APP - 002358

ENVIRONMENTAL IMPACT ASSESSMENT FOR SUBDIVISION OF PORTION 224 OF THE FARM AUSSENKJER 147

ENVIRONMENTAL ASSESSMENT SCOPING REPORT

Assessed by:

Assessed for:

Orange River Vineyard Investments (Pty) Ltd

October 2023

Project:	**ENVIRONMENTAL IMPACT ASSESSMENT FOR SUBDIVISION OF PORTION 224 OF THE FARM AUSSENKJER 147: ENVIRONMENTAL ASSESSMENT SCOPING REPORT**	
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Report Approval		

Client Declaration

I _____, the Proponent, hereby confirm that the project description contained in this report is a true reflection of the information which the Proponent has provided to Geo Pollution Technologies. All material information in the possession of the Proponent that reasonably has or may have the potential of influencing any decision or the objectivity of this assessment is fairly represented in this report.

Signed at _____ on the _____ day of _____ 2023.

_____ _____

Orange River Vineyard Investments (Pty) Ltd Company Registration Number

EXECUTIVE SUMMARY

Geo Pollution Technologies (Pty) Ltd was appointed by Orange River Vineyard Investments (Pty) Ltd (the Proponent) to undertake an environmental assessment for the subdivision of Portion 224 of the Farm Aussenkjer 147 for purposes of establishment of a residential development. The farm belongs to the Proponent who has previously established houses on the land, serving as accommodation for employees on the farm. Through the subdivision, the Proponent intends to formalise the residential area and allow the residents to obtain ownership of the respective erven, if they so desire. The Proponent plans to establish 39 portions and the remainder. Some of these erven already have established houses while empty erven will be developed in future.

As part of the project, the Proponent intends to also provide basic services. For this purpose, potable water, electricity and sewer connections were already established while a public road serving as an access road to the subdivided portions must still be formalised. Potable water is supplied by NamWater, electricity by NamPower, and a biological waste water treatment plant was constructed by the Proponent to treat domestic effluent. Waste removal services will also be provided by the Proponent.

For purposes of the environmental assessment, the project is divided in two phases. Phase 1 is a construction phase and phase 2 is operational activities related to services provision for the residential area. Apart from a formalised access road, most of the phase 1 construction activities have been completed, although future construction of more residential units are planned, and these slot in with the assessment of phase 1 impacts in this report. The main phase 2 operational activities related to the residential area are waste removal services, maintenance of the waste water treatment plant, ensuring continued supply of potable water and electricity from NamWater and NamPower, and road infrastructure maintenance.

The environmental assessment determines all environmental, safety, health and socio-economic impacts associated with the construction and operational activities of the project (phase 1 and 2). Relevant environmental data was compiled by making use of secondary data and from a reconnaissance site visit. Potential environmental impacts and associated social impacts were identified and are addressed in this report.

The project location is in the Aussenkehr settlement and is surrounded by farmland and informal settlements. Due to the nature of the project, some impacts can be expected on the environment. Such impacts are both positive and negative in nature. Positive impacts relates to the development of Aussenkehr and the provision of adequately service housing to a portion of the local community. Through construction and operational activities, some employment is offered to the local community who in turn generates an income through the receipt of wages. The main concerns related to the construction phase are that of health and safety, dust, noise and pollution. Operational impacts are mostly related to inadequate waste storage and collection procedures, pollution and possible failure of the waste water treatment plant and resultant contamination of the environment. Implementation of a safety, health, environment and quality policy will contribute to effective management procedures to prevent and mitigate impacts. All regulations relating to various aspects of the development as well as labour and health and safety legislation should be adhered to. Groundwater and soil pollution must be prevented at all times. All staff must be made aware of the importance of biodiversity and poaching or illegal harvesting of animal and plant products prohibited. Any waste produced must be removed from site and disposed of at an appropriate facility or re-used or recycled where possible. Hazardous waste must be disposed of at an approved hazardous waste disposal site. By appointing local employees and by implementing monitoring and training programs, the positive socio-economic impacts can be maximised while mitigating any negative impacts. Regular monitoring of environmental performance is recommended to ensure regulatory compliance and the implementation of corrective measures when necessary.

The environmental management plan included in this report should be used as an on-site reference document during all phases (planning, construction and operations) of the project. All monitoring and records kept should be included in six monthly reports to ensure compliance with the environmental management plan and the Ministry of Environment, Forestry and Tourism's requirements. Parties responsible for transgression of the environmental management plan should be held responsible for any

rehabilitation that may need to be undertaken. The safety, health, environment and quality policy should be used in conjunction with the environmental management plan. Operators and responsible personnel must be taught the contents of these documents. Local or national regulations and guidelines must be adhered to and monitored regularly as outlined in the environmental management plan.

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
DEA	Department of Environmental Affairs
ºC	Degrees Celsius
EA	Environmental Assessment
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act, 2007 (Act no. 7 of 2007)
EMP	Environmental Management Plan
EMS	Environmental Management System
LPG	Liquid Petroleum Gas
GHG	Greenhouse
GPT	Geo Pollution Technologies (Pty) Ltd
HIV	Human Immunodeficiency Virus
HMV	Heavy Motor Vehicle
IAP	Interested and Affected Party
IUCN	International Union for Conservation of Nature
Km	Kilometre
m	Meter
m^3	Cubic meter
m/s	Meter per second
mbs	Meters below surface
MEFT	Ministry of Environment, Forestry and Tourism
mm/a	Millimetres per annum
MSDS	Material Safety Data Sheet
NDP	National Development Plan
NGO	Non-Government Organisation
PPE	Personal Protective Equipment
PV	Photovoltaic
SANS	South African Standards
SEA	Strategic Environmental Assessment
WHO	World Health Organization
VIP	Ventilated Improved Pit Latrine

Glossary of Terms

Alternatives - A possible course of action, in place of another, that would meet the same purpose and need but which would avoid or minimize negative impacts or enhance project benefits. These can include alternative locations/sites, routes, layouts, processes, designs, schedules and/or inputs. The "no-go" alternative constitutes the 'without project' option and provides a benchmark against which to evaluate changes; development should result in net benefit to society and should avoid undesirable negative impacts.

Assessment - The process of collecting, organising, analysing, interpreting and communicating information relevant to decision making.

Biodiversity - The variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part.

Competent Authority - means a body or person empowered under the Local Authorities Act or Environmental Management Act to enforce the rule of law.

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

Environment - As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, palaeontological or social values".

Environmental Assessment (EA) – Namibian terminology for a process of assessing the effects on the environment through either a scoping assessment or a combination of a scoping- and detailed assessment.

Environmental Management Plan (EMP) - A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.

Environmental Management System (EMS) - An Environment Management System, or EMS, is a comprehensive approach to managing environmental issues, integrating environment-oriented thinking into every aspect of business management. An EMS ensures environmental considerations are a priority, along with other concerns such as costs, product quality, investments, and strategic planning. An EMS generally makes a positive impact on a company's bottom line. It increases efficiency and focuses on customer needs and marketplace conditions, improving both the company's financial and environmental performance. By using an EMS to convert environmental problems into commercial opportunities, companies usually become more competitive.

Evaluation – means the process of ascertaining the relative importance or significance of information, the light of people's values, preference and judgements in order to make a decision.

Hazard - Anything that has the potential to cause damage to life, property and/or the environment. The hazard of a particular material or installation is constant; that is, it would present the same hazard wherever it was present.

Interested and Affected Party (IAP) - any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.

Mitigate - The implementation of practical measures to reduce adverse impacts.

Proponent (Applicant) - Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act no. 7 of 2007, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment & Tourism.

Public - Citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a homogeneous and unified group of people with a set of agreed common interests and aims. There is no single public. There are a number of publics, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.

River Morphology – Description of the shapes of river channels and how they change in shape and direction over time. The morphology of a river channel is a function of a number of processes and environmental conditions, including the composition and erodibility of the bed and banks (e.g., sand,

clay, bedrock); erosion comes from the power and consistency of the current, and can affect the formation of the river's path.

Scoping Process - process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.

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

Stakeholder Engagement - The process of engagement between stakeholders (the proponent, authorities and IAPs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can therefore be described by a spectrum or continuum of increasing levels of engagement in the decision-making process. The term is considered to be more appropriate than the term “public participation”.

Stakeholders - A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (IAPs). The principle that environmental consultants and stakeholder engagement practitioners should be independent and unbiased excludes these groups from being considered stakeholders.

1 BACKGROUND & INTRODUCTION

Geo Pollution Technologies (Pty) Ltd was appointed by Orange River Vineyard Investments (Pty) Ltd (the Proponent) to undertake an environmental assessment for the subdivision of Portion 224 of the Farm Aussenkjer 147 for purposes of establishment of a residential development. The project is located in Aussenkehr in the ǁKaras Region (Figure 1-1). The farm belongs to the Proponent who has previously established houses on the land, serving as accommodation for employees on the farm. Through the subdivision, the Proponent intends to formalise the residential area and allow the residents to obtain ownership of the respective erven, if they so desire. The Proponent plans to establish 39 portions and the remainder. Some of these erven already have established houses while empty erven will be developed in future.

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The Proponent requested Geo Pollution Technologies (Pty) Ltd (GPT), as an independent environmental consultant, to apply for an environmental clearance certificate (ECC) for the subdivision of the land, establishment of the access road, operations of the waste water treatment plant and handling of waste. As such, and in line with the current requirements of the Ministry of Environment, Forestry and Tourism (MEFT), an environmental assessment and environmental management plan (EMP) are proposed to be prepared for submission to the MEFT. The environmental assessment and EMP will be prepared in line with the Environmental Management Act No. 7 of 2007 (EMA) and its regulations as published in 2012.

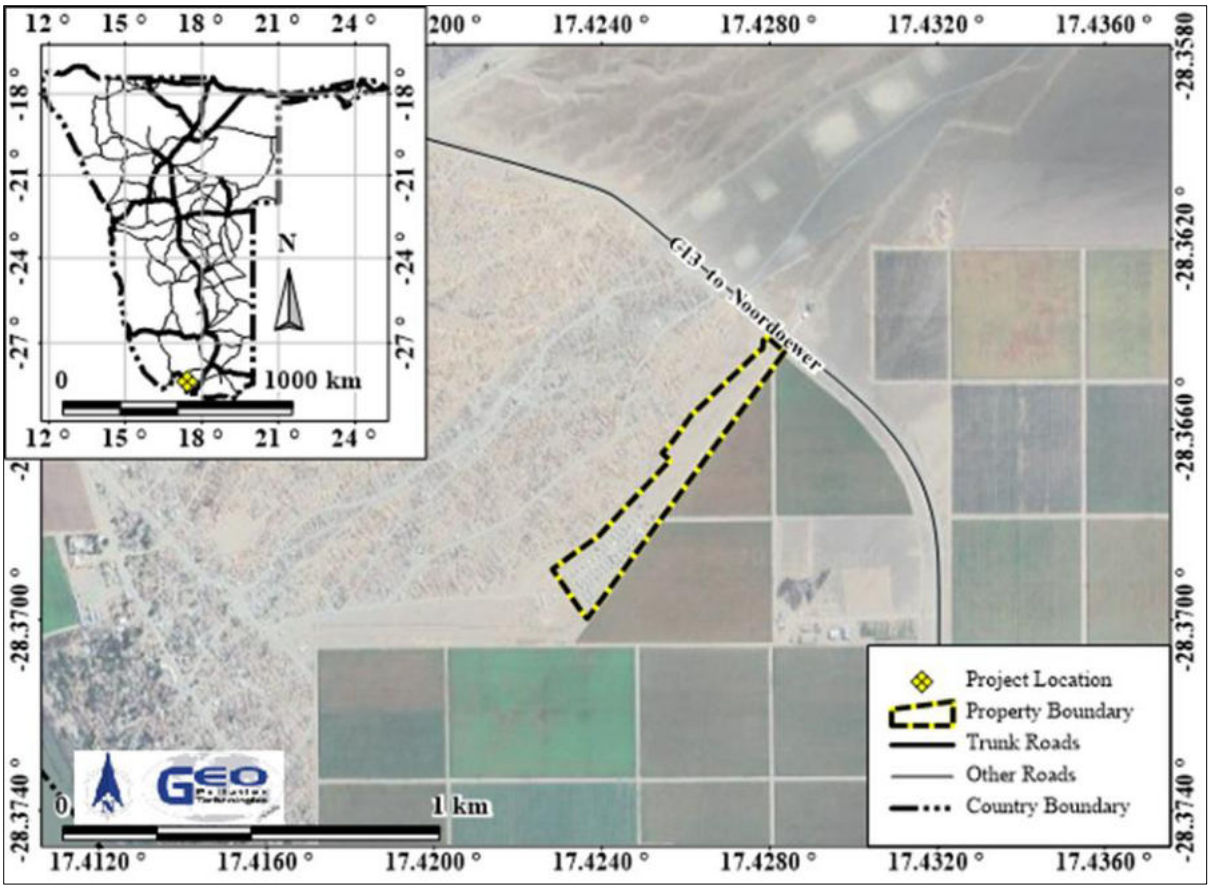


Figure 1-1 Project Location

A detailed project description is provided in Section 3. The potential impacts of the project on the environment, resulting from the subdivision and related activities, as well as the construction, operational and possible decommissioning activities, were determined through the risk assessment as presented in this report.

The environment being defined in the Environmental Management Act as "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values". The environmental assessment was conducted to apply for an environmental clearance certificate in compliance with Namibia's Environmental Management Act (Act No 7 of 2007).

Project Justification – The collective initiative in Aussenkehr, that is, the production of table grapes for export purposes, generate a variety of social spin-offs. However, one has to understand how Aussenkehr has been structured and how it is functioning. The greater farm Aussenkjer FMV/00147 is privately owned. The owner of the property explored the possibility of cultivating table grapes during the 1980's along the northern bank of the Orange River. The initiative proved successful. Thereafter the owner subdivided various portions along the river bank and sold it to agricultural business who could expand and grow the initiative. To facilitate the housing requirements for labourers, the owner further donated 600 ha of land to the Government of Namibia. The land was and still is, earmarked to be developed into a fully serviced residential area. However, 15 years after the donation of the land, it is underdeveloped and un-occupied. Workers, families and potential job seekers have established informal dwellings next to the Orange River on the privately owned land. To assist these people, many of which are not employed by any of the farming operators in Aussenkehr, a private "town-keeping" initiative was established to provide rudimentary services such as removal of waste and provision of water. These are funded by private companies, but are however not sufficient to serve all the people residing in Aussenkehr. NamWater has recently also established a reservoir and supply the community with potable water through localised water metered services. The government has established a police

station, school, clinic and tuberculosis centre. Some of these are also supported by the private companies. For example, contributions are made to the school which includes provision of basic services such as water and electricity. It is against this back-drop that the Proponent has endeavoured in providing formalised residential units to its labourers and for this purpose the subdivision is crucial. The major project motivation and justification is the provision of housing and basic services to employees and to provide them with the opportunity to gain ownership of the properties.

2 SCOPE

The scope of this report is to, in compliance with the requirements of EMA:

1. Present a detailed project and environmental description related to the Proponent's activities.
2. Determine the potential environmental impacts emanating from the Proponent's activities and potential future decommissioning of such activities.
3. Identify a range of management actions to mitigate the potential adverse impacts to acceptable levels.
4. Provide sufficient information to the relevant competent authority and the MEFT to make an informed decision regarding the project and the issuing of an environmental clearance certificate.

3 ASSUMPTIONS AND LIMITATION

Assumptions and limitations which are pertinent to this environmental assessment include the following:

- No expansion beyond the indicated areas are proposed for future development.
- Residential units will ultimately become the property of individual owners and all further activities related to the occupation of the residential units with their erven do not fall within the ambit of the Proponent.
- National demographic data for the area may be outdated since the census data is older than 10 years.
- Data presented by the Proponent is true and correct for the time-period of this assessment.

4 METHODOLOGY

Methods employed to investigate and report on potential impacts of the Proponent's activities on the social and natural environment include:

1. Detailed infrastructure and operational procedures received from the client are presented in this report.
2. Baseline information about the site and its surroundings were obtained from primary information (hydrogeological assessment), existing secondary information as well as from a reconnaissance site visit.
3. As part of the scoping process to determine potential environmental impacts, interested and affected parties (IAPs) were consulted about their views, comments and opinions, all of which are presented in this report.
4. As per the findings of this environmental assessment, a scoping report with an EMP were prepared and this will be submitted to the MEFT.

5 PROJECT DEVELOPMENT AND RELATED ACTIVITIES

The proposed residential area will include the establishment and servicing of approximately 36 erven (Figure 5-1). Some of the proposed erven already have established and occupied residential units. The proposed location and layout of these erven was determined during various site visits and is based on the presence of existing table grape vineyards, the nearby informal settlement as well as national housing guidelines. Initially, the residential development was constructed to be part of the farm's agricultural support infrastructure (workers' housing), however, by subdividing the property, separate

erven can be presented to individuals for purchase, thereby presenting them with the opportunity to own their own property (fixed asset).

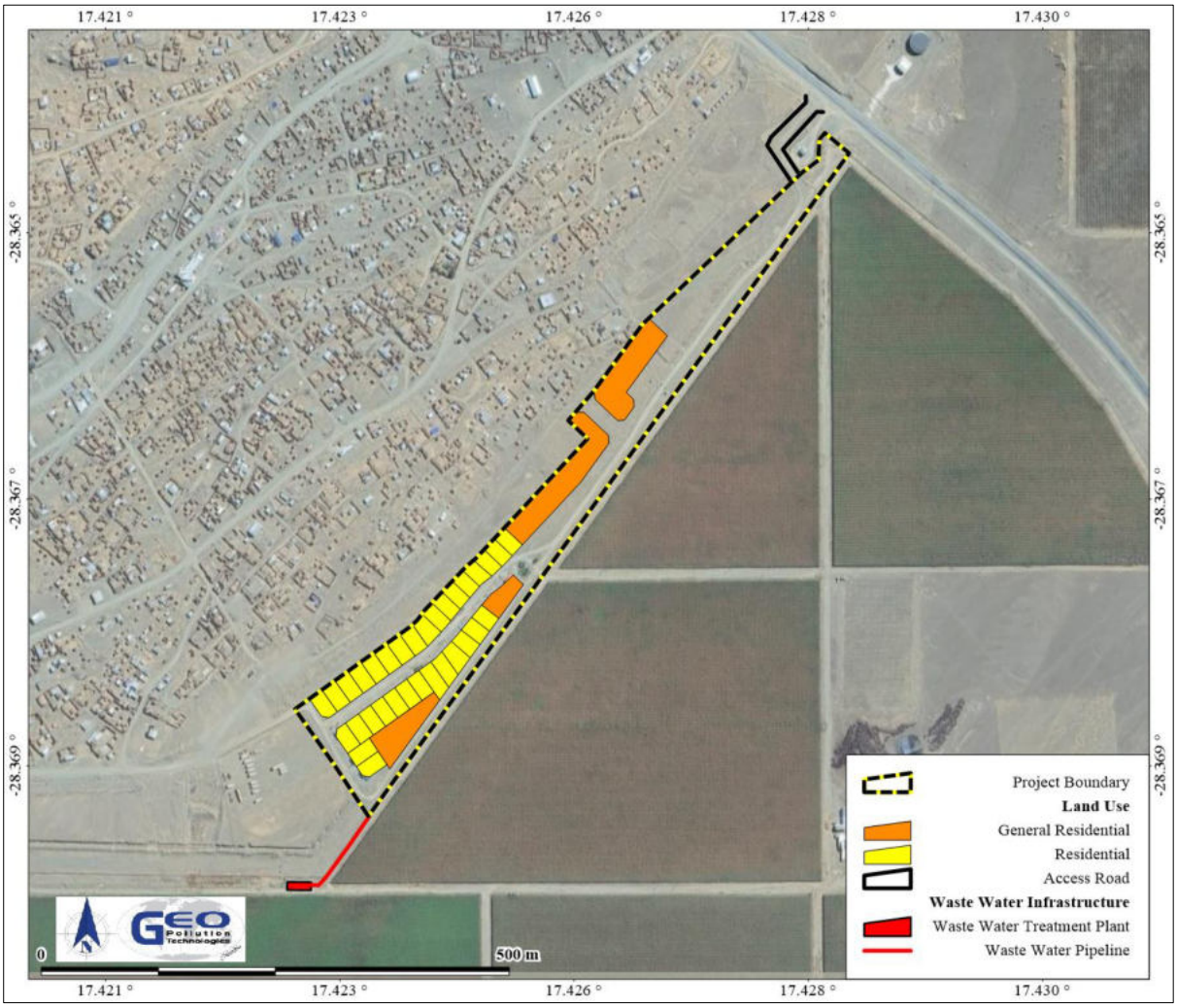


Figure 5-1 Housing development layout

5.1 PLANNING PHASE (LAND USE AND PLANNING)

The organic growth and proliferation of Aussenkehr has resulted in the establishment of a settlement which is continually being developed by the local agricultural and business sector, as well as National agencies such as NamWater. The area however remains under the jurisdiction of the ǁKaras Regional Council. Housing, sanitation and electrical supply remains prominent challenges in Aussenkehr, especially taking into consideration the large informal settlement that has established over the years. The Proponent's residential development is located on privately owned land (i.e. the Proponent's farm) which the Proponent earmarked for residential development. The land use of the residential development will be similar to the proposed settlement area planned by the ǁKaras Regional Council on 600 ha of land north of the D2012 District Road.

In addition to the overall planning for Aussenkehr, the specific planning requirements for this project entail further partnerships and strategic consultation with main service providing parastatals such as NamWater, NamPower, Roads Authority, etc. The planning phase of the project thus includes overall construction and operational planning, but also amenities and permit acquisitions where pertinent. It includes reaching various agreements between contractors, suppliers and state departments, especially during the construction phase. Some of the agreements which may be considered as examples, most of which have already been reached, are provided below:

- Subdivision and rezoning of properties,
- NamPower, NamWater, etc., for service and servitude agreements,
- Roads authority approval for access roads
- Obtaining consumer installation certificates for construction fuel supply (if required),
- Setting labour contracts (including tender documentation for contractors), and
- Obtaining an ECC (as per this process) as well as any other permits as required.

5.2 CONSTRUCTION AND PHASING

Construction of the housing units, service infrastructure and access road was planned for in various stages with the establishment of the residential units and the internal road network being completed first. Thereafter services were installed which included sewerage (waste water) infrastructure and water and power reticulation. The next phase is related to the construction of the access road. The location of the access onto the existing D2012 District Road was extensively discussed and planned with the Roads Authority (Figure 5-1, Photo 5-3 and Photo 5-4).

Photo 5-1 Residential unit

Photo 5-2 Access road to site

Photo 5-3 North-western view from the access point

Photo 5-4 South-eastern view from the access point

Construction activities and specifically also installation of services infrastructure required bulk earthworks and included localised blasting on hard geological formations. All excavations were managed by the Proponent who employed local residents with contracted specialists where required. Construction camps only used temporary ablution and security facilities, and served as material laydown areas which accommodated limited temporary fuel storage for the use by heavy motor vehicles (HMV) and earth moving equipment. Some hazardous chemicals, as used in the construction industry, were kept in small volumes in construction camps. All water for

construction was brought to site and kept in temporary tanks until a bulk line to the area was established.

The internal water pipeline was laid approximately 1 m below surface in mechanically dug trenches. Similar trenches were used for the laying of the sewerage mains. The main water lines varies from 75 mm to 160 mm diameter uPVC class 9 pipelines with the house connections being 25mm to 32mm HDPE class 10 pipelines as well as 75mm uPVC Class 9 pipelines. All sewerage lines are connected to a waste water treatment facility located 100 m south-west of the southernmost corner of the residential area. The waste water treatment plant is located lower than the residential area thus allowing a gravity fed system without the need for booster pumps.

The power line connection was established by linking an existing power line to the area. Individual power meters were installed for each residential unit. All building regulations related to power infrastructure were observed.

The waste water treatment plant, a biological treatment facility, was constructed to handle sewage generated by the township. The general layout of the waste water treatment infrastructure of the township is presented in Figure 5-2. The wastewater treatment plant is capable of treating up to 25 m^3 of waste water per day. Figure 5-3 indicates the various stages of the waste water treatment process. A brief description of the steps follows below.

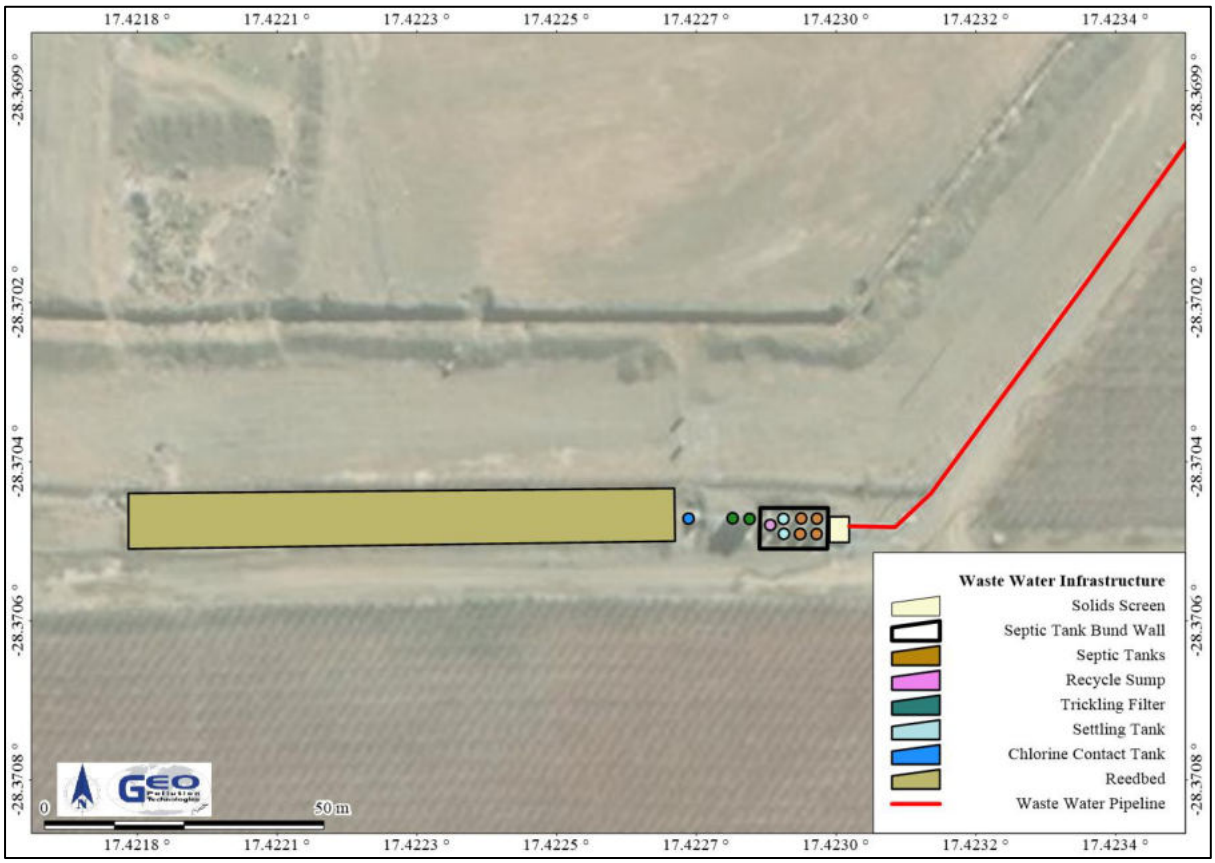


Figure 5-2 General waste water treatment plant layout

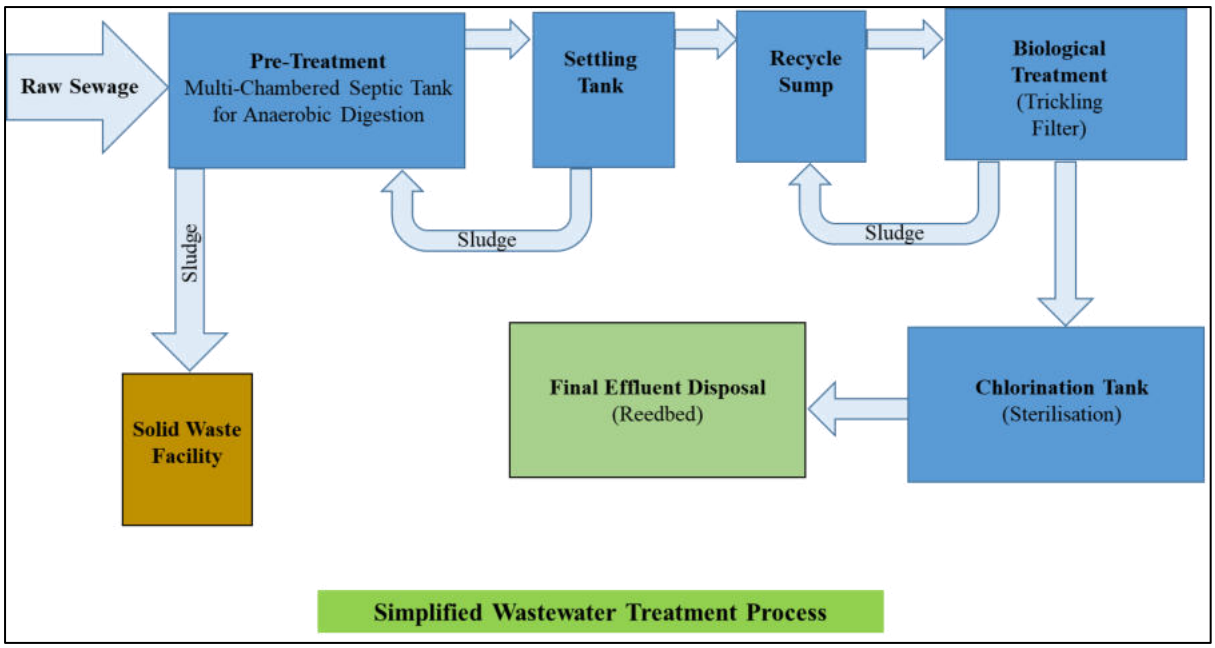


Figure 5-3 Simplified wastewater treatment process

5.2.1 Raw Sewage Collection and Receipt

All black- and grey- water (raw sewage) from the ablution facilities of the residential area collect in sewer pipes and are transferred to the waste water treatment plant. The sewage passes through a solids screen before entering a septic tank system for pre-treatment.

5.2.2 Pre-Treatment

Pre-treatment occurs in two two-chambered septic tank systems. The septic tanks are not the standard concrete tanks constructed in the ground, but are high quality and durable plastic tanks. Raw sewage will be a mixture of solids and liquids and will include substances like surfactants (soap) and oils (body lotions). The aim of pre-treatment is to prevent solids from entering subsequent treatment steps as well as to start the digestion process of such solids. It typically is a process of sedimentation and anaerobic digestion. The septic tank is a two chamber tank system although more chambers can be added in series. In the standard two chamber system, raw sewage enter the first chamber and solids settle to the bottom. Anaerobic digestion of solids occur here in the presence of anaerobic bacteria. The liquid part, containing a reduced amount solids, is allowed to flow into the second chamber where sedimentation of finer particles is allowed and more anaerobic digestion occurs. The effluent from the second tank is relatively clear and will proceed into a settling tank where remaining large particles settles to the bottom of the tank. The liquid component from the settling tank is then transferred to a recycling sump. From here it enters an aerobic stage of treatment. Although the digestion of solids in the septic tank system is relatively efficient (depending on the design and efficiency of the system), it may be required to remove the solids (sludge) from time to time for disposal at a suitable location. Also, the sludge collected in the settling tanks may be removed and transferred back into the septic tanks for further decomposition or also removed for disposal with the septic tank sludge.

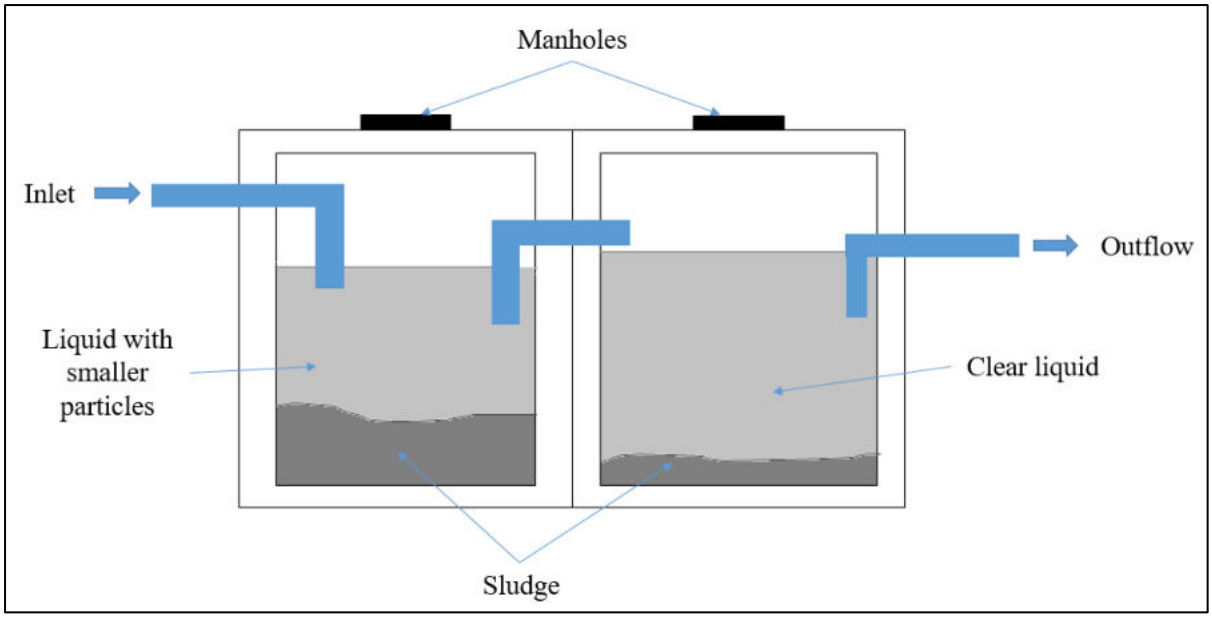


Figure 5-4 Typical septic tank design

5.2.3 Aerobic Treatment

The second stage of the treatment process is an aerobic stage where micro-organisms in the presence of oxygen degrades remaining organic material and some inorganic material (e.g. nitrite and nitrate) within the effluent form the pre-treatment process. For aerobic treatment to work optimally there are several requirements that must be met. These are: 1) the presence of an abundance of micro-organisms that can include bacteria, ciliates, protozoans and many other organisms; 2) the presence of sufficient oxygen that typically is present in the wastewater, but can also be increased by passing air through the water; 3) a large surface area covered by the micro-organisms (biofilm) which is achieved by the presence of media (e.g. coke, pumice, clinker, gravel, plastic and geotextile); 4) slow passage of wastewater over the biofilm as well as equal distribution of water over the biofilm.

The aerobic treatment process in the installed system is a trickling filter. Wastewater is trickled over biofilm covered media to allow the oxidation (and sometimes reduction) of organic and inorganic materials. The wastewater is circulated through the system and back to the recycle sump to allow it to pass over the media multiple times to allow maximum treatment. Organic particles and dead microorganism are collected in the process as sludge that must be discarded. Effluent from the aerobic treatment process will contain micro-organisms and is therefore not suitable for applications where human contact or ingestion of water can occur. Thus, a sterilisation step is required.

5.2.4 Sterilisation

The effluent from the aerobic process moves into a chlorine contact tank where it is sterilized by chlorination. This step kills off micro-organisms that is present in the treated water.

5.2.5 Final Effluent

Final effluent from the chlorination tank is released into a reed bed which further aids in cleaning the water of any remaining contaminants by means of bacteria, fungi and micro-organisms. Final effluent from the chlorination tank must conform to the standards and requirements for effluent discharged into the environment.

Photo 5-5 Wastewater treatment plant

Photo 5-6 Transformer

5.3 OPERATIONAL PHASE

As mentioned, operational activities related to the residential area are waste removal services, maintenance of the waste water treatment plant, ensuring continued supply of potable water and electricity from NamWater and NamPower, and road infrastructure maintenance. Already constructed and serviced houses are already occupied and the above operational aspects are therefore ongoing. The access road, although not yet formalised, has an access restriction to prevent general heavy motor vehicles from entering the site. Access is only permitted to residents and related visitors or maintenance crews in light motor vehicles or maintenance vehicles.

All power line management will remain the responsibility of NamPower. The Proponent will however report any faulty lines or issues to NamPower to insure uninterrupted power supply. Provision of potable water is reliant on the existing NamWater system. Potable water will be supplied in by means of a pipeline to the Proponent and the maintenance and repairs of the main water supply line between the Proponent and the housing development, is the responsibility of the Proponent. The guarantee of adequate quality potable water supply therefore rests with the Proponent. Maintenance and repair measures on the water supply line are not foreseen to be extensive and will be limited to pipe burst or leaks as the pipeline ages. Waste are regularly collected with a truck by the Proponent for disposal at the Aussenkehr waste disposal facility.

The wastewater treatment plant will require periodic maintenance and cleaning. This will be performed by trained individuals. The solids screen will be cleaned regularly and sludge from the septic and settling tanks will be removed and disposed of when required. Disposal is foreseen to be at the Aussenkehr waste disposal facility. Screened solids will require frequent disposal, depending on residents' adherence to restrictions on what may enter the sewerage system, while sludge may be as infrequent as once a year.

Photo 5-7 **Sewerage main (waste water pipeline) leading to sewage treatment system**

Photo 5-8 **Septic tanks (brown) and trickling filter tank (green)**

Photo 5-9 **Trickling filter tanks**

Photo 5-10 **Chlorination tank (green) and reedbed (brown tank now removed)**

General residential area management aspects will be similar to that of typical townships which will include, but not be limited to, the reading of water meters, waste management, maintenance of roads and public infrastructure. Administrative tasks associated with the provision of services and related billing, will be according to the existing structures and systems employed by the Proponent.

5.4 EMPLOYMENT

The Proponent is a large scale employer in the agricultural sector who has further employed additional contractors and employees to carry out tasks associated with the construction and operational phases of the residential area. Various aspects of the project, mainly associated with the construction phase, was outsourced to third party contractors.

5.5 DECOMMISSIONING PHASE

Since the project will see the establishment of residential and related infrastructure aspects, it is not foreseen that there will be any decommissioning phase. The vision of the project is to afford employees the opportunity to own their own property. However, aspects within the proposed development may be decommissioned during the lifetime of the project. Such decommissioning will mainly be to replace broken or obsolete infrastructure in order to better service the residential area. The idea of the Proponent is to see no permanent decommissioning of critical aspects such as the internal roads and services network.

6 ALTERNATIVES

A layout plan was developed through a matrix consideration of bio-physical and conservation constraints, existing amenities such as the water pipelines, and the existing informal residential area. Two main options for the residential establishment were considered, known as Option 1 and Option 2. Ultimately the Proponent resolved that Option 2 deemed to be the most favourable option, to not only incorporate the known constraints from an environmental perspective, but this option also offers the opportunity for future growth (which is limited in the areas surrounding Option 1).

Various alternatives related to the project are considered and each of these alternatives is discussed. The alternatives can roughly be grouped into three main groups namely:

- Location alternatives;
- Services alternatives;
- No go alternative.

6.1 LOCATION ALTERNATIVES

Employees' participation, authority and parastatal consideration, and planning during the initial phases have resulted in choosing the current location of the project. Option 1 was an area located between the Orange River and the existing vineyards. However, the two main aspects of concern here related to the flooding of the Orange River, as well as the distance from this area to the amenities such as the retail centre. In addition, access to the site is via a longer route. The Proponent's project planning then progressed in such a fashion that the location alternatives now mainly focus on the internal aspects of the project.

6.2 SERVICES ALTERNATIVES

Service provision and requirements for the project vary considerably between the construction and operational phases. Construction services are usually temporary in nature with a higher potential for environmental damage than during operations. The alternatives listed below are not fixed and was considered by the Proponent during the construction phase.

Table 6-1 Construction phase alternatives considered

Service	Proposed	Alternative
Water supply	Tanked water for domestic and construction purposes.	None.
Worker's accommodation	Off-site (from Aussenkehr and within walking distance from the site).	Complete temporary residential units (ablution, recreation and cooking amenities included).
Sewerage	Chemical toilet. Recommended as it is easily transportable and have no direct impact on the environment and ecology (if properly disposed).	Ventilated improved pit (VIP) latrine. Not proposed due to the geology and hard rock conditions of the site.
Energy for cooking on site (only if accommodated on site)	Gas stoves.	Electric devices or generators.

Alternatives to internal services was considered by the Proponent. For some instances, such as with energy for cooking, the alternatives are largely determined on a micro scale. Enforcement of certain aspects, such as use of gas stoves, etc., may only be achieved through municipal by-laws to be drafted etc.

Table 6-2 Operational phase alternatives considered

Service	Proposed	Alternative
Water supply	Water pipeline connection preferred due to supply control and maintenance.	Traditional - truck delivery to households. Not preferred.

Sewerage	Buried sewerage network to be connected to bulk sewerage treatment plant is preferred.	Septic tank and related french drain soak away systems at each erf. Not proposed due to the geology and hard rock conditions of the site.
Waste management	Weekly removal of all domestic and general waste by the Proponent or contracted party and disposal thereof to a registered and dedicated landfill site.	None. Not removing general waste should not be an alternative. Timing alternatives should tie into the existing initiative in the area.
Energy for lightning and heating	Electrical power connected to the national grid is preferred for firm power supply.	Individual solar systems (i.e. solar geysers and installed solar panels). This alternative was incorporated into the design.

6.3 THE NO-GO ALTERNATIVE

The "No-Go" alternative is the option of not proceeding with the subdivision and it typically means that the current status quo of the site and surrounds will remain. Should the proposed subdivision not commence, none of the potential impacts (positive and negative) identified would occur. Furthermore, the housing units will remain to be used for rental properties only with no individual ownership possible. This would also mean that the potential availability of residential erven and other land uses would not be realized, and the possible housing shortage, specifically in Aussenekhr, not addressed. Finally, revenue generated for Namibia will be reduced. The biophysical attributes of the area allows for limited alternative uses. Not continuing with the project may see the land utilised for significantly less profitable operations such as informal settlement proliferation and waste accumulation area (from the informal settlement area).

7 ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans and programmes deemed to have adverse impacts on the environment require an ECC. Namibian legislation lists specific activities which are required to apply for an ECC. The residential development falls within the ambit of these activities, as per Section 3 of Government Gazette No 4878. Listed activities which require an ECC application (Government Regulation No 29 of 2012) related to this project are listed below. Note that even though they are listed below, only those pertaining to the actual residential establishment will be assessed in this report. For the rest, only location suitability for the proposed land use categories are assessed and it will remain the respective erf developers to obtain ECCs for relevant listed activities.

Section 1: Energy Generation, Transmission and Storage Activities

- 1(b) The construction of facilities for the transmission and supply of electricity. The Proponent supplies electricity to key service infrastructure and residential units through low voltage lines and a transformer.

Section 2: Waste Management, Treatment, Handling and Disposal Activities

- 2.1 The construction of facilities for waste sites, treatment of waste and disposal of waste. Facilities will be constructed to allow handling of various waste streams. Sewerage infrastructure was established for the black- and grey-water components. General and domestic waste will be catered for at a landfill site.

Section 10: Infrastructure

- 10.1. (b) The construction of a public road. An access road to the residential development was approved by the Roads Authority and the access point as well as alignment of the road approved.
- 10.2. (a) The route determination of road and design of associated physical infrastructure where it is a public road. An access road to the residential development was approved by the Roads Authority and the access point as well as alignment of the road approved.

The legislation and standards provided in Table 7-1 to Table 7-3 speak into the environmental assessment process in Namibia, and are relevant to this assessment.

Table 7-1 Namibian law applicable to the proposed township development

Law	Key Aspects
The Namibian Constitution	♦ Promote the welfare of people ♦ Incorporates a high level of environmental protection ♦ Incorporates international agreements as part of Namibian law
Environmental Management Act Act No. 7 of 2007, Government Notice No. 232 of 2007	♦ Defines the environment ♦ Promotes sustainable management of the environment and the use of natural resources ♦ Provides a process of assessment and control of activities with possible significant effects on the environment
Environmental Management Act Regulations Government Notice No. 28-30 of 2012	♦ Commencement of the Environmental Management Act ♦ Lists activities that requires an environmental clearance certificate ♦ Provides Environmental Impact Assessment Regulations
Water Resources Management Act Act No. 11 of 2013, Government Notice No. 332 of 2013	♦ Provides for management, protection, development, use and conservation of water resources ♦ Prevention of water pollution and assignment of liability
Forest Regulations: Forest Act, 2001 Government Notice No. 170 of 2015	♦ Declares protected trees or plants ♦ Issuing of permits to remove protected tree and plant species
Soil Conservation Act Act No. 76 of 1969, Government Notice No. 995 of 1969 (Republic of South Africa)	♦ Law relating to the combating and prevention of soil erosion, the conservation, improvement and manner of use of the soil and vegetation and the protection of the water sources in Namibia
Mountain Catchment Areas Act Act No. 63 of 1970, Government Notice No. 1683 of 1970 (Republic of South Africa)	♦ To provide for the conservation, use, management and control of land situated in mountain catchment areas, and to provide for matters incidental thereto
Petroleum Products and Energy Act Act No. 13 of 1990, Government Notice No. 45 of 1990	♦ Regulates petroleum industry ♦ Makes provision for impact assessment ♦ Petroleum Products Regulations (Government Notice No. 155 of 2000) ♦ Prescribes South African National Standards (SANS) or equivalents for construction, operation and decommissioning of petroleum facilities (refer to Government Notice No. 21 of 2002)
Regional Councils Act Act No. 22 of 1992, Government Notice No. 115 of 1992	♦ The Act makes provision for Regional Councils to plan and develop the region in a sustainable manner for the benefit of the people in establishing, managing and controlling of Settlement areas focusing on the core services
National Housing Development Act Act No. 28 of 2000, Government Notice No. 293 of 2000	♦ Provides for the establishment of the National Housing Advisory Committee, the establishment of housing revolving funds by Regional Councils and Local Authorities, the establishment of decentralized Build Together Committees for Regional Councils, Local Authorities and resettlement areas to provide low cost residential accommodation within their respective areas
Local Authorities Act Act No. 23 of 1992, Government Notice No. 116 of 1992	♦ Defines the powers, duties and functions of local authority councils

Law	Key Aspects
Public and Environmental Health Act Act No. 1 of 2015, Government Notice No. 86 of 2015	♦ Provides a framework for a structured more uniform public and environmental health system, and for incidental matters ♦ Deals with Integrated Waste Management including waste collection disposal and recycling, waste generation and storage, and sanitation
Labour Act Act No 11 of 2007, Government Notice No. 236 of 2007	♦ Provides for Labour Law and the protection and safety of employees ♦ Labour Act, 1992: Regulations relating to the health and safety of employees at work (Government Notice No. 156 of 1997)
Atmospheric Pollution Prevention Ordinance Ordinance No. 11 of 1976	♦ Governs the control of noxious or offensive gases ♦ Prohibits scheduled process without a registration certificate in a controlled area ♦ Requires best practical means for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process
Hazardous Substances Ordinance Ordinance No. 14 of 1974	♦ Applies to the manufacture, sale, use, disposal and dumping of hazardous substances as well as their import and export ♦ Aims to prevent hazardous substances from causing injury, ill-health or the death of human beings
Pollution Control and Waste Management Bill (draft document)	♦ Not in force yet ♦ Provides for prevention and control of pollution and waste ♦ Provides for procedures to be followed for licence applications

Table 7-2 Relevant multilateral environmental agreements

Agreement	Key Aspects
Stockholm Declaration on the Human Environment, Stockholm 1972.	♦ Recognizes the need for a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment
United Nations Framework Convention on Climate Change (UNFCCC)	♦ The Convention recognises that developing countries should be accorded appropriate assistance to enable them to fulfil the terms of the Convention
Convention on Biological Diversity, Rio de Janeiro, 1992	♦ Under article 14 of The Convention, EIAs must be conducted for projects that may negatively affect biological diversity

Table 7-3 Standards or codes of practise

Standard or Code	Key Aspects
South African National Standards (SANS)	♦ SANS 10131 (2004) is aimed at above-ground storage tanks for petroleum products ♦ Provide requirements for spill control infrastructure

8 ENVIRONMENTAL CHARACTERISTICS

This section lists the most pertinent environmental characteristics of the study area and provides a statement on the potential environmental impacts on each.

8.1 LOCALITY AND SURROUNDING LAND USE

Aussenkehr is located in the Karasburg-West constituency of the ǁKaras Region in Namibia. It is located on the banks of the Orange River which forms an international border with South Africa. The area is accessed by the C13 Route (D2012 District Road) from Noordoewer (a tar road). The entire settlement and all related agricultural activities are located on privately owned land on the Farm Aussenkjer FMV/00147. This farm has also been declared, in part, as a private nature reserve (private conservation area) by the owner of Aussenkjer Farms. The Ai-Ais National Park is located approximately 18 km to the northeast of the greater Aussenkehr while the Richtersveld National Park of South Africa, is located adjacent (west) to Aussenkehr. These areas have together been classified as the Ai-Ais Richtersveld Transfrontier Park. Protected areas in close proximity to the site are indicated in Figure 8-1.

The housing development is located on the fringe of the informal settlement. The south and east are bordered by vineyards. The housing development is located away from any flood-prone areas. Key points of interest in relation to the housing development are presented in Figure 8-2.

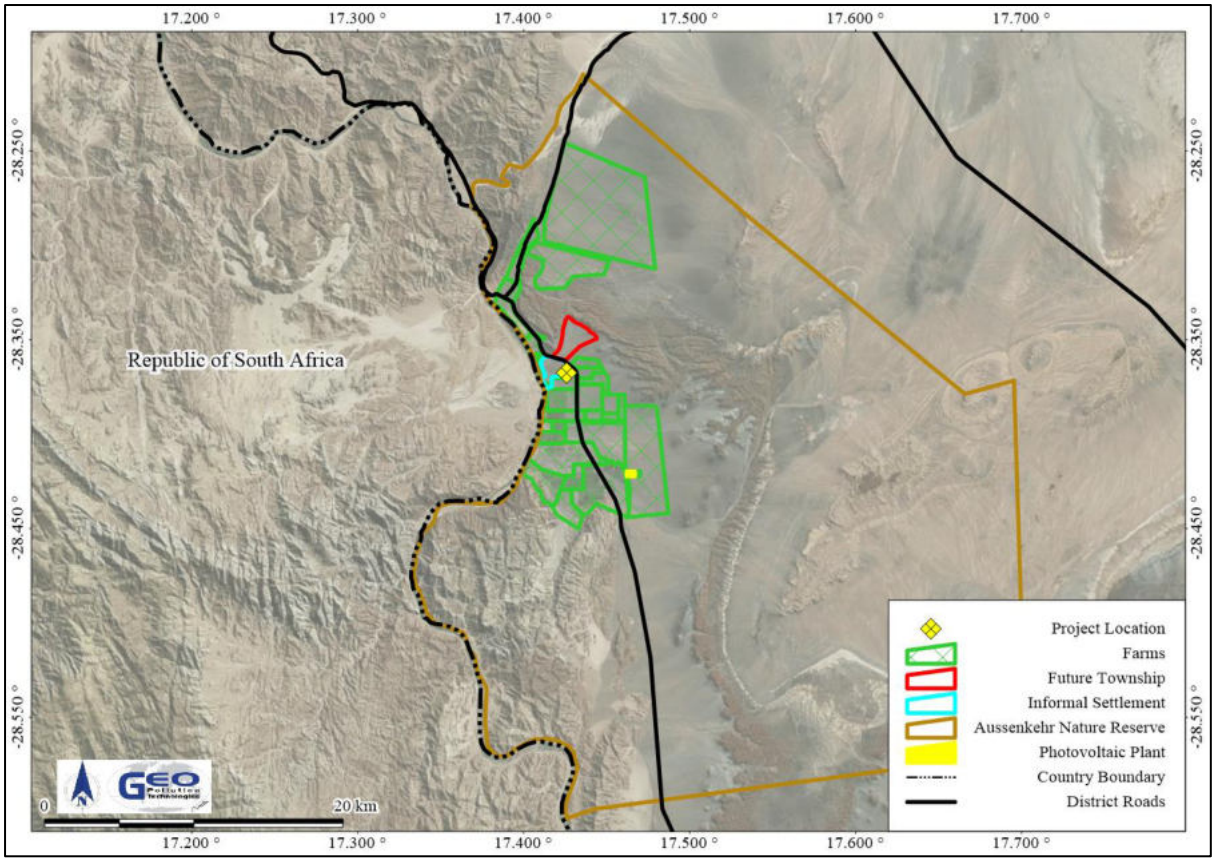


Figure 8-1 Surrounding land-use

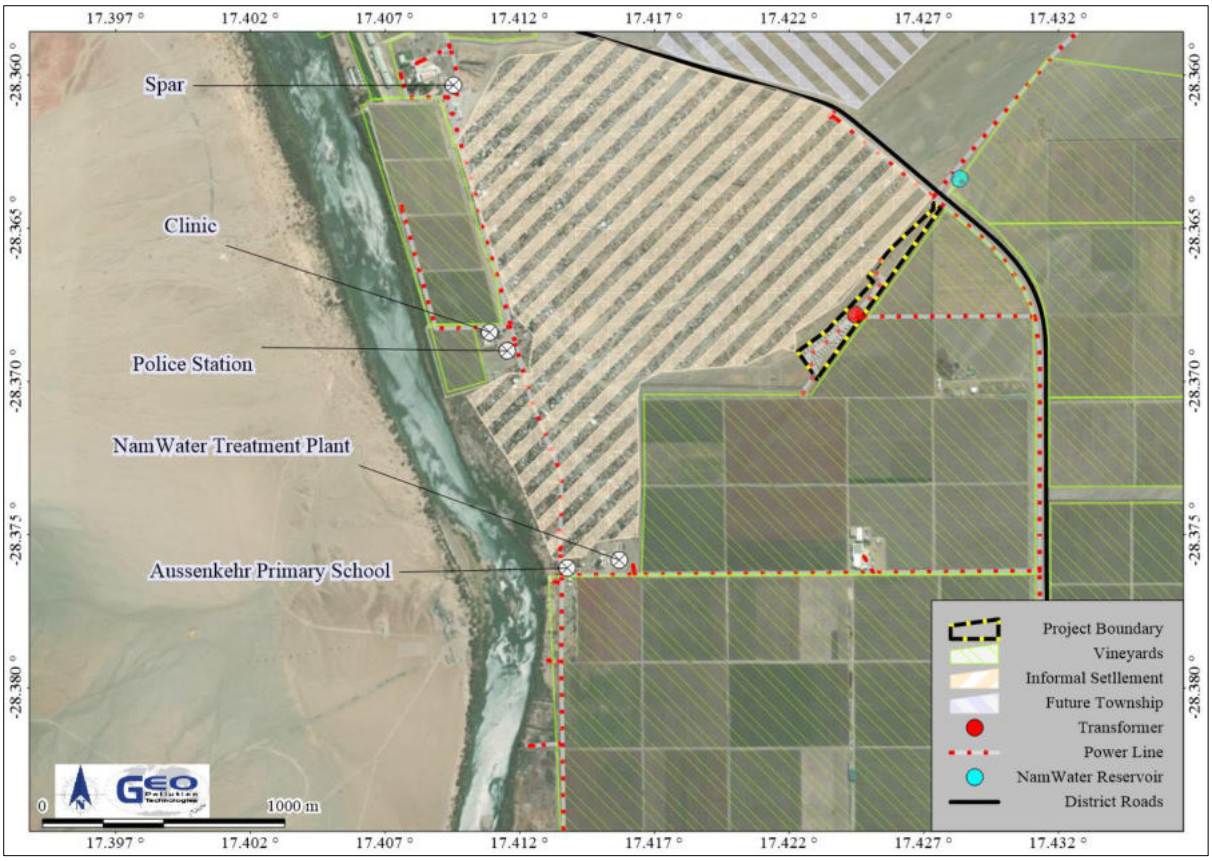


Figure 8-2 Points of interest

Implications and Impacts

The residential development is ideally located next to the informal settlement with easy access to the main road of Aussenkehr. The residential development ties into the existing land which is residential in nature and remain part of the community structure and community services. The location of the access point onto the main road allows for adequate visibility to see oncoming vehicles.

8.2 CLIMATE

Aussenkehr, located in the Orange River valley, is renowned for its extremely hot and dry summers and up to 12 hours daylight in the summer. On average, the area receives approximately 10 hours of daily sunlight per annum. Although the average maximum temperature is approximately 30 ºC, extreme heat conditions occur in the summer months with some days peaking above 45 ºC. Temperatures of over 50 ºC have been recorded. The average rainfall varies from approximately 100 mm/a (at 20º east longitude) to less than 50 mm/a west of Aussenkehr. Evaporation decreases from 3,400 mm/a in the east (20º east longitude) to approximately 2,500 mm/a along the coast of the ǁKaras Region. At Aussenkehr the evaporation loss is approximately 3,000 mm/a. The common border (with South Africa) area falls in a region where evaporation losses are more than 30 times the average annual rainfall (IWRM Plan Joint Venture Namibia, 2010).

Localised wind patterns are mostly influence by uneven heating of the surrounding earth surface and topography resulting in slight westerly winds during the year. A few windy days are experienced throughout the year. Localised whirl winds, also known as dust devils, occur frequently in the area.

Table 8-1 Summary of climate data (Atlas of Namibia Project, 2002)

Average annual rainfall (mm/a)	0 - 50
Average annual evaporation (mm/a)	3,000 - 3,200
Water deficit (mm/a)	2,100 - 2,300
Average annual temperatures (°C)	17 - 18
Solar radiation kWh Per m2	5.6 – 5.8
Sunshine per day (hours/day)	9 - 10
Wind speed	Light to moderate breeze throughout the year
Localised wind direction	South-Westerly

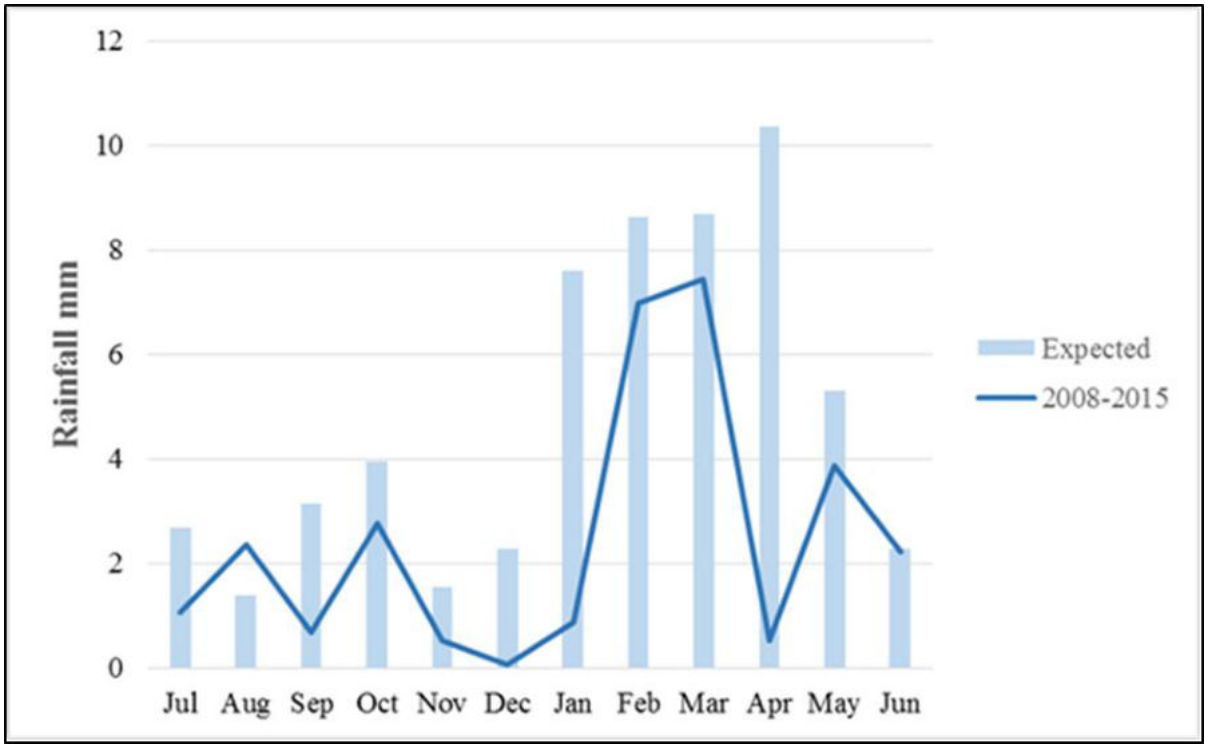


Figure 8-3 Average monthly rainfall: expected (Atlas of Namibia Project, 2002) vs recorded 2008-2015

Figure 8-4 Modelled wind rose for Aussenkehr (Meteoblue, 2023)

Several models were run in an attempt to predict the effects possible climate change will have on Namibia. As such it has been predicted that soil moisture levels will decline further as temperatures rise. According to studies compiled during the development of the Karas Regional Structure Plan, it was determined that a drop of 10% in rainfall may be expected for the southern parts of the ǁKaras Region (including Aussenkehr) over the next 35 years and a further decrease in rainfall of up to 20% in another 30 years (by 2080). This translates to an average rainfall less than 35 mm/a. In addition, the higher evaporation losses may have detrimental effects on the Orange River. Climate change effects in the upper reaches of the Orange River may cause reduced runoff in lower lying areas which may, even though the system is regulated, cause reductions in available water for all users. The situation may be remediated by the proposed construction of a dam in the lower reaches of the Orange River at Noordoewer, located upstream of Aussenkehr.

Implications and Impacts

High radiation and UV exposure levels coupled with very high summer temperatures, may result in heatstroke for construction workers and residents. Hot, dry winds increases the risk to damages to infrastructure while dust devils are known to contaminate and litter residential units with dirt from the informal settlement area. The high solar radiation may necessitate covering of vehicle / equipment storage areas to reduce sun damage. Solar radiation may be beneficial in generating additional electricity through solar systems. Housing units may install solar geyser systems to reduce reliance and pressure on the localised electricity grid.

8.3 TOPOGRAPHY AND DRAINAGE

Located in an open valley system, Aussenkehr is surrounded by ridges. Figure 8-5 depicts the area's topography. Aussenkehr itself is generally flat, slightly sloping from east to west. The most eastern portions of the development area is located at the foothills of a ridge and has a slightly steeper slope.

Localised drainage is well developed. All runoff flows towards the Orange River and mainly through the Inaub River and other drainage lines as indicated Figure 8-6. Flash floods are known to occur in the area and according to local knowledge has a frequency of every four to five years. These floods cause considerable damage to especially homesteads and livelihoods of the workers, many of which have constructed their dwellings in the drainage lines. Flash-floods are different from the flooding of the Orange River which occurs more frequently.

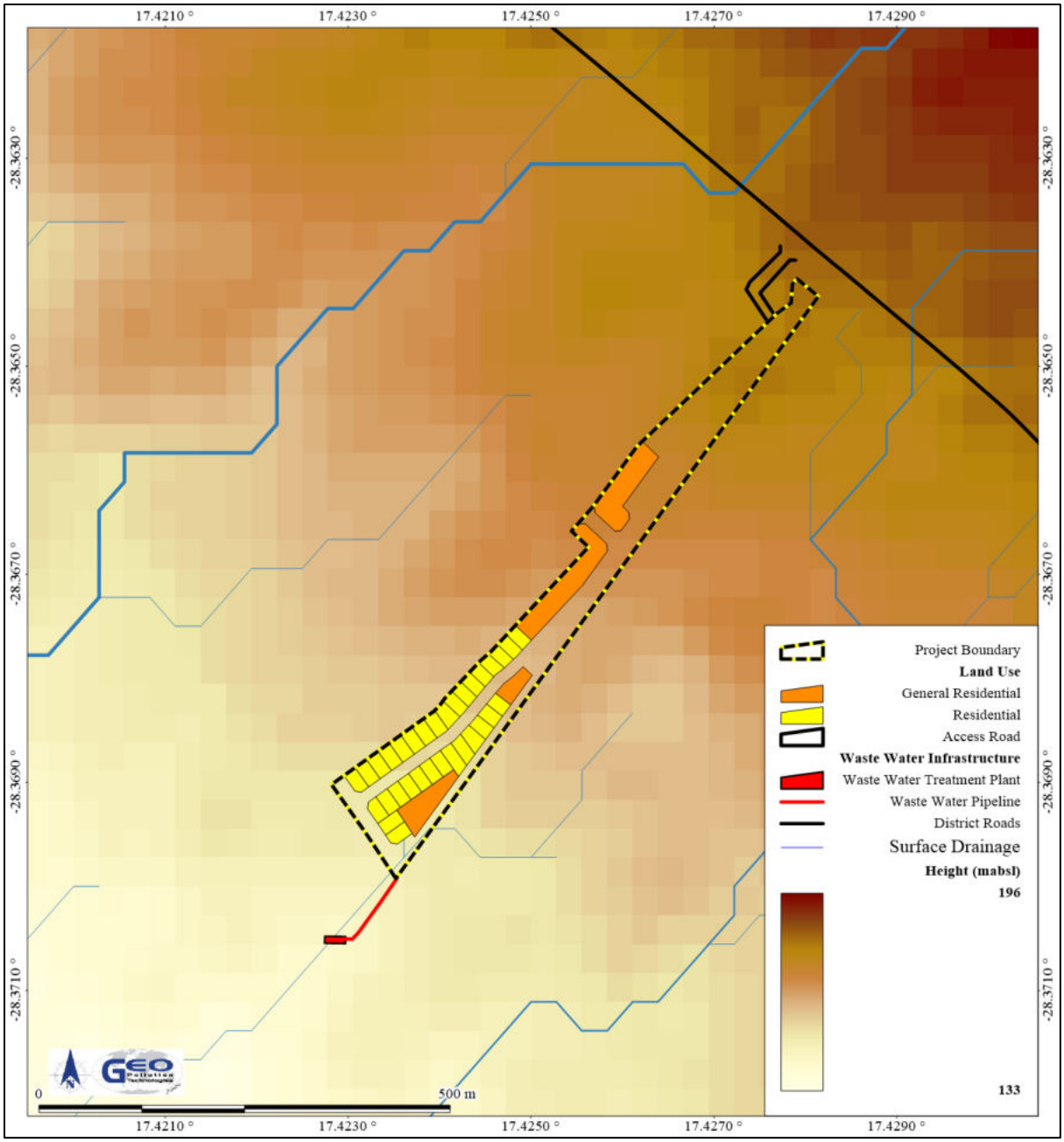


Figure 8-5 Topography with drainage lines around the project area

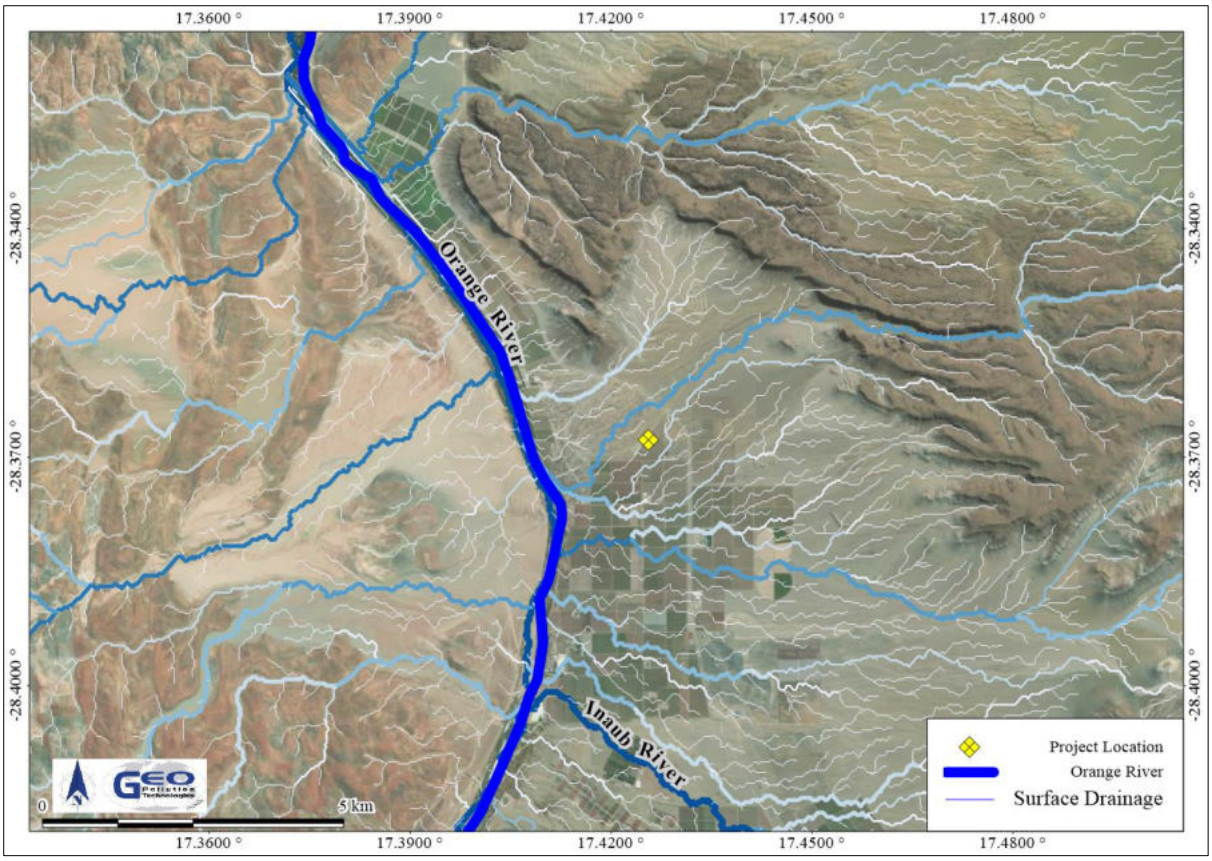


Figure 8-6 Drainage of the area in relation to the project location

Implications and Impacts

Due to the site's relative flatness, the proposed development can be constructed without the need for extensive site levelling or earthworks. It is not anticipated that any residential units would be damaged as a result of infrequent rainfall events.

8.4 GEOLOGY AND SOILS

The project area is mostly underlain by formations of the Dwyka and Ecca Group rocks of the Karoo Supergourp, see Figure 8-7. The Ecca Group in the project area consist out of shale and siltstone of the Prince Albert Formation (Pa) and shale, sandstone and siltstone of the Aussenkehr Formation (Pa). The Ecca Group rocks is underlain by rocks of the Dwyka Group (CDW). The Dwyka Group rocks consist out of mudstone, sandstone erratics, lime concretions and siltstone. The sandstone are frequently ripple-marked and intensively traversed by invertebrate tracks composed of drop stone-bearing shale and intercalated layers of boulder-mudstone. The Dwyka Group rocks on the fringes of the Aussenkehr valley (south and north of the project area). Dolerite (Jd) occur as sills and dykes north and east of the site.

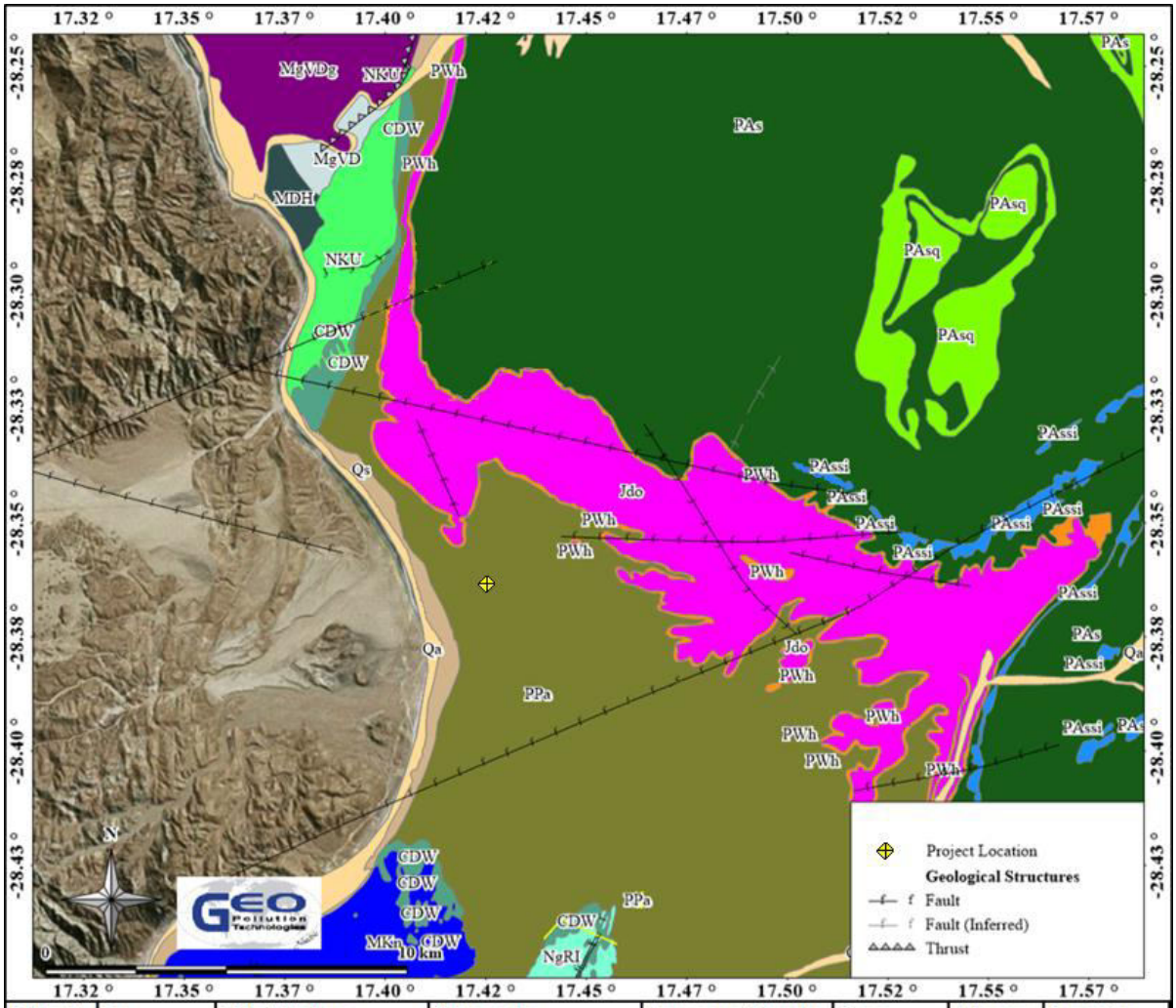
Due to the high clay-mineral content of shale, the soil of the Aussenkehr plains are typically rich in clay-minerals and the top soils of the plains are typically silty and clayey loam (Belcher, 2012). The clay common minerals that occur in the soil are illite, smecktite and montmorillonitic-bentonite (Werner, 2006) which form as part of the weathering product of dolerite and tuff. Due to high evaporation rate of moisture from the top soil it may be enriched with salts and may cause evaporitic minerals to form, e.g. gypsum (Belcher, 2012). The Karoo-aged dolerite sills (Jd) that occur on the higher valley ridges have also contributed to the clay-mineral content of the soil.

Heine and Völkel (Heine K and Völkel J, 2010) identified seven clay mineral provinces in Namibia, see Figure 8-8. The project area falls in Province 4, not far south of Province 5. Clay mineral province 4 covers the southern Namib Desert, mainly south of the Orange River. Illite (± 40%), smectite (± 40%) and kaolinite (± 20%) are characteristic of its clay mineral spectrum.

The Orange River sediments is however considered to yield 75% smectite with relatively low percentages of illite (10%) and kaolinite (10%) as well as mixed-layer clay minerals (0 to 5%). The Orange River clay sediments represent the clay mineral provinces of the river's upper reaches, where smectite is abundant in soils and sediments as a product of the weathering of the Drakensberg basalts and the Karoo sedimentary rocks.

Outwash fans with dry braided drainage patterns, dating from the Quaternary, caused recurring erosion and deposition episodes to take place on the valley slopes along the Orange River valleys, especially in the Aussenkehr valley, partly covering the underlying rock formations. Tertiary aged river terraces along the Orange River may contain diamonds.

The surface cover present in the valley makes the identification of geological structures difficult. A number of faults can however be seen in the outcrops south of the project area and it is expected that these faults will continue through the project area. This can form preferential flow paths in underlying hard rock.



Lithcode	Era	Main Lithology	Other rocks	Supergroup/Complex	Group	Subgroup	Formation
Qa	Quarternary	alluvium					
Qs	Quarternary	sand, gravel, calcrete					
Jdo	Jurassic	dolerite					
PAs	Permian	shale	limestone, siltstone	Karoo	Ecca		Aussenkehr
PAsq	Permian	sandstone		Karoo	Ecca		Aussenkehr
PAssi	Permian	siltstone		Karoo	Ecca		Aussenkehr
PWh	Permian	shale (carbonaceous)	siltstone	Karoo	Ecca		Whitehill
PPa	Permian	shale/siltstone (grey/pink)	sandstone	Karoo	Ecca		Prince Albert
CDW	Carboniferous		mudstone, sandstone, erratics, lime concretions, siltstone	Karoo	Dwyka		
NKU	Namibian	sandstone	limestone, conglomerate, shale		Nama	Kuibis	
NgRI	Namibian	granite	quartz, porphyry, quartz-syenite	Richtersveld Igneous Complex			
MDH	Kheisian	metavolcanic rocks			Orange River	De Hoop	
MKn	Kheisian	aphanite (mafic)	quartzite (impure), lava (leucocratic), volcaniclastics, chert, conglomerate		Oranger River	De Hoop	Klipneus
MgVD	Kheisian	granodiorite, granite, diorite	leucogranite, gabbro, norite				
MgVDg	Kheisian	granitoid					

Figure 8-7 Geology of the project area

Groundwater information in the area is very limited as groundwater resources were not developed due to the Orange River supplying an easier resource. Flow in the subsurface soil will mainly be through primary porosity in the unconsolidated top layers and through secondary porosity in the consolidated formations. It is conceptualised that the majority of flow will be towards the river in the unconsolidated layers.

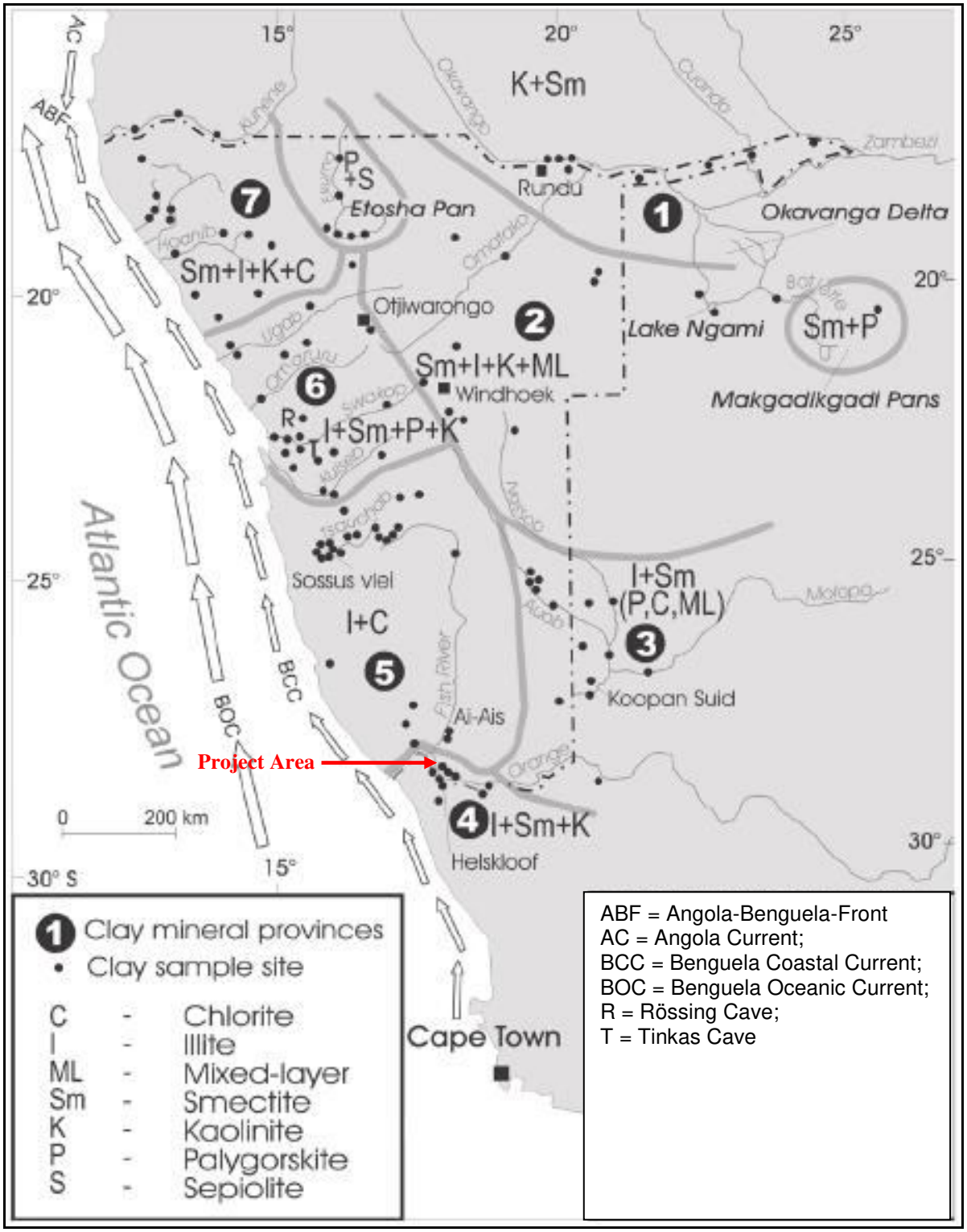


Figure 8-8 Clay mineral provinces of Namibia and selected sample sites (Heine K, Völkel J, 2010)

Implications and Impacts

Although groundwater is not utilised in the area, it must still be protected against pollution. Polluted groundwater may transport pollutants to the nearby Orange River. The presence of gypsum in the soil may impact on concrete structures and can cause increased corrosion.

High clay content in certain soils may result in the soil densification with the administration of water. Clay will swell and drainage will become hampered. Therefore, adequate drainage systems should be implemented for the sewerage treatment plant's soak away system (reedbed).

8.5 AUSSENKEHR WATER SUPPLY

All water supply to Aussenkehr is pumped from the Orange River. Potable water, for households and general consumption, is, for some operators fed from storage dams supplying households while other companies rely on the recently commissioned NamWater supply system

NamWater was contracted for bulk water supply for the Aussenkehr area with the intention that local government levels will be responsible for the distribution networks. A NamWater water treatment works and related pipelines were constructed and these supply potable water to the Proponent and the related housing development. A metered connection to each erf provides for water use monitoring.

Implications and Impacts

Firm potable water supply is of crucial importance and is made accessible to residents through the housing development.

8.6 FAUNA AND FLORA

The site falls within the Nama Karoo Biome of Namibia which is recorded to have a grass cover of between 2 and 10% (Mendelsohn J, 2002).The area however borders the Succulent Karoo Biome which has less and 0.1% grass cover and is a more accurate description of the site and surroundings which does not have any grass cover. This corresponds with the Average Green Vegetation Biomass Production Atlas for Namibia which classifies the area as a category 2: Bare ground. The entire site falls within the CPL 11 Agro-Ecological Zone. A summary of the vegetation cover of this is zone is presented in Table 8-2.

Table 8-2 Vegetation cover in the CPL 11 Agro-Ecological Zone

Vegetation Type	Percentage Cover
Shrubs	0.31% (± 0.3%)
Dwarf Shrubs	1.52% (±0.9%)
Grass	0.60% (±0.5%)
Herbs	2.25% (±0.8%)
Total	4.71% (±1.6%)

Although the habitat is further classified as being suitable for quiver trees most of the valley has been transformed by agricultural activities and no such trees have been observed in the area or close to the site. Contrastingly different, the riparian zone associated with the Orange River is a dense cover of a mixture of alien and indigenous species.

Habitats occur along the Orange River which are considered to be "most important", due to the variety of species and ecological functioning. Clearly visible is the much denser vegetation cover on the northern banks of the Orange River (which receives drainage water) as opposed to much more sparsely covered southern bank. More than half of the species of vegetation which could be identified during the environmental assessment, are considered to be "alien invasive" or "natural alien species". As per the higher flora diversity along the river, the species diversity of birds along the river is much higher than the surrounding areas. A Ramsar site approximately 230 km downstream of operations, at the Orange River Mouth, host a particularly sensitive birdlife habitat.

The Orange River, and in particular the lower parts around Aussenkehr, does not have a high aquatic species diversity with only two protected fish species of the 16 known to occur in the lower parts of the river. According to the IUCN Red List of Threatened Species, the *Barbus kimberleyensis* and *Oreochromis mossambicus,* may occur in the vicinity of Aussenkehr (IUCN 17-3). Both being considered as *near-threatened* while the rest of the 16 species are classified as *least-concern*. None of the other aquatic faunal species were determined to be endemic to Namibia or a red listed species. A summary of the fauna and flora data is presented in Table 8-3 and Table 8-4.

Table 8-3 General flora data (Mendelsohn, 2002)

Vegetation type	Karas dwarf shrubland
Vegetation structure type	Sparse shrubland
Number of plant species	100 -150
Percentage tree cover	0.1-1
Percentage dwarf shrub cover	3,6
Dwarf shrub height (m)	0.5
Grass height (m)	0.5

Table 8-4 General fauna data (Mendelsohn, 2002)

Mammal Diversity	61 - 75 Species
Rodent Diversity	20 - 23 Species
Bird Diversity	81 - 110 Species
Reptile Diversity	61 - 70 Species
Snake Diversity	20 - 24 Species
Lizard Diversity	> 35 Species
Scorpion Diversity	16 - 17 Species

Implications and Impacts

Prior to the construction of the residential units, the site was void of any vegetation. Habitat destruction resulted from the existing habitation of the area (informal settlement). Surrounding residents of the informal settlement are known to use the dense vegetation of the riparian zone of the Orange River, especially the reeds, for the construction of structures and houses. No such material was used in the construction of the houses and the establishment of the residential development did not result in additional impact on the fauna or flora. The sewerage treatment facility, if not maintained correctly, may create an artificial habitat which may attract mainly birds.

8.7 LOCAL ECONOMY

The ǁKaras Region's economy is a diverse representation of various sectors and industries within the Region. These include (but are not limited to) fishing, mining, tourism and agriculture; all of which have shown potential to be developed. The Karasburg West constituency have much less economic diversity and the agricultural sector, specifically the irrigation schemes at Aussenkehr, is a large contributor, if not the largest. Not only does it create jobs, but it has also been the main driving force of infrastructure development and related capital expenditure which are on-going.

The lack of a formal town infrastructure and status has exempted Aussenkehr from having to develop economic development plans and policies, which are required for the rest of the towns in the ǁKaras Region. The table grape sector and irrigation scheme have however been incorporated in the Regional Land Use Plans. The most significant of these plans relate to water and sanitation infrastructure and housing. The housing sub-sector goal states:

"Provide support to Regional Councils and Local Authorities to ensure effective and efficient physical planning and service delivery for affordable land, services and shelter in order to improve social and living conditions in general and of low-income groups in particular within the context of sustainable human settlements development"(NACOMA, 2012).

Implications and Impacts

Continuation of the table grape industry will contribute to existing economy as well as contributing to sustaining existing livelihoods. The project will allow for individual employees to own property, their own asset in Aussenkehr, thereby increasing their own economic resilience as well as that of the area.

8.8 SOCIAL AND CULTURAL CHARACTERISTICS

Statistics for the demographic profile of Aussenkehr have proven to be lacking in reliable and recent data. Various stakeholders to the project as well as inhabitants of the area have estimated the number of people residing in the valley to be up to 30,000 during the harvesting season (October to January). This number is widely accepted to drop to a quarter during the rest of the year. Seasonal and migrant workers are the greatest component of the workforce. During the harvesting and packing season, thousands of these workers flock to the area from all over Namibia, seeking employment opportunities. Statistics used by NamWater to determine the amount of water that should be provided in future, estimate that for every employed worker in the area, there are six persons who are not economically active. They reside in the informal residential area alongside permanent employees. It is estimated that every employee has an average of two adults and two children dependants residing with them outside of the harvesting season.

During this environmental assessment two key issues related to Aussenkehr's development and planning surfaced. Although no official documentation has been included, it was established that a certain portion of the greater Farm Aussenkjer FMV/00147 was donated to the government for the establishment of adequate housing / town complex. As mentioned earlier, a NamWater water treatment plant was constructed to service this proposed development.

There are ongoing initiatives regarding public health and services to be provided in the area by the National Planning Commission. Discussions with the local and regional councils confirmed that any infrastructure development funding will have to be sourced from governing ministries rather than local or regional government. Development of the formalised settlement area (for labourers) is hinged on governmental input and participation.

This informal area, as indicated in the photos below, is serviced through a joint community effort and NamWater to provide running water and effective waste removal. Dwellings are of a temporary nature mostly constructed from reeds and or corrugated iron. Local services established in the informal area include the following:

- Primary school,
- Child care centres,
- Orphanage,
- Police station,
- Post office,
- Clinic,
- Tuberculosis care unit, and
- Public water point.

In spite of all the efforts from local parties, there is a serious lack of service delivery and the area is in dire need to be formalised. To facilitate the formalisation process, plots have been developed on the donated land and the regional government is in the process of establishing the required infrastructure. This has been an ongoing process since 2006. In the interim, local and regional government has further established some essential services within the informal residential area, mostly in joint ventures with some of the local table grape producers.

Implications and Impacts

Expansion of the current table grape industry increases employment in the area. Existing services relate mostly to the town-keeping initiative undertaken by local parties. There is much room for improvement in sanitation, waste management and electrical supply to the Aussenkehr community.

8.9 ARCHAEOLOGICAL CONSIDERATIONS

An archaeological specialist assessment (Kinahan, 2016) was conducted for the Aussenkehr area to identify possible archaeological artefacts and or areas which may harbour such sites, in and around Aussenkehr. Various such sites were identified. However none were or are located close to the project location.

Implications and Impacts

The area harbours archaeological and palaeontological resources. However, none of these resources were or are located close to the project location.

9 PUBLIC CONSULTATION

Consultation with the public forms an integral component of an environmental assessment. It enables interested and affected parties (IAPs) e.g. neighbouring landowners, local authorities, civic associations and communities, to comment on the potential environmental impacts associated with the operations. IAPs are provided with the opportunity to also identify additional issues which they feel should be addressed in the scoping assessment. Public consultation was initiated and facilitated through notification letters, site and press notices. A copy of the report is made available to all on the IAP database for the project.

9.1 PRESS NOTICE

Press notices were placed in two national newspapers for two consecutive weeks. Notices appeared in The Republikein and The Namibian Sun on 19 June and 26 June 2023.

9.2 SITE NOTICE

Site notices for this particular application were erected on site on 14 June 2023 and were still present at the time of the compilation of this report. Additional photographs of the site notices are attached in Appendix B.

9.3 NOTIFICATION LETTERS

Neighbours and key IAPs, (including NGO's and governmental agencies such as the regional and local government, NamWater, NamPower, etc.), received notifications informing them about the proposed development and inviting them to provide their comments and concerns.

9.4 BUILDING AN IAP DATABASE

During the initiation phase of the public consultation process, IAPs were made aware of their rights to provide input into the assessment process through registering on the project and providing comments and concerns. This invitation appeared on all the notices as mentioned above. Combining the registered parties with those already identified for similar projects in the area cumulated in the stakeholder list for the project. All parties on this list receives and will continually receive information about the ECC applications as well as an opportunity to comment on this report.

10 ASSESSMENT OF IMPACTS

The purpose of this section is to assess and identify the most pertinent environmental impacts that are expected from the construction, operational and potential decommissioning activities of the proposed project. An EMP based on these identified impacts are also incorporated into this section.

For each impact an environmental classification was determined based on an adapted version of the Rapid Impact Assessment Method (Pastakia, 1998). Impacts are assessed according to the following categories: Importance of condition (A1); Magnitude of Change (A2); Permanence (B1); Reversibility (B2); and Cumulative Nature (B3) (see Table 10-1)

Ranking formulas are then calculated as follow:

Environmental Classification = A1 x A2 x (B1 + B2 + B3)

The environmental classification of impacts is provided in Table 10-2.

The probability ranking refers to the probability that a specific impact will happen following a risk event. These can be improbable (low likelihood); probable (distinct possibility); highly probable (most likely); and definite (impact will occur regardless of prevention measures).

Table 10-1 Assessment criteria

Criteria	Score
Importance of condition (A1) – assessed against the spatial boundaries of human interest it will affect	
Importance to national/international interest	4
Important to regional/national interest	3
Important to areas immediately outside the local condition	2
Important only to the local condition	1
No importance	0
Magnitude of change/effect (A2) – measure of scale in terms of benefit / disbenefit of an impact or condition	
Major positive benefit	3
Significant improvement in status quo	2
Improvement in status quo	1
No change in status quo	0
Negative change in status quo	-1
Significant negative disbenefit or change	-2
Major disbenefit or change	-3
Permanence (B1) – defines whether the condition is permanent or temporary	
No change/Not applicable	1
Temporary	2
Permanent	3
Reversibility (B2) – defines whether the condition can be changed and is a measure of the control over the condition	
No change/Not applicable	1
Reversible	2
Irreversible	3
Cumulative (B3) – reflects whether the effect will be a single direct impact or will include cumulative impacts over time, or synergistic effect with other conditions. It is a means of judging the sustainability of the condition – not to be confused with the permanence criterion	
Light or No Cumulative Character/Not applicable	1
Moderate Cumulative Character	2
Strong Cumulative Character	3

Table 10-2 Environmental classification (Pastakia 1998)

Environmental Classification	Class Value	Description of Class
72 to 108	5	Extremely positive impact
36 to 71	4	Significantly positive impact
19 to 35	3	Moderately positive impact
10 to 18	2	Less positive impact
1 to 9	1	Reduced positive impact
0	-0	No alteration
-1 to -9	-1	Reduced negative impact
-10 to -18	-2	Less negative impact
-19 to -35	-3	Moderately negative impact
-36 to -71	-4	Significantly negative impact
-72 to -108	-5	Extremely Negative Impact

10.1 RISK ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN

The EMP provides management options to ensure impacts of the project are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary. The environmental management measures are provided in the tables and descriptions below. These management measures should be adhered to during the various phases of the operation of the project. This section of the report can act as a stand-alone document. All personnel taking part in the operations of the project should be made aware of the contents in this section, so as to plan the project accordingly and in an environmentally sound manner.

The objectives of the EMP are:

- to include all components of construction activities (including future upgrades, maintenance, etc.) and operations of the project;
- to prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- to monitor and audit the performance of construction and operational personnel in applying such controls; and
- to ensure that appropriate environmental training is provided to responsible construction and operational personnel.

Various potential and definite impacts will emanate from the construction, operational and decommissioning phases. The majority of these impacts can be mitigated or prevented. The impacts, risk rating of impacts as well as prevention and mitigation measures are listed below.

As depicted in the tables below, impacts related to the operational phase are expected to mostly be of medium to low significance and can mostly be mitigated to have a low significance. The extent of impacts are mostly site specific to local and are not of a permanent nature. Due to the nature of the surrounding areas, cumulative impacts are possible.

10.1.1 Planning

During the phases of planning for construction, operations and decommissioning of the housing development, it is the responsibility of the Proponent to ensure they are and remain compliant with all legal requirements. The Proponent must also ensure that all required management measures are in place prior to and during all phases, to ensure potential impacts and risks are minimised. The following actions are recommended for the planning phase and should continue during various other phases of the project:

- Ensure that all necessary permits from the various ministries, local authorities and any other bodies that governs the construction activities and operations of the project are in place and remains valid. This includes fuel permits where needed.
- Ensure that design parameters, where required, are approved by relevant authorities prior to construction.
- Ensure all appointed contractors and employees enter into an agreement which includes the EMP. Ensure that the contents of the EMP are understood by the contractors, sub-contractors, employees and all personnel present or who will be present on site.
- Make provisions to have a health, safety and environmental (HSE) coordinator to implement the EMP and oversee occupational health and safety as well as general environmental related compliance at the site. Provision should be made for monthly environmental performance audits and reports during the initial phases.
- Have the following emergency plans, equipment and personnel on site where reasonable to deal with all potential emergencies:
  - Risk management / mitigation / EMP/ emergency response plan and HSE manuals
  - Adequate protection and indemnity insurance cover for incidents;
  - Comply with the provisions of all relevant safety standards;
  - Procedures, equipment and materials required for emergencies.
- Establish and / or maintain a reporting system to report on aspects of construction activities, operations and decommissioning as outlined in the EMP.
- Submit bi-annual reports to the MEFT to allow for environmental clearance certificate renewal after three years, if required. This is a requirement by MEFT.
- Appoint a specialist environmental consultant to update the EIA and EMP and apply for renewal of the environmental clearance certificate prior to expiry, if required

10.1.2 National Development Goals

The housing development pins down key development goals and challenges which were identified as part of the Namibian development goals. It may be considered as a rural development project aiming to provide serviced housing to local employees. In addition, the project is located in line with the regional planning initiatives which identified the location as an area for rural development. The project is unique in being one of only a handful housing developments in Aussenkehr and the Region. The project is considered a long term project.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Information sharing about proposed expansion and related possible environmental constraints	2	2	2	2	3	28	3	Probable
Daily Operations	Information sharing related to maintenance schedules and repairs	2	1	2	2	2	12	2	Probable

Desired Outcome: Continued sharing of activity plans with IAPs and governing agencies. Maintaining an open door policy with neighbours and employees.

Actions

Mitigation:

- Information sharing about the project's progress should be made available to governmental agencies and the IAPs. The Proponent and affected parties should use the information generated during the environmental assessment to realistically plan for future growth and optimisation of servicing efforts. Open communication regarding future development, if any, should be maintained.
- The Proponent should consider partnering with NGO's and other governmental agencies in establishing partnerships for project component development, conservation and social upliftment.
- The Proponent must employ local Namibians where possible. Deviations from this practise should be justified appropriately.
- A community liaison officer should be appointed, especially to facilitate community grievances and concerns.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Progress reports on implementation kept.

10.1.3 Ideals and Aspirations

During the environmental assessment, public consultation was conducted with Ausenkehr residents and interested and or affected parties. During previous environmental assessments and a social impact assessment conducted. Concerns about the lack of un-serviced informal settlement area was raised, especially related to sanitation. Information about this project and surrounding environmental features was also shared with institutions which have vested interests in the new development. Aspirations for business development and growth are impacted by updated information related to possible environmental constrains and challenges. Perceived growth in the housing sector is associated with additional pressure which may by exerted onto governmental agencies for service delivery. The overall concern was related to the provision of services to the local community.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Information sharing about housing development	2	2	2	2	3	28	3	Probable
Daily Operations	Information sharing related to maintenance schedules and repairs	2	1	2	2	2	12	2	Probable

Desired Outcome: Continued sharing of activity plans with IAPs and governing agencies. Maintaining an open door policy with neighbours and employees.

Actions

Mitigation:

- Information sharing about the project's progress should be made available to governmental agencies and the IAPs. The Proponent and affected parties should use the information generated during the environmental assessment to realistically plan for future growth and optimisation of the distribution system. Open communication regarding future development should be maintained.
- Contractor's tenders to include best practise requirements for construction safety, security and environmental management for any future development. Pollution, poaching and unauthorised habitat destruction to carry contractual penalties.
- The Proponent must employ Namibians where possible. Deviations from this practise should be justified appropriately.
- A community liaison officer should be appointed during the construction phase especially to facilitate community grievances and concerns.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Records kept of all information shared with authorities, neighbours and employees,

10.1.4 Revenue Generation and Employment

The initial construction phase required a dedicated workforce which was contracted by the Proponent. Semiskilled and unskilled labour made up the largest segment of the labour force. Such labour was easily sourced from the nearby informal settlement. Through the remuneration of professional services, as well as the general labour force, revenue streams related to the construction industry was boosted and will be boosted upon the building of the access road and future additional houses. During the operations phase, employment will be created in the form of domestic work, maintenance, etc.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Employment and contribution to local economy	2	2	2	2	2	24	3	Definite
Daily Operations	Employment contribution to local economy	1	1	1	1	1	3	1	Definite

Desired Outcome: Contribution to national treasury and provision of employment to local Namibians.

Actions

Mitigation:

- The Proponent must employ local Namibians and contractors where possible.
- If the skills exist locally, employees must first be sourced from the town, then the region and then nationally.
- Deviations from this practice must be justified.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Summary report based on employee records

10.1.5 Demographic Profile and Community Health

The project is reliant on labour during the construction and operational phases. An initial and temporary change of the demographic profile during the construction phase will be replaced by a different and more permanent change to the demographic profile of the constituency during the operational phase. Increased access to services, housing and related amenities will result in an in-migration to the area. This is a strongly cumulative aspect considering all developing initiatives in Aussenkehr and the recent NamWater development. It is further expected that that the migration will be from existing other urban centres in Namibia, as well as partially from rural communities.

Access to formal sanitation and housing as well as electricity and potable running water will greatly benefit those residing in the houses when compared to the living conditions of the informal settlement. Access to such services may further reduce the potentially risk of criminal and socially/culturally deviant behaviour. A significant improvement for those living in the housing development was achieved.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	In-migration of labour force and those seeking access to services	2	-1	1	1	2	-8	-1	Probable
Operation	Increased access to services and increased community health	3	3	3	3	2	72	5	Probable

Desired Outcome: To increase access to potable water, proper sanitation services and electricity as well as to prevent / discourage criminal and or socially deviant and destructive behaviour.

Actions:

Prevention:

- Construction workers should always be supervised.
- Workers' conduct should be guided by a code of conduct to be developed by the contractors when conducting any maintenance work for any further housing construction.
- The construction areas should be fenced to avoid unauthorized entry.
- Employ only local people from the area, deviations from this practice should be justified appropriately.
- Consultations with and involvement of local communities in project planning and implementation.
- Mandatory and regular training for workers on required lawful conduct and legal consequences for failure to comply with laws.
- Adopt of develop by-laws relating to environmental health.
- All provisions of the Labour Act must be adhered to.
- Construction teams and related workforce to be easily identifiable and distinguishable.
- Educational programmes for employees on HIV/AIDS and general upliftment of employees' social status.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Project inspection sheet for all areas which may present environmental health risks, kept on file.
- Summary report based on educational programmes and training conducted.

- Summary report based on any theft related incidents.
- Employment records kept on file.

10.1.6 Traffic

The construction phase increased traffic flow to the site. An increase in traffic to and from the site during the operational phase, may increase the risk of incidents and accidents and road degradation (where access is gained onto the existing tar road). Construction activities may require sections of internal roads to be closed off during the maintenance of service infrastructure. Vehicle movement of the road will result in dust.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Operation	Increased collision risk and road degradation	2	-1	2	2	2	-12	-2	Definite
Indirect Impact	Dust	2	-1	2	2	2	-12	-2	Definite

Desired Outcome: Minimum impact on traffic and no transport or traffic related incidents.

Actions

Prevention:

- Sensitive environmental features should be demarcated and no off-road driving should be allowed around these sites. No construction vehicles should be allowed to enter these sites.
- Where relevant, erect clear signage, regarding parking and access and exit points around construction sites and at the construction camps.
- Additional provision should be made and agreed upon, with the Roads Authority, should any construction be timed during the peak packing seasons.
- During the planning phase, all connections to national roads must be approved by the Roads Authority.
- Road safety training to be provided to all construction staff and should be implemented by any contractors used (included in tender documentation).
- During any maintenance of infrastructure which may necessitate partial or complete road closure of traffic flow disruptions, clear communication should be available to the public and should include timing of maintenance.

Mitigation:

- Construction vehicles delivering material should not be allowed to obstruct any traffic or entrances / exists of erven without prior arrangement and proper signage where such measures apply.
- If any traffic impacts are expected, traffic management should be performed to prevent these.
- Measures should be in place to prevent (or repair) damage to road surfaces during the construction phase, especially during wet conditions.
- It must be ensured that a backlog of traffic does not develop at access points during peak hours, through the implementation of an efficient and effective access control system.
- Internal speed limits should be set for the construction and operational phases.
- Tender documentation to clearly specify the requirements of road worthy vehicles to be used during the construction phase by contractors while also stipulating the requirements for the transport of employees etc.

Responsible Body:

- Proponent

Data Sources and Monitoring:

- Any complaints received regarding traffic issues should be recorded together with action taken to prevent impacts from repeating itself.

- A bi-annual report should be compiled of all incidents reported, complaints received, and action taken.

10.1.7 Health, Safety and Security

Activities associated with the construction and operational phases are reliant on human labour. As such, labourers are exposed to health and safety risks. Some activities, especially associated with the operation of heavy equipment, machines and heavy motor vehicles and or hazardous chemicals, poses the main risks to employees. In addition to these expected risks, severe climatic characteristics of the area (extreme heat conditions) may contribute to conditions such as sunstroke, fatigue, dehydration and related symptoms. Security breaches are another concern which relates to the development of properties, as well as any construction camp. A construction workforce presents the opportunity of ill-intending persons to pose as project team members for nefarious and criminal reasons. Constructions sites are often targeted by criminal elements and the site will therefore increase the risk of crime within the local area, should additional housing units be established. Theft or damage of construction materials and properties is an important local risk.

In terms of the operational phase, the Proponent has an obligation to ensure that the large infrastructure components (electrical supply, water and sewerage mains), as well as the service infrastructure associated with the project, are constructed to best practice public safety standards. Maintenance of infrastructure components may however be required to ensure continued safe operation of structures. As an example, the Proponent will have a mandate to ensure all general waste is collected to prevent risks of contamination and health impacts.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Physical injuries, exposure to chemicals and criminal activities	1	-2	3	3	2	-16	-2	Probable
Daily Operations	Physical injuries or damage to infrastructure or property	1	-2	3	3	2	-16	-2	Probable

Desired Outcome: To prevent injury, health impacts and theft.

Actions

Prevention:

- All health and safety regulations specified in the Labour Act should be complied with.
- Clearly label dangerous and restricted areas as well as dangerous equipment and products during the construction phase as well as during maintenance of infrastructure.
- Equipment that will be locked away on site (during the construction phase) must be placed in a way that does not encourage criminal activities (e.g. theft).
- Provide all employees with required and adequate personal protective equipment (PPE).
- Ensure that all personnel receive adequate training on operation of equipment / handling of equipment and/or hazardous substances.
- Implementation of a maintenance register for all equipment and hazardous substance storage areas.
- Implement a maintenance schedule for all infrastructure components.
- Adopt local policies and procedures for dealing with all forms of waste, including possible effluent as well as community health aspects such as noise etc.

Mitigation:

- In terms of contracted parties, selected personnel should be trained in first aid and a first aid kit must be available on site. The contact details of all emergency services must be readily available.
- Implement and maintain an integrated health and safety management system for all businesses, to act as a monitoring and mitigating tool, which includes: operational, safe

work and medical procedures, permits to work, emergency response plans, housekeeping rules, material safety data sheet (MSDS) and signage requirements (PPE, flammable etc.).

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Any incidents must be recorded with action taken to prevent future occurrences.
- A monthly report should be compiled of all incidents reported during the construction phase. The report should contain dates when training were conducted and when safety equipment and structures were inspected and maintained.

10.1.8 Fire

Fires outside of designated areas, especially near laydown and material storage areas, may increase the risk of the occurrence of uncontrolled fires. Chemicals and fuels stored and used for general construction activities may be flammable. Improper waste burning or discarding of cigarette butts around accumulated waste, or in the vicinity of hazardous chemicals, further increases fire risks.

During the operational phase, a significantly increased fire risk will be present as related to homeowners and business. Any member of the public can accidentally, or intentionally, cause a fire. However, with the availability of electricity, the use of electrical appliances as opposed to open fires, candles and paraffin/gas lamps or stoves, will reduce the risk to fires for occupants. The site is located in a densely developed area with no fire brigade or related trained persons, which will increase the difficulty of fighting fires. Currently, if there is a fire in Aussenkehr, the local business responds with mobile fire fighters and water tankers to assist the community in extinguishing the fire. The provision and maintenance of fire extinguishers/ hydrants throughout the development as well as training on the use thereof remains paramount.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Fire and explosion risk	1	-2	2	2	1	-10	-2	Improbable
Daily Operations	Fire and explosion risk	1	-2	2	2	1	-10	-2	Improbable

Desired Outcome: To prevent property damage, possible injury and impacts caused by uncontrolled fires.

Actions:

Prevention:

- Prepare a holistic fire protection and prevention plan. This plan must include evacuation plans from the site and signage, an emergency response plan and a firefighting plan as part of maintenance and operational plans.
- Personnel training (safe operational procedures, firefighting, fire prevention and responsible housekeeping practices) should form part of all contractor's tender requirements for further construction work.
- Establish a maintenance schedule for all fire related infrastructure as constructed and or managed by the Proponent.
- Ensure all/any flammable chemicals and fuels are stored according to MSDS and SANS instructions and all spills or leaks are cleaned up immediately.
- Maintain regular site, mechanical and electrical inspections and maintenance.
- Ensure the maintenance of firefighting equipment and promote good housekeeping.
- No open and unattended fires should be allowed during the construction phase or close to the water treatment facility.
- Any LPG gas cylinders should be stored in an enclosed, secure area and serviced regularly with fire extinguishers readily available.
- The Proponent should liaise with the nearest fire brigade to ensure that all fire requirements are met and that contractors adhere to all requirements related to fuel storage and handling during the construction phase.

Mitigation:

- Implement the fire protection and firefighting plan in the event of a fire.
- Quick response time by trained staff will limit the spread and impact of fire.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A register of all incidents must be maintained. This should include measures taken to ensure that such incidents do not repeat themselves.
- A bi-annual report should be compiled of all incidents reported. The report should contain dates when fire drills were conducted and when fire equipment was tested and training given.
- Record when fire drills were conducted and when firefighting equipment were tested and training given.

10.1.9 Air quality

Particulate matter is a known health concern related to air quality. Specific parameters were developed by the World Health Organisation (WHO) relating to the safe limits of particulate matter in ambient air. Future construction and or maintenance activities could entail earth moving activities which may temporarily suspend material in the air. Frequent travelling of HMV over un-surfaced areas may increase soil disturbance resulting in finer particles which are more easily suspended in the air. An increase of dust settling on adjacent properties may impact the table grape sector and or the informal settlement. However, considering prevailing south-westerly wind conditions, the impact has a lower significance rating.

The sewerage plant is located more than 110 m from the nearest residential unit. The biological waste water treatment plant is a closed plant that emits no or very limited foul smelling odours. The distance from the plant to the housing development still acts as a buffer in the event of some odours being present and thus the plant is not considered to impact on the nearby residents.

The possible impacts, which may emanate from the project, will be on a local scale. It is not foreseen that the greenhouse gas emissions (GHG) from such activities will have a significant impact on the community health.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Excessive dust generated from construction activities, exposure to airborne particulates	1	-1	2	2	1	-5	-1	Definite

Desired Outcome: To prevent health impacts and minimise dust generated.

Actions

Mitigation:

- Personnel issued with appropriate masks where excessive dust are present.
- Mitigation measures should be in place, such as dust suppression where excessive dust generation is expected.
- A complaints register should be kept for any dust related issues and mitigation steps taken to address complaints where necessary.
- Notice to be given to nearby receptors prior to activities generating excessive dust which cannot be mitigated, if any.
- If feasible, consider covering the road with a natural dust suppressant or wet as required.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Any complaints received regarding dust should be recorded with notes on action taken.
- All information and reporting to be included in a bi-annual report.

10.1.10 Noise and Vibration

Construction or maintenance noise, which may constitute high volume and repetitive noises, are known to impact human health. Excessive noise may result in a nuisance to nearby receptors and possible hearing loss in staff.

Noise standards have been developed by the Health and Safety Regulations of the Labour Act and WHO to protect workers and communities against the health impacts and nuisances of noise. The project had a construction period which could have cause periods of noise experienced by nearby residents (in those areas initially established). A similar impact may be experience should additional construction be required / conducted. Mechanical excavations will increase the intensity of the construction noise generated.

During the operational phase, numerous and almost all aspects associated with the development will be noise emitting.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Excessive noise and vibrations generated from construction activities – nuisance and hearing loss	2	-2	2	2	1	-20	-3	Definite
Indirect Impact	Cumulative noise	2	-1	2	2	2	-12	-2	Definite

Desired Outcome: To prevent any nuisance and hearing loss due to noise and vibrations generated.

Actions

Prevention:

- Follow the Health and Safety Regulations of the Labour Act for limits on noise in the workplace and World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment and not to cause a nuisance.
- Allow for a community grievance mechanism.
- All machinery must be regularly serviced to ensure minimal noise production.
- Notification to nearby receptors (through a community liaison officer) of construction commencement.
- To reduce vibration levels, it is recommended that all machinery and vehicles be maintained in a good condition and that a maintenance record be kept.
- Any machinery and vehicles that cause excessive vibrations (indicative of possible malfunction) should be given defect notices and taken off site immediately. Machinery and/or vehicles may only be used again on site once they have been serviced and approval has been granted by the site supervisor.
- Unnecessary vibrations can be minimised by ensuring that no machinery or vehicles are left idling when not in use.
- The appropriate and correct placement of specific work activities can ensure the reduction of handling of machinery that cause heavy vibrations.
- Ensure personnel running the equipment are trained accordingly so that machinery is used properly.
- Pre assessment to allow for mitigation measures for any elevated levels of vibrations should take place if there is any suspicion that there may be excessive vibration levels on site during construction. These mitigation measures should then be in accordance with local regulations and standards.

- Should any blasting be conducted, a related survey of all properties will have to be conducted and an amendment to the environmental assessment and related environmental management plan will have to be submitted to MEFT.

Mitigation:

- Hearing protectors as standard PPE for workers in situations with elevated noise levels.
- An assessment of the vibrations from within premises where complaints are recorded can help determine better mitigation measures.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- Health and Safety Regulations of the Labour Act and WHO Guidelines.
- Maintain a complaints register.
- Report on complaints and actions taken to address complaints and prevent future occurrences.

10.1.11 Waste Production

Waste production during the construction and operational phases are very different and require unique waste management measures to address related impacts and prevent contamination. Construction waste may have a greater component of building rubble, discarded materials and hydrocarbon-contaminated materials, with less general and domestic waste in comparison. The latter two types of waste, along with sewage and effluent, should be managed by the contracting agent responsible for construction within a specific area. Wind may blow waste, such as old cement bags (which is a hazardous waste), plastic bags and polystyrene, from the site to beyond the site boundaries. Construction waste may present physical pollution as well as chemical contamination.

During habitation, a greater volume of general and domestic waste will have to be managed. Any form of waste, may not only result in contamination and pollution risks, but also present health and fire risks. Uncollected domestic and general waste, not contained in suitable disposal units, may attract vermin and wild animals. Waste handling and storage, albeit temporarily, may present pollution and contamination risks. Sewage is also a form of waste. The biological waste water treatment plant will treat sewage effluent to a standard suitable for release into the environment. The sludge waste produced will be of an organic nature and will be contained within the reclamation plant until removed. The Proponent will be responsible for the removal of the waste to an appropriately licensed facility. Waste will be removed every two or three years or once it has accumulated to 600 mm (or as specified by the plant manufacturer). Only dry sludge may be disposed of.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Construction waste production, littering, illegal dumping, contaminated materials	2	-2	2	2	2	-24	-3	Definite
Operation	Generation of all waste types, littering and illegal dumping	2	-2	2	2	2	-24	-3	Definite

Desired Outcome: To reduce the amount of waste produced, and prevent pollution and littering as well as safety risks associated with accumulated waste.

Actions

Prevention:

- A waste management system should be adopted and presented for the construction phase and should include measures related to construction waste handling and management.
- All construction related tender documentation should include the waste management system and should include contractual penalties for failing to adhere to the waste management requirements.
- A waste management system should be adopted for the proposed development and should include disposal to a landfill site.
- Ensure adequate temporary waste storage facilities are available for different types of waste during the operational phase.
- Ensure waste cannot be blown away by wind during all phases of the project.
- Prevent scavenging (human and non-human) of waste.
- Adopt or formulate regulations and by-laws relating to waste management, storage and handling.
- All construction waste produced must be removed on a weekly basis.

- Weekly site inspections should be conducted by a representative of the Proponent to ensure implementation of the waste management plan and compliance to the EMP.
- An independent waste and EMP management audit should be conducted on a monthly basis for the duration of construction contracts.
- The sewage treatment plant must be serviced regularly to ensure efficient functioning and adequate treatment of sewage.
- The sewage treatment plant must be operated according to requirement from the MAWLR as well as any requirements stipulated in any permit (such as the disposal permit, for which an application was submitted).
- All maintenance requirements of the water treatment plan should be adhered to. Failing any stipulated requirement of the MAWLR, maintenance must be conducted according to Section 6 (Operation and Maintenance) of the Department of Water Affairs & Forestry Code of Practice: Volume 3; Biological Filtration Systems – General guidelines. Or, any subsequent or more recent publication in this regard, by the MAWLR.
- All sampling and analysis should be conducted as per the disposal permit requirements. Failing any stipulated requirement of the MAWLR, maintenance must be conducted according to Section 7 (Sampling and Analysis) of the Department of Water Affairs & Forestry Code of Practice: Volume 3; Biological Filtration Systems – General guidelines. Or, any subsequent or more recent publication in this regard, by the MAWLR.

Mitigation:

- Waste, including sludge waste, should be disposed of at appropriately classified disposal facilities. This includes hazardous material disposal (empty chemical containers, contaminated rags, paper, water and soil) and the sludge from the waste water treatment plant.
- See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers.
- Liaise with the regional council regarding waste and handling of hazardous waste.
- Empty chemical containers that may present a contamination/health risk must be treated as hazardous waste. Workers should not be allowed to collect such containers for purposes of storing water or food. This can be achieved by puncturing or crushing such containers prior to disposal.
- Report all fuel spills greater than 200 litres to the Ministry of Mines and Energy and enact emergency response plans for fuel spills.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/project.
- Waste management plan, weekly and monthly audit reports kept on site.
- Operational and maintenance record kept on site.
- All results of any sampling related to the waste water treatment should be kept on file and/or provided to the MAWLR as per disposal or guideline requirements.
- Any complaints received regarding waste should be recorded with notes on action taken.
- All information and reporting to be included in a bi-annual report.

10.1.12 Flora

Construction related activities presents the greatest risk to habitats within the area associated with the Orange River, since the project location is void of vegetation. However, this site is located far removed from the Orange River and therefore is highly unlikely to affect the flora associated with the river. Construction and operational activities can create habitat for flora species to establish e.g. disturbed soil is favourable for the establishment of weeds and invader species. Illegal collection of plant materials may occur. Employees should not be allowed to harvest any flora without the required permission.

Although the operational phase is not planned to have direct physically altering activities on or around sensitive habitat areas, deviant or criminal social behaviour may result in damage to flora resources or vineyards.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Impact on flora and loss of biodiversity	1	-1	3	2	2	-7	-1	Improbable
Daily Operations	Change in localised ecosystems	1	-1	3	2	2	-7	-1	Improbable

Desired Outcome: To avoid pollution and negative impacts on these sensitive habitats.

Actions.

Prevention:

- All dumping of waste material in the environment, especially bricks and contaminated materials or soils, must be prevented.
- No storage of vehicles or equipment will be allowed outside of the designated area.
- Educate all contracted and related employees on the value of biodiversity and strict conditions prohibiting harvesting of flora must be part of employment contracts. Include prohibitions or regulations on the collection of firewood, etc.
- Mitigation measures related to waste handling and the prevention of groundwater, surface water and soil contamination should limit ecosystem and biodiversity impacts.

Mitigation:

- For construction activities, contain construction material to a designated laydown area and prevent movement out of areas earmarked for clearing and construction.
- Take disciplinary action against any employees failing to comply with contractual conditions related to harvesting of flora.
- Implementation of an alien vegetation management plan for the site is required. This is especially in areas that have been disturbed.

Responsible Body:

- Contractor
- Proponent

Data Sources and Monitoring:

- All information and reporting to be included in a bi-annual report.

10.1.13 Fauna

Construction activities could lead to the displacement of faunal communities due to habitat loss and disturbance (noise, dust and vibration) and/or direct mortalities. However, the site was void of vegetation and related habitats with very little, if any, fauna species present. During the operational phase, the housing development may present suitable habitat for various fauna species ranging from snakes to birds. Impacts may therefore extend to human-wildlife conflict such as chance encounters with snakes or scorpions. Poaching of animals may occur. Employees should not be allowed to poach animals such as birds or collect or injure any exotic species such as scorpions.

Although the operational phase is not planned to have direct physically altering activities on or around habitat areas, deviant or criminal social behaviour may result in damage to protected fauna species.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Impact on fauna and loss of biodiversity	1	-1	3	2	2	-7	-1	Improbable
Daily Operations	Change in localised ecosystems	1	-1	3	2	2	-7	-1	Improbable

Desired Outcome: To avoid the negative impacts on fauna and loss of biodiversity

Actions.

Prevention:

- Prior to further construction or during maintenance, do systematic site walkover to as best possible, locate and remove ant slow moving animals.
- For the construction phase, instruct workers to not deliberately injure or kill any animals perceived as dangerous, like scorpions and reptiles which may be present on site. Rather encourage reporting of such animals and arrange for the relocation of the animals to safe habitats.
- Educate all contracted and related employees on the value of biodiversity and strict conditions of prohibiting the poaching of fauna must be part of employment contracts.
- Report any extraordinary animal sightings to MEFT.
- Mitigation measures related to waste handling and the prevention of groundwater, surface water and soil contamination should limit ecosystem and biodiversity impacts.
- Prevent scavenging of waste by fauna.
- Direct all lights down to working surfaces and use minimal lighting at night.

Mitigation:

- For construction activities contain construction material to a designated laydown area and prevent movement in areas earmarked for conservation.
- Report any extraordinary animal sightings, conflict or incidents to the MEFT.
- Take disciplinary action against any employees failing to comply with contractual conditions related to poaching and the environment.

Responsible Body:

- Contractor
- Proponent

Data Sources and Monitoring:

- All information and reporting to be included in a bi-annual report.
- Report any extraordinary animal sightings to the MEFT.

10.1.14 Groundwater, Surface Water and Soil Contamination

Contamination risks may be linked to the construction and operational phases. Sources of contamination can be spills and leaks from construction vehicles, chemicals used during construction such as paints and sewage. Shallow groundwater may lead to rapid dispersion of pollutants, and may potentially negatively impact surrounding underground utilities of infrastructure (considering the phased approach). Changes in the soil structure due to site excavation, clearance and especially ground breaking may lead to trenches along which contamination may travel.

During the operational phase, various risks of contamination may be associated with any portion of the infrastructure failing, such a leaking sewerage lines. Improper storage of hazardous materials, etc., may further pose risk to soil and groundwater contamination.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Contamination from hazardous material spillages, hydrocarbon leaks and sewage.	2	-1	2	2	1	-10	-2	Probable

Desired Outcome: To prevent the contamination of water and soil.

Actions

Prevention:

- Leaking equipment shall be repaired immediately or be removed from site to facilitate repair.
- Any possible contamination of topsoil by hydrocarbons, concrete or concrete water must be avoided and an emergency spill kit must always be available on site.
- Proper training of operators of construction machinery and vehicles and employees must be conducted on a regular basis (fuel and chemical handling, spill detection, spill control).
- Spill control measures, such as drip trays, should be in place where refuelling of construction machinery is required on the site.
- All construction machines should be maintained to be in a good working condition during operations.
- Employ drip trays and spill kits when servicing / repairs of equipment are needed.
- Where relevant, determine locations of any underground structures per erven to prevent damage to underground utilities which may lead to contamination.
- Prevent off-road driving or movement of earthmoving equipment outside of areas designated for clearing.
- No dumping of rocks and removed soil in environmentally sensitive areas. Where possible it can be used to fill erosion ditches or old quarries, if any are present.
- Regular inspection of the waste water treatment plant to detect any leaks which must be repaired without delay.
- Regular maintenance of the waste water treatment plant to ensure efficient treatment of sewage to standards acceptable for the release of treated effluent into the environment.
- The residents of the houses connected to the waste water treatment plant must regularly be informed of what may and may not be allowed to enter the sewerage system.

Mitigation:

- Any fuel spillage of more than 200 litre must be reported to the Ministry of Mines and Energy.
- Spill clean-up means must be readily available on site as per the relevant MSDS and any spill must be cleaned up immediately.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A report should be compiled bi-annually of all spills or leakages reported. The report should contain the following information: date and duration of spill, product spilled, volume of spill, remedial action taken, and a copy of documentation in which spill was reported to Ministry of Mines and Energy. The latter is only for fuel spills of 200 litres or more.

10.1.15 Visual Impact and Landscape Character

Changes in the landscape character occurred during the construction phase and subsequently also during the operational phase. Formalised housing is distinctly different from the informal settlement as well as the vineyards. A diversification of the landscape character in this way adds to the perceived organised development of Aussenkehr and therefore is considered to contribute positively to the landscape character. Furthermore, the housing development should be kept clean, tidy and maintained to ensure it remains aesthetically pleasing.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Aesthetic appearance and integrity of the construction sites	1	-1	2	2	2	-6	-1	Probable
Indirect Impact	Change in settlement and landscape character	3	1	2	2	2	18	2	Definite

Desired Outcome: To minimise aesthetic impacts associated with the establishment.

Actions

Mitigation:

- Construction activities must be restricted to the construction site to minimize the impacts of the construction phase.
- Storm water discharge points should be designed to minimize erosion.
- Regular waste disposal, good housekeeping and routine maintenance on infrastructure will ensure that the longevity of structures are maximised and a low visual impact is maintained.
- All contractors' camps to be clearly demarcated, fenced off and kept neat.
- Active construction areas to be clearly indicated, demarcated and kept neat.
- Construction to be approached in a systematic manner to ensure uniform and methodical completion of construction areas.
- Construction planning to be shared with IAPs.

Responsible Body:

- Proponent
- Contractors

Data Sources and Monitoring:

- A maintenance record should be kept.
- A bi-annual report should be compiled of all complaints received and actions taken.

10.2 IMPACT SUMMARY

The most significant negative impacts related to the project refers to the construction phase. However, operations of the sewerage plant present potential impacts if not operated and maintained according to specifications. The access road junction with the D2012 District Road may pose some traffic related risks. Waste management and rehabilitation of construction sites are important in order to reduce negative impacts.

Positive aspects permeate the operational phase through the provision of rural residential units, services and access to property ownership. Construction phase positive aspects are of much shorter duration and related to the employment and revenue generation.

10.3 DECOMMISSIONING AND REHABILITATION

The residential units and associated support infrastructure are considered permanent structures with a lifespan of many decades and as such decommissioning of these structures are not foreseen. For purposes of the EMP, decommissioning rather refers to the removal of construction phase related infrastructure such as construction camps or selected operational infrastructure that may have broken or became obsolete and has to be replaced. Should such decommissioning occur at any stage, rehabilitation of the area may be required. Decommissioning will entail the complete removal of all infrastructure not to be used in future, including underground infrastructure. Any pollution present on the site must be remediated. The impacts associated with this phase include noise and waste production as structures are dismantled. Noise must be kept within the health and safety regulations of the Labour Act and/or WHO standards and waste should be contained and disposed of at an appropriately classified and approved waste project and not dumped in the surrounding areas. Depending on the scale of decommissioning, the EMP for the project may have to be reviewed at the time of decommissioning to cater for changes made to the site and implement guidelines and mitigation measures.

11 CONCLUSION

The housing development plays a positive role in the ǁKaras Region due to provision of access to potable, piped water, formalised sanitation and electrical supply. Employees are also afforded with the opportunity to own their own property if they so wish. The use of the land for the housing sector has a beneficial role in generating income in the region and providing employment during the construction and or maintenance phases. Overall, the housing development contributes to the development of Aussenkehr as a settlement.

Project related impacts must be prevented or mitigated by implementing strict monitoring and control. All permits and approvals must be obtained from relevant ministries or authorities. Pollution prevention measures should be adequate to prevent incidents that may potentially damage soil, groundwater and surface water. Health, safety and security regulations should be adhered to in accordance with the regulations pertaining to relevant laws and standards. The areas being used are on private land and no need for additional fencing is required. Of main importance is to maintain the sewerage system. It is therefore recommended that the Proponent develop a maintenance and monitoring schedule to ensure optimal functioning of the system. The parameters of such monitoring programme should be determined by a specialist and in conjunction with the system design engineer.

The EMP should be used as an on-site reference document during all phases of the housing development. Parties responsible for transgression of the EMP should be held responsible for any rehabilitation that may need to be undertaken.

It is finally suggested that should an ECC be granted, it be applicable to the housing development on the areas as indicated in Figure 1-1. Any additional areas which may be considered for operations should be demarcated and presented as an amendment to his document or a separate environmental assessment.

12 REFERENCES

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Appendix A. Authorities Consultation

Roads Authority

SAFE ROADS TO PROSPERITY

ROADS AUTHORITY
PRIVATE BAG 12030
AUSSPANNPLATZ
WINDHOEK
NAMIBIA

Our Ref: RA14/19/2/212
Your Ref:

Enquiries: Elina Lumbu (Ms.)
Telephone: +264 61 284 7427
E-mail: lumbue@ra.org.na

01 September 2023

J. G. van der Merwe Town Planners
P O Box 6501
Windhoek
Namibia

Attention Mr. J. G. van der Merwe (jvdm@mweb.com.na)

Dear Sir,

DISTRICT ROAD (DR) 212: REQUEST TO CONSTRUCT AN ACCESS TO FARM AUSSINKER NO. 147 – PORTION 224: KARASBURG DISTRICT - KEETMANSHOOP MAINTENANCE REGION

1. Reference is made to your application dated 11 August 2023 on a subject matter.
2. Approval is hereby granted for the establishment of one (1) Type B (refer to the typical drawing attached as **annexure A)** at km 50.6 from Noordoewer at the intersection of DR 212 and Trunk Road (TR) 1/1.
3. Due to the presence of a water stream at the access point, it is important to take into account the installation of a culvert structure in order to safeguard the road from potential harm, particularly in periods of heavy rainfall.
4. Please note that this approval is subject to the following conditions:
   (a) The access should meet the road at a right angle.
   (b) Before commencing with any excavations inside the road reserve, it will first need to be determined whether any services such as telecommunication cables are present.
   (c) All necessary precautions must be taken to ensure the safety and comfort of the road users during the construction process.
   (d) The construction of an access, is to be carried out by a competent Contractor to the specifications of the Roads Authority. A suitably qualified registered Engineer is to be appointed as Resident Site Engineer to carry out the necessary supervision during the

period of construction of the access. These are to be arranged by the applicant at no cost to the Authority.

(e) The relevant specifications may be obtained from the office of the local Roads Authority's Regional Engineer (Karasburg / Keetmanshoop office). **Detailed drawings (depicting the road layers) will first need to be submitted to and approved by the Roads Authority before construction work may begin. The applicant will further be required to apply the necessary road markings and erect the necessary road traffic signs as per the approved drawings at no cost to the Roads Authority**.

The Chief Engineering Technician, Mr Joseph Amupanda can be consulted at AmupandaJ@ra.org.na or at +264 81 124 1249.

(f) Quality control results and a final audit report with test results is to be submitted to a local Roads Authority' maintenance office, if so required. These should be endorsed by the Resident Engineer to confirm compliance with the required Roads Authority standards.

(g) Suitable warning signs complying with the Road Traffic and Transport Act and its regulations must remain erected for as long as the work is in progress. A permanent yield sign (R2) must be erected at the intersection.

(h) The local Chief Engineering Technician of the Roads Authority must be informed at least two days in advance of the commencement and completion dates of the work in order to allow for the necessary inspections, if any, to be carried out.

(i) It is of paramount importance that all aspects of the work be carried out in close co-operation with the office of the Regional / District Engineer and in accordance with his/her instructions.

(j) The road reserve must, at the completion of the works, be left in a clean and tidy state and all rubble and excess construction material must be gathered and carted away from the site.

(k) The Roads Authority will not accept responsibility for any damage, injury or loss of life that may occur as a result of negligence, inadequate warning signs or the inadequacy of any other precautionary measures needing to be taken while the works are in progress.

5. Kindly be informed that this approval will only be valid for three (3) years from the date of this letter. Thereafter, **should the access not be constructed at all or to the agreed standards**, the approval shall lapse, and a new application must be submitted (this is purely undertaken for the purpose of re-assessing the any other new developments in the vicinity of the proposed access).

We trust that the above meets your expectations.

Yours faithfully,

NETWORK PLANNING
ROADS AUTHORITY
Safe roads to prosperity
01 September 2023
PRIVATE BAG 12030
AUSSPANNPLATZ, NAMIBIA
TEL: +264-61-284 7065
www.ra.org.na

Elina Lumbu (Ms.)

SENIOR SPECIALIST: ROADS LEGISLATION & COMPLIANCE

NETWORK PLANNING DIVISION

ANNEXURES:

- Annexure A: Typical Access Standard drawing

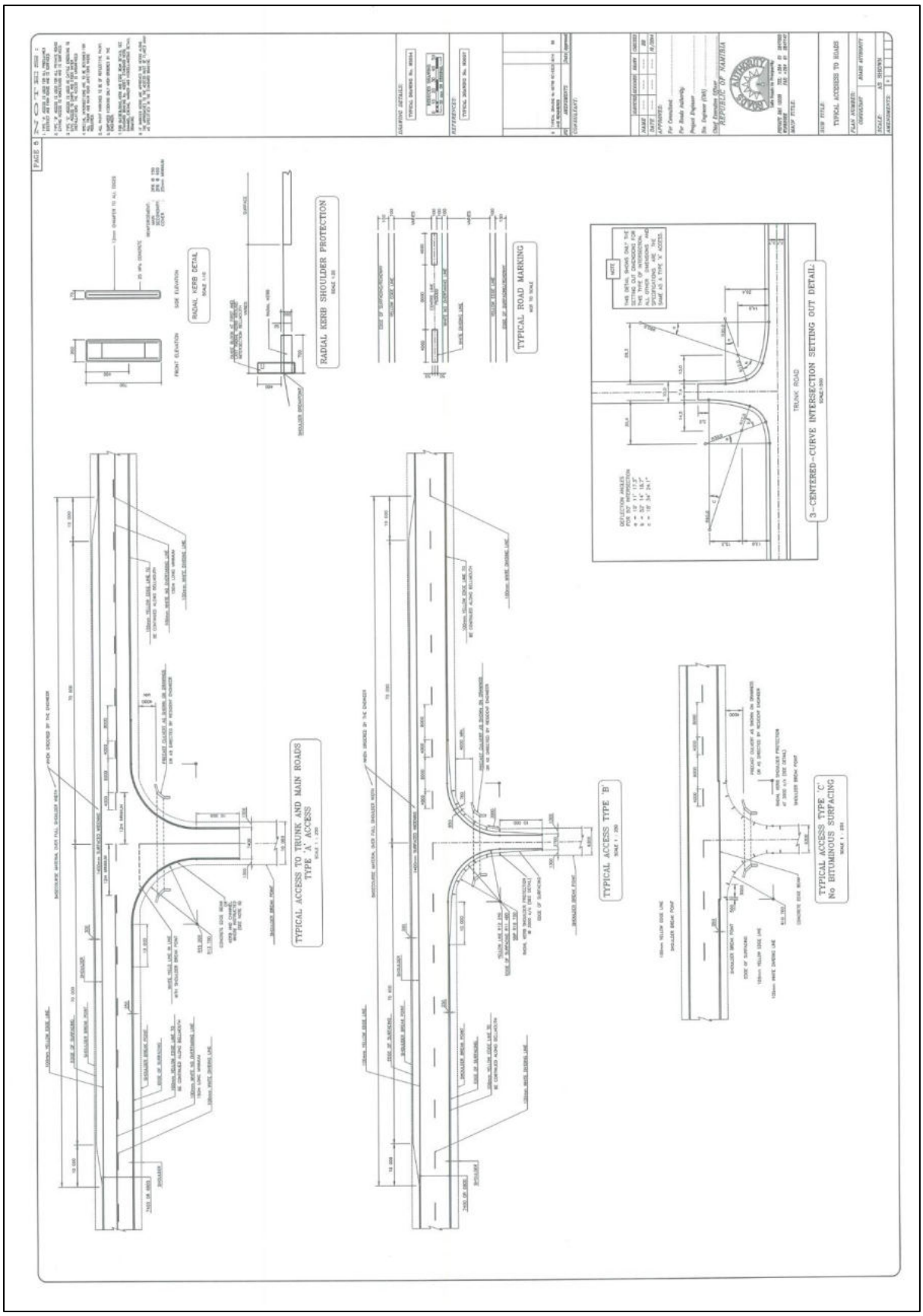
COPIES TO:

- Mr. Johan Blaauw (Regional Engineering Manager: Keetmanshoop Region, Roads Authority)

Page 2 of 3

ANNEXURE A: TYPICAL ACCESS STANDARD DRAWING

Page 3 of 3


RADIAL KERB DETAIL
RADIAL KERB SHOULDER PROTECTION
TYPICAL ROAD MARKING
3-CENTERED-CURVE INTERSECTION SETTING OUT DETAIL
TYPICAL ACCESS TO TRUNK AND MAIN ROADS TYPE 'A' ACCESS
TYPICAL ACCESS TYPE 'B'
TYPICAL ACCESS TYPE 'C' No BITUMINOUS SURFACING

Ministry of Agriculture, Water and Land Reform

ORVI
Orange River Vineyards Investment (Pty) Ltd

Admin:
Tel: +264 (0)61 371 100
info@orvi.biz | www.orvi.biz
PO Box 314
Windhoek | Namibia

Farm contact details:
Tel: +264 (0)63 297 009
info@orvi.biz
PO Box 737
Aussenkehr | Namibia

17 October 2023

Executive Director
Attn. Law Administration
Ministry of Agriculture, Water and Forestry
Private Bag 13184
Windhoek

Dear Sir/Madam

Kindly find herewith attached the application for a waste water discharge licence for Orange River Vineyards Investment (Pty) Ltd.. Please advise if there is any changes or more details needed. My details are included on the application form.

Your consideration is highly appreciated.

Sincerely,

Friederike Baur
0853371197

REPUBLIC OF NAMIBIA
MINISTRY OF AGRICULTURE, WATER AND LAND REFORM
18 OCT 2023
Private Bag 13184, Windhoek
Directorate of Water Resource Management

REPUBLIC OF NAMIBIA

MINISTRY OF AGRICULTURE, WATER AND LAND REFORM

Telephone: 2087228
Fax: 2087697
Enquiries: J N Mouton
Email: James.Mouton@mawlr.gov.na
Ref. Number: 10/11/1/4

Department of Water Affairs
Private Bag 13193
Windhoek

Ms Friederike Baur
Orange River Vineyards Investment (Pty) Ltd
P O Box 314
WINDHOEK

Dear Ms Baur

APPLICATION FOR A DOMESTIC WASTEWATER AND EFFLUENT DISPOSAL EXEMPTION LICENCE IN TERMS OF PART 13 OF THE WATER RESOURCES MANAGEMENT ACT 2013, ACT NO. 11 OF 2013, ORANGE RIVER VINEYARDS INVESTMENT (PTY) LTD, AUSSENKEHR, ||KARAS REGION.

Receipt of your application dated 17 October 2023, in the above regard, is hereby acknowledged.

The application will be referred to our Water Environment Division for further attention.

Please take note that the licence will be considered and issued once the Honourable Minister put a signature on these new licences which of course is in its final stages of been reviewed as prescribed by the Water Resources Management Act , 2013 and its associated regulations that came into force on 29 August this year (2023).

We apologize for any potential inconvenience that may arise as a result of not issuing your licence timely.

Yours Sincerely,

REPUBLIC OF NAMIBIA
MINISTRY OF AGRICULTURE,
WATER AND LAND REFORM
18 OCT 2023
Private Bag 13193 Windhoek
Water Resources Management

DEPUTY DIRECTOR:
POLICY AND WATER LAW ADMINISTRATION

All official correspondence must be addressed to the Executive Director

//Kharas Regional Council

Republic of Namibia

||Kharas Regional Council

Private Bag 2184, KEETMANSHOOP | Tel: +264 63 221 900 | Fax: +264 63 223 538 — 21st August 2023

J. G van der Merwe
Town and Regional Planning Consultant
P O Box 6501
Windhoek

Dear Sir,

SUBJECT: SUBDIVISION OF PORTION 224 OF THE FARM AUSSENKHER NO. 147 INTO 39 NEW PORTIONS AND REMAINDER, REGISTRATION DIVISION "V" ||KHARAS REGION.

Following your letter to ||Kharas Regional Council to assist in expediting the application to the Urban Planning Board:

1. We confirm that the ||Kharas Regional Council Management Committee and Ordinary Council meeting has not convened as yet, since you applied for the Subdivision in March 2023.

2. We confirm that no objections has been received to date.

3. As technocrats we support the subdivision and have no objection against you approaching the Minister and Urban Planning Board for further approval.

4. The Regional Councillor responsible for Karasburg West Constituency, has supported the application.

5. We attach stamped plans of the subdivision to be used in your application board.

We trust you will advise us on the outcome of the application.

Yours faithfully,

OFFICE OF THE CHIEF REGIONAL OFFICER
//Kharas Regional Council
21 AUG 2023
Private Bag 2184, Keetmanshoop
Tel: 063 221900 / Fax: 063 223538
//KHARAS REGION

MR. BENEDICTUS DIERGAARDT
ACTING CHIEF REGIONAL OFFICER

My NAMIBIA
MY COUNTRY, MY PRIDE

All official correspondence must be addressed to the Chief Regional Officer

Proof of Public Consultation //Kharas Regiona Council

GEO Pollution Technologies

TEL.: (+264-61) 257411 ♦ FAX.: (+264) 88626368
CELL.: (+264-81) 1220082
PO BOX 11073 ♦ WINDHOEK ♦ NAMIBIA
E-MAIL: gpt@thenamib.com

13 June 2023

To: **Interested and Affected Parties**

Re: **Environmental Scoping Assessment and Environmental Management Plan for the Subdivision of Portion 224 of the farm Aussenkjer 147.**

Dear Sir/Madam

In terms of the Environmental Management Act (No. 7 of 2007) (EMA) and the Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012), notice is hereby given to all potential interested and/or affected parties (IAPs) that an application will be made to the Environmental Commissioner for an environmental clearance certificate (ECC) for the following project:

Project: Subdivision of Portion 224 of the farm Aussenkjer 147

Proponent: Orange River Vineyard Investments (Pty) Ltd

Environmental Assessment Practitioner: Geo Pollution Technologies (Pty) Ltd

Orange River Vineyard Investments (Pty) Ltd plans to subdivide portion 224 of the farm Aussenkjer No. 147 into 39 portions and the remainder. The project is located in Aussenkehr in the //Karas Region. The purpose of the subdivision is to accommodate established residential units. As part of the project, the Proponent intends to construct a public road as an access road to the subdivided portions. General construction activities for the approximate 700 m gravel road will include clearing of the route along which the road is proposed. A portion of the proposed road route is void of vegetation and undeveloped, while the rest of the alignment will follow an existing farm road, which will be upgraded. Therefore, clearing of the road reserve will not see the removal of any vegetation, but rather the clearing of topsoil for small portions of the route. Soil compaction and layering of different construction material will be conducted by reputable contractor and according to the Roads Authority specifications. Town planning activities, such as the subdivision of portion 224, is a planning based activity which will not require any action during the operational phase.

Geo Pollution Technologies (Pty) Ltd was requested to conduct an environmental assessment for the project. The assessment is required in terms of the EMA and will be conducted according to the EMA regulations as published in 2012. As part of the assessment, we consult with IAPs who are invited to register with the environmental consultant and to receive further documentation and communication regarding the project. By registering, IAPs will be given an opportunity to provide input that will be considered in the drafting of the environmental assessment report and its associated management plan.

Registration details and comments should reach Geo Pollution Technologies by 30 June 2023.

To register, please contact: Email: **orvi@thenamib.com** Fax: 088-62-6368

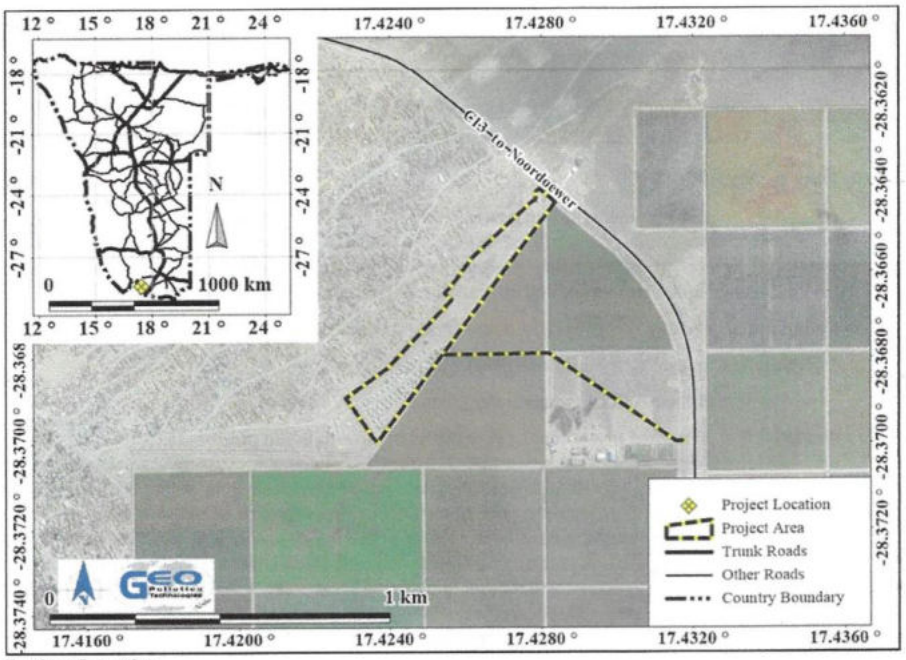
Should you require any additional information please contact Geo Pollution Technologies at telephone 061-257411.

Thank you in advance.
Sincerely,
Geo Pollution Technologies

20230612
Subdivision 224 Aussenkehr
Public Notification

Quzette Bosman
Social and Environmental Assessment Practitioner

//KHARAS REGIONAL COUNCIL
NOORDOEWER
SETTLEMENT OFFICE
2023 -06- 13
P.O. BOX 79, NOORDOEWER
TEL: 063-297 163/4 FAX: 063-297282
//KHARAS REGION



Project Location

Appendix B. Proof of Public Consultation

Notified IAPs

Name	**Organisation**
Kevin Liddle	Silver Street Capital (farming in the Valley)
Jadre Fourie	Silverlands
Kobus Botha	Namibia Grape Company
Oscar Mwayanale	Mwayanale Trading Enterprise cc
Charles Munjanu	Solar Grapes
Dur Bezuidenhout	
Henner Dickmann	Frontier Grapes
Albert Calitz	AW Greenworks
Andre Brand	Navico - Farmers' Representative
Sunia De Kock	Grape Alliance
Willie Vermeulen	Grape Alliance
Stefnie Vermeulen	Grape Alliance
Elize van Zyl	Solar Grapes
Albert Holtzhausen	Orange River Vineyard Investments
Gerhard van der Merwe	Town Planning
Nick de Goede	|Ai-|Ais/Richtersveld Transfrontier Park - SAN Parks - Park Manager
Hendrik Prins	|Ai-|Ais/Richtersveld Transfrontier Park - SAN Parks - Duty Manager
Theo Shiyambi	Aussenkehr Community Committee - Secretary
Simon Akwenye	Agribusdev-DRIP Agribus Dev - NDC Manager
Kondjeni Nghitevelekwa	Nampower - Power Systems Development (PSD) BU - Transmission Projects
John Akawa	Namwater
Calvin Sisamu	Nampower - Power Systems Development
Smut Matengu	Nampower
Jolanda Murangi	Namwater - Environmental Scientist
Andries Kok	Namwater
Furnmart	Commercial Entity
Justin Julius	NEC/Alcon
Jana Joubert	GA Management
Jan Mostert	Frontier Grapes Manager
Nicolene Mostert	Frontier Grapes Manager
E van Zyl	Manager Spar
Milo Vasiljevic	Manager Spar
Bodiv Vasiljevic	Manager Spar
Salomé Beukes	FNB - Supervisor
Mandy van Staden	Norotshama
Lerralie Plaatjies	Standard Bank
Ministry of Urban & Rural Development (MURD)	
Mr A Muhongo	Karas Regional Council - Noordoewer Settlement Office
Hon Lucia Basson	Karas Regional Council - Governor
Mr Ucham	Acting Chief Regional Councillors
J Mashala	Karasburg West Constituency
Berendt Both	Karasburg West Constituency - CAO
Lahya Shitenga	Noordoewer Settlement Office
Ministry of Environment and Tourism	
Wayne Handley	Ministry of Environment & Tourism - Acting Chief Warden for Karas Parks
Lenka Thamae	ORASECOM Secretariat
Registered IAPs	
Nelimona Lipinge	Namibian Environment and Wildlife Society

Notification Letter

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CELL.: (+264-81) 1220082
PO BOX 11073 ♦ WINDHOEK ♦ NAMIBIA
E-MAIL: gpt@thenamib.com

23 June 2023

To: **Interested and Affected Parties**

Re: **Environmental Scoping Assessment and Environmental Management Plan for the Subdivision of Portion 224 of the farm Aussenkjer 147.**

Dear Sir/Madam

In terms of the Environmental Management Act (No. 7 of 2007) (EMA) and the Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012), notice is hereby given to all potential interested and/or affected parties (IAPs) that an application will be made to the Environmental Commissioner for an environmental clearance certificate (ECC) for the following project:

Project: Subdivision of Portion 224 of the farm Aussenkjer 147

Proponent: Orange River Vineyard Investments (Pty) Ltd

Environmental Assessment Practitioner: Geo Pollution Technologies (Pty) Ltd

Orange River Vineyard Investments (Pty) Ltd plans to subdivide portion 224 of the farm Aussenkjer No. 147 into 39 portions and the remainder. The project is located in Aussenkehr in the //Karas Region. The purpose of the subdivision is to accommodate established residential units. As part of the project, the Proponent intends to construct a public road as an access road to the subdivided portions. General construction activities for the approximate 700 m gravel road will include clearing of the route along which the road is proposed. A portion of the proposed road route is void of vegetation and undeveloped, while the rest of the alignment will follow an existing farm road, which will be upgraded. Therefore, clearing of the road reserve will not see the removal of any vegetation, but rather the clearing of topsoil for small portions of the route. Soil compaction and layering of different construction material will be conducted by reputable contractor and according to the Roads Authority specifications. Town planning activities, such as the subdivision of portion 224, is a planning based activity which will not require any action during the operational phase.

Geo Pollution Technologies (Pty) Ltd was requested to conduct an environmental assessment for the project. The assessment is required in terms of the EMA and will be conducted according to the EMA regulations as published in 2012. As part of the assessment, we consult with IAPs who are invited to register with the environmental consultant and to receive further documentation and communication regarding the project. By registering, IAPs will be given an opportunity to provide input that will be considered in the drafting of the environmental assessment report and its associated management plan.

Registration details and comments should reach Geo Pollution Technologies by 30 June 2023.

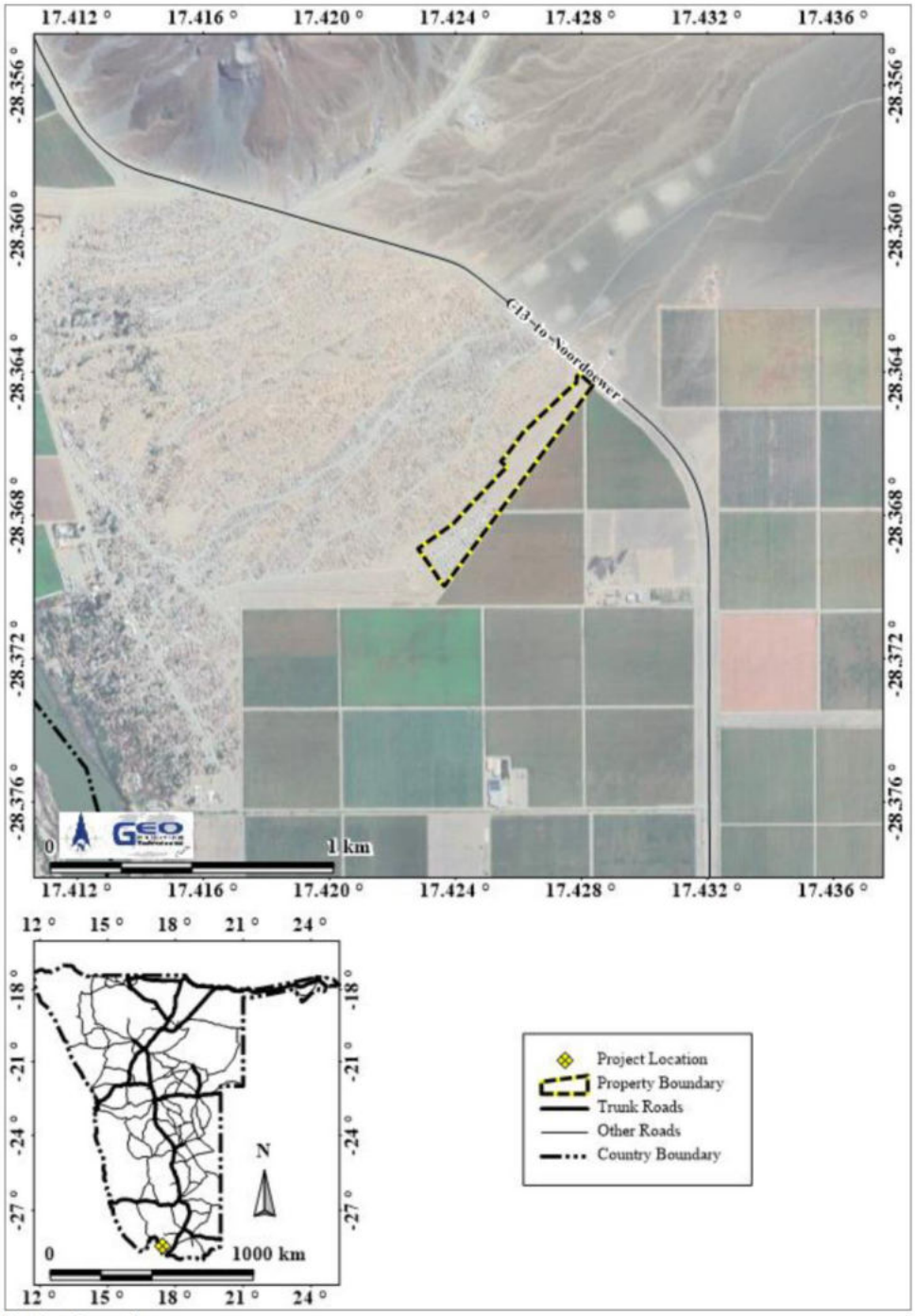
To register, please contact: Email: **orvi@thenamib.com** Fax: 088-62-6368

Should you require any additional information please contact Geo Pollution Technologies at telephone 061-257411.

Thank you in advance.
Sincerely,
Geo Pollution Technologies

Quzette Bosman
Social and Environmental Assessment Practitioner

Directors: P. Botha (B.Sc. Hons. Hydrogeology) (**Managing**)



Project Location

Press Notice: Namibian Sun 19 and 26 June 2023

4 | MONDAY 19 JUNE 2023 NEWS
Sun

• ... AS FARMERS REDUCE STOCK

Cattle slaughter numbers increase

The number of cattle slaughtered at export abattoirs rose by 34.86% in May compared to the previous month.

ELLANIE SMIT
WINDHOEK

REDUCE: Farmers are reducing cattle as they prepare for the dry months ahead. PHOTO: FILE

Export abattoirs are experiencing an increase in the number of cattle being slaughtered as farmers reduce stock in preparation for the dry months ahead, while live exports have decreased.

Livestock exports recorded a 4.91% decrease in May compared to April.

According to the Meat Board's Market Watch, live cattle exports, mainly weaners, declined from 13 129 heads exported in April to 11 171 heads exported in May.

"This decline in live exports may be attributed to current pressures experienced in South Africa, where feedlots are currently operating at full capacity since the foot-and-mouth disease outbreak."

Increase

The Meat Board said 95% of May's live exports were exported to feedlots in South Africa, whereas the remaining 5% were exported for farming or breeding purposes to Angola and Botswana.

The number of cattle slaughtered at export abattoirs, however, increased by 34.86% from 7 966 heads slaughtered in April to 10 743 heads slaughtered in May.

"This increase is driven by low rainfalls experienced during the first quarter of the year, causing farmers to reduce stock in preparation for the dry months ahead."

Slaughter at export abattoirs is expected to normalise in August.

"Cattle prices across the board experienced an increase, with the all-grade carcass price increasing by 11.19% to N$60.81/kg in May."

The Meat Board said weaner prices have experienced a drastic decline from the December price of N$37.18/kg to N$24.92/kg in April.

However, May prices experienced a slight increase of N$1.59/kg.

"This increase could be driven by improved prices offered by abattoirs as some producers purchase weaners for finishing off during the coming seasons," said the Meat Board.

It said that weaner prices are, however, expected to remain low during June and July due to drought-induced supply. The Meat Board explained that USA producer prices moreover increased from the April price of N$112.84/kg to N$118.13/kg during May. This increase is a result of a decline in the supply of market-ready cattle in northern America due to drought conditions.

Total slaughter-ready cattle inventory is down by 3.2% compared to 2022. Additionally, the inventory of boneless beef is 10.5% lower than in 2022, which has caused processors and end users to import and stock more bone-in beef products during the month of May.

The EU experienced a decline in slaughter due to an improvement in feed conditions.

This supply shortage led to an increase in producer prices. EU producer prices have increased by N$6.09/kg from the April recorded price level of N$101.89/kg.

"It is expected that production between May and June will be low and for Irish exports to slow down, resulting in a reduced supply and higher prices as herd rebuilding takes place. Australian prices have notably remained stable, averaging around N$77.72/kg between January and May this year."

Stability

It said that the change in price levels compared to historically high prices recorded in previous years will allow Australian beef to become more competitive and create more sustainable markets for all roleplayers in the supply chain. In essence, the lower prices have brought market stability forward.

South Africa, on the other hand, experienced an 8.3% decline in producer prices due to the decline in demand for beef.

According to the Meat Board, due to the current economic environment in South Africa, especially amid load shedding, suppliers are forced to pay farmers lower prices to limit the costs of back-up diesel-powered equipment used at feedlots and abattoirs.

Drought and reduced supply in southern America (namely in Argentina and Uruguay) have influenced producer price increases due to declines in slaughter.

ellanie@namibiansun.com

EU-KAS partnership empowers women

JEMIMAH NDEBELE
WINDHOEK

The European Union (EU) and the Konrad Adenauer Stiftung (KAS) have successfully concluded a joint project titled 'Strengthening the Roles of Civil Society Organisations (CSOs) and Women in Democracy.

The project was aimed at empowering 200 women from the northern communal areas (NCAs) in Namibia.

The collaborative effort, spanning three years and three months, aimed to promote the active participation of CSOs and women in building inclusive and democratic societies.

Support and empower

Civil society organisations act as intermediaries between citizens and the government, advocating for the rights and needs of specific groups or broader societal concerns such as human rights, social justice, environment, and gender equality.

Through targeted activities and training programmes, the EU and KAS provided significant support to CSOs and empowered women in Namibia.

Over the course of the project, more than 200 CSO members benefited from training programmes, resulting in the distribution of 192 certificates for the completion of the initial three training modules.

An additional 200 certificates are to be handed out to acknowledge successful completion of modules four to six, including refresher courses covering all modules.

Mutual learning

Silke Höfs, the EU delegation project manager for Namibia, emphasised the significance of the initiative.

"This project and this conference are important as they contribute to national dialogue, cooperation, collaboration, and exchange among civil society organisations. Mutual learning, sharing of information, and acting in concert are important prerequisites for a powerful society that wants to make its voice heard."

In addition to the successful conclusion of the project, Höfs announced the development of a new initiative that will focus on nurturing future leaders.

Höfs revealed that this upcoming project, set to kick off soon, will place even greater emphasis on preparing the leaders of tomorrow.

"The future programme will also run for three years and enable a much-needed continuity of support for civil society in the regions," Höfs stated.

EMPOWERED: Attendees at the closing conference for the EU and KAS joint project. PHOTO: JEMIMAH NDEBELE

Protect our Namibian children - Venaani

ELLANIE SMIT
WINDHOEK

Approximately one billion children suffer from violence every year.

Popular Democratic Movement (PDM) president McHenry Venaani said this in his contribution in the National Assembly on the motion for the safety and protection of children in Namibia.

He said studies show nearly three out of four children – or 300 million children aged between two and four years old – regularly suffer from physical punishment and physiological violence.

Venaani pointed out that children have the potential to bring incredible change to the world.

"But first we need to recognise their values and ensure that Namibian children are protected."

He believes that a world without violence against children is possible.

Speak up

Venaani said Namibia has national and global legal instruments that place significant emphasis on the protection of Namibian children and uphold their best interests.

CHILD SAFETY: Popular Democratic Movement (PDM) president McHenry Venaani. PHOTO: FILE

"Despite all of the legal instruments, Namibian children continue to suffer at the hands of those who are entrusted to protect them."

He said recognising the signs of child abuse is the first important step for everyone to ensure that early intervention can be put in place to actively stop abuse from taking place or going further.

"It is important that we speak out against child abuse and violence."

He said it is everyone's responsibility to safeguard children, protect them from harm, and promote their well-being.

Big problem

Venaani said child abuse can have a lasting impact and prevent adults from being successful, happy, and contributing to the community. "Therefore, it is important that we protect all children, to protect their happiness, their right to be a child, and their right to a bright future with endless opportunities. To protect the children is to protect the future."

The Violence Against Children and Youth Survey (VACS) in 2019 reported that among 18- to 24-year-olds, 39.6% of women and 45% of men had experienced physical, sexual and/or emotional violence in childhood.

Overall, 11.8% of girls have experienced childhood sexual violence (including unwanted sexual touching, attempted sex in childhood, pressured or coerced sex in childhood, as well as physically forced sexual encounters), while 7.3% of boys experienced the same.

The 2022 Disrupting Harm survey focusing on online child sexual exploitation and abuse reported that 9% of internet users aged 12 to 17 in Namibia were subjected to clear examples of online child sexual exploitation and abuse. This amounts to roughly 20 000 children per year.

NEWSINSHORT

Mama Africa announces plans for LGBTQ political party

Human rights activist Nicodemus 'Mama Africa' Aoxamub over the weekend announced that Namibia's LGBTQIA community plans to register a political party representing them and other vulnerable individuals in Namibia. The aim of this initiative is to ensure that their voices are heard, as they have endured violations for over three decades, they said.
Mama Africa made these remarks during a march against hate organised by Equal Namibia. The march was in response to the hate the community has received since a recent Supreme Court ruling which compels government to recognise same-sex marriages solemnised in other countries in terms of Namibia's immigration laws.
During the march, activist Omar van Reenen expressed disappointment with the sodomy law. He highlighted that the law allows the police or private citizens to arrest individuals based solely on suspicion of engaging in sodomy.
"Our message today is simple: 'Kom sluit my toe!' [Come arrest me!] Love is not a crime."

- JUNIOR KAPOFI

'Snail mail' usage increasing, CRAN says

An increase of 55% in the usage of mailboxes was recorded between 1 January and 31 March this year, while post offices nationwide have grown by 3%.
This according to the Communications Regulatory Authority of Namibia (CRAN), which in a statement last week said broadcasting services experienced a 6% decrease in revenue compared to the last quarter of 2022. Advertising-generated revenue for broadcasting services declined by 26%. According to CRAN, television subscriptions increased by 10%, with digital television taking the lead with a 34% increase. The authority's figures also indicate a decrease in the number of mobile subscriptions, while subscriptions for fixed lines remained steady over the three months under review. Fibre connections are also increasing, and according to CRAN, this can be directly attributed to the expansion of fibre network infrastructure.

- STAFF REPORTER

• SIGNIFICANT UNCERTAINTY ABOUT CONTINUATION OF OPERATIONS

Meatco suffers N$118m loss

The auditors believe Meatco's losses **would have been much greater if government had not offered it a N$86 million lifeline.**

ELVIRA HATTINGH
GROOTFONTEIN

During the past fiscal year, Meatco incurred a loss of N$118 million, with auditors from Grand Namibia saying the organisation has reached a point where it can only continue to exist with government assistance.
The auditors believe there are significant uncertainties about Meatco as a going concern, and that the institution's losses would have been much larger (around N$204 million) if government had not provided it a lifeline of N$86 million.
This is because Meatco's total assets minus total liabilities, or equity, would be in the negatives without this funding. Currently, its equity stands at nearly N$65 million, and its debt burden is N$670.7 million, with the Development Bank of Namibia (DBN) bearing the greatest risk.
However, Meatco's net loss after tax improved from N$205.1 million in the previous fiscal year to the current N$118 million, with revenue also increasing by 15% - from N$752 million to N$865 million.
This according to a media statement issued over the weekend following a producers' annual general meeting held outside Grootfontein on Friday.
During the event, the institution's annual report was presented to producers, with Meatco stating that progress has been made - despite low throughput in its abattoir and a weakening of the Namibian dollar-euro exchange rate.

DESPERATE TIMES: Meatco's success relies on achieving optimal throughput in its abattoir. PHOTOS: CONTRIBUTED

Competitive prices

Meatco said over the past three years, throughput in its abattoir has remained a challenge. Nevertheless, the institution has continued to pay competitive prices to producers, significantly higher than the South African parity price. This is reportedly done in an attempt to support primary production and in the national interest.
"In this regard, Meatco has paid N$560 million (and N$492 million in 2022) to producers to protect primary production," the statement read.
Meatco also stated that it sold an additional 590 tonnes of beef this year and improved its revenue by N$116 million compared to 2022.
"During the past fiscal year, Meatco's total financial injection for stakeholders amounted to N$1 billion," it said.
Furthermore, up to 73% of the generated value was reinvested in producers (72% in 2022), 22% in employee costs (24% in 2022), 30% in suppliers (24% in 2022), while 8% was allocated to financial levies (6% in 2022).

Meatco CEO Mwilima Mushokabanji.

elvira@republikein.com.na

KANYETU WANTS 'PROOF' OF SEXUAL HARASSMENT

KENYA KAMBOWE
RUNDU

Suspended All People's Party (APP) secretary-general Vinsent Kanyetu says he wants the party to furnish him with evidence and sworn statements regarding allegations of sexual harassment against him.
He was suspended last Wednesday and faces six charges ranging from his inability to carry out his functions, failing to keep records, how he handled a loan sought from acting party president Erastus Shuumbwa and concealing of information.
Another accusation involves sexual harassment of a party administrator. In a letter to the party – addressed to Shuumbwa - Kanyetu asked to be furnished with necessary documents regarding the charges, especially for allegations that were made by individuals.
Kanyetu, who is expected to appear before a disciplinary hearing, argued that he needs the documents in order to prepare his case.
He also demanded a list of names of those who will be part of the disciplinary hearing to ensure that he will not appear before "conflicted persons".

Critical

"Please provide documentation for all allegations.

PROVE IT: Suspended APP secretary-general, Vinsent Kanyetu. PHOTO: FILE

Where such allegations emanate from an individual, please provide authenticated sworn statements from the source of such allegations," he wrote.
"These documents are critical for my preparation in relation to the envisaged disciplinary hearing."
Kanyetu has been the secretary-general of the APP since the party's elective congress in August 2019.

kenya@namibiansun.com

Press Notice: Republikein 19 and 26 June 2023

2 NUUS Republikein Maandag 19 Junie 2023

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WEER

BINNELAND: Gedeeltelik bewolk en warm tot baie warm met enkele donderstorms in die ||Kharas- en Omahekestreek op plekke, elders gedeeltelik bewolk en warm tot bloedig warm. 'n Vars tot sterk westewind.

KUS: Gedeeltelik bewolk en koel met sandstorms op plekke.

GETYE BY WALVISBAAI: L: 10:43 H: 17:07 L: 23:05

VOORUITSIGTE

GOBABIS	05°	23°
KATIMA MULILO	06°	29°
KEETMANSHOOP	00°	14°
MARIENTAL	02°	20°
OPUWO	16°	31°
OSHAKATI	07°	28°
RUNDU	08°	29°
WALVISBAAI	08°	18°
WINDHOEK	03°	20°
LUANDA	19°	26°

» Wysiging van wetgewing

Swapo wil 'eggenoot' duidelik definieer

Swapo se sentrale komitee gaan nie inmeng by 'n hofbeslissing wat reeds geneem is nie.

Ogone Tlhage

Swapo se sentrale komitee gaan die regering opdrag gee om "onmiddellik" uitvoerende en wetgewende stappe te neem om die woord "eggenoot" duidelik te definieer in ooreenstemming met Namibië se definisie van die huwelik wat 'n verbintenis tussen man en 'n vrou is.

Dit volg op 'n vergadering wat die naweek gehou is om die gevolge van 'n hooggeregshof-uitspraak oor die kwessie van selfdegeslaghuwelike te bespreek. In reaksie op die uitslag van die uitspraak het Hilma Nicanor, Swapo se woordvoerder, tydens 'n mediakonferensie gesê die regering is aangesê om vette op te stel wat die grense van die huwelik duidelik bepaal.

"Die komitee, wat die saak noukeurig oorweeg en daaroor besin het, het dus besluit om die regering te beveel om onmiddellik uitvoerende en wetgewende stappe te neem wat daarop gemik is om 'n definisie van die woord 'eggenoot' wat aan die Namibiese wet voldoen, in die wet op immigrasiebeheer in te sluit, welke definisie onvermydelik die gemeneregbeginsel wysig wat deur die hooggeregshof toegepas word, slegs vir die doeleindes van artikel 2 (1) (c) van die wet," het Nicanor gesê.

Die party het ook gevoel dit is nodig om sy standpunt oor die aangeleenthed te bespreek oor wat hy as verwarring beskryf het ná die uitspraak van die hooggeregshof.

"As gevolg van wat lyk soos heelwat verwarring oor die omvang en aard van die hooggeregshof se uitspraak, is dit belangrik dat ons ons lede en die publiek inlig die hooggeregshof het self ingevolge paragraaf 134 van sy uitspraak daarop gewys dat, in die lig van die feit dat huwelike veelvuldig en veelvlakkig is, die uitspraak slegs van toepassing is op die erkenning van buitelandse gades in wettige selfdegeslaghuwelike vir doeleindes van artikel 2(1)(c) van die immigrasiebeheerwet," sê Nicanor.

"Die komitee het opgemerk die uitspraak, wanneer dit behoorlik oorweeg en gelees word, erken nie selfdegeslaghuwelike oor die algemeen soos wat sommige wil voorgee nie. Dit het 'n beperkte omvang en uitwerking."

Swapo gaan ook nie inmeng by 'n hofbeslissing wat reeds geneem is nie, het sy beklemtoon.

"Die komitee beklemtoon en herbevestig nieteenstaande sy kommer en teleurstelling oor die uitspraak en die Swapo-party se verbintenis tot die grondwetlike bepalings onder artikel 78 (3).

"Dit is dat daar nie by die regstelsel ingemeng word nie, sowel as die beskerming van die waardigheid en doeltreffendheid van die howe," het Nicanor gesê.

Swapo het die regering opdrag gegee om wette op te stel wat huwelike tussen slegs mans en vroue toelaat. FOTO ARGIEF

Geen brandstof, bote beskikbaar

VAN BL. 1

Dié wat met monofilamentnette visvang, weet glo dit is onwettig, maar hou aan omdat daar geen gevolge is nie.

Visinspekteurs kla glo gedurig van 'n tekort aan voertuie, brandstof en bote.

"Ons is bereid om te help, maar die inspekteurs wil dit op hul eie terme doen," sê Paxton.

RISIKO

Paxton sê hy en nog twee ander aangrensende lodges span kragte saam om die rivier voor hulle vry van nette te hou.

"Ons gebruik ons eie hulpbronne om wetstoepassingsaktiwiteite uit te voer. Dis 'n groot risiko vir ons en ons ontvang min ondersteuning van die polisie, die visserye- of omgewingsministerie."

Plaaslike visinspekteurs is volgens hom ook bevooroordeeld teenoor wat hulle as bestaanshengel beskou.

Talle skuil onder die vaandel van bestaanshengel, terwyl dit reeds die punt bereik het waar kilogramme vis met nette gevang en verkoop word, sê hy.

Visbewaringsgebiede, soos die Sekunda-gebied in die Zambezirivier, waarvan daar tans twee in die Kavangorivier gevestig is, is 'n goeie inisiatief en dit werk volgens hom, maar is tans nog klein.

Volgens Paxton is die toerismebedryf bereid om by so iets betrokke te raak.

ONNODIG

Uaripi Katjiukua, die woordvoerder van die ministerie, sê dit is teleurstellend dat die visinspekteurs aan sulke vyandigheid deur lede van die gemeenskap en sake-eienaars onderwerp word. Sy het na gesprekke in die sosiale media verwys.

Volgens haar kan geen land sê dit ervaar geen voorvalle van onwettige visvangaktiwiteite nie.

"Die ministerie gaan voort om alle beskikbare hulpbronne te ontplooi om seker te maak dat ons visinspekteurs, tesame met wetstoepassers, voortgaan met patrollies en om toe te sien dat vissers aan die wet voldoen.

"Ons amptenare werk hard en kom hul verpligtinge na, midde talle uitdagings. Daar behoort beter begrip vir hulle te wees. Die uitwissing van onwettige visvangaktiwiteite is 'n reusetaak wat nie deur die ministerie alleen gedoen kan word nie.

"Dit sal die deelname van alle geraakte partye en groepe vereis en die samewerking is slegs moontlik waar daar wedersydse respek en begrip bestaan – nie 'n geboelie en intimidasie nie," het Katjiukua gesê.

– elvira@republikein.com.na

'n Suksesverhaal in die Sekunda-gebied: Visinspekteurs het onlangs weer talle onwettige hengelnette gekonfiskeer. FOTO VERSKAF

Onderbrekings veroorsaak 'onmeetbare skade'

VAN BL. 1

"Die lisensiehouers het 'n verpligting om betalings van sy onderskeie kliënte te verkry en om die fondse te gebruik om sy onderskeie netwerke te bedryf en te onderhou," het Kahimise gesê.

Hy het namens die raad die regering geloof vir sy positiewe ingryping wat daartoe gelei het dat NamPower se skuldinvorderingsplan tot die einde van Augustus op ys geplaas is.

Die ECB is intussen uitgenooi om deel te wees van 'n komitee wat deur die ministerie van stedelike en landelike ontwikkeling in die lewe geroep is om 'n blywende oplossing te probeer vind.

Kahimise sê NamPower se huidige probleem het ontstaan weens die kragvoorsiener se huiwering of mislukking om streng by sy eie kredietbeheerbeleid te hou en as gevolg van lisensiehouers vir kragverspreiding wat nie hul NamPower-rekeninge oor 'n lang tydperk betyds en ten volle vereffen het nie.

"Dit hou 'n risiko vir kragvoorsiening in Namibië in omdat NamPower hom in 'n posisie mag bevind waar dit nie voldoende krag kan koop of in die land se kragbehoeftes kan voorsien nie."

Kahimise het gemaan die voordele wat NamPower (en Namibië) geniet deur die kragvoorsiener se kredietgradering moet nie onderskat word nie.

Hy het 'n beroep op verbruikers gedoen om hul rekeninge te vereffen, terwyl lisensiehouers streng moet hou by kredietbeheermaatreëls deur onmiddellik die krag af te sny om te verseker dat verbruikers dadelik betaal. Die inkomste wat so verkry word, moet ook aan NamPower oorbetaal word en nie gebruik word vir ander uitgawes wat nie met kragvoorsiening verband hou nie.

– henriette@republikein.com.na

ELCRN is platsak

VAN BL. 1

"Die salarisdae op die 15de van die maand kom en gaan sonder 'n woord van die leierskap."

Die kerk se optrede teenoor suster Meitjie Frank en suster Cecilia Mutanga, wat gedwing is om vroeër af te tree, word spesifiek in die brief betreur.

Intussen is resolusies van die laaste sinode van Julie 2022, soos die vestiging van 'n eiendoms- en ekonomiese komitee, nog nie tot uitvoering gebring nie, terwyl advertensies vir die verkoop van bates in plaaslike koerante geplaas is.

Galadinees, die verkoop van etes en bydraes vanaf kerklidmate is egter 'n druppel in die emmer in terme van die totale skuld, skryf hulle.

Die ryk menslike hulpbron wat tot die kerk se beskikking is, word volgens die werknemers nie ingespan nie.

Die finansiële direkteur van die kerk, Ferdinand Gertze, adjunkbiskop Abraham //Kheibeb en biskop /Keib kon nie vir kommentaar bereik word nie.

Volgens //Kheibeb en pastoor Maureen Dausas kan slegs die biskop in die openbaar oor die kerk se finansies uitbrei, ingevolge die kerk se interne strukture.

Biskop /Keib het net een keer sy telefoon geantwoord, ondanks verskeie oproepe, en gesê hy was besig met 'n diens, en was daarna onbereikbaar.

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WEER

BINNELAND: Sonnig en matig tot warm, maar bloedig warm in die Noorde. Winderige weer word in die binneland verwag.

KUS: Gedeeltelik bewolk en koud tot matig met miskolle.

GETYE BY WALVISBAAI: H: 07:57 **L:** 13:48 **H:** 20:32

VOORUITSIGTE

WINDHOEK	-03°	23°
RUNDU	09°	29°
OSHAKATI	05°	29°
GOBABIS	03°	26°
MARIENTAL	03°	28°
KEETMANSHOOP	03°	26°
WALVISBAAI	10°	16°
LUANDA	21°	26°
JOHANNESBURG	06°	18°
KAAPSTAD	13°	17°

Meatco ly verlies van N$118 m.

VAN BL. 1

Dit aldus 'n mediaverklaring wat Meatco die afgelope naweek uitgereik het nadat 'n jaarvergadering vir prodlusente Vrydag buite Grootfontein gehou is. Tydens die geleentheid is die instansie se jaarverslag aan produsente voorgelê, met Meatco wat sê die vordering is gemaak ten spyte van 'n lae deurset in sy abattoir en 'n verswakking van die Namibiese dollar-euro-wisselkoers. Die tydperk onder oorsig is vanaf 1 Februarie 2022 tot 31 Januarie 2023.

MEDEDINGENDE PRYSE

Meatco sê oor die afgelope drie jaar het die deurset in sy abattoir in uitdaging gebly. Tog het die instansie volgehou om mededingende pryse aan produsente te betaal – wat beduidend hoër was as die Suid-Afrikaanse pariteitsprys. Dit is glo gedoen in 'n poging om primêre produksie te ondersteun asook in landsbelang.

"In terme hiervan het Meatco N$560 miljoen (en N$492 miljoen in 2022) aan produsente betaal om die primêre produksie te beskerm," is in die verklaring gesê.

Meatco sê dit het vanjaar ook 590 ton méér beesvleis verkoop en sy inkomste met N$116 miljoen teenoor 2022 verbeter.

"Tydens die afgelope boekjaar het Meatco 'n totale finansiële inspuiting ter waarde van N$1 miljard vir belangegroepe beteken," is gesê.

Verder is tot 73% van die gegenereerde waarde in produsente teruggeploeg (72% in 2022), 22% in die werknemerskoste (24% in 2022), 30% in verskaffers (24% in 2022) en 8% is afgestaan aan finansiële heffings (6% in 2022).

– elvira@republikein.com.na

rmand neem ree van geloof

AN BL. 1

elfs as vriende my bakkie en, sê hulle mens kan nie rondry nie, want waar gaan, herken mense die kkie. Jy kan nie verby mand ry sonder dat hulle oet nie," sê hy.

Armand sê egter om vir jouself te werk, is nie so glansryk soos almal dink nie.

"Jy praat nagte om met die Here en stres oor hoe jy jou huur gaan betaal. As jy N$1 000 kry, kan jy dit nie net uitgee nie, want jy het nie 'n salaris wat aan die einde van die maand gaan inkom nie," sê hy.

RUSLAND: WAGNER-SOLDATE DRAAI OM

Jefgeni Prigozjin, die hoof van die private weermag Wagner het teen druktyd gister sy soldate beveel om hul opmars na Moskou te laat vaar. Prigozjin het die bevel in 'n videoverklaring gemaak "om verdere bloedvergieting te vermy". Volgens Prigozjin het sy magte in die voorafgaande 24 uur sowat 200 km in die rigting van Moskou beweeg. Dit volg nadat Prigozjin se weermag van huursoldate onlangs beheer oor 'n stad in die suide van Rusland geneem het. Die opstand is as 'n ernstige bedreiging deur pres. Wladimir Poetin bestempel, wat al 23 jaar in die amp is. NETWERK24/FOTO REUTERS

Grootfontein sal sowat N$3 m. aan Sinvula betaal

Wag vir minister se goedkeuring

Terwyl die Grootfonteinse dorpsraad besluit het om Kisco Sinvula se kontrak te beëindig, het hy opnuut geëis om toegelaat te word om met sy werk voort te gaan.

Kenya Kambowe

Die Grootfonteinse munisipaliteit wag vir goedkeuring vanaf die ministerie van stedelike en landelike ontwikkeling om 'n kontrak van sowat N$3 miljoen aan sy omstrede uitvoerende hoof, Kisco Sinvula, uit te betaal.

Dit volgens dokumente wat deur *Namibian Sun*, *Republikein* se susterkoerant, gesien is.

In die dokumente het die dorpsraad 'n versoek aan minister Erastus Uutoni gerig om goedkeuring te verleen dat N$2,97 miljoen aan Sinvula uitbetaal word as sy finale pakket van die plaaslike owerheid.

"Die dorpsraad het ooreengekom om die bedrag aan hom te betaal, sodra goedkeuring verkry is en die ooreenkoms onderteken is," het die dorp se burgemeester, Thalitha Garises, geskryf. Uutoni moet nog op die versoek reageer.

Dit volg nadat die dorpsraad Sinvula se kontrak op 24 Mei beëindig het as gevolg van 'n gebroke verhouding tussen die twee partye. Uit die 70 werknemers op die raad, het 50 in 'n onlangse petisie geëis dat Sinvula in die pad gesteek moet word. Hy het verlede maand weer begin werk nadat hy voor dit vir 14 maande lank geskors was.

Dit kom nadat die hoërhof beslis het dat sy ontslag deur die dorpsraad onwettig was. Ongeag die hofuitspraak ten gunste van Sinvula, het die dorpsraad besluit om sy kontrak te beëindig omdat die verhouding tussen die partye te groot skade gely het.

NUWE DILEMMA

Terwyl die dorpsraad wag vir die minister om goedkeuring te gee om Sinvula se kontrak uit te betaal, het hy met behulp van sy prokureur Veiko Alexander op 22 Junie 'n brief aan die dorpsraad se regsverteenwoordiger Henry Shimutwikeni gerig, waarin geëis word dat Sinvula toegelaat moet word om met sy werk voort te gaan.

"My kliënt eis dat jou kliënt alle optrede teen hom laat vaar wat daartoe lei dat hy nie sy verpligtinge as die uitvoerende hoof kan nakom nie," het Alexander geskryf.

"In die verband maak ons die punt dat ons kliënt die regmatige uitvoerende hoof is totdat daar wedersyds ingestem word dat sy indiensnemingskontrak beëindig moet word, of verval nadat genoegsame tyd verloop het – of as hy wettig in terme van die gepaste bepalings in die wet op plaaslike owerhede ontslaan word.

Shimutwikeni het egter hierop reageer deur te sê Sinvula se kontrak is beëindig en daarom kan hy nie weer met sy werksaamhede in die raad begin nie.

"Ingevolge die woordewisseling tussen jou kliënt en werknemers van die dorpsraad asook die klagskrif, is ons kliënt nie in staat om gehoor te gee aan jou kliënt [Sinvula] se eis nie. Jou kliënt word aangeraai om te wag op die uitbetaling van N$2 974 844," het hy geskryf.

Saluut, groot arend

VAN BL. 1

Sy dogter Marné het in 'n gebed die Here bedank vir 'n pa, wat 'n goeie lewe gelei het, elke dag liefgehad het, opreg, passievol en hardwerkend was, ander gedien en alle mense liefgehad het.

"Mamma het altyd gesê toe sy pappa se hande gesien het, het sy geweet dat hy eendag die pa van haar kinders gaan wees. Deur daardie hande het ons elke dag sy liefde ervaar, met daai hande het hy ons beskerm, ons geseën, vir ons voorsien, getroos, ons kinders vasgehou, gespeel en geleer.

"Dankie Here, dat U sy hande geseën het, hande wat nooit toe was vir enige iemand nie! Hoe lief het ons nie daai hande gehad nie!"

Theo het onlangs ernstige brandwonde opgedoen toe hy petrol op 'n miershoop op sy kleinhoewe uitgegooi het, wat tot by 'n geëlektrifiseerde heining gevloei het en op die een of ander manier vlamgevat het. Hy is voor sy dood in die Netcare Milparkhospitaal in Johannesburg behandel en het veloorplantings op sy arms ontvang, maar is op 6 Junie oorlede toe sy hart gaan staan het. – elvira@republikein.com.na

Theo Borstlap FOTO ARGIEF

Honderde mense het die Vrydag Theo Borstlap se roudiens op die Paresis-stadion op Otjiwarongo bygewoon. FOTO ELVIRA HATTINGH

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Sincerely,
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Appendix C. Consultant's Curriculum Vitae

ENVIRONMENTAL ASSESSMENT PRACTITIONER **Quzette Bosman**

Quzette Bosman has 16 years' experience in the Impact Assessment Industry, working as an Environmental Assessment Practitioner and Social Assessment practitioner mainly as per the National Environmental Legislation sets for South Africa and Namibia. Larger projects have been completed in terms of World Bank and IFC requirements. She studied Environmental Management at the Rand Afrikaans University (RAU) and University of Johannesburg (UJ), including various Energy Technology Courses. This has fuelled a passion towards the Energy and Mining Industry with various projects being undertaken for these industries. Courses in Sociology has further enabled her to specialize in Social Impact Assessments and Public Participation. Social Assessments are conducted according to international best practise and guidelines. Work has been conducted in South Africa, Swaziland and Namibia.

CURRICULUM VITAE QUZETTE BOSMAN

Name of Firm	:	Geo Pollution Technologies (Pty) Ltd.
Name of Staff	:	QUZETTE BOSMAN
Profession	:	Social Impact Assessor / Environmental Assessment Practitioner
Years' Experience	:	16
Nationality	:	South African
Position	:	Senior Environmental Consultant
Specialisation	:	ESIA & ESMP; SIA
Languages	:	Afrikaans – speaking, reading, writing – excellent English – speaking, reading, writing – excellent German –speaking, reading - fair

First Aid Class A	EMTSS, 2017
First Aid LSM	OSH-Med International 2022
Basic Fire Fighting	EMTSS, 2017
Basic Industrial Fire Fighting	OSH-Med International 2022

EDUCATION AND PROFESSIONAL STATUS:

BA	Geography & Sociology	:	Rand Afrikaans University, 2003
BA	(Hons.) Environmental Management	:	University of Johannesburg, 2004

PROFESSIONAL SOCIETY AFFILIATION:

Namibian Environment and Wildlife Society
International Association of Impact Assessors South Africa (IAIA SA)
Member 2007 - 2012
Mpumalanga Branch Treasurer 2008/2009

OTHER AFFILIATIONS
Mkhondo Catchment Management Forum (DWAF): Chairperson 2008-2010
Mkhondo Water Management Task Team (DWAF): Member 2009

AREAS OF EXPERTISE:

Knowledge and expertise in:

- environmental impact assessments
- project management
- social impact assessment and social management planning
- community liaison and social monitoring
- public participation / consultation, social risk management
- water use licensing
- environmental auditing and compliance
- environmental monitoring
- strategic environmental planning

EMPLOYMENT:

2015 - Present	:	Geo Pollution Technologies – Senior Environmental Practitioner
2014-2015	:	Enviro Dynamics – Senior Environmental Manager
2010 - 2012	:	GCS – Environmental Manager (Mpumalanga Office Manager)

2007 - 2009	:	KSE-uKhozi - Technical Manager: Environmental
2006 -2007	:	SEF – Environmental Manager
2004 - 2005	:	Ecosat – Environmental Manager

PUBLICATIONS:

Contract reports	: +190
Publications	: 1