implementing the project.

Where the EIA team felt it necessary to go more in-depth on a particular matter, Interested and Affected Parties within the project area or surrounding area with either experience or expert knowledge of the study area were identified and interviewed to validate the data already obtained, as well as to get their advice on any additional sources of information that was not readily available. This was useful in interpreting any underlying factors of the trends already observed.

The outcome of these Interested and Affected Parties consultations and interviews further provided relevant background information to this report and helped identify potential environmental issues of concerns within the project area.

1.5.2 Stakeholder Consultation Outcome

The meetings and informal interviews conducted did not raise any objections against the proposed development nor on the site proposed for the facility. The site for the proposed development is within the Conservancy's wildlife and tourism exclusive zone and members of the Conservancy hold exclusive rights over the development of tourism facilities within the Conservancy.

Authorization requirements for this proposed project include:

- An Environmental Clearance Certificate
- Leasehold Permit from the Land Board

1.5.3 EIA Study Team

TES is a firm of environmental consultants that has been active in Namibia since its establishment in 2012. TES staff have extensive experience in a variety of projects related to EIAs, socio-economic, water resources management, sustainable land management and on climate change mitigation.

Previous and Current Projects inter alia include:

- EIA and EMP for Tented Camp Obias
- EIA and EMP for Damaraland Basalt Lodge
- EIA and EMP for a 2.5 MW Solar PV Plant in Okongo
- EIA and EMP for Ndiyona Irrigation and Mill Development.
- EIA and EMP for Osona Township development near Okahandja.
- EIA and EMP for the development of Ruacana Quarry.
- EIA and EMP the construction of an Industrial and Business Estate in Lubumbashi area, Democratic Republic of Congo.
- EIAs and EMPs for the upgrading of two gravel roads, DR3608 and MR67 to bitumen standards, approximately 185km in total length.
- EIA and EMP for new wastewater treatment ponds for Engela, Groot Aub, Andara, Onesi, Ogongo towns and villages.

- Supervision of the Environmental Monitoring and Auditing for the new wastewater treatment ponds for Engela, Groot Aub, Ogongo towns and villages.
- Supervision of the Environmental Monitoring and Auditing for the upgrading of two cattle quarantine camps in the Caprivi Region.
- Supervision of the Environmental Monitoring and Auditing for the MR122 road upgrading from gravel road to bitumen standards.

Don Muroua, Environment Management Specialist: Mr. Muroua has compiled this Scoping Report and the EMP. He has also carried out the overall environmental assessment and public participation activities. Mr. Muroua is a qualified environmental manager and a founding member of the Environmental Assessment Practitioners of Namibia (EAPAN). He is familiar with conducting EIA studies, preparing EIA reports and EMPs, conducting specialist studies which include socio-economic assessments and ecological studies. Mr. Muroua is also a Professional Member of the Southern African Institute of Ecologists and Environmental Scientists (SAIEES).

Apart from Namibia, Mr. Muroua's experience extends across numerous countries including the Democratic Republic of Congo, South Africa, Malawi, Swaziland and Kenya.

CHAPTER 2: DESCRIPTION OF PROPOSED PROJECT

2.1 Location

The Environmental Clearance Certificate and Leasehold is applied for an area of 15 ha. while actual physical footprint for the Camp estimated at approximately 5 ha. The site was selected after discussing with the local community and also assessing other sites. The location of this proposed development is also guided by Conservancy Management Plan (2015). The Camp will be located within Ozondati Village area, approximately 30 km north-west of Omatjete along the DR2344 gravel road, Figure 2. Due to its strategic location, the proposed Camp will not restrict any movement of wildlife, livestock or people in and out of the area.

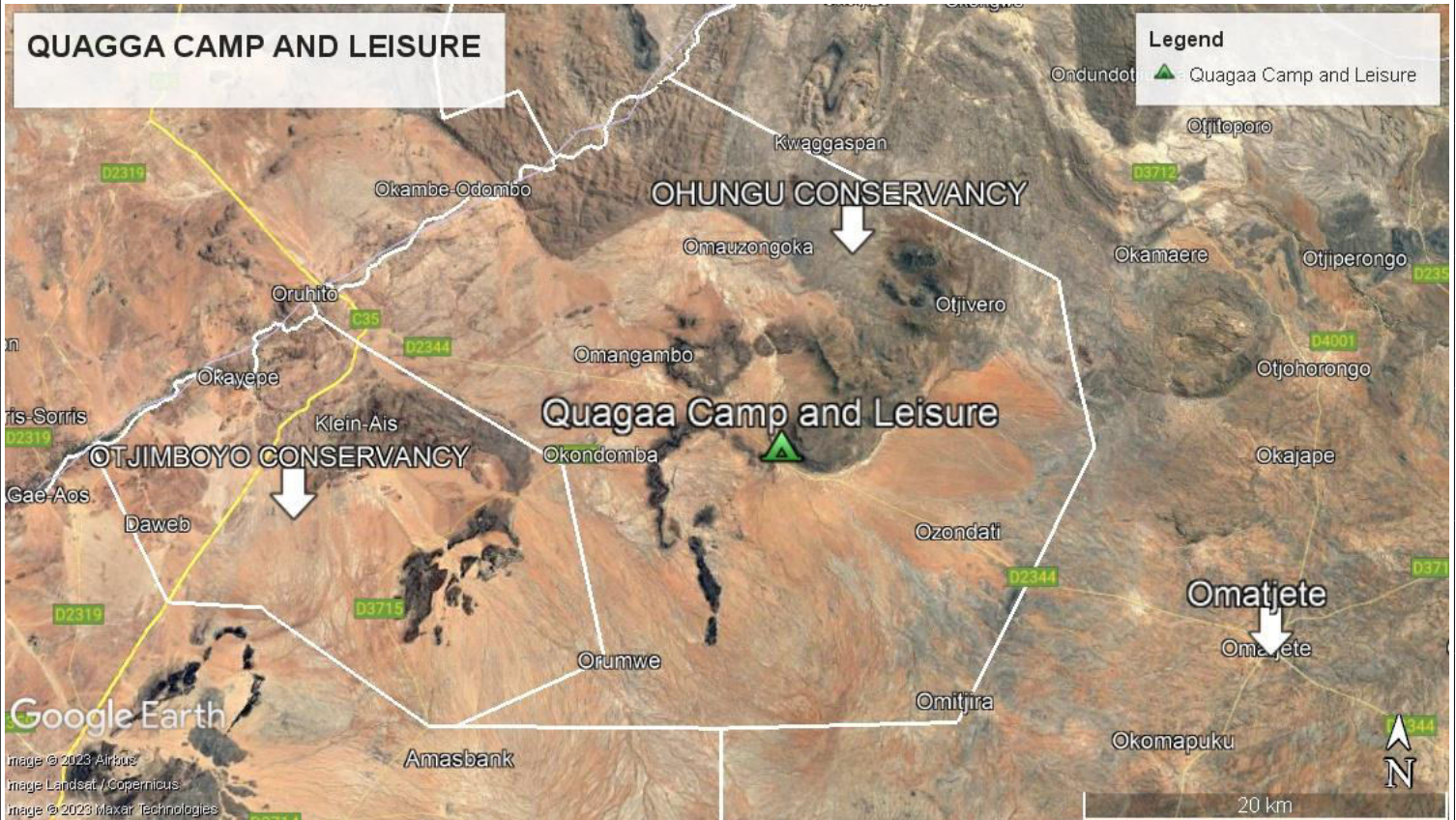


Figure 2: Quagga Camp and Leisure Location (Google Earth, 2023)

The site's center GPS point is:

Latitude: -20.947747°S, Longitude: 15.234267°E

2.2 Project Rationale

The Conservancy population is estimated to be approximately 1383, with very little employment opportunities. Subsistence livestock farming is the key local livelihood strategy. Ohungu Conservancy was gazetted in October 2006, and as yet no operating enterprises of any significance, but tourism enterprises are most viable sources of employment and poverty reduction.

The Conservancy faces the challenge of balancing subsistence farming activities with the environmental limitations of an arid ecosystem, as well as optimising benefits from natural resources amongst a society with a long tradition of livestock herding. The density of cattle and small stock in the area is amongst the lowest in the country, resulting in more vulnerability and lack of economic safety net. It is often difficult to reconcile livestock farming and wildlife such as elephant and large predators. Therefore, human-wildlife conflict is a significant challenge faced by most in the Conservancy. Elephants often damage water infrastructure in an attempt to reach drinking water, and at times cause extensive damage property. The high number of incidents caused by large predators in the conservancy indicates a relatively healthy local population. The human-wildlife conflict data is in general indicative of a recovery of large predators in Conservancy. This trend highlights an increased willingness of communal farmers to live with wildlife as long as it generates tangible benefits. Predators and elephants are of great value, both to the ecosystem and tourism, and in the long run the benefits gained from them must outweigh (or at least equal) the costs of living with them. This is prerequisite, if people outside National Parks are to continue to tolerate the presence of such dangerous wildlife.

Good access for visitors to the area is provided by the DR 2344 from Omaruru, C 35 gravel road between Henties Bay and Uis, and the C 35 gravel roads from Uis towards Sorris-Sorris, Twyfelfontein and Khorixas.

Therefore, this proposed project aims to further promote wildlife conservation and ecotourism business opportunities, while at the same time complementing existing development initiatives by government and line Ministries.

2.3 Project Description and Alternatives

2.3.1 Project Description

The physical footprint of the facility will be about 15ha consisting of about 10 tented sites, 10 camping sites, administration area, entertainment area and staff accommodation area. (See Figure 3 and Figure 4, Appendix A).

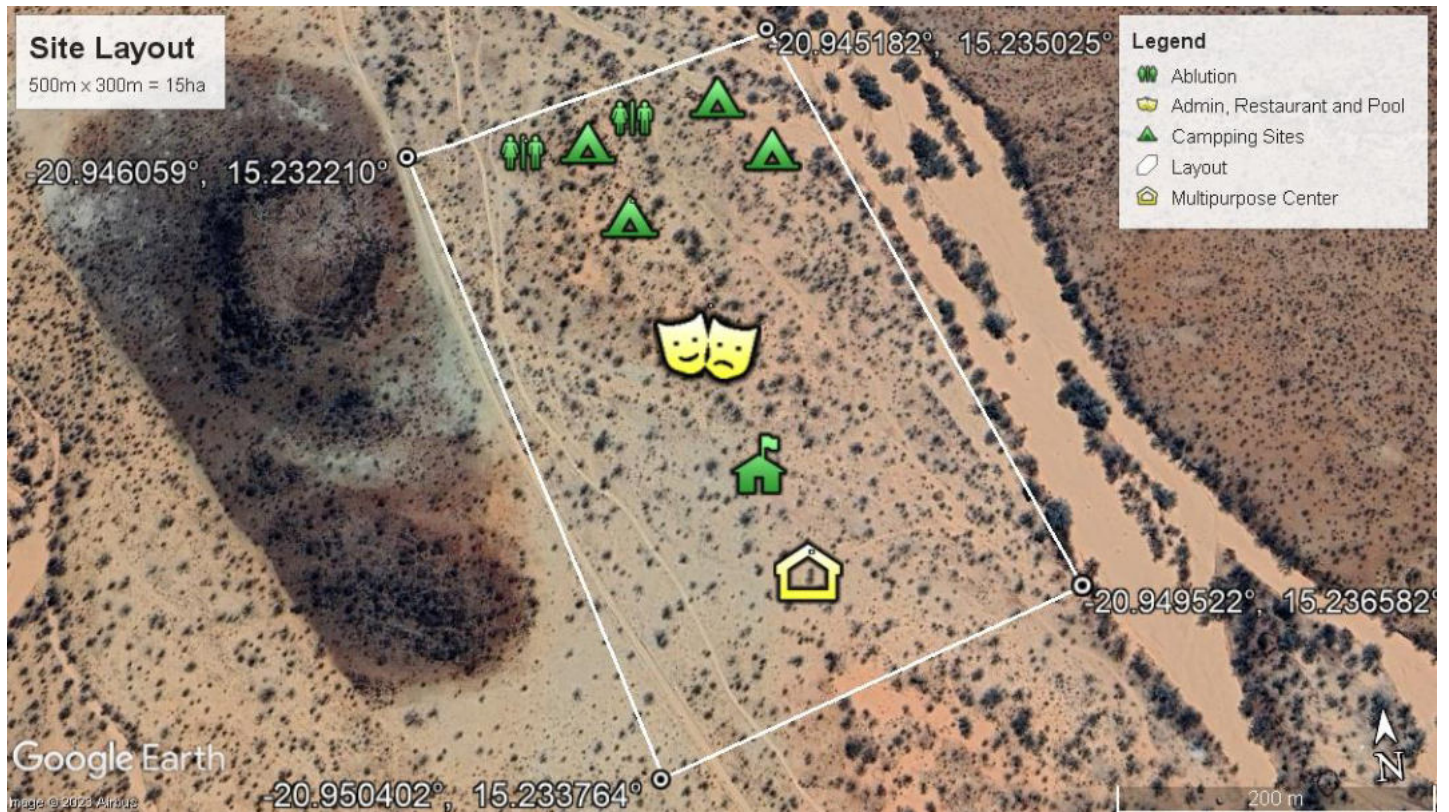


Figure 3: Quagga Camp and Leisure Site Layout (Google Earth, 2023)

Products and services planned to be offered at the proposed safari and leisure facility will include the following:

- Restaurant and leisure area to provide meals and a place of refreshment (See Figure 7)
- Curio shop with locally sourced handicrafts and products
- Administration area
- Accommodation for visitors (See Figure 6) and staff (most staff will be from the local community)
- Support to anti-poaching and wildlife monitoring activities
- Support to human-wildlife mitigation activities
- Guided Game Drives
- Guided Cultural and Natural Heritage tours

This tourism and leisure facility will be constructed to ensure that it is environmentally friendly, promote eco-tourism and provide a sense of appreciation towards pristine experiences, abundance wildlife and rugged landscapes.

The site is perfectly situated since it is in route to the Brandberg and its famous "White Lady", Dorob National Park, Skeleton Coast, Kaokoland, Twyfelfontein Heritage Site, Organ Pipes Stones, Burnt Mountain, Petrified Forest, Palmwag, etc.

After extensive research, the Proponent and its partner established a bed limit for the development, which has been determined to accommodate a maximum of 60 people, including both guests and resident staff.

This tourism facility will be an environmental-friendly camp for tourists who wish to travel and experience the abundance of wildlife in the area and Damaraland.

Activities from the facility are proposed to include only day drives in open 4x4 vehicles on existing tourist tracks accompanied by qualified and experienced guides. Accompanied walks with suitably qualified guides will also be possible in some areas.

Environmental-friendly ablution facilities will be provided, where wastewater will be collected in septic tanks lined to avoid contamination of soil and groundwater. The facility plans to recycle initially 10% of the grey water and to improve on it in the future. Waste water will be collected in pre-fabricated septic tanks and treated to speed up the decomposition. The design and operations of these septic tanks will comply to the:

- Department of water affairs & forestry code of practice: volume 1.
- Septic tank systems general guidelines (July 2008).

Four (4) existing boreholes within the area exist with very good water quantity and quality suitable for human and animal use. Hence, no new boreholes will be drilled to secure water for the proposed project during construction and operations.

These boreholes are in and around the Ohungu Community Lodge (Figure 5). The Lodge was funded by MEFT, but due to Covid-19 and its impacts construction halted and yet to be completed.

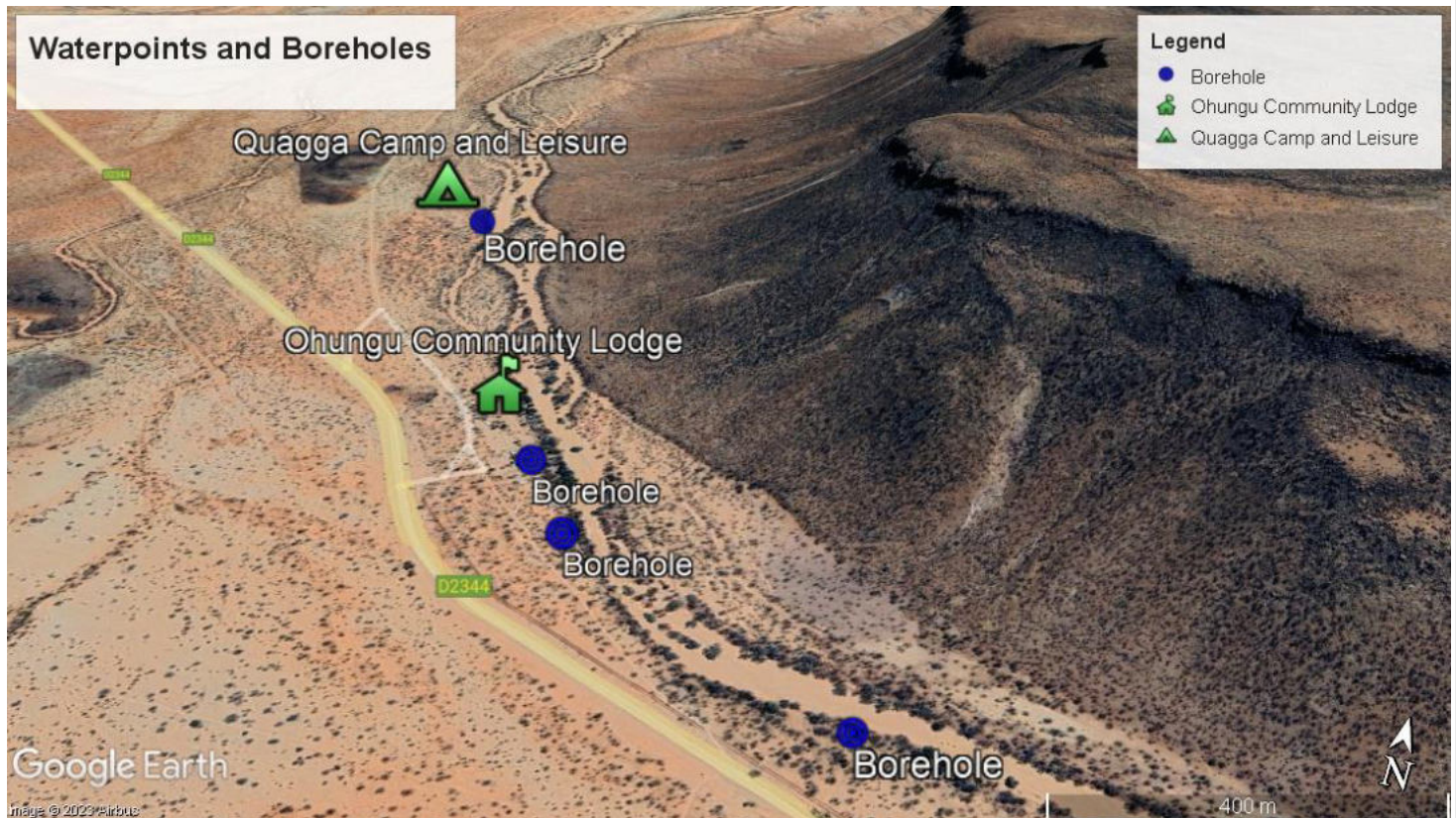


Figure 5: Waterpoints and Boreholes (Google Earth, 2023)

*No permanent structure shall be erected, apart from foundations for the restaurant and tents. The floors of all structures will be concrete and the Camp structure shall consist of pre-manufactured cottage-styled tents with canvas. All the materials to be used can be broken down, destroyed, removed and disposed off very easily without leaving behind any building rubble or any persistent pollutants and waste.

Construction Phase: There will be very little water use during the construction since no permanent large structures will be built. Twenty (20) thin (25cm) concrete foundations (average 50m²) will be built as semi-permanent structures and they will use limited water. It is expected that less than 300m³ will be used during construction the phase.

Operational Phase: It is estimated that the Tented Facility will at maximum accommodate 60 visitors at 100% occupancy, 10 staff members and 5 guides. This though is an ambitious expectation, due competition from other well-established facilities within a 70km radius from the proposed Camp.

The main tourism season in Namibia is between the months of May to October. This period is dry and tourists visiting the Erongo and Kunene Regions are very aware of the water stress conditions. Additionally, tourists will be regularly educated about saving water and using water sparingly

Realistically speaking from experience, at 80% occupancy, we can expect 48 visitors, 10 staff members and 5 guides. The water demand for a typical Tented Facility is 130 liters (l) per day per person.

The facility therefore will use = (48 visitors+10 staff+5 guides) X 130 l
= 6930 l per day or

Annually = 6930 l X 365 day (tourism is seasonal)
= 2,5 million liters per year or
= 2,500 m³ per year (even much lower due to the seasonality of the industry)

*The above calculations assume 80% occupancy rate from January to December which is very unlikely. Therefore, the above estimate will be the highest possible water use annually.

No new roads will be developed, but new 1 m width walkways will be developed in a manner which ensures minimal impact taking the sensitivity of the associated environment into consideration.



Figure 6: Typical Tents to be used for Accommodation

2.3.2 Design and Layout Alternatives

No permanent structure shall be erected, apart from foundations, as well as the ground work required for the foundations. The Camp (including staff accommodation) structure shall consist of pre-manufactured cottage-styled tents.

All efforts will be made to ensure the least environmental impact possible. Most of the individual back of house units (kitchen, office, cold rooms, laundry, etc.) will be of a container type unit and the main as well as guest and staff units will be of a pre-manufactured nature and assembled on site. Local stone and essential site construction material will be carefully sourced on site with least environmental damage to avoid

additional transport. A waste management and rubbish removal plan shall be in place and rubbish will be carefully recycled and removed from the site and dumped at the main rubbish sites. Firewood shall be collected in a sustainable manner and supplied from controlled sources.

To facilitate a low impact development, the selected location is nestled in a natural arena environment and facilitates a low impact camp with few structures. The construction of the camp structures will be as low to the ground as possible (no high raised structures). The natural looking design of the camp will be undertaken with neutral colours to blend in with the environment around it. Only native plants will be planted in the facility, *if necessary*.

Most of the materials planned for the construction of the camp will be renewable materials. Little cement and solid materials will be used. As appropriate, purchase of natural construction and maintenance materials will be harvested/provided locally by the community.



Figure 7: Administration and Leisure Area

2.3.3 Project Site Alternatives

The Proponent investigated various site options for the development. The site was selected after discussions with the local community. The location of this proposed development was also guided by Conservancy Management Plan's zones (See Figure 8).

This plan divides the conservancy into various land use units or zones as per the community needs, priority livelihoods strategies, viable conservation and tourism initiatives. The process of preparing a management plan is very consultative and participatory where the local community, MEFT, line Ministries, Traditional Leaders,

Politicians and NGOs engages each other to come up with a plan and land use maps that are inclusive and realistic. See Figure 8.

Hence, the location of this proposed development was influenced by the Land Use Map (Figure 8), and was agreed upon to be located within the Wildlife and Tourism Zone, marked as 3c on the Map.

Other criteria used included the following:

- Proximity to existing public access roads
- Proximity to local communities and settlements – to reduce the need to provide for staff accommodation
- Proximity to important grazing land
- Proximity to existing boreholes or livestock water points
- Site location in relation to the Conservancy Management Plan's zones
- Threat to the camp infrastructure by flood waters due to surrounding hydrological feature
- Regional access to ensure national and international markets can be captured
- Site must provide eco-tourism experience and
- Sites must be located as not to conflict with the current land use, including existing tour routes, other conservation initiatives and livelihoods activities.

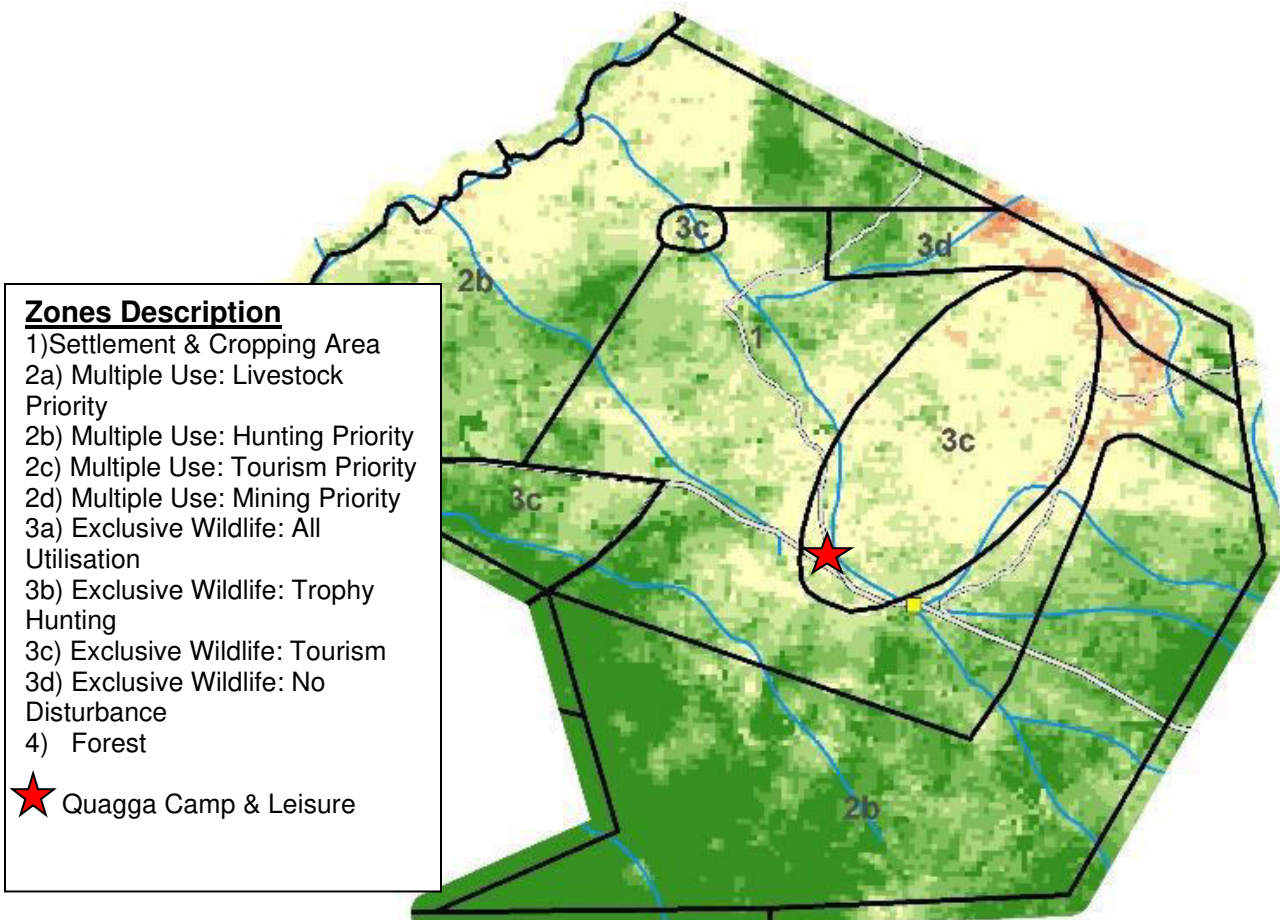


Figure 8: Ohungu Conservancy Land Use Zones (NACSO, 2022)

Another key reason for the site selection is that it is already part of an existing entry road into the area, which will minimise the potential impact on the environment during the camp construction and operational phases. No new roads will need to be constructed as the location links up with all of the neighbouring areas through the existing road network. All vehicle movement for the purpose of construction of the camp, as well as supplying the camp, will be kept out of the waterpoint and as such limit any interference or disturbance with wildlife movement in the area.

Using the above criteria, the Proponent and its investor agreed that the best suitable site will be as decide and presented in this report. The indications of the limitations on developments and activities to be permitted on each of the sites were provided and

reviewed. The current site was selected as it had greater aesthetic features, better ecotourism potential, and would not generate significant negative impacts to the local community, wildlife, other tour operators and other key stakeholders such as the Ministry of Environment, Forestry and Tourism (MEFT) and the National Heritage Council. The final decision was based on negotiations with the local conservancy members and the associated feasibility of the site for this specific type of development.

This EIA process did not identify constraints that cannot be mitigated. However, it emphasises the need for protection of the environment and the need for socio-economic development at the same time.

2.4 No-Go Alternative

No Go Alternative: If this option is selected, the development of the camp will not proceed. In essence, the no-go alternative would ultimately imply that the state of the environment would be retained as it is presently, with obvious advantages and disadvantages to the natural environment. The Department of Environmental Affairs in the MEFT stresses that the no-go alternative should be considered in cases where the proposed development will have a significant negative impact that cannot be effectively or satisfactorily mitigated against.

The no-go alternative means that the current status-quo is maintained with associated opportunity costs such as maintaining of high poverty levels, zero employment opportunity, loss of income for rural families and Conservancy, general lack of rural development and human capital development, and finally losing out on an activity that will compliment conservation and anti-poaching initiatives in the Region.

CHAPTER 3: LEGAL, REGULATION AND POLICY FRAMEWORK

The Table 1 below summarises the legislation and policy guidelines that are relevant to the proposed project and is not exhaustive.

Table 1: Relevant legislations and policy guidelines

Title of legislation, policy or guideline	Implications for proposed project (Please read all Acts with their Regulations)
The Namibian Constitution of 1990	The Constitution clearly indicates that the State shall actively promote and maintain the welfare of the people by adopting policies aimed at management of ecosystems, essential ecological processes and biological diversity of Namibia for the benefit of all Namibians, both present and future.
Water Resources Management Act No. 11 of 2013	This Act protects all water resources in Namibia. The Act also laid down conditions to ensure that proper wastewater treatment is provided, including requirement for wastewater discharge permit from the Directorate of Water Affairs.
Environmental Assessment Policy of Namibia (1995)	The Policy seeks to ensure that the environmental consequences of development projects and policies are considered, understood and incorporated into the planning process, and that the term ENVIRONMENT is broadly interpreted to include biophysical, social, economic, cultural, historical and political components.
Environmental Management Act No. 7 of 2007	The Act provides a list of projects requiring an Environmental Assessment. It aims to promote the sustainable management of the environment and the use of natural resources and to provide for a process of assessment and control of activities which may have significant effects on the environment.
MEFT Policy Document - Community-Based Tourism Development (June 1995)	<p>This document contains the approved Ministry policy for providing support to, and encouraging the development of, community-run tourism activities and enterprises on communal land.</p> <p>This policy document provides a framework for ensuring that local communities have access to opportunities in tourism development and are able to share in the benefits of tourism activities that take place on their land.</p> <p>Support for the involvement of rural communities in tourism enterprises is important:</p> <ul style="list-style-type: none"> a) to implement the government policy of giving communities access to development opportunities and b) because where tourism is linked to wildlife and wild landscapes, the benefits to local communities can provide important incentives for conservation of these resources.
Act No.5, 1996 Nature Conservation Amendment ACT, 1996	<p>This amendment to the Nature Conservation Ordinance of 1975, provide for an economically based system of sustainable management and utilisation of game in communal areas.</p> <p>This amend allows for the formation of Conservancies in communal areas.</p>
Hazardous Substances Ordinance No. 14 of 1974	<p>The Ordinance applies to the manufacture, sale, use, disposal and dumping of hazardous substances, as well as their import and export. Its primary purpose is to prevent hazardous substances from causing injury, ill-health or the death of human beings.</p> <p>Hydrocarbons handled during the construction phase may be hazardous thus careful handling and management is vital to prevent spills, explosions, ill-health or death.</p>

<p>Pollution Control and Waste Management Bill of 1999</p>	<p>The Bill promotes sustainable development and the establishment of the Pollution Control and Waste Management Unit; to prevent and regulate the discharge of pollutants to the air, water and land; to make provision for the establishment of an appropriate framework for integrated pollution prevention and control; to regulate noise, dust and odour pollution; to establish a system of waste planning and management; and to enable Namibia to comply with its obligations under international law in this regard.</p>
<p>Draft Wetlands Policy of 2004</p>	<p>This policy strives to complement existing policy instruments regarding sustainable development and sound natural resource management in Namibia. Its implementation provides a platform for the conservation and wise use of wetlands, thus promoting inter- generational equity regarding wetland resource utilisation. Furthermore, it facilitates the Nation's efforts to meet its commitments as a signatory to the International Convention on Wetlands (Ramsar) and other Multinational Environmental Agreements (MEA's).</p>
<p>National Waste Management Policy, 2010</p>	<p>This policy is focusing specifically on Waste Management and use of various technologies waste treatment and disposal to minimize health risks. It is also geared to have a unified waste management system country wide. This policy provides the necessary guidance on the processes related to waste management in the MOHSS, wider Namibia health and social welfare sectors, and other relevant stakeholders. It is taking into consideration the process of integrated waste management from generation to final disposal. This practice also focusses on medical, household, mining, agricultural, and construction waste.</p>
<p>Forest Act No. 12 of 2001 and its amendments</p>	<p>The purpose of this Act guides the use and management of forestry and related resources. The aims of the forest management as per the Act, is to achieve manage of forest "for which forest resources are managed and developed, including the planting of trees where necessary, to conserve soil and water resources, maintain biological diversity and to use forest produce in a way which is compatible with the forest's primary role as the protector and enhancer of the natural environment."</p>
<p>National Heritage Act No. 27 of 2004</p>	<p>The Act provide for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.</p>
<p>Labour Act No. 11 of 2007)</p>	<p>Consolidate and amend the labour law; to establish a comprehensive labour law for all employers and employees; to entrench fundamental labour rights and protections; to regulate basic terms and conditions of employment; to ensure the health, safety and welfare of employees; to protect employees from unfair labour practices; to regulate the registration of trade unions and employers' organisations; to regulate collective labour relations; to provide for the systematic prevention and resolution of labour disputes; to establish the Labour Advisory Council, the Labour Court, the Wages Commission and the labour inspectorate; to provide for the appointment of the Labour Commissioner and the Deputy Labour Commissioner; and to provide for incidental matters.</p>
<p>Public Health Act, No. 36 of 1919 and Amendments and Regulations</p>	<p>This Act makes provision for the prevention and control of infectious diseases, venereal diseases and epidemics. It also regulates sanitation, food and public water supplies.</p>

CHAPTER 4: DESCRIPTION OF EXISTING ENVIRONMENT

Appropriate standard methodologies were used to describe the existing environment. These included undertaking an inventory of the physical and biological environments, conducting interviews and reviewing of relevant literature. In addition, mapping of the project area was done using a hand-held GPS unit and plotted on Google Earth.

4.1 Physical Environment

4.1.1 Climate

The project area is located in Ozondati area, in the Daures Constituency. This area, as per the rest of Namibia, falls within the Subtropical High-Pressure Zone, characterised by the massive dry air. The presence of the Botswana Anticyclone and the South Atlantic Anticyclone makes Namibia the driest country in Sub-Saharan Africa. The Botswana Anticyclone is most prominent in winter and feeds dry air over Namibia and also obstructs the flow of moist air from the north. The South Atlantic Anticyclone blows cold and dry air into the coast, from the south-west (Mendelsohn, 2003). The Benquela cold current also restricts moist air into the Namibia western coast. And the development site is just 120km from the coast.

Due to climatic conditions explained above, the area average annual rainfall is between 100-150mm (Mendelsohn, 2003). Most of this rainfall occurs in summer, most noticeably between January to March. The area has an annual water deficit of 2,100mm to 2,300mm (Mendelsohn, 2003).

4.1.2 Temperature

In summer, the maximum average temperatures is between 28-30°C and in winter average minimum temperatures range between 10-18°C (Mendelsohn, 2003).

4.1.3 Geology and hydrogeology

The preferred site, according to Christelis & Struckmeier (2001) lithology falls within the Lithic Leptosols dominated by the Damara Granite rock type (Mendelsohn, 2003).

The project's site is found in a hydrogeological rock type that can be described as an aquitard, aquiclude aquifer (Christelis & Struckmeier, 2001) Figure 9. This aquifer type is generally considered very unproductive and deep, but Ozondati area has a productive aquifer proving piped water to other villages.

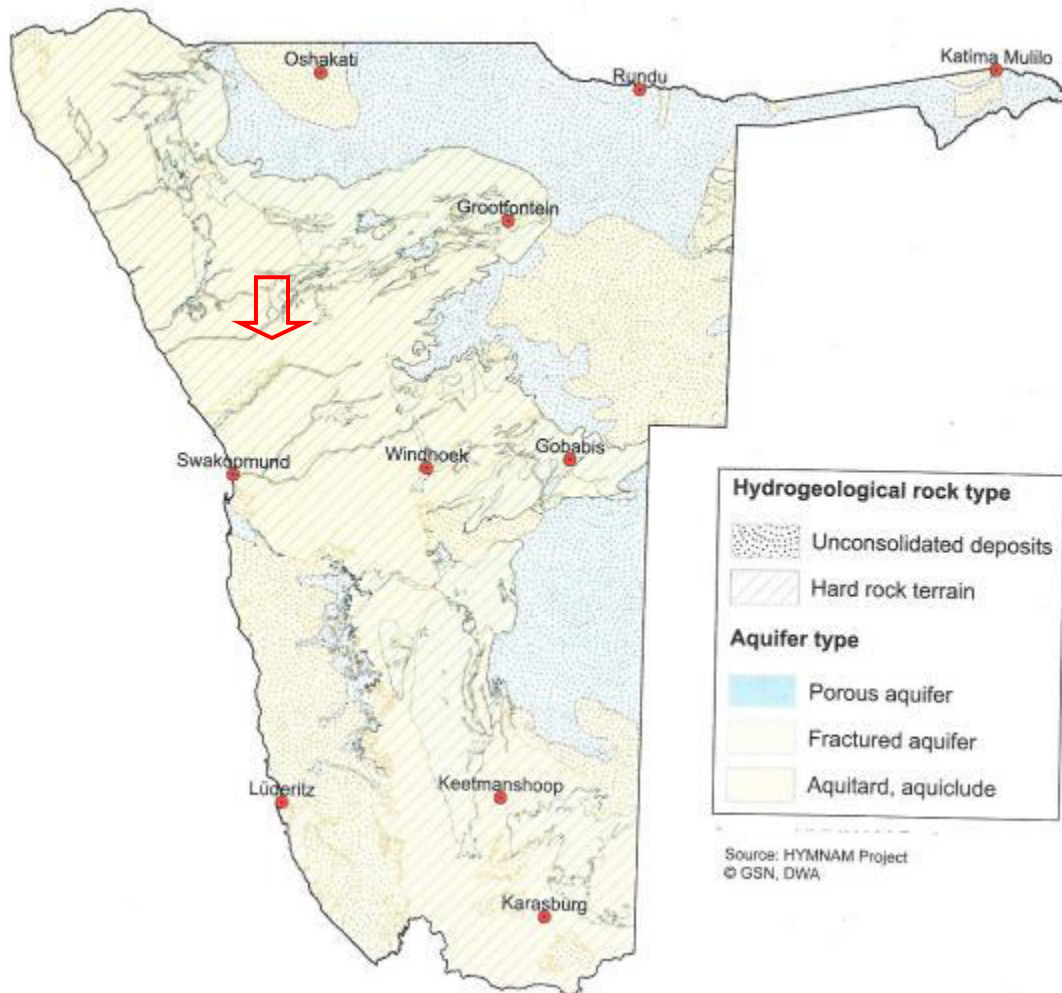


Figure 9: Namibian Hydrogeology

4.1.4 Air Quality

An assessment of the baseline air quality status in the project area and surroundings was carried out in order to assess the possible impacts on the air quality due to certain project activities with the potential of releasing pollutants to the ambient air. Field surveys showed that fugitive dust from vehicles using the gravel road are the main source of air pollution. Noise population is also emanating from vehicles using these roads and tracks.

The site has approximately 14% calm days and the most dominant (62%) winds blow from the south (Mendelsohn, 2003).

The observed air pollution did not remain hanging over the area for prolonged periods and as such no haze was reported to be a distinctive result of vehicles use. Apart from pollution caused by vehicles, the air quality in the area was generally found to be very good.

4.1.5 Soils

The site soil is very shallow and thin and therefore holds very little water. Only hardy plant species grow in this Lithic Leptosols due to their low water holding capacity. This soil type has a solid layer at a shallow depth that remains hard even when wet. Leptosols are also known to have a very low soil fertility and therefore only the hardiest plant species will grow on them (Mendelsohn, 2003).

4.1.6 Topography and Hydrology

The immediate site is sloping mainly from southeast toward the northwest, into the Ugab River. The surrounding area is rocky and mountainous. The site is located at an altitude between 607-564m above mean sea level (Figure 10).

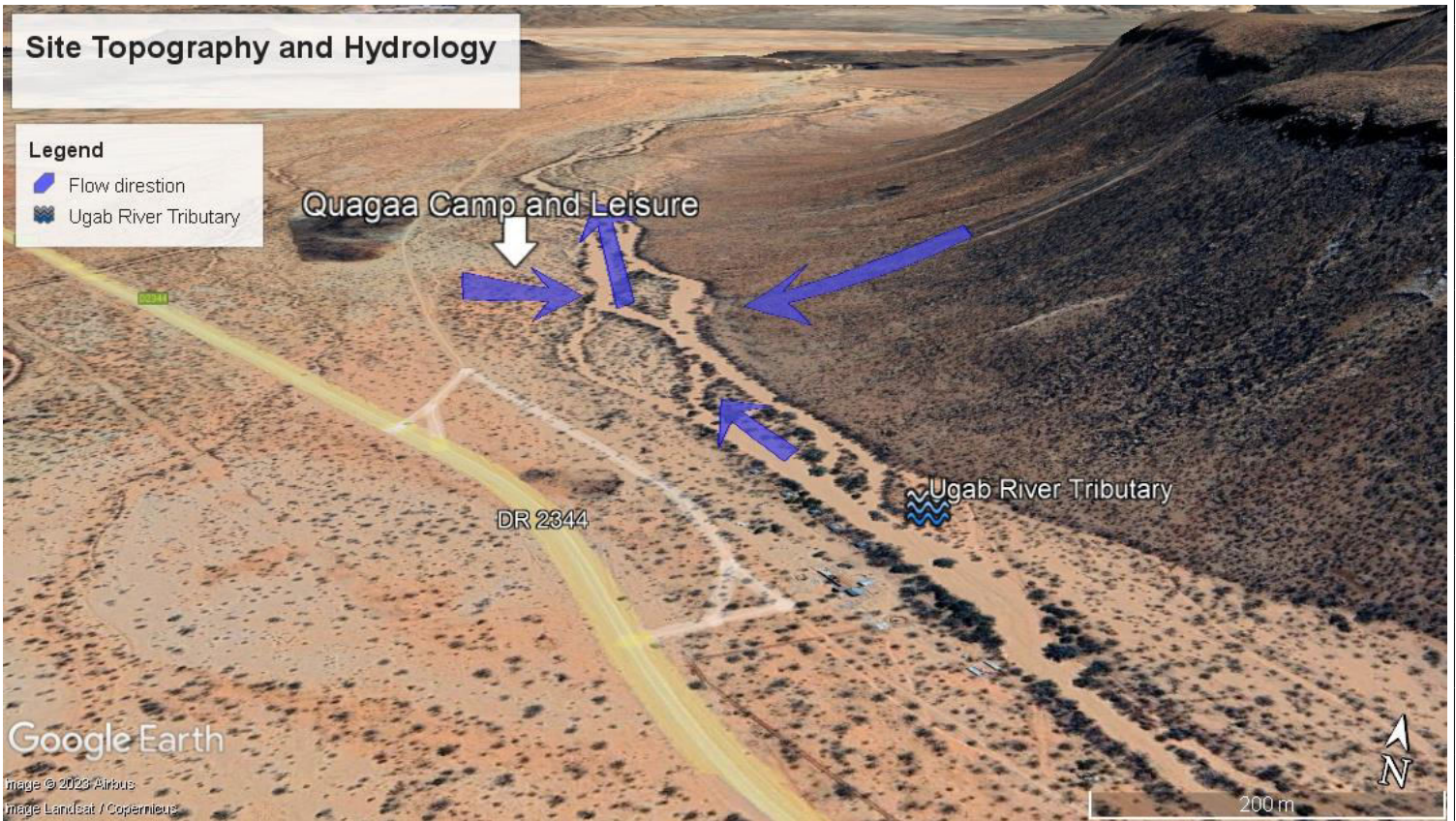


Figure 10: Area Topography and Hydrology (Google Earth, 2023)

4.1.7 Groundwater Resources Vulnerability

There is a borehole within the Leasehold and about 1km from the development site. The groundwater flow is from the borehole towards the site. The borehole water level was estimated to be 30m deep. Further investigations revealed that the potential for future contamination of groundwater at the site is very low due to the nature of the project, geology, hydrogeology and topography.

4.2 Biological Environment

4.2.1 Approach

The methodology used to describe the site's biological environment took into consideration the purpose of the study, extent of development site, and the flora and fauna species composition.

Transect walks were conducted to identify, record and describe the species of flora and fauna encountered. From this survey, evidence of large faunal droppings such as pellets and spoor/footprints were noted along transects. Specimens were collected and safely stored for later identification, whereas no faunal specimen such as for insects, were collected. The specimens and notes helped in the identification of the specimens with the help of field guides later.

4.2.2 Flora

Ozondati area and its surroundings form part of the broader Namib Desert Biome. The vegetation type is the Central Namib Desert dominated by sparse trees, sparse shrubs and grasses (Figure 11 to Figure 12).

The rugged area, where the camp will be constructed, cover much of the area and support mainly Mopane trees (99%), and *Combretum imberbe*. Other plant species include *Stipagrostis hochstetteriana*. All these species are common in the Namib Desert.



Figure 11: Vegetation Cover: Mopane trees are most dominant (99%)



Figure 12: Vegetation Cover: Along the tributary

4.2.3 Fauna

Since the establishment of conservancies in Namibia, wildlife numbers in communal areas have rebounded from historic lows prior to independence. Ohungu Conservancy is home to a diversity of large game, including Elephant, Gemsbok/Oryx, Springbok, Duiker, Steenbok and Ostrich. Large carnivores include Brown Hyaena, and Jackal.

A high degree of endemism has developed along the Namibian escarpment, but the Conservancy due to high population and livestock activities does not provide habitat to many of the country's near-endemic fauna.

As an eco-tourism establishment, the proposed camp will have very limited wildlife disturbances and will operate its activities base on the MEFT and Conservancy guidelines and policies. Other similar tourism activities are allowed and have been operating for decades without detrimental impact on the wildlife, but rather improved the conservation of the wildlife.

4.2.4 Environmental Significance of the Project Site

Rare or endangered species

An analysis of rare or endangered species at the project site revealed threatened, rare or endangered species of fauna or flora, being the Elephant. Through close collaboration with especially MEFT, local Police (in Omatjete and Uis) and Conservancy, the camp is anticipated not to have any significant impact on these animals through implementing guidelines as agreed by all stakeholders and also due to the low numbers, generally placid nature and the site location away from the waterpoint used by both people, livestock and wildlife.

Sensitive habitats

Investigations for sensitive habitats at the project site revealed no sensitive or fragile habitats that could affect the stability of the existing ecosystem and its immediate surroundings due to the proposed project.

Elephants and Springbok will transverse the area seasonally and on very few occasions. During the construction phase, workers movement will be limited to the site for their own safety and to avoid possible poaching incidences. It is also expected that most of labour forces will be from the area, thereby reducing the immigration of people from outside the immediate villages/settlements.

The Conservancy Committee Members and the Community Game Ranger living in the area will be informed about the potential issues of poaching and illegal harvesting of natural resources. They will be task to help ensure that the restriction of the workers' movement during the construction phase and also operational phase in fully enforced and adhered to as directed by the Conservancy and MEFT.

Poaching during the operational phase will not increase due to this development. This will be the case because all the staff will be coming from the area. They will be Conservancy Members themselves who supports the CBNRM initiatives in their Conservancy.

Staff housing will be limited only to 5 staff who will be provided with the same quality accommodation as the clients/tourists. Local staff will come from nearby villages within a radius of 15 km. Transport will be provided.

4.3. Socio-economic Environment

4.3.1 Introduction and Demography

Daures Constituency is one of eight Constituencies in the Erongo Region. This Constituency supports a population of approximately 11,350 permanent residents (NSA, 2012), while the Ohungu Conservancy has a population of approximately 1383 people. The majority either farmers or unemployed.

The current unemployment rate in the Region stands at 30% (NPC, 2012) and in the Daures Constituency at 44% (NPC, 2012), one of the highest in the country. Therefore,

this proposed project will be a valuable initiative in support of short- and long-term Namibian Government efforts in reducing rural poverty by increasing job opportunities.

Development in communal areas during colonial rule and administration prior to independence was much neglected, creating an imbalance that is largely still evident today. Omatjete is the largest nearest settlement in the Constituency to Ozondati, yet provides a limited range of facilities and services. A few small shops offer a basic selection of goods and a combined schools provides some access to education. Ozondati is a small village/settlement with not more than 100 households with limited services and businesses. People have reasonable access to water, but beyond the settlement water availability is a limiting factor.

4.3.2 Land Tenure

The land where the project area is located is within the Conservancy and earmark for tourism development and also used as a grazing land.

4.3.3 Human Settlement and Land use

The current site proposed for the camp development is not used for any specific activity.

4.3.4 Archaeological and Cultural Sites

No archaeological and cultural sites were found within or nearby the project's site.

4.3.5 Existing Infrastructure

Apart from gravel roads and walkways, there is no existing infrastructure at the site.

4.3.6 Water Supply and Sewage

Services such as electricity, water and sewerage systems do not exist. These services will be developed in accordance with best eco-tourism practices and standards.

CHAPTER 5: POTENTIAL ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS

5.1 General Considerations

The objective of assessing the potential effects of the proposed project was essentially to permit planning of actions to avoid or reduce undesirable effects and/or to enhance secondary benefits of the project. Implementation of a project may exert a suite of effects during the construction and operation stages. It is therefore common practice to discuss the effects of the project construction and operations (including preparatory phase) before the project commences.

Therefore, this section of the report addresses the interactions of the project with the natural and socio-economic resources in and around the project site. These interactions are normally known as 'impacts'. It is worthwhile separating project effects into direct (or primary) effects resulting from direct interaction of some components of the project with one or more environmental resources, and indirect (or secondary) effects which arise from the primary effects. Note that a classification of negative effect does not necessarily imply a long-term adverse effect on the environment. It may as well indicate an irreversible change to the physical environment from original conditions. In some cases, these irreversible changes can result in favourable long-term effects.

5.2 Prediction of Impacts

The Proponent is aware of the fact that the proposed project will have both negative and positive impacts. Importantly, the negative impacts are mainly related to the construction and operation activities, and limited to the site. In predicting possible impacts, the following impact zones were applied:

- a) Zones influenced by land use changes: area where the development will be carried out.
- b) Zones influenced by activities associated with the construction: buildings construction impact zone, camp establishment area, access roads and local communities within a radius of 1,5km.

- c) Zones influenced by activities associated with the operations of the development: area that will be impacted on due to human activities arising from the camp and support infrastructure.

A hand-held GPS unit and topographical maps were used to map these ecological zones based on field surveys. Prediction of impacts of the proposed project was carried out with the aid of appropriate analytical techniques. However, certain ecological aspects do not lend themselves to straight forward quantification. In such instances, expert judgement by members of the multi-disciplinary EIA team was employed.

5.3 General Impacts

A number of impacts (positive and negative) were identified with due consideration to issues discussed in the earlier Sections of this Chapter. These impacts are based on the design of the infrastructure development, project details, environmental and socio-economic baseline studies, stakeholder consultations as well as expert judgment.

5.4 Impact Criterion and Classification

For purposes of this report, classification of possible impacts and criterion used are highlighted in the Table 2 below.

Table 2: Criterion and classification of impacts

Assessment Evaluation Criteria	Rating (Severity)	
Impact Type	-	Negative
	=	No Impact or Negligible Impact
	+	Positive
Extent of impact	I	Immediate (the site and immediate surroundings)
	L	Local
	R	Regional
	N	National
	IT	International
Duration of impact	ST	Short term (0-5 years)
	MT	Medium term (5-15 years)
	LT	Long term (lifetime of the development)
Intensity of impact	L	Low (where natural, cultural and social functions and processes are not affected)
	M	Medium (where the affected environment is altered but natural, cultural and social functions and processes can continue)
	H	High (where the affected environment is altered to the extent that natural, cultural and social functions and processes will temporarily or permanently cease)
Probability of impact	LP	Low probability (possibility of impact occurring is low)
	P	Probable (where there is a distinct possibility that it will occur)
	HP	Highly probable (where the impact is most likely to occur)
	D	Definite (where the impact will occur)
Significance of impact	L	Low (where natural, cultural and social and economic functions and processes are not affected). In the case of adverse impacts, mitigation is either easily achieved or little will be required, or both. In the case of beneficial impacts, alternative means of achieving this benefit are likely to be easier, cheaper, more effective and less time-consuming
	M	Medium (where the affected environment is altered but natural, cultural, social and economic functions and processes can continue). An impact exists but is not substantial in relation to other impacts that might take effect within the bounds of those that could occur. In the case of beneficial impacts, other means of achieving this benefit are about equal in time, cost and effort.
	H	High (where the affected environment is altered to the extent that natural, cultural, social and economic functions and processes will temporarily or permanently cease). In the case of adverse impacts, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time consuming or a combination of these. In the case of beneficial impacts, the impact is of a Substantial order within the bounds of impacts that could occur.

5.5 Potential Impacts

5.5.1 Socio-Economic Impacts

Impact: Increased Employment Opportunities

The development will create job opportunities for the local community members of the Conservancy. At preparatory, construction and operational stages, local Conservancy members will be employed and consequently livelihood support for family members will be improved (short-term and long-term) – in particular as on average support from one job benefit five family members. ***Currently, there are no job opportunities in the Conservancy; ZERO. This development could potentially positively impact at least 50% of the local community.***

Impact: Increase in Local Population

The development will not have a significant impact on the population size of the area. The proposed development will source a very small number of highly skilled personnel from outside the Conservancy during the construction phases. All semi-skilled and unskilled staff will be employed from the Conservancy and appropriate training provided. Hence, the possibility of the project to significantly increase the local population is very low. Human presence in the remote project site will though increase. It is not expected that this increase of human presence will significantly negatively impact the wildlife or diminish the eco-tourism experience in the area. It is however expected that this increased human presence will help to manage the currently largely unmanaged tourism activities in the area.

Impact: Increase in Local Economic Activities

Trading opportunities among the local people are expected to increase. Food and other household necessities will be sold to the camp and its staff, providing both a short-term and long-term positive economic activities. Additionally, aspects of the business such as laundry will be outsourced locally. Increased employment numbers within the Conservancy, will also support local trade through increased income in the area, including sale of hand crafts.

Impact: Water Supply Availability

The development is unlikely to put pressure on water demand in the area and will not overwhelm the groundwater resources. The new boreholes needed for the camp use, will also be used to provide water to nearby households and will also be used to establish wildlife waterpoints in order to reduce the human-wildlife conflict in the area.

Impact: Loss on Cultural Sites

No significant impact determined. It has become clear that well managed eco-tourism activities in communal areas can enhance cultural activities and promote their preservation.

Impact: Increased Demand for Health Services

During construction and operations, all occupational health related injuries will be referred to the local health facilities for immediate attention, in Uis. This will not have a significant impact on the capacity of the medical staff and facilities to meet the demand for health care, since most of the employed people will be from the area and already residing within the area. HIV and AID programs for the Contractors, Camp Staff and local communities need to be developed and provided so to ensure that the participating people are not exposed to increased risk of contracting HIV and/or spreading it.

Impact: Worker Safety

During the construction and operation phases, light machinery will be employed for the digging and putting up associated infrastructure. Absence of clear safety guidelines may lead to accidents affecting worker's safety and productivity, however, this will not be the case during the construction of this development and clear safety guidelines will be available and all workers will be briefed and trained accordingly.

Impact: Increased Traffic

Increased traffic flow in and out of the area is expected during construction and operations. During operations, this increase is expected to be insignificant. A slightly increase in local traffic can be expected during construction, however, this will be for a

limited period of time and the impact is expected to be low. All traffic regulations will be observed at all times.

Impact: Blasting noise and vibration

No blasting will take place, but limited vibrations from machinery and tools could be perceived as intrusion. This will only occur during limited construction time and at few points in time.

5.5.2 Environmental Impacts

Impact: Displacement of people

No impact.

Impact: Machinery noise and vibration

During the construction and operational phases, noise and vibrations from the vehicles and machineries will result into noise and vibration. This impact will be insignificant. The construction workers are the most vulnerable and therefore they should wear protective gear.

Impact: Water quality

No impact.

Impact: Solid Waste Disposal

Waste will be produced at the site during the setting up of supporting infrastructure and digging trenches for the pipeline. Piles of gravel cleared are not environmental pollutant hazard, but can reduce the area aesthetics value.

Impact: Air Pollution

The major source of the impact will be dust from vehicles ferrying materials. Due to distance from local communities, this impact is insignificant. Care should be taken not to expose workers to excessive dust and exhaust fumes.

Impact: Loss of Historical and Cultural Sites:

No impact.

Impact: Loss of Productive Land

There is enough grazing area for the community. The Leasehold is for 15ha out of at least 1196 km² Conservancy area. Hence loss 15ha of productive land will be insignificant.

Impact: Loss of Wildlife Habitat, Indigenous Flora and Fauna

The project site will not interfere directly with any existing wildlife reserves or protected areas. Limited loss of some terrestrial wildlife habitat and flora is expected. However, given the size of the proposed development in relation to the larger landscape, this can be considered insignificant.

Poaching and removal of any plant materials will be closely monitored by the conservancy and rangers. The Proponent is the custodian of the grassroots conservation initiative and they will also ensure that no poaching or removal of plant materials take place.

Impact: Erosion of the Top-Soil

The nature of the project demands the use of machinery during construction. This may lead to instability of the soil in the area and as a result may cause soil erosion. This though will not lead to gully formation, unless site rehabilitation is not done properly after construction and no regular maintenance is carried out during the operational phase of the project.

Impact: Siltation and Sedimentation

No impact.

Impact: Soil degradation

No impact.

The following Tables below present the proposed impact analysis.

Table 3: Evaluation of impacts during pre-construction phase

PRE-CONSTRUCTION PHASE							
Identified Impact	Impact Type	Extent	Duration	Intensity	Probability	Significance	
						Unmitigated	Mitigated
Surface water pollution	=						
Ground water pollution	=						
Soil erosion	=						
Soil pollution	=						
Air pollution	=						
Land use potential	=						
Habitat transformation	=						
Fauna displacement	=						
Damage to Flora	=						
Traffic impacts	=						
Visual & aesthetic impacts	=						
Social	+	L	ST	M	D	L	M
Economic	+	L	ST	M	D	L	M

Table 4: Evaluation of impacts during construction phase

CONSTRUCTION PHASE							
Identified Impact	Impact Type	Extent	Duration	Intensity	Probability	Significance	
						Unmitigated	Mitigated
Surface water pollution	=						
Ground water pollution	=						
Soil erosion	-	I	ST	L	LP	L	=
Soil pollution	-	I	ST	L	LP	L	=
Air pollution	-	I	ST	L	P	L	=
Land use potential	-	I	ST	L	P	L	=
Habitat transformation	=						
Fauna displacement	-	I	ST	L	LP	L	=
Damage to Flora	=						
Traffic impacts	-	I	ST	L	P	L	=
Visual & aesthetic impacts	-	I	ST	L	P	L	=
Social	+	L	ST	M	D	M	H
Economic	+	L	ST	M	D	M	H

Table 5: Evaluation of impacts during operational phase

OPERATIONS PHASE							
Identified Impact	Impact Type	Extent	Duration	Intensity	Probability	Significance	
						Unmitigated	Mitigated
Surface water pollution	=						
Ground water pollution	=						
Soil erosion	-	I	ST	L	P	L	=
Soil pollution	-	I	ST	L	P	L	=
Air pollution	=						
Land use potential	+	L	LT	M	D	M	H
Habitat transformation	=						
Fauna displacement	=						
Damage to Flora	=						
Traffic impacts	=						
Visual & aesthetic impacts	+	L	LT	M	D	M	H
Social	+	L	LT	M	D	M	H
Economic	+	N	LT	M	D	M	H

CHAPTER 6: ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN (EMP)

From the above identification of adverse and positive impacts measures have been proposed for mitigation. In order to achieve this, an Environmental Management Plan (EMP) has been developed. See Appendix D.

CHAPTER 7: CONCLUSION

A project of this magnitude will bring with it both positive and negative environmental and socio-economic impacts. These can be localized to the project site or can also affect areas within the project's vicinity. While positive impacts from this development are expected to affect the wider Conservancy and its members, the adverse effects can be considered very localized. For this proposed development, the positive impacts significantly outweigh the negative impacts to which amelioration measures have been proposed to cushion their effects.

Therefore, we recommend that the project be considered for approval for implementation, especially since the proposed site for the project is not a sensitive site, and has been zoned for "Tourism" development as per the Conservancy Management Plan of 2022.

This Scoping Report has revealed that, further studies will not be required in order to identify gaps in information or to accurately identify all project's aspects that could generate significant negative impacts.

BIBLIOGRAPHY

- Burke, A. 2009. Wild flowers of the Northern Namib. Solitaire Press (Pty) Ltd. Windhoek, Namibia.
- Burke, A. 2009. Wild flowers of the Central Namib. Solitaire Press (Pty) Ltd. Windhoek, Namibia.
- Christelis G. & Struckmeier W. 2001. Groundwater in Namibia: an explanation to the hydrogeology map. John Meinert Printing (Pty) Ltd. Windhoek, Namibia.
- Legal Assistance Center Website. <http://www.lac.org.na/>. Accessed October 2023 to January 2024.
- Mendelsohn, J. 2003. Atlas of Namibia: A portrait of land and its people. David Philip Publishers. Cape Town, South Africa.
- Muller M.A.N. 2007. Grasses of Namibia. John Meinert Printing (Pty) Ltd. Windhoek, Namibia.
- NACSO Website. <http://www.nacso.org.na/index.php>. Accessed October 2023 to January 2024.
- NACSO Website. Ohungu Wildlife Management and Audit (2022). Accessed October 2023 to December 2023.
- National Planning Commission (NPC). 2012. Namibia 2011 population and housing census preliminary results. Windhoek, Namibia.
- Palgrave K.C. 1993. Trees of Southern Africa. 2nd Ed. Struik Publishers. Cape Town.
- US Department of State Geographer. Google Earth. Accessed October 2023 to January 2024.