





***ENVIRONMENTAL IMPACT ASSESSMENT
FOR THE CONSTRUCTION AND OPERATION
OF A CATTLE ABATTOIR ON A PORTION OF
PORTION 7 OF FARM KLEIN OKAPUKA No. 51,
WINDHOEK, KHOMAS***

June 2024

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<p>Project Name:</p>	<p align="center">ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A CATTLE ABATTOIR ON A PORTION OF PORTION 7 OF FARM KLEIN OKAPUKA No. 51, WINDHOEK, KHOMAS</p>
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EXECUTIVE SUMMARY

Green Earth Environmental Consultants have been appointed by Kitai Abattoir (Proprietor) Limited to attend to and complete an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) to construct and operate a cattle abattoir on a 5ha portion (Portion F) of Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region as per the requirements of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012).

The activities listed below, which forms part of the proposed operations, may not be undertaken without an Environmental Clearance:

WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES

- *The construction of facilities for waste sites, treatment of waste and disposal of waste.*
- *Any activity entailing a scheduled process referred to in the Atmospheric Pollution Prevention Ordinance, 1976.*
- *The import, processing, use and recycling, temporary storage, transit or export of waste.*

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

The construction of facilities for –

- *The generation of electricity.*
- *The transmission and supply of electricity.*

WATER RESOURCE DEVELOPMENTS

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

HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE

- *The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.*
- *Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.*

INFRASTRUCTURE

The route determination of roads and design of associated physical infrastructure where –

- *It is a public road.*
- *The road reserve is wider than 30 meters; or*
- *The road caters for more than one lane of traffic in both directions.*

The key characteristics/environmental impacts of the proposed project are as follows:

Impact on environment	Nature of impact
More efficient and intensive use of land.	Positive for the area and Namibia in general.
Creation of employment and transfer of skills.	Positive as employment will be created during construction and operation.
The creation of dust.	Negative during construction and operations as some of the roads will be gravel roads.
There will be an impact on traffic.	Negative during construction and once operational as the site will result in the increase in traffic on the main roads in the area.
The creation of noise.	Negative during construction but low and on par with the noise levels associated with the general abattoir operational activities.
Possible impact on cultural/heritage aspects.	No items of archeologic value or graves were observed during the site visit which means the impact will be low. If any items or graves are found during construction, the impact will be high and irreversible.
Impact on fauna and flora.	Animals, reptiles, and birds will be disturbed during the clearing of the land to be used for the abattoir. Vegetation will also be removed to construct the roads. The construction of the powerline will have an impact on birds. Permits must be obtained to remove protected tree species.
There might be a possible visual impact.	Medium to high as land will be cleared for the alignment and construction of the abattoir.
Impact on groundwater, surface water and soil.	The impact will be negative in case of spilling of hazardous materials during construction and operation.
Impact on health and safety.	Low if mitigated during construction and operations.

The type of activities that is carried out on the site does not negatively affect the amenity of the locality and the activities does not adversely affect the environmental quality of the area. None of the potential impacts identified are regarded as having a significant impact to the extent that the proposed project should not be allowed further. However, the operational activities further on need to be controlled and monitored by the assigned

managers and the proponent. Mitigation measures was provided that can control the extent, intensity, and frequency of these named impacts in order not to have substantial negative effects or results. It is believed that the overall cumulative impact on the biophysical environment will be low and there will be a positive impact on the socio-economic environment.

The Environmental Impact Assessment which follows upon this paragraph was conducted in accordance with the guidelines and stipulations of the Environmental Management Act (No 7 of 2007) meaning that all possible impacts have been considered and the details are presented in the report.

Based upon the conclusions and recommendations of the Environmental Impact Assessment Report and Environmental Management Plan, the Environmental Commissioner of the Ministry of Environment, Forestry and Tourism is herewith requested to:

1. Accept and approve the Environmental Impact Assessment.
2. Accept and approve the Environmental Management Plan.
3. Issue an Environmental Clearance to construct and operate a cattle abattoir on a 5ha portion (Portion F) of Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region and for the following listed activities:

WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES

- *The construction of facilities for waste sites, treatment of waste and disposal of waste.*
- *Any activity entailing a scheduled process referred to in the Atmospheric Pollution Prevention Ordinance, 1976.*
- *The import, processing, use and recycling, temporary storage, transit or export of waste.*

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The route determination of roads and design of associated physical infrastructure where –

- *It is a public road.*
- *The road reserve is wider than 30 meters; or*
- *The road caters for more than one lane of traffic in both directions.*

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
LIST OF FIGURES	10
LIST OF TABLES.....	10
LIST OF ABBREVIATIONS.....	11
1. INTRODUCTION.....	12
2. TERMS OF REFERENCE	13
3. NEED, DESIRABILITY AND MOTIVATION	14
4. PROJECT DESCRIPTION/SITE INFORMATION.....	16
4.1. PROJECT BACKGROUND.....	16
4.2. LOCALITY OF PROJECT SITE	16
4.3. TOPOGRAPHY.....	20
4.4. VEGETATION.....	20
4.5. CURRENT USE	20
4.6. SURROUNDING LAND USES	21
5. THE PROPOSED PROJECT.....	21
5.1. SITE UTILIZATION.....	24
6. BULK SERVICES AND INFRASTRUCTURE PROVISION	29
6.1. ACCESS AND INTERNAL ROADS.....	29
6.2. WATER SUPPLY	30
6.3. ONSITE BULK WATER STORAGE AND TREATMENT	32
6.4. ELECTRICITY RETICULATION.....	32
6.5. TREATMENT OF ABATTOIR WASTE.....	33
6.5.1. PROCESS EFFLUENT	33
6.5.2. DOMESTIC EFFLUENT	35
6.6. SEWAGE TREATMENT AND DISPOSAL.....	35
6.7. SOLID WASTE DISPOSAL/REFUSE REMOVAL	35
6.8. STORMWATER MANAGEMENT	36
6.9. FIRE PROTECTION	36
7. APPROACH TO THE STUDY	36
8. ALTERNATIVE OPTIONS.....	37
9. ASSUMPTIONS AND LIMITATIONS	38
10. ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS.....	38

11.	AFFECTED NATURAL AND SOCIAL ENVIRONMENT	49
11.1.	BIODIVERSITY AND VEGETATION	49
11.2.	AVIFAUNA	50
11.3.	SENSE OF PLACE.....	63
11.4.	GEOLOGY AND SOILS	63
11.5.	SOCIO ECONOMIC ENVIRONMENT	64
11.6.	CLIMATE	64
11.7.	CULTURAL HERITAGE	65
12.	IMPACT ASSESSMENT AND EVALUATION.....	65
12.1.	IMPACTS DURING THE CONSTRUCTION ACTIVITY.....	66
12.1.1.	WATER USAGE.....	66
12.1.2.	ECOLOGICAL IMPACTS.....	67
12.1.3.	DUST POLLUTION AND AIR QUALITY.....	67
12.1.4.	NOISE IMPACT.....	67
12.1.5.	HEALTH, SAFETY AND SECURITY	68
12.1.6.	CONTAMINATION OF GROUNDWATER	68
12.1.7.	SEDIMENTATION AND EROSION.....	69
12.1.8.	GENERATION OF WASTE.....	69
12.1.9.	CONTAMINATION OF SURFACE WATER.....	70
12.1.10.	TRAFFIC AND ROAD SAFETY	70
12.1.11.	FIRES AND EXPLOSIONS	70
12.1.12.	SENSE OF PLACE.....	71
12.2.	IMPACTS DURING THE OPERATIONAL PHASE	71
12.2.1.	ECOLOGICAL IMPACTS.....	71
12.2.2.	DUST POLLUTION AND AIR QUALITY.....	71
12.2.3.	CONTAMINATION OF GROUNDWATER	72
12.2.4.	GENERATION OF WASTE.....	72
12.2.5.	FAILURE IN RETICULATION PIPELINES	72
12.2.6.	FIRES AND EXPLOSIONS	73
12.2.7.	HEALTH, SAFETY AND SECURITY	73
12.3.	CUMULATIVE IMPACTS	73
13.	CONCLUSION.....	74
14.	RECOMMENDATION	74
	APPENDIX A: NEWSPAPER NOTICES.....	77

APPENDIX B: LIST OF INTERESTED AND AFFECTED PARTIES	81
APPENDIX C: EMAIL SENT TO NEIGHBOURS	82
APPENDIX D: COMMENTS OF INTERESTED AND AFFECTED PARTIES ...	83
APPENDIX E: CURRICULUM VITAE OF CHARLIE DU TOIT	85
APPENDIX F: CURRICULUM VITAE OF CARIEN VAN DER WALT	87
APPENDIX G: ENVIRONMENTAL MANAGEMENT PLAN.....	88

LIST OF FIGURES

<i>Figure 1: Project site just outside Windhoek</i>	17
<i>Figure 2: Portion sizes</i>	18
<i>Figure 3: Proposed site for Kitai Abattoir (Zoomed in Map)</i>	19
<i>Figure 4: Site to be used for operations</i>	20
<i>Figure 5: Site Layout and Boundary Plan</i>	24
<i>Figure 6: Site utilization Plan</i>	25
<i>Figure 7: Placement of activities on the site</i>	25
<i>Figure 8: Legend to the activities on the site plan</i>	26
<i>Figure 9: Site Infrastructure (Burmeister and Partners (Pty) Ltd) (1)</i>	27
<i>Figure 10: Site Infrastructure (Burmeister and Partners (Pty) Ltd) (2)</i>	28
<i>Figure 11: Servitude Information</i>	29
<i>Figure 12: Servitude Information on site image</i>	30
<i>Figure 13: Proposed access road to the abattoir site</i>	30
<i>Figure 14: Proposed pipeline route</i>	31
<i>Figure 15: Photo of Proposed pipeline route</i>	31
<i>Figure 16: Proposed overhead powerline route</i>	32
<i>Figure 17: Photo of Proposed overhead powerline route</i>	33
<i>Figure 18: Biomes in Namibia (Atlas of Namibia, 2002)</i>	50
<i>Figure 19: Proposed overhead powerline route</i>	51
<i>Figure 20: Photo of Proposed overhead powerline route</i>	51
<i>Figure 21: Powerline alignment with surrounding activities</i>	51
<i>Figure 22: Potential Harm to Avifauna</i>	60
<i>Figure 23: Structures that birds might use to build nests in</i>	61
<i>Figure 24: Geology of Namibia (Atlas of Namibia Project, 2002)</i>	63
<i>Figure 25: Average temperatures (Atlas of Namibia Project, 2002)</i>	65

LIST OF TABLES

<i>Table 1: Summary of Impacts of the Regulations (Water Resources Management Act)</i>	41
<i>Table 2: Laws, Acts, Regulations and Policies</i>	44
<i>Table 3: Avian diversity known/expected to occur in the general Windhoek area</i>	52
<i>Table 4: Impact Evaluation Criterion (DEAT 2006)</i>	65

LIST OF ABBREVIATIONS

EC	Environmental Clearance
ECO	Environment Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
I&APs	Interested and Affected Parties
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism

1. INTRODUCTION

Green Earth Environmental Consultants have been appointed by Kitai Abattoir (Proprietor) Limited to attend to and complete an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) to construct and operate a cattle abattoir on a 5ha portion (Portion F) of Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region as per the requirements of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012).

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The following Environmental Impact Assessment contains information on the project and the surrounding areas and activities.

2. TERMS OF REFERENCE

To be able to implement the proposed project, an Environmental Impact Assessment and Environmental Clearance is required. For this environmental impact exercise, Green Earth Environmental Consultants followed the terms of reference as stipulated under the Environmental Management Act.

The aim of the environmental impact assessment was:

- To ascertain existing environmental conditions on the site to determine its environmental sensitivity.
- To inform I&APs and relevant authorities of the details of the proposed development and to provide them with an opportunity to raise issues and concerns.
- To assess the significance of issues and concerns raised.
- To compile a report detailing all identified issues and possible impacts, stipulating the way forward and identify specialist investigations required.
- To outline management guidelines in an Environmental Management Plan (EMP) to minimize and/or mitigate potentially negative impacts.
- To comply with Namibia's Environmental Management Act (2007) and its regulations (2012).

The tasks that were undertaken for the Environmental Impact Assessment included the evaluation of the following: climate, water (hydrology), vegetation, geology, soils, socio economic impact, cultural heritage, groundwater, sedimentation, erosion, biodiversity, sense of place, socio-economic environment, health, safety and traffic.

The EIA and EMP from the assessment will be submitted to the Environmental Commissioner for consideration. The Environmental Clearance will only be obtained (from the DEA) once the EIA and EMP has been examined and approved for the listed activity.

The public consultation process as per the guidelines of the Act has been followed. The methods that were used to assess the environmental issues and alternatives included the collection of data on the project site and surrounding area, info obtained from the proponent and the Ministry of Environment, Forestry and Tourism and identified and affected stakeholders. Consequences of impacts were determined in five categories: nature of impact, expected duration of impact, geographical extent of the event, probability of occurring and the expected intensity.

All other permits, licenses or certificates that are further on required for the operation of the proposed project still needs to be applied for by the proponent.

3. NEED, DESIRABILITY AND MOTIVATION

It is believed that there is a need for the proposed project and that the selected site is desirable for the project.

Need

Wagyu beef is a premium beef marketed into specialist markets at a premium price to the normal beef produced in Namibia. For that reason, the Wagyu Cattle is normally slaughtered in independent, boutique, dedicated abattoirs to ensure attention to detail and preservation of the integrity of the meat. None of the current operational cattle abattoirs can comply with the attention to detail as well as specialist processing and preparation of the Wagyu cuts as specified by the distributor and end users of the product in the export markets. A dedicated abattoir is therefore required.

The grading and packaging of the Wagyu meat is also done differently than in the case of normal grading of standard cattle meat. Staff therefore require special training as well as equipment not available in the standard cattle export abattoirs.

Currently Wagyu cattle is slaughtered under contract by Meatco. However, due to the growing number of producers, the need for a Wagyu feedlot and abattoir has now been established. Initially it is expected to slaughter 20 animals/day (6200 per annum) which will eventually grow to 30 animals/day (9800/per annum).

Permanent employment for ±50 people will be created once the abattoir is in full operation.

From the above, the need of the proposed facility is confirmed.

Desirability

Portion F of Portion 7 of Farm Klein Okapuka No. 51 was identified as the ideal site for the placement of the proposed export beef abattoir because of the following reasons:

- The site is located in the centre of Namibia's main Wagyu Cattle production area which means shorter distance to transport the cattle with less stress on the cattle that impacts on the meat quality and grading.
- The site has good access as it is located close to Main Road A1 with an approved intersection from where the site can be accessed by District Road D1474. Large, interlinked trucks used for transporting/delivering cattle can safely access the abattoir site via this access road.
- The site can connect directly to the NamWater pipeline supplying water to Windhoek from Okahandja. NamWater approved a daily allocation of 75m³ which is sufficient for the purposes of operation at the abattoir.
- The Portion is in proximity of an existing NamPower substation from which electricity can be obtained.
- The topography of the site is generally flat with a gradual slope and thus ideal to accommodate the abattoir and supporting infrastructure without the requirement of major landscaping/groundworks.

- The site is not close to any residential areas which are normally sensitive for odours associated with the operation of an abattoir. In fact, the site is neighboured by the NPI Broiler Slaughterhouse, the Brakwater Abattoir as well as Meatco's Tannery and Feedlot.
- The site is close enough to Windhoek to allow employees to reside in town and commute to work daily.

The site is desirable for the proposed operations, the activities will have a limited impact on the bio-physical environment, enough water is available for construction and proper accesses can be provided to the proposed operations.

Determining what the impact of the operations would be are broken down into different categories and environmental aspects and dealt with in the Environmental Management Plan (EMP). As per the ISO 14001 definition: *an environmental aspect is an element of an organization's activities, products and/or services that can interact with the environment to cause an environmental impact e.g., land degradation or land deterioration among others, that will cause harm to the environment.*

All concerns and potential impacts raised during the public participation process and consultative meetings were evaluated. Predictions were made with respect to their magnitude and an assessment of their significance was made according to the following criteria:

The Nature of the activity: The possible impacts that may occur are that water will be used in the construction and operational phases, wastewater will be produced that will be handled, land will be used for the proposed activities, a sewage system will be constructed, and general construction activities will take place, namely the building of infrastructure.

The Probability of the impacts to occur: The probability of the above-named impacts to occur and have a negative or harmful impact on the environment and the community is small since the Environmental Management Plan will also guide these activities. Water will still be used, and wastewater produced, however guidelines will be set that will ensure the impact is minimum.

The Extent of area that the project will affect: The specific project will most likely only have a small impact on the proposed project site itself and not on the surrounding or neighbouring land except for noise, traffic, roads, electricity and dust and there may be a visual impact because of the size of the proposed development. Therefore, the extent that the project will have a negative impact on is not extensive.

The Duration of the project: The duration of the project is uncertain. Water will still be used, and waste produced on a continuous basis and the structures that were constructed will remain and may be visually unpleasing to surroundings.

The Intensity of the project: The intensity of the project is mostly limited to the site however for the above-named items/processes where the intensity of the project will be felt outside the borders of the project site.

According to the information that was present while conducting the Environmental Impact Assessment for the construction and operation of the project, no high-risk impacts were identified and therefore it is believed that the operations will be feasible in the short and long run. Most of the impacts identified were characterized as being of a low impact on the receiving and surrounding environment and with mitigation measures followed, the impacts will be of minimum significance or avoided.

4. PROJECT DESCRIPTION/SITE INFORMATION

4.1. PROJECT BACKGROUND

The Proponent, Kitai Abattoir (Proprietor) Limited intends to set up an abattoir to slaughter and process Wagyu Cattle. Wagyu beef is a premium beef marketed into specialist markets at a premium price to the normal beef produced in Namibia. For that reason, the Wagyu Cattle is normally slaughtered in independent, dedicated abattoirs to ensure attention to detail and preservation of the integrity of the meat.

Compared to other beef, Wagyu Beef has a higher percentage of monounsaturated fat and low cholesterol (stearic acid) content with a ratio of 2:1 to saturated fats, making it the healthiest beef available. Highly marbled beef not only has a different flavor profile, but also genetically contains higher levels of valuable omega 3 and omega 6 fatty acids. These fatty acids (conjugated linoleic acid) have highly anti carcinogenic and anti-inflammatory properties and are known to aid in protection against high blood pressure, heart disease, Alzheimer and arthritis.

The Wagyu Cattle Breeders Society of Namibian (NWS) was registered on 1 November 2017 under the Livestock Improvement Act No. 25 of 1977, and the inaugural meeting of the Board was held on 17 July 2018. NWS is also an associate member of the World Wagyu Council. There are about 277 fullblood and 2,167 Wagyu crossbreeds registered in Namibia, and these numbers are growing rapidly.

Due to the growing number of producers, the need for a Wagyu feedlot and abattoir has now been established. Initially it is expected to slaughter 20 animals/day (6200 per annum) which will eventually grow to 30 animals/day (9800/per annum).

Permanent employment for ±50 people will be created once the abattoir is in full operation.

The construction of the abattoir and start of the slaughtering operations are subject to obtaining all the statutory approvals. Once the approvals are obtained, it will take ± 18 months for the abattoir to come into operation.

4.2. LOCALITY OF PROJECT SITE

The abattoir will be constructed on a 5ha portion of land (Portion F) to be created from the subdivision of Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region. The Proponent signed a lease and purchase agreement with the owner of Portion 7 of Farm Klein Okapuka No. 51, Windhoek. The Portion is located in the Windhoek Municipal Area

approximately 30 km outside Windhoek to the north of the Brakwater area, the western side of the B1 Trunk Road enroute to Okahandja.

The Namibia Poultry Industries, broiler farms, broiler abattoir, clinic and water treatment facility as well as the Namib Mills Bakery are also located on Portion 7 of Farm Klein Okapuka No. 51, Windhoek from which Portion 7 for the abattoir will be created. The locality of the site is shown on the plans below:

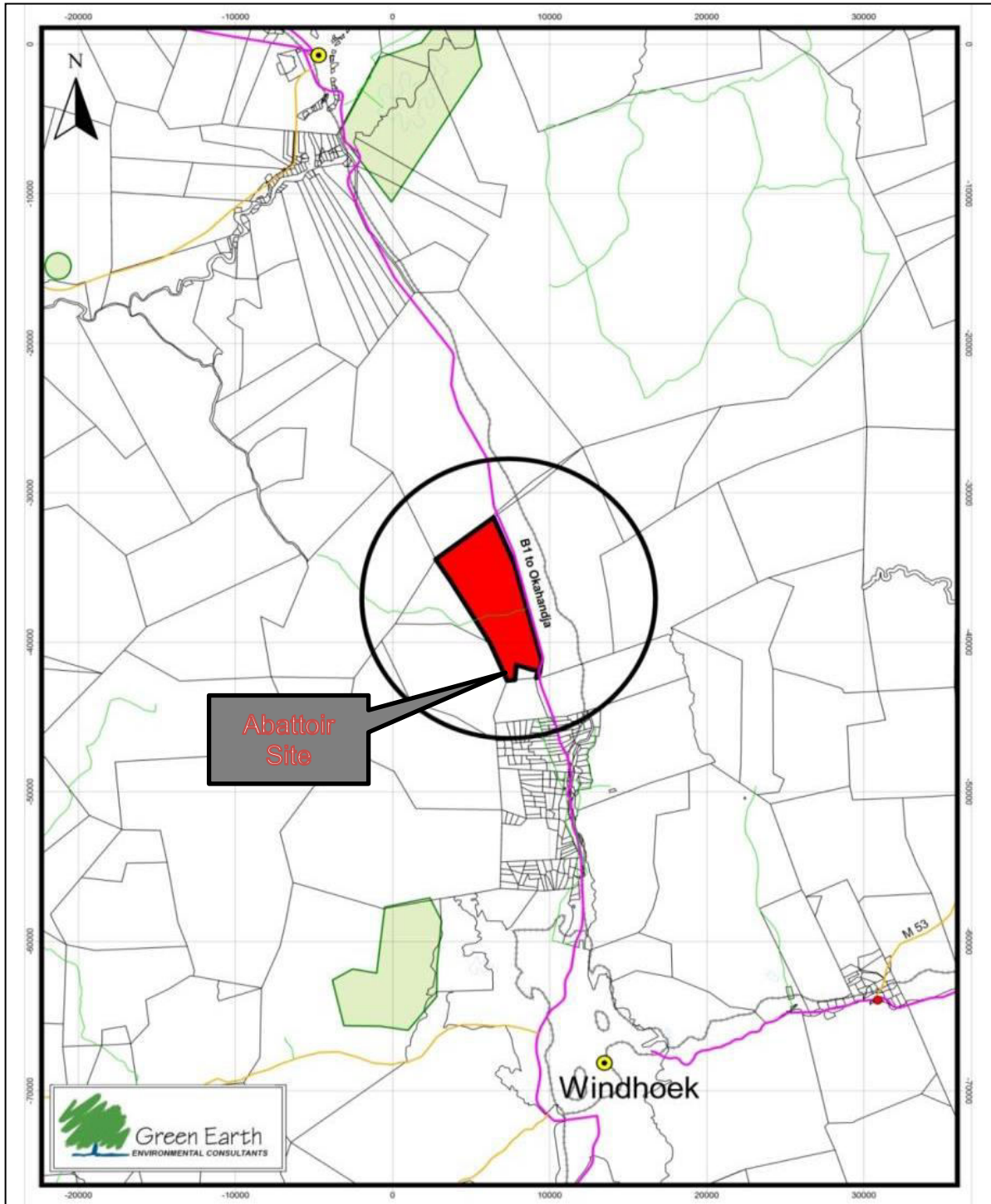


Figure 1: Project site just outside Windhoek

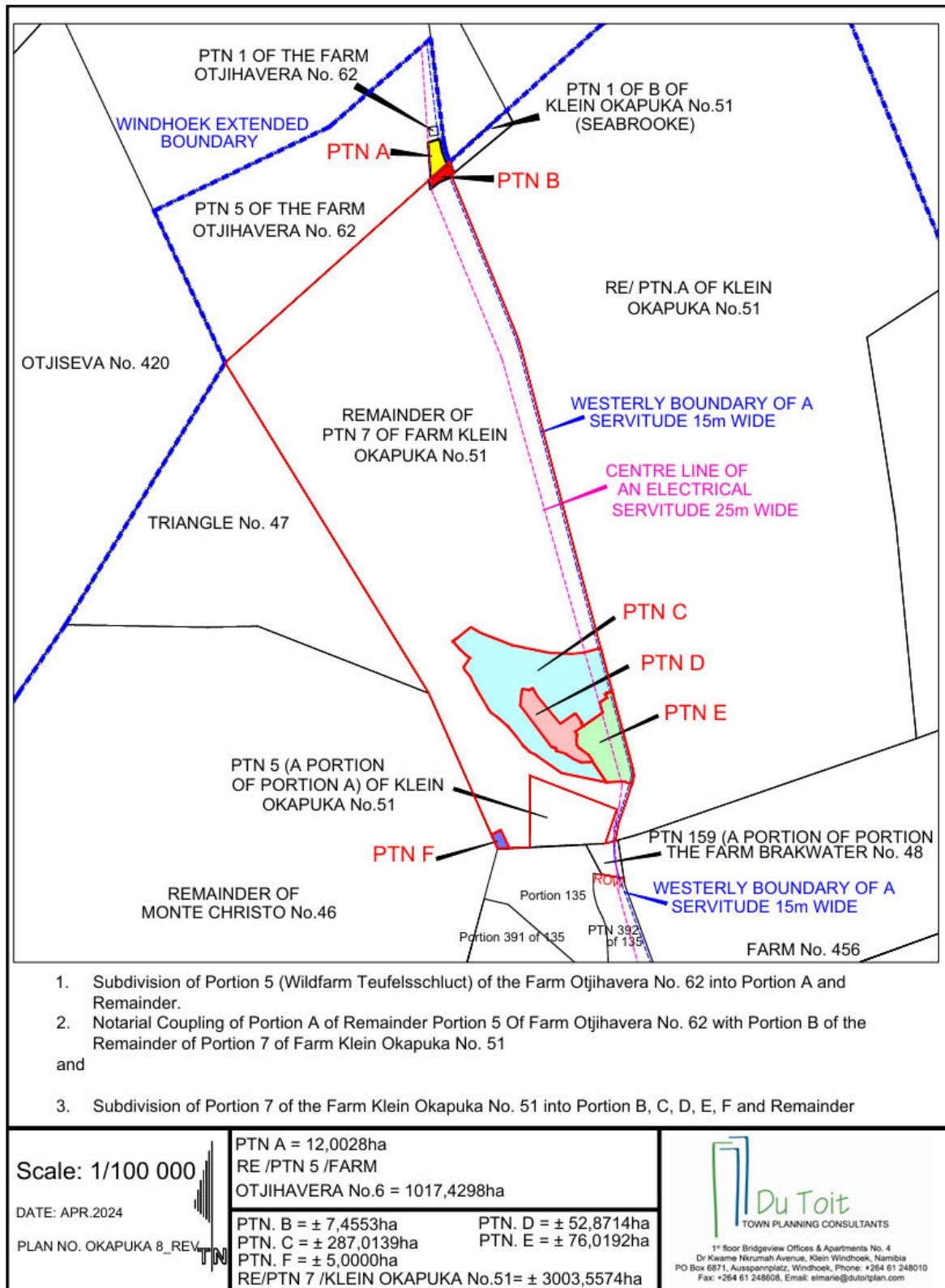


Figure 2: Portion sizes

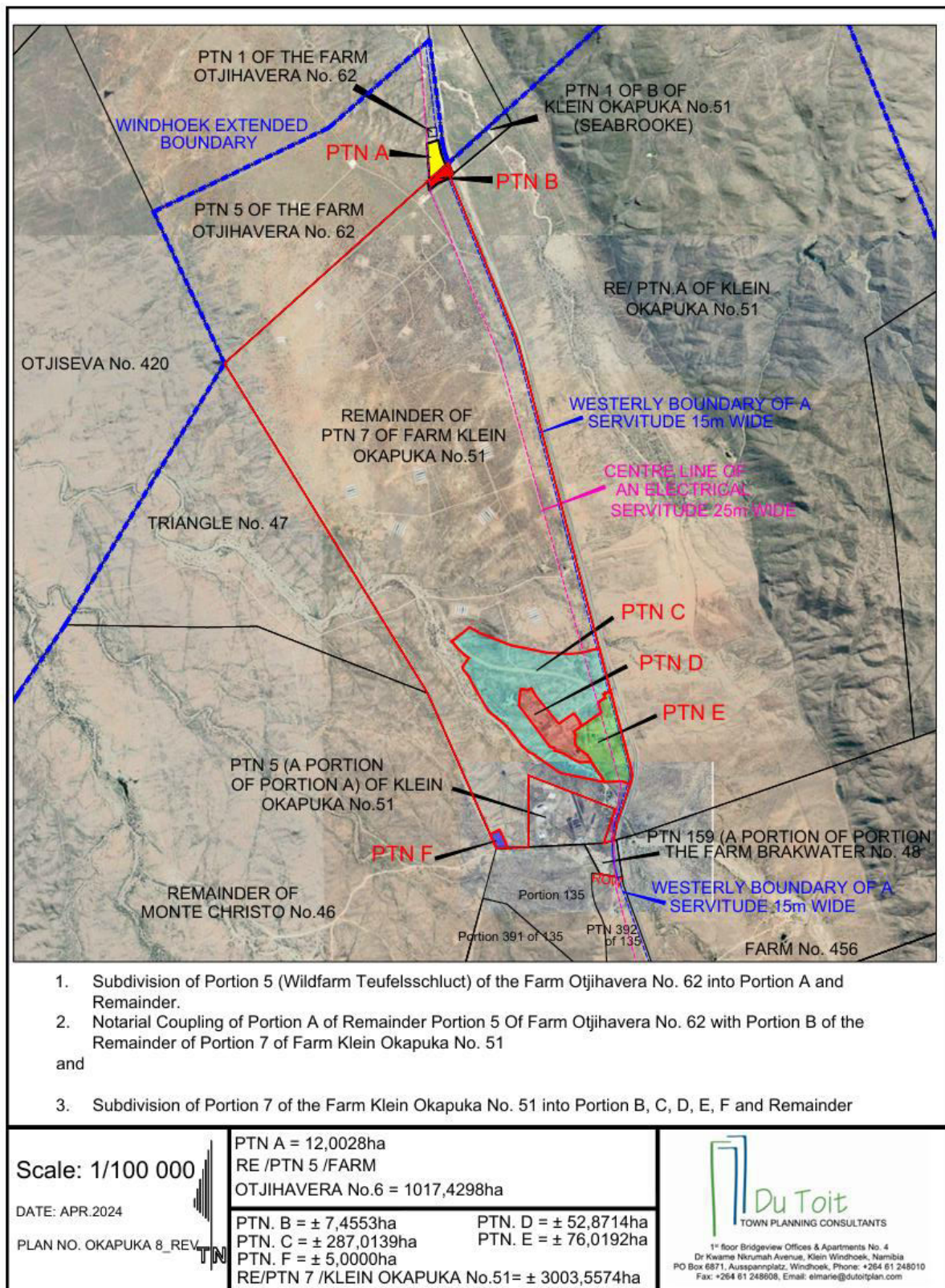


Figure 3: Proposed site for Kitai Abattoir (Zoomed in Map)

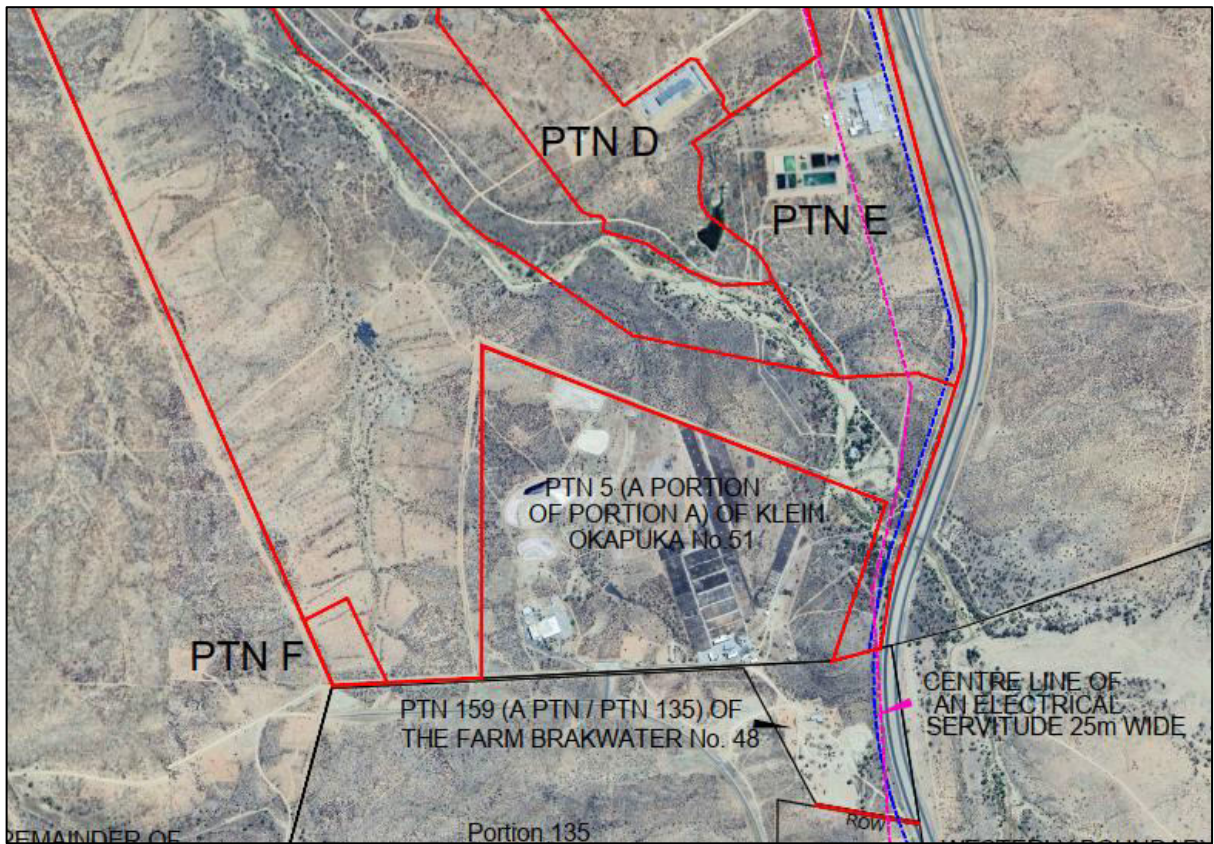


Figure 4: Site to be used for operations

4.3. TOPOGRAPHY

The general slope of the area is in a north easterly direction. No serious surface drainage systems are passing through the site. The site is relatively flat, but land scaping will be required for the placement of structures and to provide for surface drainage structures.

4.4. VEGETATION

The proposed site forms part of the Tree and Shrub Savannah Biome (specifically the Highland Savannah). The project site is showing evidence of some human interference namely de-bushed areas and informal tracks where the vegetation was cleared.

4.5. CURRENT USE

The Portion is currently vacant and not used for any farming activities.

4.6. SURROUNDING LAND USES

The surrounding uses are summarised in the *Table* below:

Farm Name	Current use of the Farm/Portion
Otjiseva No. 420	Used for farm residence, cattle, game and small stock farming.
Triangle No. 47	Used for farm residence, cattle, game and small stock farming.
Remainder of Monte Christo No. 46	Used for farm residence, cattle, game and small stock farming as well as tourism activates – camping and lodging.
Portion 5 (a Portion of Portion A) of Klein Okapuka No. 51	It accommodates the Meatco Tannery and Feedlot.
The Remainder Portion 135 of Farm Brakwater No. 48	This site is currently undeveloped but the Need and Desirability, Layout and Land Use plan for an industrial development (The Kudu River Industrial Development) has been approved for this site.
Portion 159 (a Portion of Portion) Farm Brakwater No. 48	This Portion currently accommodates the Brakwater Abattoir, City Sand (stone crusher, building sand storage and handling and building landfill).
Portion 1 of B of Klein Okapuka No. 51	Used for farm residence, cattle, game and small stock farming.
Re / Portion A of Klein Okapuka No. 51	Used for farm residence, game farming, and tourism – camping and lodging.
Portion 7 of Farm Klein Okapuka No. 51	The Portion is currently used for Namib Poultry's broiler houses and supporting infrastructure, the Namib Poultry Processing Plant (poultry abattoir), the Namib Mills Bakery, a 3MW Photo Voltaic Plant, a Wastewater Treatment facility which treat the waste water generated from the operations on the site which is then recycled.
Portion 5 of Farm Otjihavera No. 62 Namib Mills	The Portion is used by Feedmaster for a feed mill for the manufacturing of animal feed, the storage of raw materials for animal feed manufacturing as well as of finished product.

The proposed abattoir will thus fit in with the surrounding uses.

5. THE PROPOSED PROJECT

It is the intension to construct and operate a cattle abattoir with supporting infrastructure like temporary cattle holding pens, administrative offices, a water treatment facility, water storage facilities and cold storage facilities on site. The proposed abattoir intends to slaughter 20 animals/day (6200 per annum) which will eventually grow to 30 animals/day (9800/per annum) per 8-hour shift and shall comprise of the following activities and

facilities. The following information was obtained from *Kitai Abattoir (Pty) Ltd* and *Burmeister and Partners Consulting Engineers (Pty) Ltd*:

Abattoir inclusive of:

- Wagyu cattle receipt by road transport, offloading, identify by ID (electronic tag), record, and live weighing.
- Ante-mortem veterinary inspection, lairng (overnight), pens with covering, and driving to stun (Feeding for stand-over, LSU compartments to be sized based on various types and categories detailed in Part F2, 500 LSU capacity for slaughter stock as well as an additional LSUs pens to allow for the separation, backloading and return to producer – not eligible for slaughter).
- Stun, ritual slit and bleed, age determination, and hide dressing. Dedicated blood collection, (not into wash water) conveying to road tanker (provided by third party) for dispatch after shift to an off-site blood meal rendering plant or to an off-site biogas plant.
- Evisceration, synchronized inspection (head, hooves, offal with carcass), halving into sides, classification/grading, weigh, and identify by label.
- Sides chill down to 6°C “deep bone” and 2% moisture loss.
- Sides/quarters weigh out (capture in production control system), fresh load-out and dispatch.
- Process control system capturing and recording and transmitting by LSU for full traceability.
- Red offal separation into red offal products, wrapped, packed into cartons, weigh, label and strap.
- Rough offal separation and cleaning into edible white offal products, wrapped, packed into cartons, weighed, labelled and strapped.
- Paunch and intestines content (manure) to be captured separately and conveyed to waste containment and treatment (for potential future utilisation in biogas reactor), thereby minimizing organic solids load of abattoir effluent.
- Offal carton freeze down to -18°C.
- Offal frozen holding, and offal dispatch.
- Storage for packaging material / consumables – must be dust free and pest controlled.
- Storage for chemicals / pesticides / hazardous materials.

Value addition activities like de-boning and others to the specification of specific markets:

- Weigh in sides and capture into production control system.
- Cut-up sides/quarters for bone-in products, wrap/pack, weigh, label.
- Remove primal cuts (from sides or quarters, preferred on rail method), trim, bag, vacuum pack, weigh, label, deep chill, pack into cartons, weigh, label, strap, and scan cartons.
- Wrap, pack factory beef into cartons, weigh, label, and strap.
- Chill or freeze packaged (bone-in/boneless) beef.
- Chilled and frozen holding.

- Load out and dispatch.
- The chain of full control and traceability must be unbroken at all times.
- Approximately 100m² space to accommodate future value addition, patty, mince.

Supporting facilities:

- Amenities (separation of “clean” and “dirty” in facility and flow):
 - Change Rooms and Ablutions
 - Laundry
 - Canteen
 - Welfare, Health, and Safety, inclusive of environmental compliance to Environmental Management Plan, Safety and Emergency plans, and Medical testing
 - Workshop / Maintenance facility
- Offices for:
 - Administration (General Management, Boardroom, Accounts, Procurement, Sales, Training/Meeting Room).
 - Meat Industry Services: Veterinary – Animal & Public Health, Export Certification and Meat Board for classification/grading preferably close to the processing areas of the main building.
 - Production and Quality Control and Laboratory for microbiological and product quality testing preferably close to the processing areas of the main building.

Supporting infrastructure and Services:

- Water Treatment systems: disinfection/chlorination of process water, heat exchangers, cooling towers, and boilers.
- Hot (84°C) and warm water (45°C) system for sterilization of equipment (knives, saws, cutters etc.).
- Fire detection, alarm and suppression/fighting systems according to SANS 10400 & NPFA standards.
- Refrigeration Plant and equipment.
- Waste, condemned material and hides are accumulated in appropriate containers, properly sealed and dispatched daily to an offsite rendering and / or biogas plant by a third party.
- Internal roads and hard standings within the processing plant fence, including guard house.
- External connection road from B1 off-ramp/turnoff to plant gate.
- Perimeter fence around Plant.
- Internal water distribution and reticulation within the processing plant fence.
- Internal electrical emergency generation, distribution and reticulation within the processing plant fence.
- Internal wastewater collection, pre-treatment and discharge to effluent treatment plant.
- Wash bay for departing cattle trucks.

Systems:

- A full traceability and production control system including weight capture, yield control and unbroken traceability from animal to product to customer – “Farm to Fork” guidelines.
- Production Control system.
- Quality Control & Assurance System inclusive of HACCP system and Laboratory LIMS system.
- ISO/FSSC22000 and / or BRC accreditation.
- Temperature Control, Recording and Monitoring System.
- Pest control and management system.
- Safety and Emergency Plan.
- Quality Control and Assurance System including Laboratory LIMS system.
- Product control down the slaughtering and processing lines, packing, transport and marketing to assess and control the product e.g. by bar codes, weights, etc.
- Security system, access control and security floodlights.

5.1. SITE UTILIZATION

The Proponent appointed *Burmeister and Partners Consulting Engineers (Pty) Ltd* as engineers for the design of the abattoir. See below the *Preliminary Site Boundary and Layout Plan* showing how the site will be utilized:

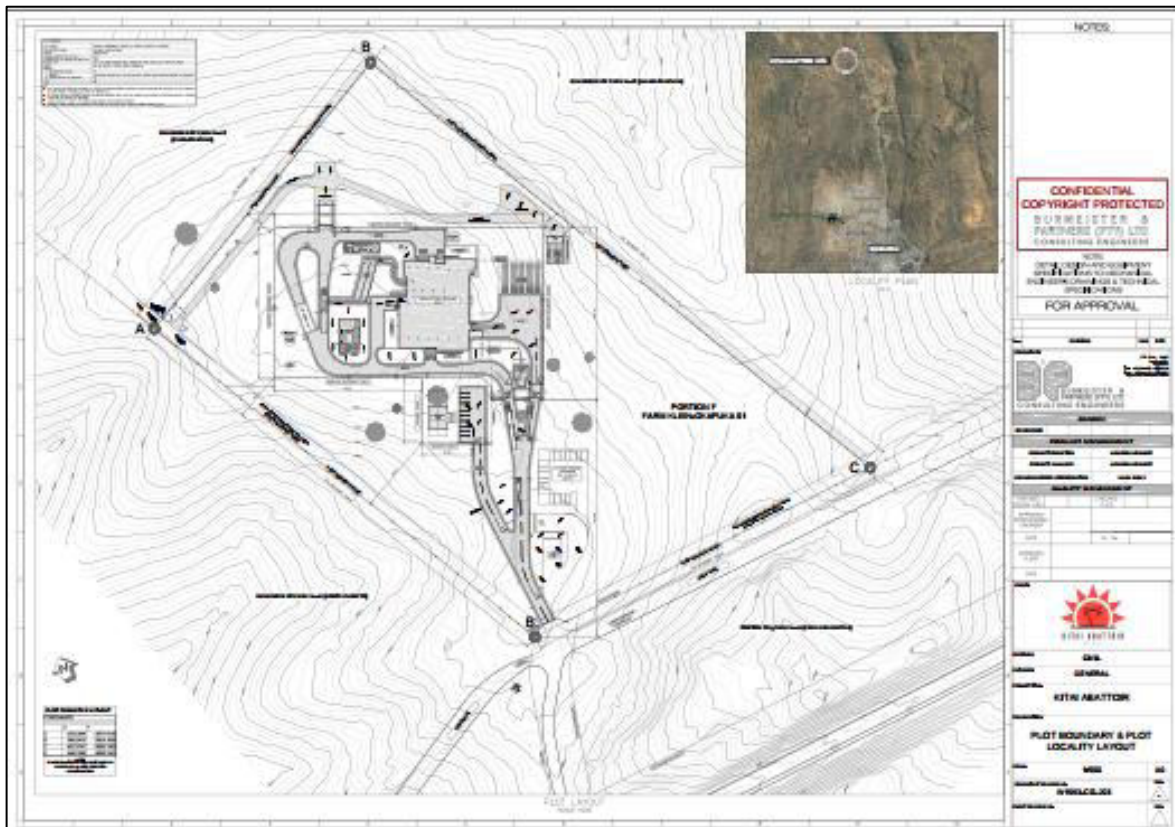


Figure 5: Site Layout and Boundary Plan

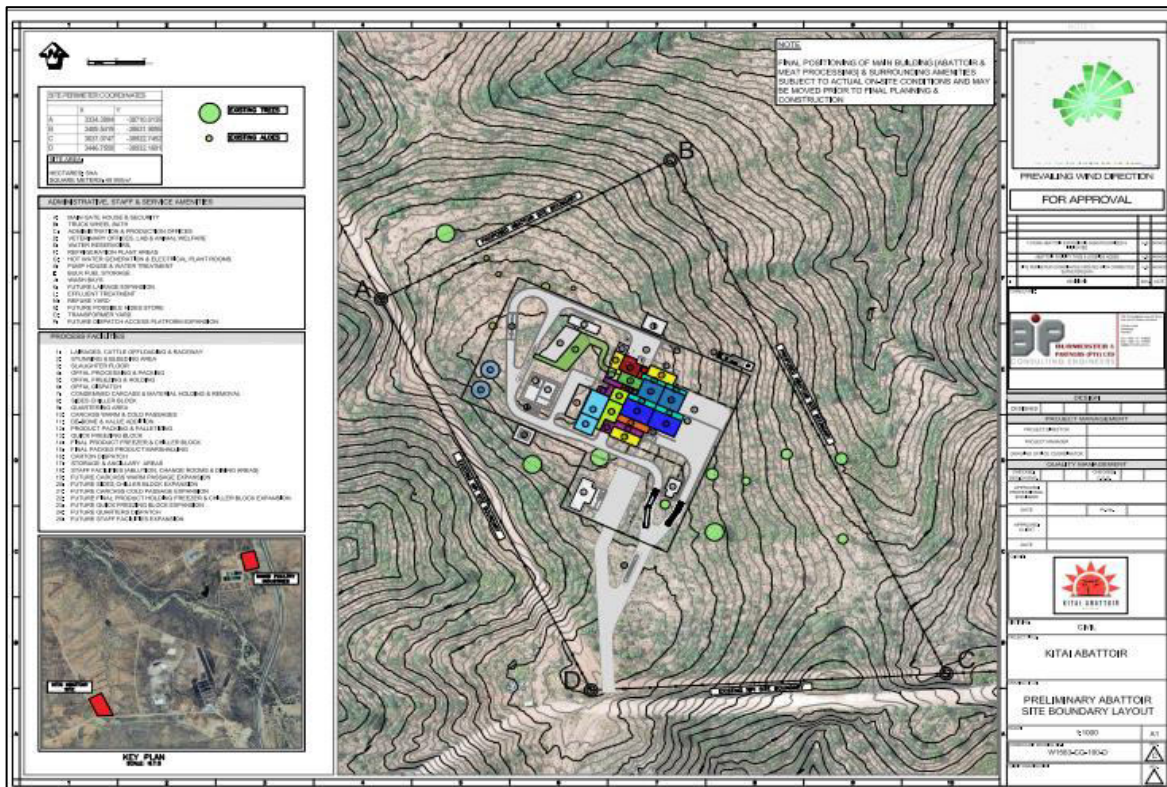


Figure 6: Site utilization Plan

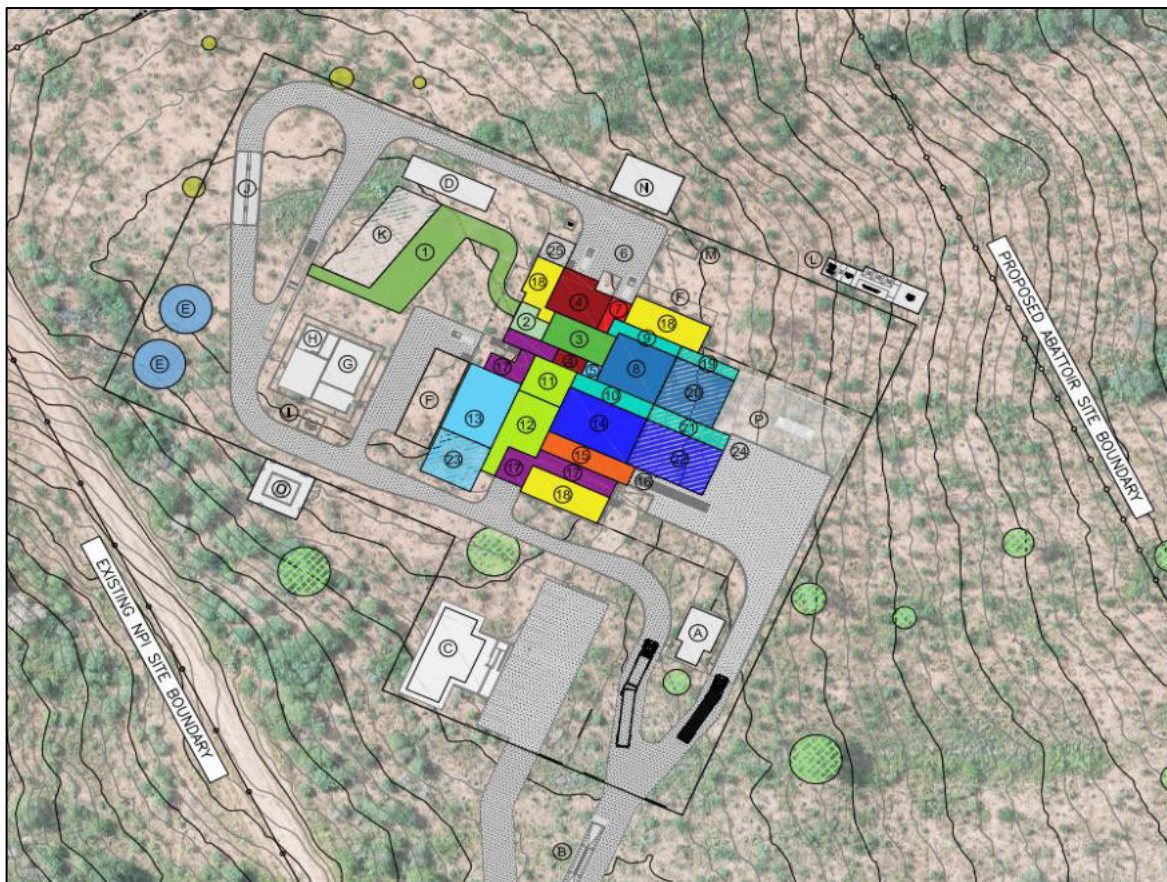


Figure 7: Placement of activities on the site

ADMINISTRATIVE, STAFF & SERVICE AMENITIES	PROCESS FACILITIES
<p>A: MAIN GATE HOUSE & SECURITY</p> <p>B: TRUCK WHEEL BATH</p> <p>C: ADMINISTRATION & PRODUCTION OFFICES</p> <p>D: VETERINARY OFFICES, LAB & ANIMAL WELFARE</p> <p>E: WATER RESERVOIRS,</p> <p>F: REFRIGERATION PLANT AREAS</p> <p>G: HOT WATER GENERATION & ELECTRICAL PLANT ROOMS</p> <p>H: PUMP HOUSE & WATER TREATMENT</p> <p>I: BULK FUEL STORAGE</p> <p>J: WASH BAYS</p> <p>K: FUTURE LAIRAGE EXPANSION</p> <p>L: EFFLUENT TREATMENT</p> <p>M: REFUSE YARD</p> <p>N: FUTURE POSSIBLE HIDES STORE</p> <p>O: TRANSFORMER YARD</p> <p>P: FUTURE DISPATCH ACCESS PLATFORM EXPANSION</p>	<p>1: LAIRAGES, CATTLE OFFLOADING & RACEWAY</p> <p>2: STUNNING & BLEEDING AREA</p> <p>3: SLAUGHTER FLOOR</p> <p>4: OFFAL PROCESSING & PACKING</p> <p>5: OFFAL FREEZING & HOLDING</p> <p>6: OFFAL DISPATCH</p> <p>7: CONDEMNED CARCASS & MATERIAL HOLDING & REMOVAL</p> <p>8: SIDES CHILLER BLOCK</p> <p>9: QUARTERING AREA</p> <p>10: CARCASS WARM & COLD PASSAGES</p> <p>11: DE-BONE & VALUE ADDITION</p> <p>12: PRODUCT PACKING & PALLETIZING</p> <p>13: QUICK FREEZING BLOCK</p> <p>14: FINAL PRODUCT FREEZER & CHILLER BLOCK</p> <p>15: FINAL PACKED PRODUCT MARSHALLING</p> <p>16: CARTON DISPATCH</p> <p>17: STORAGE & ANCILLARY AREAS</p> <p>18: STAFF FACILITIES [ABLUTION, CHANGE ROOMS & DINING AREAS]</p> <p>19: FUTURE CARCASS WARM PASSAGE EXPANSION</p> <p>20: FUTURE SIDES CHILLER BLOCK EXPANSION</p> <p>21: FUTURE CARCASS COLD PASSAGE EXPANSION</p> <p>22: FUTURE FINAL PRODUCT HOLDING FREEZER & CHILLER BLOCK EXPANSION</p> <p>23: FUTURE QUICK FREEZING BLOCK EXPANSION</p> <p>24: FUTURE QUARTERS DISPATCH</p> <p>25: FUTURE STAFF FACILITIES EXPANSION</p>

Figure 8: Legend to the activities on the site plan



Figure 9: Site Infrastructure (Burmeister and Partners (Pty) Ltd) (1)

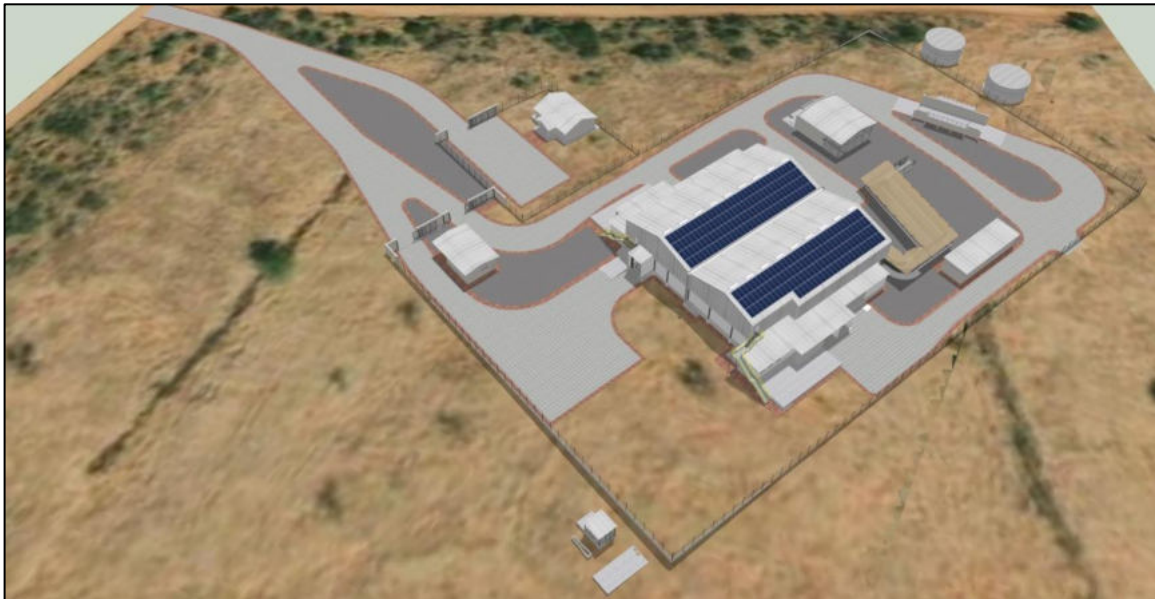


Figure 10: Site Infrastructure (Burmeister and Partners (Pty) Ltd) (2)

6. BULK SERVICES AND INFRASTRUCTURE PROVISION

It must be noted that the proposed site of the abattoir is in an area without municipal or bulk services. The required bulk services must therefore be brought to the site or provided on the site. Burmeister and Partners (Pty) Ltd Consulting Engineers were appointed as the engineering consultants for the Kitai Abattoir. They investigated the bulk services to support the abattoir for which an overview is provided below. The proposed facility will require the following services:

6.1. ACCESS AND INTERNAL ROADS

The abattoir site (Portion F) takes access from District Road D1474 which is located south of Portion F. Road D1474 links up with Main Road B1 at the intersection and provides access to the Brakwater North Road. Road D1474 is tarred except for a small $\pm 300\text{m}$ section which is a gravel road. A 20 meter right of way servitude will be created over the Remainder of Portion 135 and Portion 159 of Farm Brakwater No. 48. The proposed access to the site is shown on the *Photo* below:

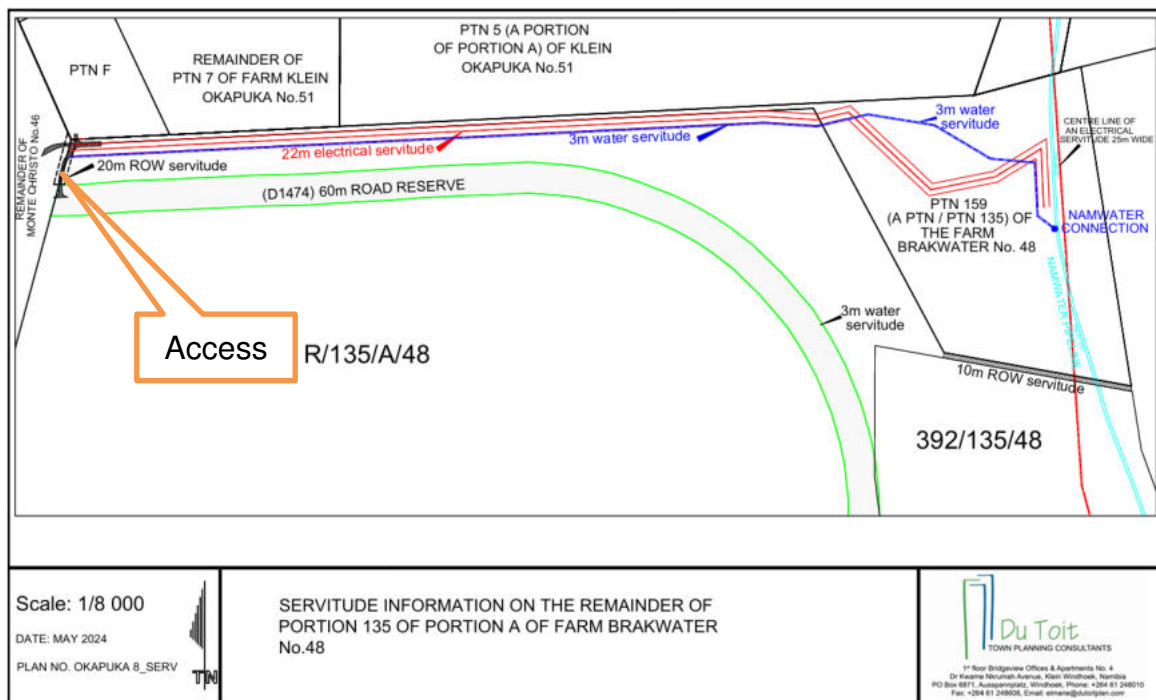


Figure 11: Servitude Information

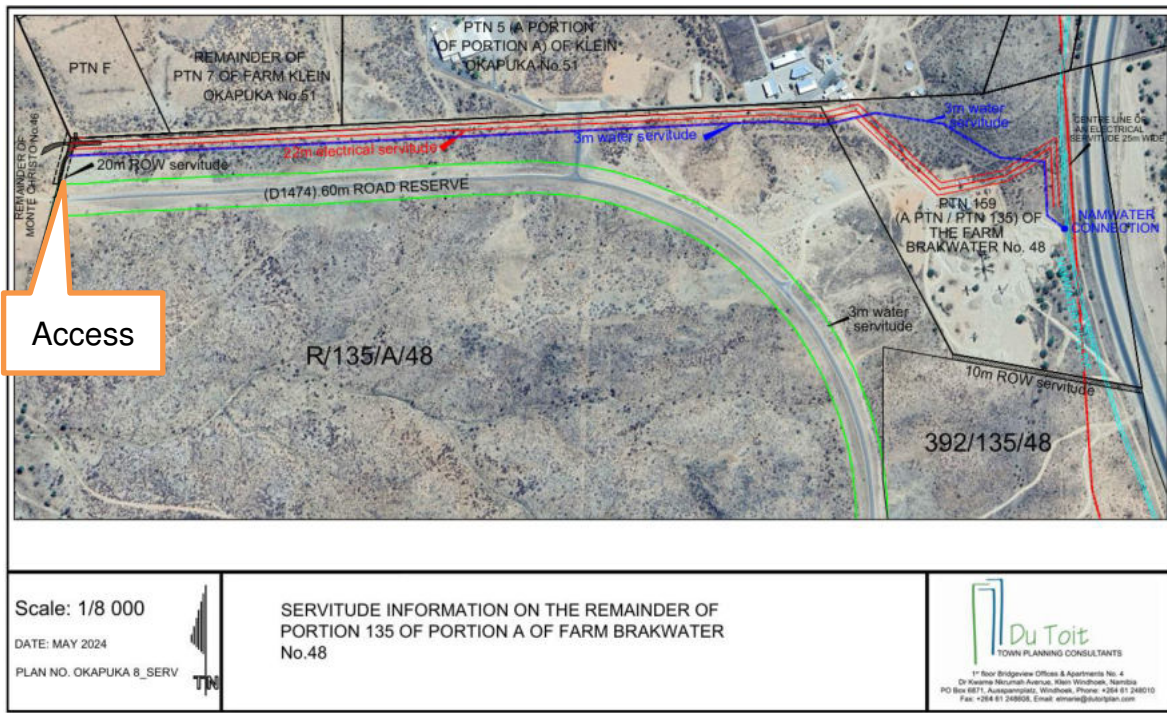


Figure 12: Servitude Information on site image

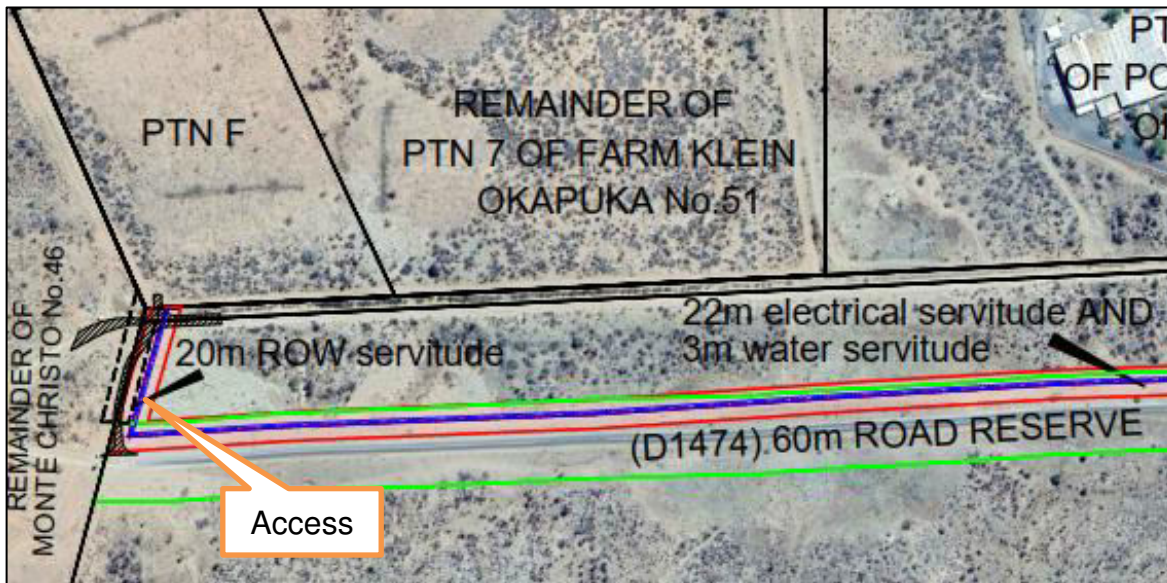


Figure 13: Proposed access road to the abattoir site

6.2. WATER SUPPLY

The facility will obtain bulk water from a NamWater connection that is situated adjacent to the A1/B1 route to Okahandja. The maximum daily water requirement for the operations of the abattoir and supporting infrastructure once operating at full capacity is 75 m³/day. NamWater completed an assessment report based on the projected water demands for Windhoek and offtake agreements along the route from Von Bach treatment plant to

Windhoek and approved a bulk water allocation of 75m³/day to the abattoir operations. The proposed pipeline route is indicted on the *Map* below:

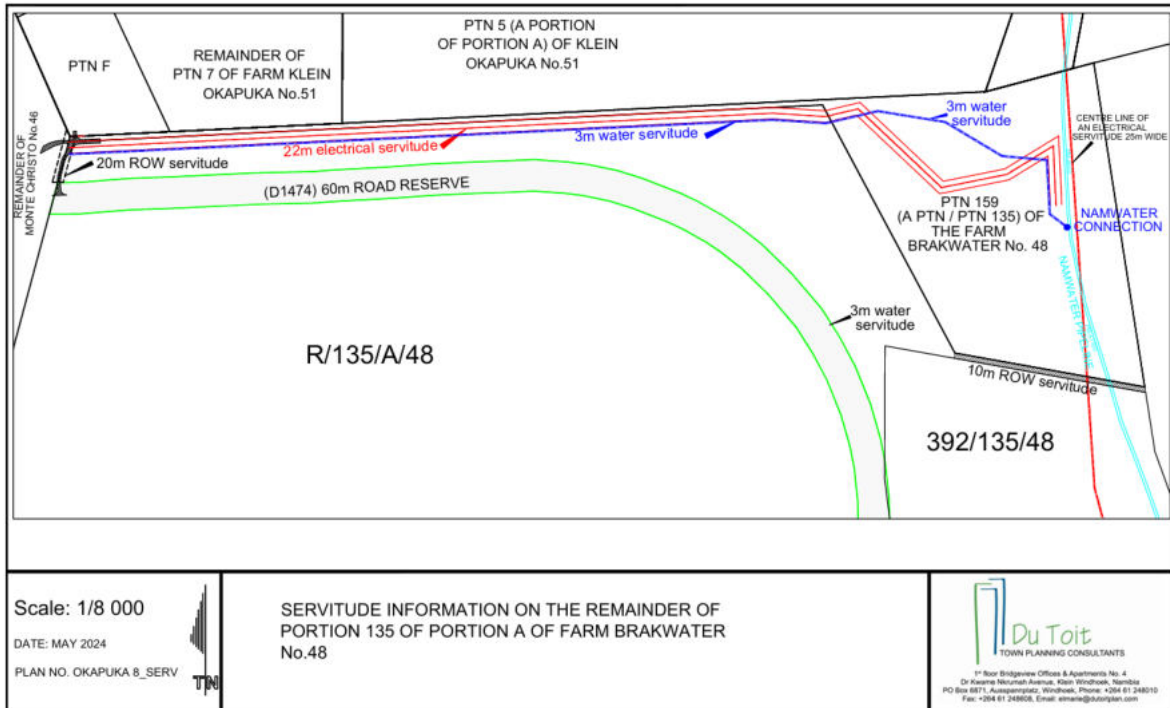


Figure 14: Proposed pipeline route

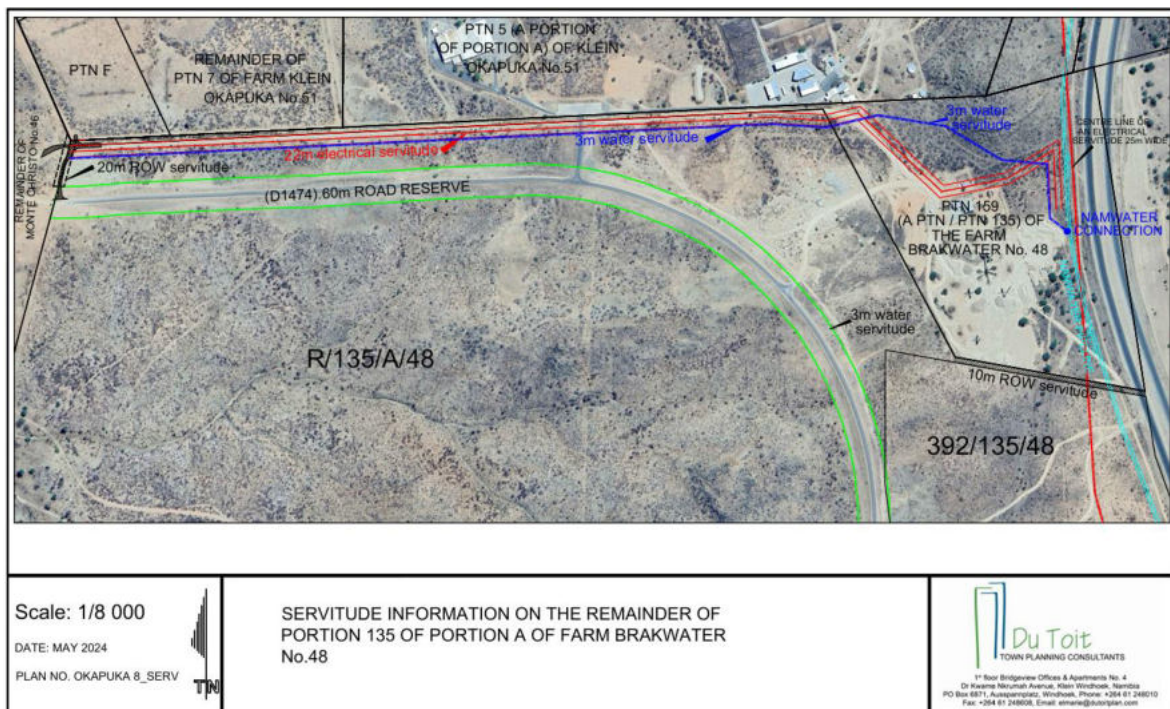


Figure 15: Photo of Proposed pipeline route

6.3. ONSITE BULK WATER STORAGE AND TREATMENT

The site and supply conditions are described as an isolated bulk system with a high level of dependency on one source of supply. Ground-level reservoirs and tanks will be used for onsite water storage, meeting a minimum 48-hour backup supply.

Water quality will be monitored, and on-site chlorine dosing will be applied to conform to international export quality abattoir standards.

6.4. ELECTRICITY RETICULATION

Electricity will be obtained from NamPower with a backup diesel generator to be used during power failures. The closest adequate bulk supply connection point to NamPower’s medium voltage network, for provision of mains power to the site, is an 11kV overhead line that runs west of the site and south of the MeatCo feeding pens along the D1474 road. The application for a large power user connection (800kVA) has already been submitted and the position of the tee-off point is being coordinated with NamPower’s rural electrification team. One 800kVA 11/0.4-0.23kV transformer shall be installed to cater for the abattoir demand with the bulk metering being done by NamPower. The line will be a 11kV OHL (12m H-pole structures with cross arm and suspension insulators - average 100m spans between pole structures) and will be handed over to NamPower once constructed and in operation. The proposed overhead powerline route is indicated on the *Map* below:

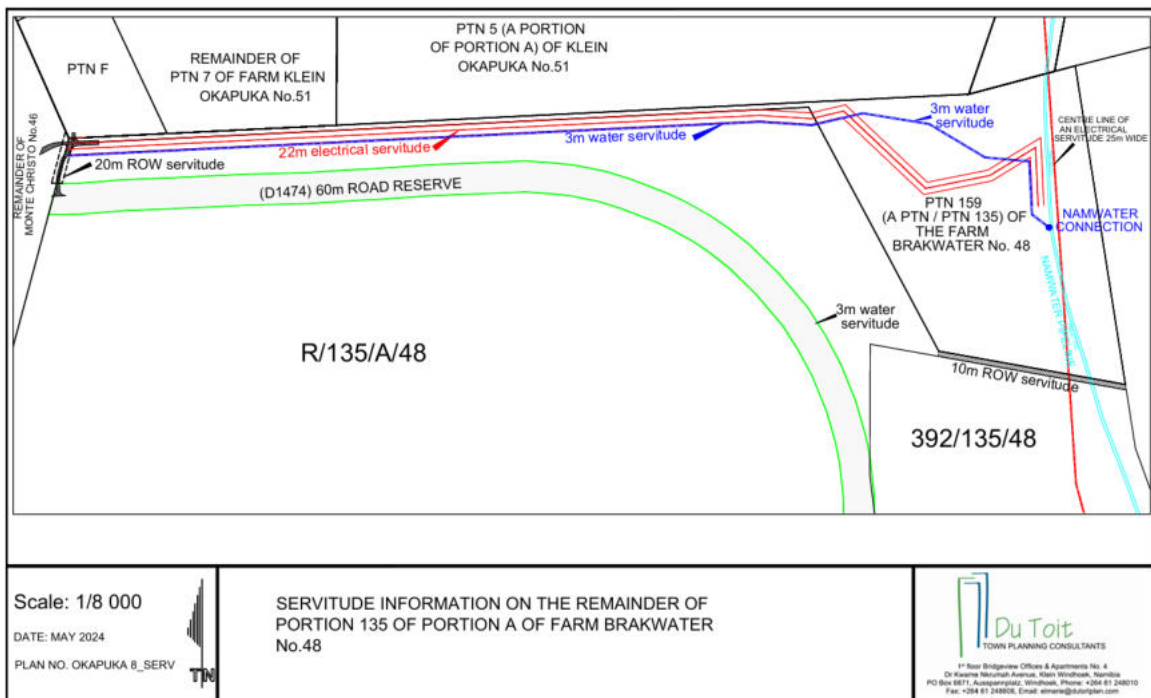


Figure 16: Proposed overhead powerline route

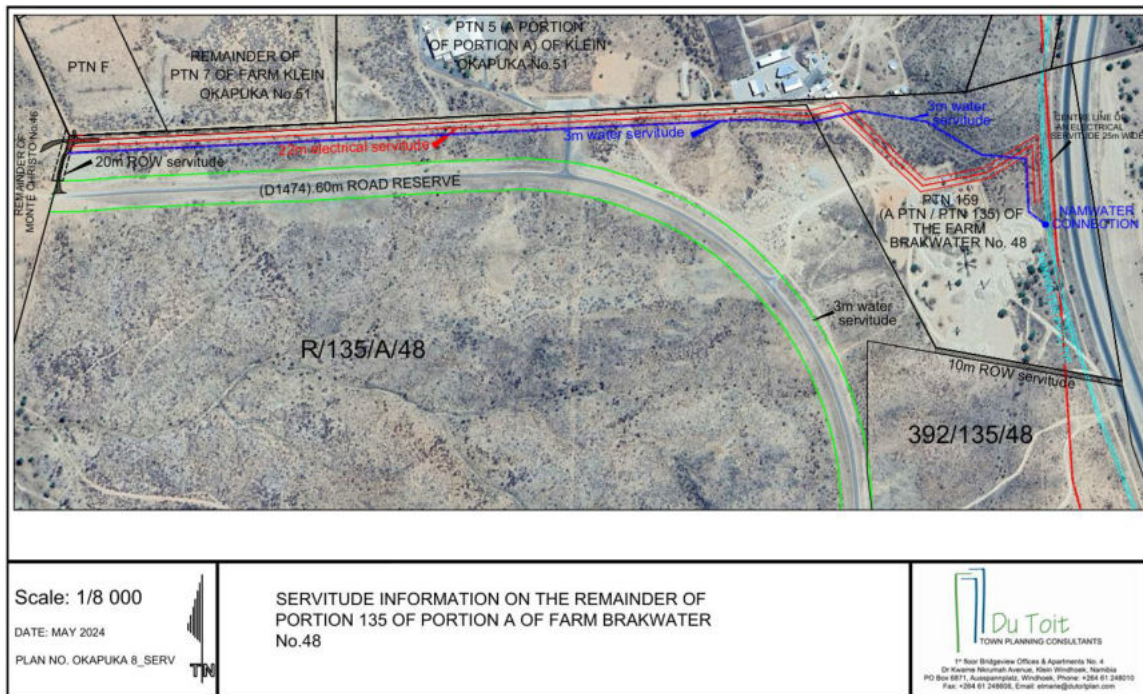


Figure 17: Photo of Proposed overhead powerline route

6.5. TREATMENT OF ABATTOIR WASTE

Three waste streams will be applicable to the abattoir: Process effluent and domestic effluent and solid waste. The process effluent and domestic effluent streams will be kept separate until primary screening has been done, from where the two streams will converge at the screened effluent collection sump.

Solid waste will be handled and treated separately as per the paragraph below:

6.5.1. PROCESS EFFLUENT

The Process Effluent includes the following.

- Blood
- Lairages and wash bay effluent
- Paunch and stomach contents
- Condemns and special risk materials
- Fats, oils and grease

General: Pre-treatment in the form of solids and fat removal from the effluent will be done on site – this is standard acceptable practice for abattoirs situated in municipal areas. A specially designated tanker will transport screened effluent off-site for treatment. On-site emergency storage will allow for at least one day's storage.

The effluent will be transported to the NPI effluent treatment facility, to the northeast of the site for processing and treatment. From meetings with NPI representatives, it has been

confirmed that the NPI effluent treatment facility has adequate capacity to accommodate the projected effluent volumes and characteristics originating from the abattoir.

Blood Handling: As much blood as possible will be captured and be kept entirely separate from any other waste streams. Blood from the bleeding area in the abattoir slaughter process will be directed to a dedicated blood sump and be kept separate from the effluent stream. It will then be collected by a specialist, registers waste manager and transported off-site for proper disposal, adhering to biosecurity and environmental standards at an approved landfill site.

Lairages and wash bay effluent: Solid waste in Lairages will be cleaned manually by means of dry-scraping and cleaning before washing; minimising the solids entering the effluent conveyance system. The lairages and wash bay areas will then be cleaned by hosing down the concrete areas. The effluent will be screened to remove remaining coarse solids by means of a grid over collection channels and inlet manhole. A sand trap will be constructed for wastewater from both the lairages and the wash bay areas in addition to a grease/oil trap to remove oil and grease from the wastewater generated on the wash bay. The pre-treated wastewater from both the lairages and the wash bay will then be directed to the domestic sewer line. It must be ensured that strict operational control is exercised in terms of dry-scraping and cleaning of trucks before actual washing commences.

The collection and effluent drainage system will be designed as such that a connection to the required grit/oil/grease trap and the municipal sewer is possible as soon as these areas are covered and this becomes necessary due to larger volumes of wastewater being generated.

Paunch and stomach contents: The paunch content from the offal area will be removed in the form of solid organic waste and disposed of into a skip container. The wastewater from the washing of the stomach and other intestines shall be screened as part of the process effluent. Strict operational control will be needed to ensure that all edible offal is removed, and minimal fat enters the system. The skip container will be collected and removed by a specialist, registered waste handler for disposal at an approved landfill site.

Fats, oil and grease removal: Fats, oils and grease removal will be done after screening. This will be done by means of a 3-chamber interceptor. The screenings collected from all the different screening processes together with the sludge generated by the fat and grit traps must be land filled according to the correct prescribed procedures for the land filling of hazardous and/or organic waste or disposed of at a designated appropriate landfill facility. Where relevant all solid waste material should be appropriately dewatered to facilitate transport.

The fats, oil and grease will be stored in a separate container for collection by a specialist registered waste handler to be disposed of at an approved landfill site.

6.5.2. DOMESTIC EFFLUENT

The domestic wastewater stream will be kept separate from the factory wastewater until pretreatment has been applied to both effluent streams. The domestic wastewater will enter the screened effluent collection sump after passing through a bar screen or screenings basket to remove any foreign objects such as hair nets and the like. A grit collection basin is included as part of the primary treatment before the collection chamber and subsequent conveyance to the NPI effluent treatment plant.

Odour treatment: Due to the remote location of the site, it is not foreseen that odour treatment is required. All processes will minimise the impact of odour as efficiently as possible by means of ventilation pipes and positioning in relation to the facility buildings. The prevailing wind conditions on site were considered for the site layout and facilities.

Vector attraction: The screening and collection area surrounding the screens will be covered to avoid vector attraction in the form of rodents, house flies, mosquitoes, etc. and associated breeding.

Solids dewatering: No provision is currently made for the dewatering of solids. No additional desludging of pump sumps should be required. Screenings and other wastewater associated solid waste should be dry enough and will not, at this point in time, justify the additional cost of on-site dewatering.

6.6. SEWAGE TREATMENT AND DISPOSAL

For the treatment of effluent originating from poultry abattoir processes, NPI use an advanced biological treatment plant that includes a pond system (anaerobic and aerobic) followed by a new generation trickling filter plant with clarification and disinfection to produce a final effluent conforming to the General Standard. This is followed by sand and carbon filtration to achieve a final effluent conforming to the Special Standard. The latter effluent is then reclaimed to potable water standard using a reverse osmosis system. The system is designed to treat effluent for a 24-hour period for 7 days per week. No water is spilled into surface or underground drainage systems.

The final, reclaimed and treated water to the standard (Potable Water) is reused in the abattoir. Approximately 80% of effluent is reused.

The reverse osmosis produces a waste stream (brine), which is evaporated in properly lined ponds. The salt and sediment that builds up after evaporation in the ponds will be removed once every 10 years and will be finally discarded to a suitably classified landfill site.

6.7. SOLID WASTE DISPOSAL/REFUSE REMOVAL

Construction waste will be disposed of at an approved landfill site. Household waste generated at the abattoir will be sorted into the different recyclables and stored on site and then collected on site by an approved private waste management company (Rent-A-Drum)

from where it is taken to their recycling facility for processing and the remainder of the waste will be disposed of at an approved waste disposal/landfill site in the close by area.

6.8. STORMWATER MANAGEMENT

Stormwater from the site will predominantly be accommodated by means of surface flow. There are no major water courses intersecting the property that would warrant detailed flood line studies to be conducted. The Klein Windhoek River is situated to the northeast of the site; however, the site does not infringe on the associated flood lines of the Klein Windhoek River (P036 Flood Study-NPI -2008_Final, *Chris Muir*, dated 2020, Annexure 3). Minor stormwater drainage pipes may be incorporated into the detailed design to facilitate drainage for isolated areas on site. All stormwater drainage to be included as part of the submission of municipal drawings for approval.

6.9. FIRE PROTECTION

The Proponent will have the necessary fire protection infrastructure / extinguishers as per the requirements. A Fire Protection Specialist is contracted to introduce a proper fire protection plan with the required infrastructure and to oversee the annual auditing and maintenance of the infrastructure. A rational fire design report will be submitted separately to the City of Windhoek's Fire Department.

7. APPROACH TO THE STUDY

The assessment included the following activities:

a) Desktop sensitivity assessment

Literature, legislation and guidance documents related to the natural environment and land use activities available on the portion and area in general were reviewed to determine potential environmental issues and concerns.

b) Site assessment (site visit)

The proposed project site and the immediate neighbourhood and surrounding area were assessed through several site visits to investigate the environmental parameters on site to enable further understanding of the potential impacts on site.

c) Public participation

The public was invited to give input, comments and opinions regarding the proposed project. Notices was placed in the Namibian and New Era Newspapers on two consecutive weeks inviting public participation and comments on the proposed project. A Background Information Document (BID) was sent to all I & APs who registered as well as all immediate neighbours of the site. The final date for receiving comments was 28 June 2024. See attached copies of the notices.

d) Scoping

Based on the desk top study, site visit and public participation, the environmental impacts were determined in five categories: nature of project, expected duration of impact, geographical extent of the event, probability of occurring and the expected intensity. The findings of the scoping have been incorporated in the environmental impact assessment report below.

e) Environmental Management Plan (EMP)

To minimize the impact on the environment, mitigation measures have been identified to be implemented during planning, construction, and implementation. These measures have been included in the Environmental Management Plan to guide the planning, construction and operation of the development which can also be used by the relevant authorities to ensure that the project is planned, developed, and operated with the minimum impact on the environment.

8. ALTERNATIVE OPTIONS

Alternative options were investigated before it was decided to use Portion F of Portion 7 of Farm Klein Okapuka for the proposed abattoir.

The no-go option

The no-go option means that the Wagyu cattle producers will continue to slaughter and process their cattle under contract by Meatco or any other of the existing commercial cattle abattoirs. This option is not acceptable due to the following reasons:

- Currently the existing commercial abattoirs are not geared to attend to the detail as is required for the preparation of the relevant meat cuts and products as well as the grading and packing requirements.
- Accommodating Wagyu cattle in their abattoirs is disrupting their operations as it requires stopping their normal slaughter program, preparation of the slaughter line and supporting facilities as well as their packing activities to accommodate the Wagyu cattle to be slaughtered.
- The current volumes of Wagyu of (± 30 per week) cattle available for slaughter does not justify that commercial abattoirs, interrupts their current activities and programmes.
- Commercial abattoirs are, especially in times of draught, under pressure to do emergency slaughter of high volumes of cattle and during these times cannot accommodate the Wagyu cattle which require special attention during the slaughter process.

Alternative sites investigated

Three (3) different sites were investigated for the placement of the abattoir. The summary of the outcome of the investigation of the different sites is summarised in the *Table* below:

Site	Locality	Characteristics	Conclusion
Farm Arbeidskroon	Okahandja, Otjozondjupa Region	Inadequate and non-sustainable water supply. Restrictive Title Conditions.	Site not suitable
Farm Rooikraal No. 23	Omitara, Omaheke Region	Inadequate and non-sustainable water supply.	Site not suitable
Portion F of Farm Klein Okapuka No. 51	Windhoek, Khomas Region	Sustainable water supply by NamWater	Site suitable with good supporting infrastructure

From the above, Portion F of Portion 7 of Farm Klein Okapuka was selected as the preferred site. The Proponent also obtained formal approval from the current owner of the site for the initial lease of the site and eventual transfer of the land.

The Proponent appointed Du Toit Town Planning Consultants to submit an application to City of Windhoek and the Urban and Regional Planning Board for the subdivision of Portion 7 of Farm Klein Okapuka No. 51, Windhoek to create the 5 ha portion (Portion F as indicated on the plans inserted in the EIA) for the abattoir as well as to obtain COW's consent to use the Portion for an abattoir.

9. ASSUMPTIONS AND LIMITATIONS

It is assumed that the information provided by the proponent (Kitai Abattoir (Pty) Ltd), Burmeister and Partners and other relevant parties are accurate. The site was visited several times and any happenings after this are not mentioned in this report. (The assessment was based on the prevailing environmental conditions and not on future happenings on the site.) However, it is assumed that there will be no significant changes to the proposed project, and the environment will not adversely be affected between the compilation of the assessment and the implementation of the proposed activities.

10. ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans, programs and policies deemed to have adverse impacts on the environment require an EIA according to Namibian legislation. The administrative, legal and policy requirements to be considered during the Environmental Assessment for the proposed project are the following:

- The Namibian Constitution
- The Environmental Management Act (No. 7 of 2007)
- The Water Resources Management Act (No. 11 of 2013)
- Windhoek Municipal statutory requirements and town planning scheme
- Other Laws, Acts, Regulations and Policies

THE NAMIBIAN CONSTITUTION

Article 95 of Namibia's constitution provides that:

“The State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the following:

Management of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future; in particular, the Government shall provide measures against the dumping or recycling of foreign nuclear and toxic waste on Namibian territory.” This article recommends that a relatively high level of environmental protection is called for in respect of pollution control and waste management.

Article 144 of the Namibian Constitution deals with environmental law and it states:

“Unless otherwise provided by this Constitution or Act of Parliament, the general rules of public international agreements binding upon Namibia under this Constitution shall form part of the law of Namibia”. This article incorporates international law, if it conforms to the Constitution, automatically as “law of the land”. These include international agreements, conventions, protocols, covenants, charters, statutes, acts, declarations, concords, exchanges of notes, agreed minutes, memoranda of understanding, and agreements (Ruppel & Ruppel-Schlichting, 2013). It is therefore important that the international agreements and conventions are considered (see section 4.9).

In considering these environmental rights, the Proponent should consider the following in devising an action plan in response to these articles:

- Implement a “zero-harm” policy at that would guide decisions.
- Ensure that no management practice or decision result in the degradation of future natural resources.
- Take a decision on how this part of the Constitution will be implemented as part of the Proponent's Environmental Control System (ECS).

ENVIRONMENTAL MANAGEMENT ACT (NO. 7 OF 2007)

The Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) of the Environmental Management Act (No. 7 of 2007) that came into effect in 2012 requires/recommends that an Environmental Impact Assessment and an Environmental Management Plan (EMP) be conducted for the following listed activities to obtain an Environmental Clearance Certificate:

WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES

- *The construction of facilities for waste sites, treatment of waste and disposal of waste.*
- *Any activity entailing a scheduled process referred to in the Atmospheric Pollution Prevention Ordinance, 1976.*
- *The import, processing, use and recycling, temporary storage, transit or export of waste.*

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

The construction of facilities for –

- *The generation of electricity.*
- *The transmission and supply of electricity.*

WATER RESOURCE DEVELOPMENTS

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

HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE

- *The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.*
- *Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.*

INFRASTRUCTURE

The route determination of roads and design of associated physical infrastructure where –

- *It is a public road.*
- *The road reserve is wider than 30 meters; or*
- *The road caters for more than one lane of traffic in both directions.*

Cumulative impacts associated with the development must be included as well as public consultation. The Act further requires all major industries and mines to prepare waste management plans and present these to the local authorities for approval.

The Act, Regulations, Procedures and Guidelines have integrated the following sustainability principles. These need to be given due consideration, particularly to achieve proper waste management and pollution control:

Cradle to Grave Responsibility

This principle provides that those who handle or manufacture potentially harmful products must be liable for their safe production, use and disposal and that those who initiate potentially polluting activities must be liable for their commissioning, operation and decommissioning.

Precautionary Principle

It provides that if there is any doubt about the effects of a potentially polluting activity, a cautious approach must be adopted.

The Polluter Pays Principle

A person who generates waste or causes pollution must, in theory, pay the full costs of its treatment or of the harm, which it causes to the environment.

Public Participation and Access to Information

In the context of environmental management, citizens must have access to information and the right to participate in decisions making.

CONCLUSION AND IMPACT

The proposed activity will fit in with the surrounding activities and not have a negative impact on the prevailing environment. It will be ensured that all protected trees and plant species will be retained where possible.

THE WATER RESOURCES MANAGEMENT ACT (NO. 11 OF 2013)

The **Water Resources Management Act (No. 11 of 2013)** stipulates conditions that ensure effluent that is produced to be of a certain standard. There should also be controls on the disposal of sewage, the purification of effluent, measures should be taken to ensure the prevention of surface and groundwater pollution and water resources should be used in a sustainable manner.

See below a summary of the impacts of the Regulations (Water Resources Management Act No. 11). The Act and Regulations directly impact on the planning, design, testing and application processes to be followed.

Table 1: Summary of Impacts of the Regulations (Water Resources Management Act)

ACT STIPULATION	IMPACTS ON SITE
66. (1) A person who intends to apply for a licence under section 72 of the Act must apply to the Executive Director on a form approved by the Minister which form is obtainable from the offices or official website of the Ministry.	Any new and existing wastewater treatment facility must receive a license from the MAWLR.
67. Effluent discharged must comply with the water quality standards set out in Annexure 11.	The treated effluent shall comply with the Act.

<p>69. Subject to any conditions prescribed under these regulations or imposed by the Minister, treated wastewater may be used for the re-use applications contemplated in Annexure 2, namely for purposes of: (b) agricultural re-use, as specified in Table 2.2 (c) landscape irrigation, as specified in Table 2.3; or (d) aquaculture, as specified in Table 2.4.</p>	<p>This requirement applies to Kitai as the discharge must meet the specifics of the Regulation.</p>
<p>5. A person who intends to treat wastewater with the intention of re-using the water must, subject to the purpose of use of the water, adhere to the treatment levels specified in Annexure 2 as follows: (a) for purposes of mining and industrial re-use as set out in Table 2.1 (b) for purposes of agricultural re-use as set out in Table 2.2 (c) for purposes of landscape irrigation as set out in Table 2.3.</p>	<p>This requirement applies to Kitai as the discharge must meet the specifics of the Regulation.</p>
<p>110. The following use of a wetland or a dam is considered to be harmful and is prohibited: (d) the storage of animal manure or other fertilizers in or near the watercourse or within a 100 metres distance from the active stream (e) any wastewater storage along a watercourse or within a 100 metres distance from the active stream</p>	<p>Kitai to take note of this and comply.</p>
<p>Requirements for persons engaged for operating waterworks used for supplying water for domestic, commercial, industrial or agricultural use. 9. (1) An owner of existing waterworks or new waterworks which are still under construction and will be put into operation must, within 30 days of the commencement of these regulations: (a) employ a person as a process controller to be in charge of the waterworks; and (b) employ the number and class of operators specified in Annexure 4 to operate the waterworks subject to the classification of the waterworks concerned, the minimum number of employees, including unskilled labourers, on site as set out in Annexure 5. (2) An owner of waterworks must keep an updated register of all operators and</p>	<p>If effluent water is re-used for agricultural use, the operational personnel must conform to Annexure 4 of the Act.</p>

employees, including their qualifications, who are employed at the waterworks.	
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WINDHOEK MUNICIPAL STATUTORY REQUIREMENTS AND TOWN PLANNING SCHEME

Portion 7 of Farm Klein Okapuka No. 51 is situated in the Municipal boundaries of City of Windhoek and is therefore subject to the City's Policies and Bylaws. The Windhoek Town Planning Scheme has not been extended to include Portion 7 of Farm Klein Windhoek No. 51 and the proposed abattoir site is therefore not yet subject to the Town Planning Scheme Stipulations.

To ensure compliance with City of Windhoek's Land use Policies and Bylaws, the Proponent appointed:

- Du Toit Town Planning Consultants to submit an application to City of Windhoek and the Urban and Regional Planning Board for the subdivision of Portion 7 of Farm Klein Okapuka No. 51, Windhoek to create the 5 ha portion (Portion F as indicated on the plans inserted in the EIA) for the abattoir as well as to obtain COW's consent to use the Portion for an abattoir.
- Burmeister and Partners to prepare and submit a full set of detailed building plans to City of Windhoek's Department of Building Control to ensure that the buildings to be constructed are in compliance with the City's policies and rules.

The approval of the subdivision, consent use and building plans are subject to obtaining an Environmental Clearance Certificate for the construction and operations of the abattoir and its associated activities.

CONCLUSION AND IMPACT

Given that the site is within the Windhoek Municipal Boundaries and that the developmental intentions of the client and intended land use is subject to City of Windhoek approval, there is no reason to anticipate detrimental effects to the surroundings of the site. The proposed operations are also subject to an Environmental Clearance which will only be given if there are limited effects on the surrounding area and that it can be mitigated.

OTHER LAWS, ACTS, REGULATIONS AND POLICIES

The laws, acts, regulations, and policies listed below have also been considered during the Environmental Assessment.

Table 2: Laws, Acts, Regulations and Policies

Laws, Acts, Regulations & Policies consulted:		
Electricity Act (No. 4 of 2007)	In accordance with the Electricity Act (No. 4 of 2007) which provides for the establishment of the Electricity Control Board and	The Proponent must abide to the Electricity Act.

	provide for its powers and functions; to provide for the requirements and conditions for obtaining licenses for the provision of electricity; to provide for the powers and obligations of licenses; and to provide for incidental matters: the necessary permits and licenses will be obtained.	
Pollution Control and Waste Management Bill (guideline only)	The Pollution Control and Waste Management Bill is currently in preparation and is therefore included as a guideline only. Of reference to the mining, Parts 2, 7 and 8 apply. Part 2 provides that no person shall discharge or cause to be discharged, any pollutant to the air from a process except under and in accordance with the provisions of an air pollution license issued under section 23. Part 2 also further provides for procedures to be followed in license application, fees to be paid and required terms of conditions for air pollution licenses. Part 7 states that any person who sells, stores, transports or uses any hazardous substances or products containing hazardous substances shall notify the competent authority, in accordance with sub-section (2), of the presence and quantity of those substances. The competent authority for the purposes of section 74 shall maintain a register of substances notified in accordance with that section and the register shall be maintained in accordance with the provisions. Part 8 provides for emergency preparedness by the person handling hazardous substances, through emergency response plans.	The Proponent must adhere to the Pollution Control and Waste Management Bill.
Water Resources Management Act	The Water Resources Management Act (No. 11 of 2013) stipulates conditions that ensure effluent that is produced to be of a certain standard. There should also	The Act must be consulted. Fresh water abstraction and waste-water discharge permits should be obtained when required.

	be controls on the disposal of sewage, the purification of effluent, measures should be taken to ensure the prevention of surface and groundwater pollution and water resources should be used in a sustainable manner.	
Solid and Hazardous Waste Management Regulations: Local Authorities 1992	Provides for management and handling of industrial, business and domestic waste.	The Proponent must abide to the solid waste management provisions.
Hazardous Substances Ordinance (No. 14 of 1974)	The Ordinance applies to the manufacture, sale, use, disposal and dumping of hazardous substances, as well as their import and export and is administered by the Minister of Health and Social Welfare. Its primary purpose is to prevent hazardous substances from causing injury, ill-health or the death of human beings.	The Proponent must abide to the Ordinance's provisions.
Atmospheric Pollution Prevention Ordinance of Namibia (No. 11 of 1976)	Part 2 of the Ordinance governs the control of noxious or offensive gases. The Ordinance prohibits anyone from carrying on a scheduled process without a registration certificate in a controlled area. The registration certificate must be issued if it can be demonstrated that the best practical means are being adopted for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process.	The proponent should adhere to the stipulations of the Atmospheric Pollution Prevention Ordinance.
Nature Conservation Ordinance	The Nature Conservation Ordinance (No. 4 of 1975) covers game parks and nature reserves, the hunting and protection of wild animals, problem animals, fish and indigenous plant species. The Ministry of Environment, Forestry and Tourism (MEFT) administer it	The proposed project implementation is not located in a demarcated conservation area, national park or unique environments.

	and provides for the establishment of the Nature Conservation Board.	
Forestry Act	The Forestry Act (No. 12 of 2001) specifies that there be a general protection of the receiving and surrounding environment. The protection of natural vegetation is of great importance, the Forestry Act especially stipulates that no living tree, bush, shrub or indigenous plants within 100m from any river, stream or watercourse, may be removed without the necessary license.	No removal of protected tree species or removal of mature trees should happen. The Ministry of Environment, Forestry and Tourism should be consulted when required.
Labour Act	The Labour Act (No. 11 of 2007) contains regulations relating to the Health, Safety and Welfare of employees at work. These regulations are prescribed for among others safety relating to hazardous substances, exposure limits and physical hazards. Regulations relating to the Health and Safety of Employees at Work are promulgated in terms of the Labour Act 6 of 1992 (GN156, GG1617 of 1 August 1997).	The proponent and contractor should adhere to the Labour Act.
Public and Environmental Health Act	The Public and Environmental Health Act (No. 1 of 2015) provides with respect to matters of public health in Namibia. The objects of this Act are to: (a) promote public health and wellbeing; (b) prevent injuries, diseases and disabilities; (c) protect individuals and communities from public health risks; (d) encourage community participation in order to create a healthy environment; and (e) provide for early detection of diseases and public health risks.	The proponent and contractor should adhere to the Public and Environmental Health Act.
National Heritage Act (No. 27 of 2004)	All protected heritage resources discovered need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before it may be relocated. This should be applied from the NHC.	The National Heritage Council should be consulted when required.

<p>National Monuments Act of Namibia (No. 28 of 1969) as amended until 1979</p>	<p>No person shall destroy, damage, excavate, alter, remove from its original site or export from Namibia:</p> <p>(a) any meteorite or fossil; or</p> <p>(b) any drawing or painting on stone or a petroglyph known or commonly believed to have been executed by any people who inhabited or visited Namibia before the year 1900 AD; or</p> <p>(c) any implement, ornament or structure known or commonly believed to have been used as a mace, used or erected by people referred to in paragraph; or</p> <p>(d) the anthropological or archaeological contents of graves, caves, rock shelters, middens, shell mounds or other sites used by such people; or</p> <p>(e) any other archaeological or palaeontological finds, material or object; except under the authority of and in accordance with a permit issued under this section.</p>	<p>The proposed site for development is not within any known monument site both movable or immovable as specified in the Act, however in such an instance that any material or sites or archeologic importance are identified, it will be the responsibility of the developer to take the required route and notify the relevant commission.</p>
<p>Public Health Act (No. 36 of 1919)</p>	<p>Under this act, in section 119: “No person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.”</p>	<p>The proponent will ensure that all legal requirements of the project in relation to protection of the health of their employees and surrounding residents is protected and will be included in the EMP.</p> <p>Relevant protective equipment shall be provided for employees in construction.</p> <p>The development shall follow requirements and specifications in relation to water supply and sewerage handling and solid waste management so as not to threaten public health of future residents on this piece of land.</p>
<p>Soil Conservation Act (No. 76 of 1969)</p>	<p>The objectives of this Act are to: Make provisions for the combating and prevention of soil erosion; Promote the conservation, protection and improvement of the</p>	<p>Only the area required for the operations should be cleared from vegetation to ensure the minimum impact on the soil</p>

	soil, vegetation, sources and resources of the Republic;	through clearance for construction.
Air Quality Act (NO. 39 of 2004)	The Air Quality Act (No. 39 of 2004) intends to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto.	The proponent and contractor should adhere to the Air Quality Act.
Vision 2030 and National Development Plans	Namibia's overall development ambitions are articulated in the Nation's Vision 2030. At the operational level, five-yearly national development plans (NDP's) are prepared in extensive consultations led by the National Planning Commission in the Office of the President. Currently the Government has so far launched a 4th NDP which pursues three overarching goals for the Namibian nation: high and sustained economic growth; increased income equality; and employment creation.	The proposed project is an important element in employment creation.

CONCLUSION AND IMPACT

It is believed the above administrative, legal and policy requirements which guide and governs development will be followed and complied with in the planning, implementation and operations of the activity.

11. AFFECTED NATURAL AND SOCIAL ENVIRONMENT

11.1. BIODIVERSITY AND VEGETATION

The project site is located in the Tree and Scrub Savanna and Nama Karoo Biome. The Windhoek (including Farm Okapuka) area in general contains a large diversity of annual and perennial grass, it is estimated that there is up to 101 grass species. Four of these species are endemic namely *Eragrostis omahekensis*, *Eragrostis scopelophila*, *Pennisetum foermeranum* and *Setaria finite* (Mannheimer & Curtis, 2009). However, these species are not present on the specific site as it has been mostly cleared from vegetation. The natural characteristics of the site namely the vegetation clearance and

the destruction of habitats is expected to further on have a low impact on the environment. See *Map* below:

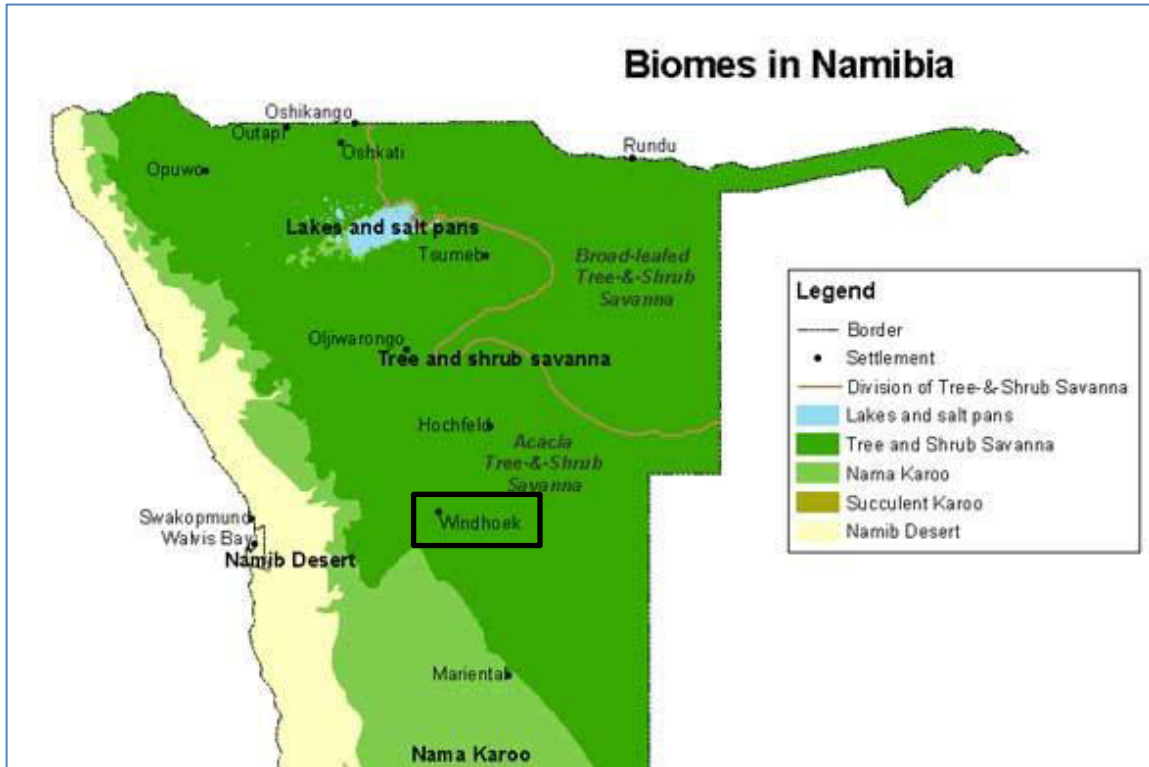


Figure 18: Biomes in Namibia (*Atlas of Namibia, 2002*)

11.2. AVIFAUNA

Power will be supplied to the abattoir from the NamPower network located on Portion 159 of Farm Brakwater No. 48. The line will be a 11kV OHL (12m H-pole structures with cross arm and suspension insulators - average 100m spans between pole structures) and will be ± 3 km long. It will be aligned as per the *Plan* below:

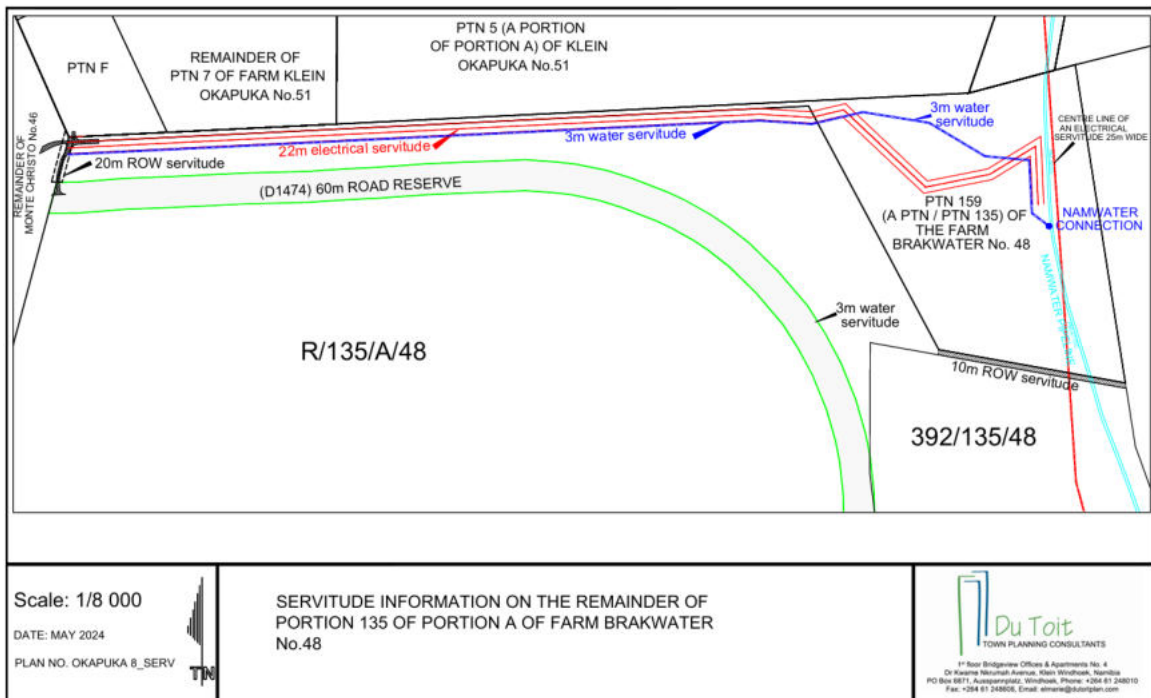


Figure 19: Proposed overhead powerline route

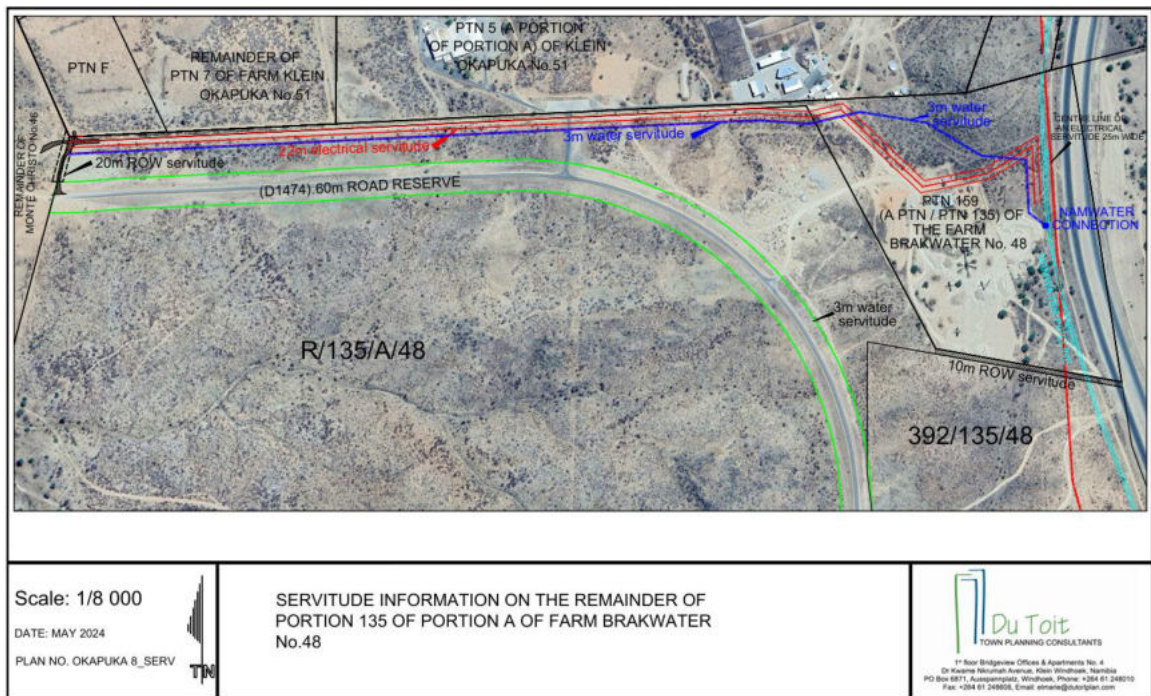


Figure 20: Photo of Proposed overhead powerline route

The *Table* below indicates the avian diversity known and/or expected to occur in the general Windhoek area. This *Table* excludes marine and other aquatic birds (e.g., Petrel, Albatross, Skua, & various ducks, etc.) and species breeding extralimital (e.g., stints, sandpipers, etc.) and rather focuses on birds that are breeding residents or can be found in the area during any time of the year. This would imply that many more birds (e.g.,

Palaeartic migrants) could occur in the area depending on “favourable” environmental conditions.

Table 3: Avian diversity known/expected to occur in the general Windhoek area

Species: Scientific name	Species: Common name	Status: Namibia	Status: Southern Africa
<i>Struthio camelus</i>	Common Ostrich		
<i>Scleroptila levaillantoides</i>	Orange River Francolin		Near endemic
<i>Pternistis hartlaubi</i>	Hartlaub’s Spurfowl	Endemic	Near endemic
<i>Pternistis adspersus</i>	Red-billed Spurfowl		Near endemic
<i>Pternistis swainsonii</i>	Swainson’s Spurfowl		
<i>Coturnix coturnix</i>	Common Quail		
<i>Coturnix delegorguei</i>	Harlequin Quail		
<i>Numida meleagris</i>	Helmeted Guineafowl		
<i>Turnix sylvaticus</i>	Kurrichane Buttonquail		
<i>Indicator minor</i>	Lesser Honeyguide		
<i>Campethera bennettii</i>	Bennett’s Woodpecker		
<i>Campethera abingoni</i>	Golden-tailed Woodpecker		
<i>Dendropicos fuscescens</i>	Cardinal Woodpecker		
<i>Dendropicos namaquus</i>	Bearded Woodpecker		
<i>Tricholaema leucomelas</i>	Acacia Pied Barbet		Near endemic
<i>Tockus monteiri</i>	Monteiro’s Hornbill	Endemic	
<i>Tockus damarensis</i>	Damara Hornbill	Endemic	Near endemic
<i>Tockus leucomelas</i>	Southern Yellow-billed Hornbill		Near endemic
<i>Tockus nasutus</i>	African Grey Hornbill		
<i>Upupa africana</i>	African Hoopoe		
<i>Phoeniculus purpureus</i>	Green Wood-Hoopoe		
<i>Phoeniculus damarensis</i>	Violet Wood-Hoopoe	Endemic	
<i>Rhinopomastus cyanomelas</i>	Common Scimitarbill		
<i>Coracias caudatus</i>	Lilac-breasted Roller		
<i>Coracias naevius</i>	Purple Roller		
<i>Merops hirundineus</i>	Swallow-tailed Bee-eater		
<i>Merops persicus</i>	Blue-cheeked Bee-eater		
<i>Colius colius</i>	White-backed Mousebird		Endemic
<i>Urocolius indicus</i>	Red-faced Mousebird		

<i>Poicephalus rueppellii</i>	Rüppell's Parrot	Endemic	Near endemic
<i>Agapornis roseicollis</i>	Rosy-faced Lovebird	Endemic	Near endemic
<i>Cypsiurus parvus</i>	African Palm Swift		
<i>Tachymarpis melba</i>	Alpine Swift		
<i>Apus bradfieldi</i>	Bradfield's Swift		Near endemic
<i>Apus affinis</i>	Little Swift		
<i>Apus horus</i>	Horus Swift		
<i>Apus caffer</i>	White-rumped Swift		
<i>Corythaixoides concolor</i>	Grey Go-away Bird		
<i>Tyto alba</i>	Barn Owl		
<i>Otus senegalensis</i>	African Scops-Owl		
<i>Ptilopsis granti</i>	Southern White-faced Scops-Owl		
<i>Bubo africanus</i>	Spotted Eagle Owl		
<i>Bubo lacteus</i>	Verreaux's Eagle-Owl		
<i>Glaucidium perlatum</i>	Pearl-spotted Owlet		
<i>Glaucidium capense</i>	African Barred Owlet		
<i>Caprimulgus pectoralis</i>	Fiery-necked Nightjar		
<i>Caprimulgus tristigma</i>	Freckled Nightjar		
<i>Caprimulgus rufigena</i>	Rufous-cheeked Nightjar		
<i>Columba livia</i>	Rock Dove		
<i>Columba guinea</i>	Speckled Pigeon		
<i>Streptopelia capicola</i>	Cape Turtle Dove		
<i>Streptopelia senegalensis</i>	Laughing Dove		
<i>Oena capensis</i>	Namaqua Dove		
<i>Neotis ludwigii</i>	Ludwig's Bustard		Near endemic
<i>Ardeotis kori</i>	Kori Bustard		
<i>Lophotis ruficrista</i>	Red-crested Korhaan		Near endemic
<i>Afrotis afraoides</i>	Northern Black Korhaan		Endemic
<i>Eupodotis rueppellii</i>	Rüppell's Korhaan	Endemic	Near endemic
<i>Pterocles namaqua</i>	Namaqua Sandgrouse		Near endemic
<i>Pterocles bicinctus</i>	Double-banded Sandgrouse		Near endemic
<i>Pterocles burchelli</i>	Burchell's Sandgrouse		Near endemic
<i>Burhinus capensis</i>	Spotted Thick-knee		
<i>Vanellus armatus</i>	Blacksmith Lapwing		
<i>Vanellus coronatus</i>	Crowned Lapwing		

<i>Rhinoptilus africanus</i>	Double-banded Courser	
<i>Rhinoptilus chalcopterus</i>	Bronze-winged Courser	
<i>Cursorius rufus</i>	Burchell's Courser	Near endemic
<i>Cursorius temminckii</i>	Temminck's Courser	
<i>Elanus caeruleus</i>	Black-shouldered Kite	
<i>Gyps africanus</i>	White-backed Vulture	
<i>Aegypius tracheliotos</i>	Lappet-faced Vulture	
<i>Circaetus pectoralis</i>	Black-chested Snake-Eagle	
<i>Circaetus cinereus</i>	Brown Snake-Eagle	
<i>Polyboroides typus</i>	African Harrier-Hawk	
<i>Melierax canorus</i>	Southern Pale Chanting Goshawk	Near endemic
<i>Melierax gabar</i>	Gabar Goshawk	
<i>Accipiter badius</i>	Shikra	
<i>Accipiter minullus</i>	Little Sparrowhawk	
<i>Buteo vulpinus</i>	Steppe Buzzard	
<i>Buteo augur</i>	Augur Buzzard	
<i>Buteo rufofuscus</i>	Jackal Buzzard	Endemic
<i>Aquila rapax</i>	Tawny Eagle	Endangered
<i>Aquila verreauxii</i>	Verreaux's Eagle	Near Threatened
<i>Aquila spilogaster</i>	African Hawk-Eagle	
<i>Aquila pennatus</i>	Booted Eagle	
<i>Aquila wahlbergi</i>	Wahlberg's Eagle	
<i>Polemaetus bellicosus</i>	Martial Eagle	Endangered
<i>Sagittarius serpentarius</i>	Secretarybird	
<i>Polihierax semitorquatus</i>	Pygmy Falcon	
<i>Falco rupicolus</i>	Rock Kestrel	
<i>Falco rupicoloides</i>	Greater Kestrel	
<i>Falco chicquera</i>	Red-necked Falcon	
<i>Falco biarmicus</i>	Lanner Falcon	
<i>Falco peregrinus</i>	Peregrine Falcon	
<i>Egretta garzetta</i>	Little Egret	
<i>Ardea cinerea</i>	Grey Heron	
<i>Ardea melanocephala</i>	Black-headed Heron	
<i>Bubulcus ibis</i>	Cattle Egret	
<i>Scopus umbretta</i>	Hamerkop	
<i>Leptoptilos crumeniferus</i>	Marabou Stork	
<i>Dicrurus adsimilis</i>	Fork-tailed Drongo	
<i>Terpsiphone viridis</i>	African Paradise-Flycatcher	
<i>Nilaus afer</i>	Brubru	
<i>Tchagra australis</i>	Brown-crowned Tchagra	
<i>Laniarius atrococcineus</i>	Crimson-breasted Shrike	Near endemic

<i>Telophorus zeylonus</i>	Bokmakierie		Near endemic
<i>Lanioturdus torquatus</i>	White-tailed Shrike	Endemic	Near endemic
<i>Batis pririt</i>	Pririt Batis		Near endemic
<i>Corvus capensis</i>	Cape Crow		
<i>Corvus albus</i>	Pied Crow		
<i>Lanius collaris</i>	Common Fiscal		
<i>Eurocephalus anguimans</i>	Southern White-crowned Shrike		Near endemic
<i>Anthoscopus minutes</i>	Cape Penduline Tit		Near endemic
<i>Parus carpi</i>	Carp's Tit	Endemic	Near endemic
<i>Parus cinerascens</i>	Ashy Tit		Endemic
<i>Riparia paludicola</i>	Brown-throated Martin		
<i>Hirundo albigularis</i>	White-throated Swallow		
<i>Hirundo dimidiata</i>	Pearl-breasted Swallow		
<i>Hirundo cucullata</i>	Greater Striped Swallow		
<i>Hirundo semirufa</i>	Red-breasted Swallow		
<i>Hirundo fuligula</i>	Rock Martin		
<i>Delichon urbicum</i>	Common House Martin		
<i>Pycnonotus nigricans</i>	African Red-eyed Bulbul		Near endemic
<i>Achaetps pycnopygius</i>	Rockrunner	Endemic	Near endemic
<i>Sylvietta rufescens</i>	Long-billed Crombec		
<i>Eremomela icteropygialis</i>	Yellow-bellied Eremomela		
<i>Eremomela gregalis</i>	Karoo Eremomela		Endemic
<i>Eremomela usticollis</i>	Burnt-necked Eremomela		
<i>Turdoides bicolor</i>	Southern Pied Babbler		Endemic
<i>Parisoma layardi</i>	Layard's Tit-Babbler		Endemic
<i>Parisoma subcaeruleum</i>	Chestnut-vented Tit-Babbler		Near endemic
<i>Zosterops pallidus</i>	Orange River White-eye		Endemic
<i>Cisticola chiniana</i>	Rattling Cisticola		
<i>Cisticola rufilatus</i>	Tinkling Cisticola		
<i>Cisticola subruficapilla</i>	Grey-backed Cisticola		Near endemic
<i>Cisticola juncidis</i>	Zitting Cisticola		
<i>Cisticola jaridulus</i>	Desert Cisticola		
<i>Prinia flavicans</i>	Black-chested Prinia		
<i>Malcorus pectoralis</i>	Rufous-eared Warbler		Endemic
<i>Camaroptera brevicaudata</i>	Grey-backed Camaroptera		

<i>Calamonastes fasciolatus</i>	Barren Wren-Warbler	Near endemic
<i>Mirafra passerina</i>	Monotonous Lark	
<i>Mirafra africana</i>	Rufous-naped Lark	
<i>Mirafra fasciolata</i>	Eastern Clapper Lark	Near endemic
<i>Mirafra sabota</i>	Sabota Lark	
<i>Calendulauda africanoides</i>	Fawn-coloured Lark	Near endemic
<i>Pinarocorys nigricans</i>	Dusky Lark	
<i>Chersomanes albofasciata</i>	Spike-heeled Lark	Near endemic
<i>Certhilauda subcoronata</i>	Karoo Long-billed Lark	Endemic
<i>Eremopterix leucotis</i>	Chestnut-backed Sparrowlark	
<i>Eremopterix verticalis</i>	Grey-backed Sparrowlark	Near endemic
<i>Calandrella cinerea</i>	Red-capped Lark	
<i>Alauda starki</i>	Stark's Lark	Near endemic
<i>Monticola brevipes</i>	Short-toed Rock Thrush	
<i>Psophocichla litsitsirupa</i>	Groundscraper Thrush	
<i>Bradornis infuscatus</i>	Chat Flycatcher	Near endemic
<i>Melaenornis mariquensis</i>	Marico Flycatcher	Near endemic
<i>Muscicapa striata</i>	Spotted Flycatcher	
<i>Cercotrichas leucophrys</i>	White-browed Scrub-Robin	
<i>Cercotrichas paena</i>	Kalahari Scrub-Robin	
<i>Oenanthe monticola</i>	Mountain Wheatear	Near endemic
<i>Oenanthe pileata</i>	Capped Wheatear	
<i>Cercomela schlegelii</i>	Karoo Chat	Near endemic
<i>Cercomela familiaris</i>	Familiar Chat	
<i>Myrmecocichla formicivora</i>	Ant-eating Chat	Endemic
<i>Onychognathus nabouroup</i>	Pale-winged Starling	Near endemic
<i>Lamprotornis nitens</i>	Cape Glossy Starling	
<i>Lamprotornis australis</i>	Burchell's Starling	
<i>Cinnyricinclus leucogaster</i>	Violet-backed Starling	
<i>Creatophora cinerea</i>	Wattled Starling	
<i>Chalcomitra senegalensis</i>	Scarlet-chested Sunbird	
<i>Nectarinia fusca</i>	Dusky Sunbird	Near endemic
<i>Cinnyris mariquensis</i>	Marico Sunbird	
<i>Bualornis niger</i>	Red-billed Buffalo-Weaver	

<i>Sporopipes squamifrons</i>	Scaly-feathered Finch	Near endemic
<i>Plocepasser mahali</i>	White-browed Sparrow-Weaver	
<i>Philetairus socius</i>	Sociable Weaver	Endemic
<i>Ploceus intermedius</i>	Lesser Masked-Weaver	
<i>Ploceus velatus</i>	Southern Masked-Weaver	
<i>Ploceus rubiginosus</i>	Chestnut Weaver	
<i>Quelea quelea</i>	Red-billed Quelea	
<i>Euplectes orix</i>	Southern Red Bishop	
<i>Ortygospiza atricollis</i>	African Quailfinch	
<i>Amadina erythrocephala</i>	Red-headed Finch	Near endemic
<i>Estrilda erythronotos</i>	Black-faced Waxbill	
<i>Estrilda astrild</i>	Common Waxbill	
<i>Granatina granatina</i>	Violet-eared Waxbill	
<i>Uraeginthus angolensis</i>	Blue Waxbill	
<i>Pytilia melba</i>	Green-winged Pytilia	
<i>Vidua macroura</i>	Pin-tailed Whydah	
<i>Vidua paradisaea</i>	Long-tailed Paradise-Whydah	
<i>Vidua regia</i>	Shaft-tailed Whydah	
<i>Passer domesticus</i>	House Sparrow	
<i>Passer motitensis</i>	Great Sparrow	Near endemic
<i>Passer melanurus</i>	Cape Sparrow	Near endemic
<i>Passer griseus</i>	Southern Grey-headed Sparrow	
<i>Motacilla aguimp</i>	African Pied Wagtail	
<i>Motacilla capensis</i>	Cape Wagtail	
<i>Anthus cinnamomeus</i>	African Pipit	
<i>Anthus vaalensis</i>	Buffy Pipit	
<i>Anthus similes</i>	Long-billed Pipit	
<i>Serinus alario</i>	Black-headed Canary	Endemic
<i>Crithagra atrogulariis</i>	Black-throated Canary	
<i>Serinus flaviventris</i>	Yellow Canary	Near endemic
<i>Serinus albogularis</i>	White-throated Canary	Near endemic
<i>Emberiza impetuanii</i>	Lark-like Bunting	Near endemic
<i>Emberiza tahapisi</i>	Cinnamon-breasted Bunting	
<i>Emberiza capensis</i>	Cape Bunting	Near endemic
<i>Emberiza flaviventris</i>	Golden-breasted Bunting	

Status – Southern Africa: “endemic” & “near endemic” (Hockey *et al.* 2006)

Status – Namibia: “endemic” (Brown *et al.* 1998); “endangered” & “near threatened” (Simmons & Brown 2009)

Source for literature review: Brown *et al.* (1998), Hockey *et al.* (2006), Komen (n.d.), Maclean (1985) & Tarboton (2001).

Although Namibia’s avifauna is comparatively sparse compared to the high rainfall equatorial areas elsewhere in Africa, approximately 658 species have already been recorded with a diverse and unique group of arid endemics (Brown *et al.* 1998, Maclean 1985). Fourteen species of birds are endemic or near endemic to Namibia with most Namibian endemics occurring in the savannas (30%), of which ten species occur in a north-south belt of dry savannah in central Namibia (Brown *et al.* 1998).

Bird diversity is viewed as “high” in the general Windhoek area with >230 species estimated and 6-7 species being endemic (Mendelsohn *et al.* 2000). Simmons (1998a) suggests 4-6 endemic species and a “high” ranking for southern African endemics and “average” ranking for red data birds expected from the general area. Although the Windhoek area is not classified as an Important Birding Area (IBA) in Namibia (Simmons 1998a) the closest such sites are located at the coast – e.g., Sandwich, Walvis Bay, etc. – Naukluft and Hardap dams, all approximately 300 km from Windhoek, central Namibia.

At least 209 species of terrestrial [“breeding residents”] birds occur and/or could occur in the general Windhoek area at any time (Hockey *et al.* 2006, Maclean 1985, Tarboton 2001). All the migrant and aquatic species have been excluded here. Ten of the 14 Namibian endemics are expected to occur in the general area (71.4% of all Namibian endemic species or 4.8% of all the species expected to occur in the area).

Sixty one species (29.2% of all the birds expected) have a southern African conservation rating with 13 species classified as endemic (21.3% of southern African endemics or 6.2% of all the birds expected) and 48 species classified as near endemic (78.7% of southern African endemics or 23% of all the birds expected) (Hockey *et al.* 2006).

The most important birds are viewed as the endemic species, especially Monteiro’s & Damara Hornbills, Rüppell’s Parrot, Rüppell’s Korhaan as well as the larger raptors of conservation concern – e.g., Tawny, Martial & Verreaux’s Eagles. None of the species are exclusively associated with the area.

Important Species and Areas

The high proportion of endemics – 10 of the 14 endemics to Namibia (i.e., 71% of all endemics) – expected to occur in the general Windhoek area underscore the importance of this area. Furthermore 21% are classified as southern African endemics (or 6% of all the birds expected) and 79% are classified as southern African near-endemics (or 23% of all the birds expected). The most important species known/expected – although not exclusively associated with the proposed development area – are viewed as Monteiro’s & Damara Hornbills, Rüppell’s Parrot and Rüppell’s Korhaan as well as the larger raptors of conservation concern – e.g., Tawny, Martial & Verreaux’s Eagles – all of which breed in

the general area, but not exclusively associated with the area. None of the species are exclusively associated with the area.

Important Areas – “hotspot”

Mountainous and rocky features in the Highland Savannah are viewed as unique and often critical habitat to a variety of vertebrate fauna of concern – e.g., *Python anchietae* (endemic; insufficiently known; protected game; CITES Appendix II) & Verreaux’s Eagle (“Near Threatened”). Such habitats should be protected, especially isolated patches thereof, as these often have an “island” effect with a variety of rock and crevasse dwelling species dependent on these areas.

Ephemeral drainage lines with associated riparian habitat, especially bigger trees, and temporary pools (and/or perennial springs and seeps) are also viewed as important habitat for a variety of vertebrate fauna – e.g., bark roosting bats; South African Gallago; cavity nesting birds (Monteiros & Damara Hornbills and Rüppells Parrot), etc.

Conclusion (Avian Diversity)

Endemic birds are well represented in the general area (71% of all Namibian endemics) which also includes a high proportion of southern African endemics (6%) and near-endemics (23%). The most problematic species are probably Monteiros & Damara Hornbills, Rüppells Parrot and Rüppells Korhaan as well as some of the larger raptors (e.g., Tawny, Martial & Verreaux’s Eagles), especially species which breed along the ephemeral drainage lines and adjacent rocky areas.

Important habitats – i.e., “hotspot” areas – are viewed as rocky ridges, hills, mountains and ephemeral drainage lines with associated riparian vegetation (especially bigger trees) with temporary pools, seeps, fountains, etc.

Portion F of Portion 7 of Farm Klein Okapuka No. 51 is generally sloping in a northeasterly direction towards the Klein Windhoek River. The area lies in northward extension of the Windhoek Valley with elevated areas to the east and west. The Klein Windhoek River, a tributary of the Swakop River, flows northward through the area and several west flowing smaller tributaries emanates from the highlands and joins the Klein Windhoek River. No rocky ridges, mountains and ephemeral drainage lines with associated riparian vegetation (especially bigger trees) with temporary pools, seeps, fountains have been observed on the site. Due to this gradual topography as well as the sparse cover in vegetation, a relatively small diversity of Avian Species is observed on the site.

The following are general images of a typical 11kV line (like the one to be constructed), the project site where bird interaction could lead to potential impacts:



Figure 22: Potential Harm to Avifauna

Data on the avifauna and electricity interactions shows some species in the project area may be affected as follows:

Powerline & Bird Interactions

Red Data Species and nest-problem species (1820BB) - at most 15 species have been found to be affected by electricity infrastructure in the project area. The transmission line to be constructed between the NamPower Booster Station and the abattoir will have an impact. The lines will be visible (fitted with bird flight divertors) to prevent birds from flying into the lines.

Potential impacts arising from habitat damage

The following birds are either present or moving through the project area: African Fish-Eagle (V), African Marsh-Harrier (E), African Skimmer (V), Bateleur (E), Black-winged Pratincole (NT), Lappet-faced Vulture (V), Marabou Stork (NT), Martial Eagle (E), Rufous-bellied Heron (E), Tawny Eagle (E), White-backed Vulture (E) and White-headed Vulture (V) (Chris Brown). The habitats of these birds could be damaged by the proposed activities. Care should be taken to avoid damage to the habitats of these birds.

Faults caused by nests

Birds make nests on the lines which cause faults in the systems. Care should be taken to make sure birds avoid making nests on the lines. Various trees are in the area that can be used as structures for birds to make nests.



Figure 23: Structures that birds might use to build nests in

Mitigating interaction of birds & power grids

Powerlines are one of the major causes of unnatural deaths for birds. Electricity transmission lines, conductors and towers causes injury and death to bird species. The risks should be minimized in the short and long term to prevent bird populations from being reduced.

To lower the risk of injury and death of birds, it is proposed that the following practices be considered and implemented during the planning and construction of the powerline:

- A steel perching bar for birds could be considered for some of the key poles (e.g., every third pole), including the bend points. This horizontal bar should be >500 mm long, and fitted onto the top of each pole, 220 mm above the pole top.
- A standard mitigation for electrocutions on wooden power line poles is to "gap" the earth wire near the top of the pole, i.e., the earth wire on each power line pole should stop at least 300 mm below the lowest phase to provide an air space safety gap, to reduce the electrocution risk.

- Transformer/switchgear structures should be designed in such a way that they are not attractive as bird perches/nesting sites; selected live components should be insulated (e.g., using PVC piping or LDPE pipe). A steel perching bar could also be included, above the highest point.
- On strain structures where "jumper" wires are used, at least the centre jumper should be insulated, using PVC piping or LPDE pipe. Jumpers should be offset where possible.
- The stay wires should also be "gapped" using an insulator.
- The need for regular ongoing monitoring and for reporting power line incidents should be stressed, and reporting procedures clarified.
- Any sections that subsequently still prove to be problematic in terms of either electrocutions or collisions should be retro mitigated, by way of adaptive management. For collisions, the Viper Live Bird Flapper ("Viper") could be considered as a mitigation.

Potential impacts

Potential impacts from the development may be summarised as follows:

- Physical/human disturbance of birds, including noise and light disturbance
 - Rated as LOW-VERY LOW, and INSIGNIFICANT post-mitigation
- Direct and indirect modification/loss/destruction of bird habitat
 - Rated as LOW, and VERY LOW post-mitigation
- Bird collisions with power line infrastructure
 - Rated as MEDIUM-HIGH, and MEDIUM-LOW post-mitigation
- Bird electrocutions on power line infrastructure
 - Rated as MEDIUM, and LOW post-mitigation
- Attraction of birds to novel habitats through the artificial provision of scarce resources
 - Rated as MEDIUM; no mitigation recommended, but adaptive management is required.

Cumulative impacts are an important consideration.

Mitigation and monitoring

Mitigation measures are aimed at avoiding, minimising or rehabilitating negative impacts or enhancing potential benefits. As the main potential impacts identified are bird collisions and electrocutions on power line structures, it is believed that these risks can be reduced by appropriate mitigation.

Recommended measures include the marking of more sensitive sections of power line with bird flight diverters to increase visibility, at identified sites and according to a specified design. Standard mitigations against electrocution are also recommended, including the insulation of live components.

Recommendations are made to reduce the impacts of physical disturbance to birds, and the destruction/modification of bird habitats, as well as road mortality and poaching of birds during the construction of the power lines.

Detailed monitoring initiatives are recommended that should be conducted by the proponent, with the support of landowners/managers and other partners.

Conclusion on impact on avifauna

Green Earth Environmental Consultants are of the opinion that the impact on birds of the $\pm 3\text{km}$ 11kV line to be constructed will be low if mitigated as proposed. The reasons mentioned above are in support of that.

11.3. SENSE OF PLACE

The proposed development will not have a large/negative impact on the sense of place in the area. The site is located in an area where similar activities are in operation and the activity will blend in with the current character of the area. However, an untidy or badly managed site can detract from the ecological well-being and individuality of the area. Unnecessary disturbance to the surroundings could be caused by poorly planned or poorly managed operational activities. The project site should be kept neat and clean where possible. Vegetation should not be removed or harmed if not necessary since it covers topsoil which prevents erosion. Noise and dust should be limited because of the neighbouring activities.

11.4. GEOLOGY AND SOILS

Farm Okapuka is located in the Khomas Trough on a geological area classified as Damara Supergroup and Gariiep Complex. The surface geology of the area also consists of formations of Damara granite intrusions. See *Map* below showing the geology:

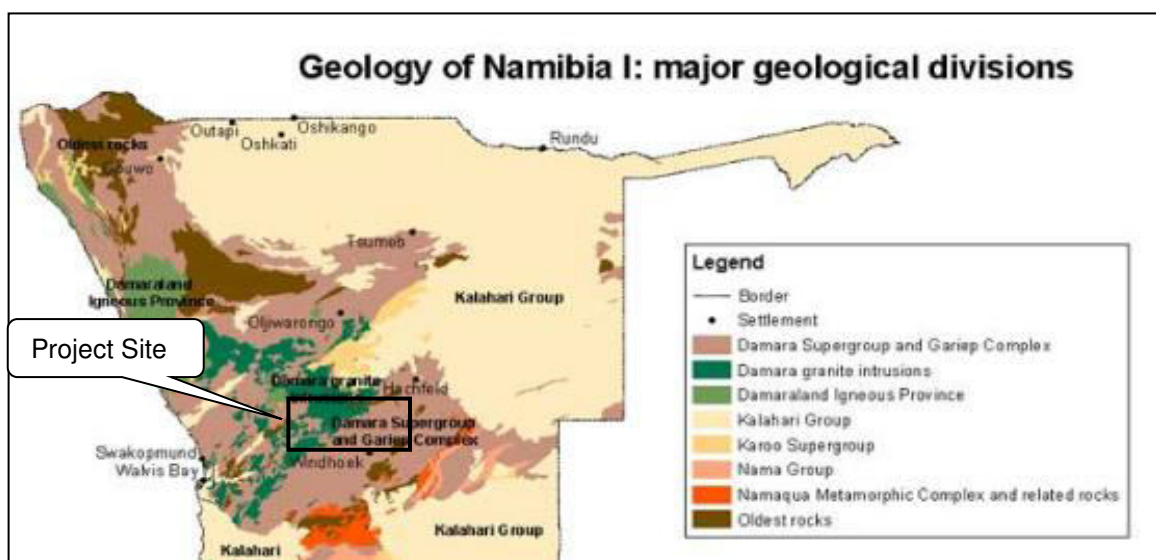


Figure 24: Geology of Namibia (Atlas of Namibia Project, 2002)

The Khomas Trough was formed during sedimentation of the Late Proterozoic Damara Sequence. The basin that was filled by a thick sequence, now preserved as metagreywackes and pelites of the Kuiseb Formation, which were subsequently multiply deformed and thrust during the Damaran Orogeny. Minor lithologies included are graphite schists, calc-silicates and scapolite schists (*Grunert, 2003*).

The project site is generally even with some higher areas at places. Natural slopes are seen near natural drainage courses on the project site. The soil is suitable for development however the soil is also erodible and should not be cleared unnecessarily from vegetation if not required for the placement of buildings or roads. Unnecessary clearing of soil will lead to erosion (*Grunert, 2003*).

11.5. SOCIO ECONOMIC ENVIRONMENT

The majority of land uses around the project site are characterized by industrial, commercial and farming activities; therefore, the development will not have a negative impact on the social environment.

The activities of Kitai Abattoir will have a positive impact on the socio-economic environment. Positive impacts associated with the project will be in the form of additional job opportunities during construction as well as in operation. The community will also benefit from skills and technology transfer. The spending power of locals is likely to increase because of employment during the construction and operational phase.

11.6. CLIMATE

In broad terms, the climate can be described as semi-arid, with summer rainfalls and highest temperatures occurring during October and February. Maximum temperatures recorded in the area vary just under 40 degrees Celsius with an average annual temperature of 18 - 20 degrees Celsius (*Weather - the Climate in Namibia, 1998 – 2012*).

Rainfall in the form of thunderstorms is experienced in the area during the summer months between October and April. It is further characterised by relatively high average mean annual rainfall of 350 - 400mm in comparison to 250mm for the entire country. Over 70% of the rainfall occurs in the period between November and March with mean annual gross evaporation of 2600-2800mm (*Weather - the Climate in Namibia, 1998 – 2012*).

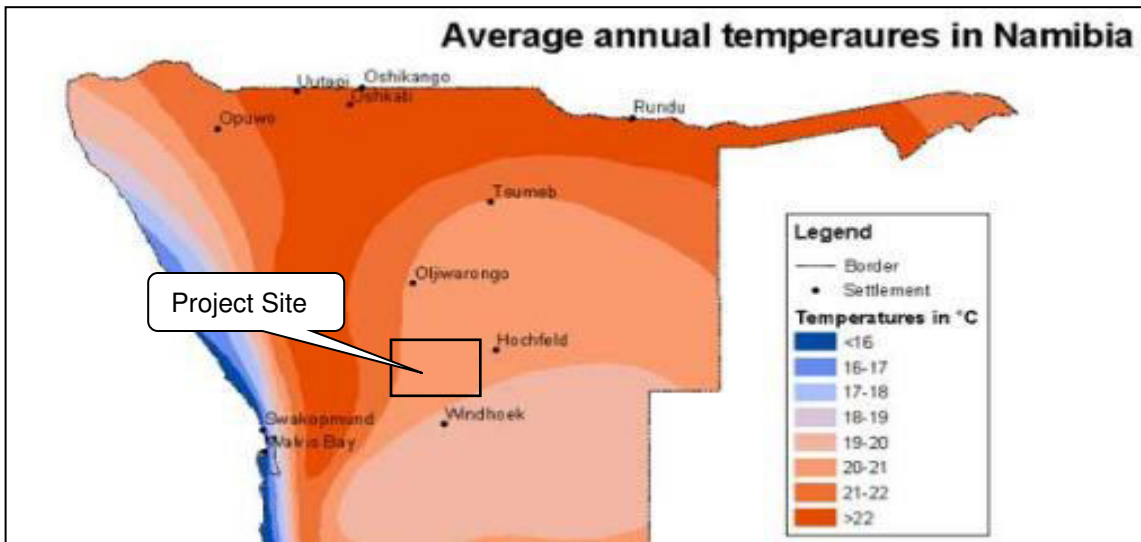


Figure 25: Average temperatures (Atlas of Namibia Project, 2002)

11.7. CULTURAL HERITAGE

The proposed project site is not known to have any historical significance prior to or after Independence in 1990. The specific area does not have any National Monuments and the specific site has no record of any cultural or historical importance or on-site resemblance of any nature. No graveyard or related article was found on the site.

12. IMPACT ASSESSMENT AND EVALUATION

The Environmental Impact Assessment Renewal sets out potential positive and negative environmental impacts associated with the project site. The following assessment methodology will be used to examine each impact identified, see *Table* below:

Table 4: Impact Evaluation Criterion (DEAT 2006)

Criteria	Rating (Severity)	
Impact Type	+	Positive
	O	No Impact
	-	Negative
Significance of impact being either	L	Low (Little or no impact)
	M	Medium (Manageable impacts)
	H	High (Adverse impact)

Probability:	Duration:
5 – Definite/don't know	5 - Permanent
4 – Highly probable	4 – Long-term (impact ceases)
3 – Medium probability	3 – Medium term (5 – 15 years)
2 – Low probability	2 – Short-term (0 – 5 years)
1 – Improbable	1 - Immediate
0 - None	
Scale:	Magnitude:
5 – International	10 – Very high/don't know
4 – National	8 - High
3 – Regional	6 - Moderate
2 – Local	4 - Low
1 – Site only	2 - Minor
	0 - None

The impacts on the receiving environment are discussed in the paragraphs below:

12.1. IMPACTS DURING THE CONSTRUCTION ACTIVITY

Some of the impacts that the development will have on the environment includes water will be used for the construction and operation activities, electricity will be used, a sewer system will be constructed and wastewater will be produced on the site that will have to be handled.

12.1.1. WATER USAGE

Water is a scarce resource in Namibia and therefore water usage should be monitored and limited in order to prevent unnecessary wastage. The proposed project might make use of water in its construction phase and operations.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Water	-	2	2	4	2	L	L

12.1.2. ECOLOGICAL IMPACTS

The proposed infrastructure will be constructed in a semi disturbed natural area which is partly covered with vegetation. Special care should be taken to limit the destruction or damage of the vegetation. However, impacts on fauna and flora are expected to be minimal. Disturbance of areas outside the designated working zone is not allowed.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Ecology	-	1	2	4	2	L	L

12.1.3. DUST POLLUTION AND AIR QUALITY

Dust generated during the transportation of building materials; construction and installation of bulk services, and problems thereof are expected to be low and site specific. Dust is expected to be worse during the winter months when strong winds occur. Release of various particulates from the site during the construction phase and exhaust fumes from vehicles and machinery related to the construction of bulk services are also expected to take place. Dust is regarded as a nuisance as it reduces visibility, affects the human health and retards plant growth. It is recommended that regular dust suppression be included in the construction activities, when dust becomes an issue.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-	2	2	2	2	M	L

12.1.4. NOISE IMPACT

An increase of ambient noise levels at the proposed site is expected due to the construction activities. Noise pollution due to heavy-duty equipment and machinery might be generated. It is not expected that the noise generated during construction will impact any third parties due to the distance of the neighbouring activities. Ensure all mufflers on vehicles are in full operational order; and any audio equipment should not be played at levels considered intrusive by others. The construction staff should be equipped with ear protection equipment.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Noise	-	2	1	4	2	M	L

12.1.5. HEALTH, SAFETY AND SECURITY

The safety, security and health of the labour force, employees and general public are of great importance. Workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Personal Protective Equipment). A health and safety officer should be employed to manage, coordinate and monitor risk and hazard and report all health and safety related issues in the workplace.

Safety issues could arise from the earthmoving equipment and tools that will be used on site during the construction phase. This increases the possibility of injuries and the contractor must ensure that all staff members are made aware of the potential risks of injuries on site. The presence of equipment lying around on site may also encourage criminal activities (theft).

Sensitize operators of earthmoving equipment and tools to switch off engines of vehicles or machinery not being used. The contractor is advised to ensure that the team is equipped with first aid kits and that these are available on site, at all times. Workers should be equipped with adequate personal protective gear and properly trained in first aid and safety awareness.

No open flames, smoking or any potential sources of ignition should be allowed at the project location. Signs such as 'NO SMOKING' must be prominently displayed in parts where inflammable materials are stored on the premises. Proper barricading and/or fencing around the site especially trenches for pipes and drains should be erected to avoid entrance of animals and/or unauthorized persons. Safety regulatory signs should be placed at strategic locations to ensure awareness. Adequate lighting within and around the construction locations should be erected, when visibility becomes an issue.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Safety & Security	-	1	2	4	2	M	L

12.1.6. CONTAMINATION OF GROUNDWATER

Care must be taken to avoid contamination of soil and groundwater. Use drip trays when doing maintenance on machinery. Maintenance should be done on dedicated areas with linings or concrete flooring. The risk can be lowered further through proper training of staff. All spills must be cleaned up immediately. Excavations should be backfilled and sealed with appropriate material, if it is not to be used further.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Groundwater	-	2	2	2	2	M	L

12.1.7. SEDIMENTATION AND EROSION

The surrounding area is partly covered by vegetation. The vegetation is stabilizing the area against wind and water erosion. Vegetation clearance and creation of impermeable surfaces could result in erosion in areas across the proposed area. The clearance of vegetation will further reduce the capacity of the land surface to slow down the flow of surface water, thus decreasing infiltration, and increasing both the quantity and velocity of surface water runoff. The proposed construction activities will increase the number of impermeable surfaces and therefore decrease the amount of groundwater infiltration. As a result, the amount of storm water during rainfall events could increase. If proper storm water management measures are not implemented this will impact negatively on the water courses close to the site.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Erosion and Sedimentation	-	1	2	4	2	M	L

12.1.8. GENERATION OF WASTE

This can be in a form of rubble, cement bags, pipe and electrical wire cuttings. The waste should be gathered and stored in enclosed containers to prevent it from being blown away by the wind. Contaminated soil due to oil leakages, lubricants and grease from the construction equipment and machinery may also be generated during the construction phase.

The oil leakages, lubricants and grease must be addressed. Contaminated soil must be removed and disposed of at a hazardous waste landfill. The contractor must provide containers on-site, to store any hazardous waste produced. Regular inspection and housekeeping procedure monitoring should be maintained by the contractor.

The Proponent intends to appoint and contract specialist waste managers to collect and dispose of the waste generated on the site. The proponent must ensure that the subcontractors complied with the applicable Namibian Legislation, Policies and Practices.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Waste	-	1	2	4	2	M	L

12.1.9. CONTAMINATION OF SURFACE WATER

Contamination of surface water might occur through oil leakages, lubricants and grease from the equipment and machinery during the installation, construction and maintenance of bulk services at the site. Oil spills may form a film on water surfaces in the nearby streams causing physical damage to water-borne organisms.

Machinery should not be serviced at the construction site to avoid spills. All spills should be cleaned up as soon as possible. Hydrocarbon contaminated clothing or equipment should not be washed within 25m of any surface water body.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Surface water	-	2	2	4	3	M	L

12.1.10. TRAFFIC AND ROAD SAFETY

All drivers of delivery vehicles and construction machinery should have the necessary driver's licenses and documents to operate these machines. Speed limit warning signs must be erected to minimise accidents. Heavy-duty vehicles and machinery must be tagged with reflective signs or tapes to maximize visibility and avoid accidents.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Traffic	-	2	2	4	3	M	L

12.1.11. FIRES AND EXPLOSIONS

There should be sufficient water available for firefighting purposes. Ensure that all fire-fighting devices are in good working order and are serviced. All personnel have to be trained about responsible fire protection measures and good housekeeping such as the removal of flammable materials on site. Regular inspections should be carried out to inspect and test firefighting equipment by the contractor.

The Proponent will put in the necessary fire protection infrastructure / extinguishers as per requirements. It is advised that a specialist Fire Protection Specialist is contracted to

introduce a proper fire protection plan with the required infrastructure and to oversee the annual auditing and maintenance of the infrastructure.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Fires and Explosions	-	2	2	4	2	M	L

12.1.12. SENSE OF PLACE

The placement, design and construction of the proposed project should be as such as to have the least possible impact on the natural environment. The proposed activities will not have a large/negative impact on the sense of place in the area since it will be constructed in a manner that will not affect the neighbouring portions and it will not be visually unpleasing.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Nuisance Pollution	-	1	1	2	2	L	L

12.2. IMPACTS DURING THE OPERATIONAL PHASE

12.2.1. ECOLOGICAL IMPACTS

Staff and visitors should only make use of walkways and existing roads to minimise the impact on vegetation. Minimise the area of disturbance by restricting movement to the designated working areas during maintenance and drives.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Ecology Impacts	-	1	2	4	2	M	L

12.2.2. DUST POLLUTION AND AIR QUALITY

Vehicles transporting goods and staff will contribute to the release of hydrocarbon vapours, carbon monoxide and sulphur oxides into the air. Possible release of sewer odour, due to sewer system failure or maintenance might also occur. All maintenance of bulk services and infrastructure at the project site has to be designed to enable environmental protection.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-	2	2	4	4	M	L

12.2.3. CONTAMINATION OF GROUNDWATER

Spillages might also occur during maintenance of the sewer system. This could have impacts on groundwater especially in cases of large sewer spills. Proper containment should be used in cases of sewerage system maintenance to avoid any possible leakages. Oil and chemical spillages may have a health impact on groundwater users. Potential impact on the natural environment from possible polluted groundwater also exists.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Groundwater contamination	-	2	2	4	2	M	L

12.2.4. GENERATION OF WASTE

Household waste from the activities at the site and from the staff working at the site is generated. This waste is collected, sorted to be recycled and stored in on site for transportation and disposal at an approved landfill site.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Waste Generation	-	1	2	2	2	M	L

12.2.5. FAILURE IN RETICULATION PIPELINES

There may be a potential release of sewage, stormwater or water into the environment due to pipeline/system failure. As a result, the spillage could be released into the environment and could potentially be health hazard to surface and groundwater. Proper reticulation pipelines and drainage systems should be installed. Regular bulk services infrastructure and system inspection should be conducted.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Failure of Reticulation Pipeline	-	1	1	4	2	M	L

12.2.6. FIRES AND EXPLOSIONS

There should be sufficient water available for firefighting purposes. Ensure that all firefighting devices are in good working order and are serviced. All personnel have to be trained about responsible fire protection measures and good housekeeping such as the removal of flammable materials on site. Regular inspections should be carried out to inspect and test firefighting equipment by the contractor.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Fires and Explosions	-	2	1	4	2	M	L

12.2.7. HEALTH, SAFETY AND SECURITY

The safety, security and health of the labour force, employees and neighbours are of great importance, workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Personal Protective Equipment). Workers should be warned not to approach or chase any wild animals occurring on the site. No open flames, smoking or any potential sources of ignition should be allowed at the project location. Signs such as 'NO SMOKING' must be prominently displayed in parts where inflammable materials are stored on the premises.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Safety & Security	-	1	2	4	2	M	L

12.3.CUMULATIVE IMPACTS

These are impacts on the environment, which results from the incremental impacts of the construction and operation of the development when added to other past, present, and reasonably foreseeable future actions regardless of which person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. In relation to an activity, it means the impact of an activity that in it may not become significant when added to the existing and potential impacts resulting from similar or diverse activities or undertakings in the area.

Possible cumulative impacts associated with the proposed construction include: sewer damages/maintenance, uncontrolled traffic and destruction of the vegetation or the environment. These impacts could become significant especially if it is not properly supervised and controlled. This could collectively impact on the environmental conditions in the area. Cumulative impacts could occur in both the operational and the construction phase.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Cumulative Impacts	-	2	3	4	2	M	L

13. CONCLUSION

In line with the Environmental Management Act (No 7 of 2007), *Green Earth Environmental Consultants* have been appointed to conduct an Environmental Impact Assessment to construct and operate a cattle abattoir on a 5ha portion (Portion F) of Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region.

Negative impacts that can be associated with the development are most likely to include: production of solid waste, dust emissions, atmospheric emissions, noise pollution, movement of soils, increased wastewater generation, the disruption of groundwater from the foundation or other structures, can result in an increase in traffic on the nearby roads and there can be an impact on the occupational health and safety of workers. However, this project is believed to be an asset to this area. Facilities and employment were made available for which there is a need.

After assessing all information available on this project, *Green Earth Environmental Consultants* believe that the development was required.

14. RECOMMENDATION

It is therefore recommended that the Ministry of Environment, Forestry and Tourism through the Environmental Commissioner support and approve the Environmental Clearance to construct and operate a cattle abattoir on a 5ha portion (Portion F) of Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region and for the following listed activities:

WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES

- *The construction of facilities for waste sites, treatment of waste and disposal of waste.*
- *Any activity entailing a scheduled process referred to in the Atmospheric Pollution Prevention Ordinance, 1976.*

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

FORESTRY ACTIVITIES

The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

The construction of facilities for –

- *The generation of electricity.*
- *The transmission and supply of electricity.*

INFRASTRUCTURE

10.1 The construction of

- (a) oil, water, gas and petrochemical and other bulk supply pipelines;*
- (b) public roads;*

10.2 The route determination of roads and design of associated physical infrastructure where:

- (a) it is a public road;*
- (b) the road reserve is wider than 30 meters;*
- (c) the road caters for more than one lane of traffic in both directions.*

HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE

- *The storage and handling of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.*
- *Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.*

LIST OF REFERENCES

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Forestry Act, 2001. *Office of the Prime Minister*. Windhoek. Namibia, pp. 9 – 31.

Mannheimer, C. & Curtis, B. 2009. *Le Roux and Muller's Guide to the Trees & Shrubs of Namibia*. Windhoek: Macmillan Education Namibia, pp. 249 – 439.

Namibian Environmental Assessment Policy, 1995. *Ministry of Environment, Forestry and Tourism*. Windhoek. Namibia, pp. 3 – 7.

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Soil Conservation Act, 1969. *Office of the Prime Minister*. Windhoek. Namibia, pp. 1 – 14.

Water Resource Management Act, 2004. *Office of the Prime Minister*. Windhoek. Namibia, pp. 6 – 67.

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REPUBLIC OF NAMIBIA MINISTRY OF INDUSTRIALISATION AND TRADE, LIQUOR ACT, 1998
NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998 (REGULATIONS 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region: OSHANA

LIQUIDATION AND DISTRIBUTION ACCOUNT IN DECEASED ESTATE LYING FOR INSPECTION
In terms of section 35(5) of Act 66 of 1965, notice is hereby given that copies of the liquidation and distribution accounts (first and final, unless otherwise stated) in the estates specified below will be open for inspection of all persons interested therein for a period of 21 days (or longer if specially stated) from the date of publication hereof, whichever may be later, and at the offices of the Master's and Magistrate's as stated. Should no objections thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make a payment in accordance with the accounts.

CHANGE OF SURNAME - THE ALIENS ACT, 1937
NOTICE OF INTENTION OF CHANGE OF SURNAME
I, (1) IMMANUEL HILALIA PENEHAFO N., residing at OHAMUTJI, ETAYI, OMUSATI and carrying on business / employed as a (2) STUDENT intend applying to the Minister of Home Affairs for authority under section 9 of the Aliens Act, 1937, to assume SHAPANGE for the reasons that (3) BECAUSE SHAPANGE IS MY FATHER'S SURNAME AND MY MOTHER GAVE ME MY UNCLE'S NAME, I previously bore the name(s) (4) IMMANUEL. I intend also applying for authority to change the surname of my wife N/A and minor child(ren) (5) to N/A. Any person who objects to my/or our assumption of the said surname of HILALIA PENEHAFO NDAMANGULU SHA-PANGE should as soon as my I lodge his/her objection, in writing, with a statement of his/her reasons therefor, with the magistrate of WINDHOEK MAGISTRATE COURT, 25 MARCH 2024

FOR CLASSIFIEDS
061-2080800

REZONING NOTICE
PLEASE NOTE THAT NAMAND TOWN AND REGIONAL PLANNING & ENVIRONMENTAL MANAGEMENT CONSULTANTS, on behalf of the owner of Erf 1075, Usab, intends to apply to the Omaruru Municipal Council for:
• Rezoning of Erf 1075, Omaruru from single residential dentist 1500 to general business with bulk of 1
• Consent to commence development while the rezoning is being finalized.
Erf 1075 is a 3275 m² Single Residential zoned erf, located in Frank Street in Omaruru. The area which the erf is located is predominantly residential. The erf is bounded by Erf 150 and southern street (175) and the erf 293 on its northern side.
The erf is 3275 in extent and zoned 'single residential with a density of 1500'. The proposed new zoning will allow the owners to operate the main shop. Access to the proposed erf will be obtained from the existing entrance. Parking will be provided in accordance with the requirements of the Omaruru Town Planning Scheme.
Note that the locality plan of the erf lies for inspection on the Town Planning Notice Board at the 300c Centre.
Further take note that any person objecting to the proposed use of land set out above may lodge such objection, together with the grounds thereof, with the Omaruru Municipality and with the applicant in writing within 14 days after the appearance of the last notice (final date for objections is Date 30 May 2023).
Applicant:
NamLand Town and Regional Planning & Environmental Management Consultants
PO Box 98234
Pelican Square, Windhoek
Contact details:
Cell: 0812343637/0812795499

PUBLIC NOTICE

Please take note that Kamau Town Planning and Development Specialists has been appointed by the owner of Erf 3452 Windhoek, to apply to the City of Windhoek and the Urban and Regional Planning Board for the:

* **REZONING OF ERF 3452, WINDHOEK FROM 'RESIDENTIAL' WITH A DENSITY OF 1500 TO HOSPITALITY**
* **CONSENT TO USE ERF 3452, WINDHOEK FOR AN ACCOMMODATION ESTABLISHMENT (GUEST HOUSE) WITH 9 BEDROOMS**
In terms of the City of Windhoek Town Planning Scheme and Part 2, Section 105 of the Urban and Regional Planning Act 5 of 2018, Erf 3452 Windhoek is currently zoned 'Residential' with a density of 1500. The erf is located along Johann Albrecht Street, Windhoek and measures 1.237sqm in extent.
In order to maximize the development potential of the property, the owners of Erf 3452 Windhoek intend to rezone the property from 'Residential' with a density of 1500sqm to Hospitality and consent to operate a guest house that -
(a) For more enquiries regarding the rezoning application, visit the City of Windhoek's Department of Planning
(b) any person having objections to the rezoning concerned or who wants to comment, may in writing lodge such objections and comments, together with the grounds, with the Chief Executive Officer of the City of Windhoek, and with the applicant within 14 days of the last publication of this notice, i.e. no later than 2 May 2024.

NOTICE TO CREDITORS AND DEBTORS IN DECEASED ESTATES
Estate of the Late: Katrina Bock
Estate Number: E 369/2024
Date of Birth: 12 May 1941
Date of Death: 09 April 2019
Last Address: Erf No. Rehoboth A 446
All persons having claims against the estate specified above are called upon to lodge their claims with the Executor concerned within a period of 30 (thirty) days from the date of publication hereof.
Joan Jacqueline Bock
Agent for Executors
V T Van Wyk Attorneys
Hebron House
Plot 129, Block A
PO Box 4953
Rehoboth
Tel: 062-523337

NOTICE TO CREDITORS AND DEBTORS IN DECEASED ESTATES
Estate of the Late: Piet Bock
Estate Number: E 265/2024
Date of Birth: 14 June 1938
Date of Death: 12 October 2021
Last Address: Erf No. Rehoboth A 446
All persons having claims against the estate specified above are called upon to lodge their claims with the Executor concerned within a period of 30 (thirty) days from the date of publication hereof.
Joan Jacqueline Bock
Agent for Executors
V T Van Wyk Attorneys
Hebron House
Plot 129, Block A
PO Box 4953
Rehoboth
Tel: 062-523337

REPUBLIC OF NAMIBIA MINISTRY OF INDUSTRIALISATION AND TRADE, LIQUOR ACT, 1998
NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998 (REGULATIONS 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region: OSHANA

- Name and postal address of applicant: JOHANNES JESAYA PO BOX 1576, OSHAKATI
- Name of business or proposed business to which application relates: KATEMA FALLERANDE
- Address/Location of premises to which application relates: PLOT NO. 1662 OSHIKANGO, OSHAKATI
- Nature and details of application: SHEREEN LIQUOR LICENSE
- Clerk of the court with whom application will be lodged: OSHAKATI MAGISTRATE COURT
- Date on which application will be lodged: 08 MAY 2024
- Date of meeting of Committee at which application will be heard: 08 MAY 2024

Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

CASE NO: 63/2023
IN THE MAGISTRATE'S COURT FOR THE DISTRICT OF GROOTFONTEIN HELD AT GROOTFONTEIN
In the matter between: GERMAINA NAMALENGA
PLAINTIFF

MICHAEL NAIKAB DEFENDANT
NOTICE OF SALE IN EXECUTION
Pursuant to a Judgement granted by the above Honorable Court, the following goods will be sold in execution by public auction on **FRIDAY, 05 MAY 2024 AT 13H00** in front of the **MAGISTRATE'S COURT, GROOTFONTEIN, REPUBLIC OF NAMIBIA**, namely:
1x ELECTRICAL STOVE
2x DOUBLE BED
1x HOT PLATE
1x WASHING MACHINE (white in colour)
2x TABLE KITCHEN
1x TV (color in colour, old model)
1x ROBE
TERMS: CASH to the highest bidder.
Dated at 'T'SUERM 03RD day OF APRIL 2024.

Maronel du Plessis Legal Practitioner
Erf 515, Corner of Sam Nujoma and Ndikumana Cultural Troupe Streets, Suispan
Tel: 057 227 694
Fax: 057 227 697
(SANL/OJ39)

CHANGE OF SURNAME - THE ALIENS ACT, 1937
NOTICE OF INTENTION OF CHANGE OF SURNAME
I, (1) ELIZABETH MARUFU residing at 839 KAJIKO STREET, GREENWELL, WINDHOEK and carrying on business / employed as a (2) UNEMPLOYED intend applying to the Minister of Home Affairs for authority under section 9 of the Aliens Act, 1937, to assume TINTINDA ANNA ELIAZEL AND MARIA TADIVANASHI ELIAZEL for the reasons that (3) IN OTHER LANGUAGES, THE SURNAME MARUFU IS VULGAR/OUSULTING, HENCE, AS A RESULT, THE CHILD IS BEING BULLIED AT SCHOOL. I previously bore the name(s) (4) N/A. Any person who objects to my/or our assumption of the said surname of TINTINDA ANNA MARUFU AND MARIA TADIVANASHI ELIAZEL, should as soon as my I lodge his/her objection, in writing, with a statement of his/her reasons therefor, with the magistrate of WINDHOEK MAGISTRATE COURT, 05 MARCH 2024

NOTICE OF INTENTION OF CHANGE OF SURNAME
I, (1) ELIZABETH NADAPONDULA THOMAS residing at 1 SCHLEITWEIN STREET 27, PIONEERSPARK, WINDHOEK and carrying on business / employed as a (2) N/A intend applying to the Minister of Home Affairs for authority under section 9 of the Aliens Act, 1937, to assume AMUTHENU for the reasons that (3) I WOULD LIKE TO CHANGE MY FULL BIRTH CERTIFICATE FROM THOMAS TO AMUTHENU. THOMAS IS MY GRANDFATHER'S NAME AND MY FATHER USED IT AS HIS SURNAME AND REGISTERED ME UNDER THOMAS, BUT OUR FAMILY SURNAME IS AMUTHENU. ALL MY DOCUMENTS BEARS AMUTHENU AS SURNAME. I previously bore the name(s) (4) THOMAS ELIZABETH NADAPONDULA. I intend also applying for authority to change the surname of my wife N/A and minor children (5) to N/A. Any person who objects to my/or our assumption of the said surname of AMUTHENU should as soon as my I lodge his/her objection, in writing, with a statement of his/her reasons therefor, with the magistrate of WINDHOEK MAGISTRATE COURT, 14 MARCH 2024



CALL FOR PUBLIC PARTICIPATION/COMMENTS ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN TO OBTAIN AN ENVIRONMENTAL CLEARANCE TO USE A PORTION OF PORTION 7 OF FARM KLEIN OKAPUKA NO. 51, WINDHOEK, KHOMAS REGION FOR A CATTLE ABATTOIR

Green Earth Environmental Consultants have been appointed to attend to and complete an Environmental Impact Assessment and Environmental Management Plan (EMP) to obtain an Environmental Clearance Certificate as per the requirements of the Environmental Management Act (No. 3 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) to use a portion of Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region for the construction and operation of a cattle abattoir.

Name of proponent: Kula Abattoir (Pty) Limited
Project location and description: It is the intention of the Proponent to construct and operate a Wagyu cattle abattoir on a portion of Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region. Wagyu beef is a premium beef marketed into specialist markets at a premium price to the normal beef produced in Namibia. It is intended to slaughter 20 animals per day (5000 per annum) which will eventually grow to 30 animals per day (9800 per annum). To enable the Proponent to continue with the activity on the proposed site, the farm will be subdivided to create a portion of 45ha upon which the abattoir will be constructed. To be able to continue with the activity, an Environmental Clearance must be obtained.

Interested and affected parties are hereby invited to register in terms of the assessment process to give input, comments, and opinions regarding the proposed project. A public meeting will be held if enough public interest is shown. Registered I&Ps will be notified of the date and venue of the public meeting.

The last date for comments and for registration is 26 April 2024. Contact details for registration and further information:
Green Earth Environmental Consultants
Contact Persons: Charlie Du Toit/Carien van der Walt
Tel: 0811273345
E-mail: caren@greenearthnamibia.com

REPUBLIC OF NAMIBIA MINISTRY OF INDUSTRIALISATION AND TRADE, LIQUOR ACT, 1998
NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998 (REGULATIONS 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region: OSHANA

- Name and postal address of applicant: ESSER PAWIA NAIKOSHOSH PO BOX 2369, OSHAKATI
- Name of business or proposed business to which application relates: ESSE WINES & RESTAURANT
- Address/Location of premises to which application relates: ERF 4992 CHICCO MALL, ONGWEDIVA
- Nature and details of application: RESTAURANT LIQUOR LICENSE
- Clerk of the court with whom application will be lodged: OSHAKATI MAGISTRATE COURT
- Date on which application will be lodged: 20 MARCH 2024
- Date of meeting of Committee at which application will be heard: 08 MAY 2024

Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

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CHANGE OF SURNAME - THE ALBERTA ACT - NOTICE OF INTENTION TO CHANGE OF SURNAME

CHANGENAMING

We Love Africa Foundation

(WIAF, Reg No of Company 27/2012/0594)

Is seeking for a suitably qualified **Field Manager** who is able to speak Kisanam with effect from **01 May 2024**.

WIAF wants the person having experience of Community Based Project for the vulnerable children. The applicant should stay and work mostly in Khomas Region, if accepted.

OMITO VILONGA

Online business opportunity

Notice

"LIQUIDATION AND DISTRIBUTION ACCOUNT IN DECEASED ESTATE LYING FOR INSPECTION"

Green Earth Environmental Consultants

CALL FOR PUBLIC PARTICIPATION/COMMENTS ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN TO OBTAIN AN ENVIRONMENTAL CLEARANCE TO USE A PORTION OF PLOTION 2 OF FARM 41 EN OSHAKATI NO. 51, WINDHOEK, KHOMAS REGION FOR A CATTLE ABATTOIR

NOTICE TO CREDITORS

ESTATE LATE PAULUS SWANUKE

NOTICE TO CREDITORS

ESTATE LATE PAULUS SWANUKE

Green Earth Environmental Consultants

CALL FOR PUBLIC PARTICIPATION/COMMENTS ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN TO OBTAIN AN ENVIRONMENTAL CLEARANCE TO USE A PORTION OF PLOTION 2 OF FARM 41 EN OSHAKATI NO. 51, WINDHOEK, KHOMAS REGION FOR A CATTLE ABATTOIR

KAUJURE RAUNGA ANNELY

IDENTITY NUMBER: 707180337

KAUJURE RAUNGA ANNELY

IDENTITY NUMBER: 707180337

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IDENTITY NUMBER: 707180337

KAUJURE RAUNGA ANNELY

IDENTITY NUMBER: 707180337

LIQUIDATION AND DISTRIBUTION ACCOUNT IN DECEASED ESTATE LYING FOR INSPECTION

ESTATE LYING FOR INSPECTION

30 DAY NOTICE

ESTATE OF THE

AGENT VANHEE-HANSEN TRUST

P.O. Box 1214, Windhoek

LIQUIDATION AND DISTRIBUTION ACCOUNT IN THE DECEASED ESTATE LYING FOR INSPECTION

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LIQUIDATION AND DISTRIBUTION ACCOUNT IN THE DECEASED ESTATE LYING FOR INSPECTION

ESTATE LYING FOR INSPECTION

Nambia Welding Building and Civil Works CC

Looking for a **Quantity Surveyor**

OMITO VILONGA

Online business opportunity

NOTICE TO CREDITORS

ESTATE LATE PAULUS SWANUKE

NOTICE TO CREDITORS

ESTATE LATE PAULUS SWANUKE

NOTICE TO CREDITORS

ESTATE LATE PAULUS SWANUKE

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30 DAY NOTICE

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LIQUIDATION AND DISTRIBUTION ACCOUNT IN THE DECEASED ESTATE LYING FOR INSPECTION

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LIQUIDATION AND DISTRIBUTION ACCOUNT IN THE DECEASED ESTATE LYING FOR INSPECTION


ESTATE LYING FOR INSPECTION

APPENDIX B: LIST OF INTERESTED AND AFFECTED PARTIES


Farm Name	Email address
Otjiseva No. 420 Hans-Dieter Wiss	otjiseva@mweb.com.na
Triangle No. 47 Hans-Dieter Wiss	otjiseva@mweb.com.na
Remainder of Monte Christo No. 46 Fritz Röthel	fritz.roethel@gmail.com
Portion 5 (a Portion of Portion A) of Klein Okapuka No. 51 Meatco Patric Liebenberg	pliebenberg@meatco.com.na
The Remainder Portion 135 of Farm Brakwater No. 48 Dirk Mudge	dirk@stone.com.na
Portion 159 (a Portion of Portion) Farm Brakwater No. 48 Dirk Mudge	dirk@stone.com.na
Portion 1 of B of Klein Okapuka No. 51 Anton Seabrooke	swillie@iafrica.com.na
Re / Portion A of Klein Okapuka No. 51 Anja Flachberger	anja.foxy14@gmail.com
Portion 5 of Farm Otjihavera No. 62 Namib Mills Suvi Plaatjie	splaattjie@namibmills.com.na
Portion 7 of Farm Klein Okapuka Namib Poultry Janneman Human	JHuman@npi.com.na

APPENDIX C: EMAIL SENT TO NEIGHBOURS

Background Information Document to construct and operate a cattle abattoir on a 5ha portion (Portion F) of Portion 7 of Farm Klein Okapuka No. 51, Windhoek

 carien@greenearthnamibia.com
To: 'charlie@greenearthnamibia.com'
Bcc: 'otjiseva@mweb.com.na'; 'nritz.roethel@gmail.com'; 'pliebenberg@meatco.com.na'; 'dirk@stone.com.na'; 'swillie@iafrica.com.na'; 'anja.foxy14@gmail.com'; 'splaatzje@namibmills.com.na'; 'JHuman@npi.com.na'

Mon 10/06/2024 3:37 pm

 Kitai Abattoir - Farm Okapuka - BID.pdf
2 MB

Dear Sir / Madam


You as a neighbour to Portion 7 of Farm Klein Okapuka No. 51 has been identified as an Interested and Affected Party for the proposed construction and operation of a cattle abattoir on Portion F to be created from the subdivision of Portion 7 of Farm Klein Okapuka No. 51.

See attached the Background Information Document providing information on the Project.

Please provide us with you comments on or before 14 June 2024.

Kind regards

Carien


Green Earth
ENVIRONMENTAL CONSULTANTS

1st floor Bridgeview Offices & Apartments, No. 4 Dr Kwame Nkrumah Avenue, Klein Windhoek, Namibia
PO Box 6871, Ausspannplatz, Windhoek

APPENDIX D: COMMENTS OF INTERESTED AND AFFECTED PARTIES

Comments

From: Jaco Swart <cm@rent-a-drum.com.na>
Sent: Monday, 18 March 2024 8:06 am
To: carien@greenearthnamibia.com
Cc: Severine Bower <admin.projects@rent-a-drum.com.na>; Eduan Louw <E.Louw@rent-a-drum.com.na>
Subject: Wagyu abattoir

Good day

Rent-A-Drum also want to register as an interested party

Wagyu abattoir

REF: Kitai Abattoir (Pty) Ltd
FOR: Register as IAP and comment as part of EIA and EMP for rezoning of Portion A & B of Portion 363 of remainder of Portion 7 (Arbeidskroon) of Farm Okahandja Townlands #277 from 'undetermined' to 'special' so that portions A & B (5ha in total) can be used for a Wagyu cattle abattoir to slaughter 20 animals per day to be increased to 30 animals per day on full production (meeting will be held if enough interest is shown)
AT: Green Earth Environmental Consultants, ph. 081-1273145, carien@greenearthnamibia.com; Charlie du Toit or Carien van der Walt
DUE: 28-Mar-24



Jaco Swart
Commercial Manager

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Sam Nujoma Drive, next to Tony Rust Race Track - Windhoek P: +264 61 244 097

@RentADrum

Dear Green Earth Environmental Consultants

I hereby request to be registered as an I&AP for the EIA:
-Environmental Impact Assessment and Environmental Management Plan to obtain an Environmental Clearance to use a portion of Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region for cattle abattoir, as issued in your public notice in The Namibian newspaper on the 5th of April 2024

Kindly forward me the Background Information Document and the sites coordinates

Kind Regards

Ndelimona lipinge
EIA Tracking and Monitoring in Namibia (EIA Tracker)
Namibian Environment and Wildlife Society
Cell:+264814138822
<https://eia-tracker.org.na>
[Like us on Facebook](#)

The EIA Tracker Project keeps track and maps all EIAs countrywide to enhance public access to EIA information and promote transparency within the EIA sector. The information collected is only used for the public to access and the EIA Tracker has no intention and will not use these for financial or any other benefits.

APPENDIX E: CURRICULUM VITAE OF CHARLIE DU TOIT

1. **Position:** Environmental Practitioner
2. **Name/Surname:** Charl du Toit
3. **Date of Birth:** 29 October 1960
4. **Nationality:** Namibian

5. **Education:**

Name of Institution	University of Stellenbosch, South Africa		
Degree/Qualification	Hons B (B + A) in Business Administration and Management		
Date Obtained	1985-1987		
Name of Institution	University of Stellenbosch, South Africa		
Degree/Qualification	BSc Agric Hons (Chemistry, Agronomy and Soil Science)		
Date Obtained	1979-1982		
Name of Institution	Boland Agricultural High School, Paarl, South Africa		
Degree/Qualification	Grade 12		
Date Obtained	1974-1978		

6. **Membership of Professional Association:** EAPAN Member (Membership Number: 112)

7. **Languages:**

	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
English	Good	Good	Good
Afrikaans	Good	Good	Good

8. **Employment Record:**

<u>From</u>	<u>To</u>	<u>Employer</u>	<u>Position(s) held</u>
2009	Present	Green Earth Environmental Consultants	Environmental Practitioner
2005	2008	Elmarie Du Toit Town Planning Consultants	Manager
2003	2005	Pupkewitz Megabuild	General Manager
1995	2003	Agra Cooperative Limited	Manager Trade
1989	1995		Chief Agricultural Consultant

		Namibia	
		Development	Agricultural
1985	1988	Corporation	Researcher
		Ministry of	
		Agriculture	

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.



Charl du Toit

APPENDIX F: CURRICULUM VITAE OF CARIEN VAN DER WALT

1. **Position:** Environmental Consultant
2. **Name/Surname:** Carien van der Walt
3. **Date of Birth:** 6 August 1990
4. **Nationality:** Namibian

5. **Education:**

Institution	Degree/Diploma	Years
University of Stellenbosch	B.A. (Degree) Environment and Development	2009 to 2011
University of South Africa	B.A. (Honours) Environmental Management	2012 to 2013

6. **Membership of Professional Associations:**

EAPAN Member (Membership Number: 113)

7. **Languages:**

Language	Speaking	Reading	Writing
English	Good	Good	Good
Afrikaans	Good	Good	Good

8. **Employment Record:**

From	To	Employer	Positions Held
07/2013	Present	Green Earth Environmental Consultants	Environmental Consultant
06/2012	03/2013	Enviro Management Consultants Namibia	Environmental Consultant
12/2011	05/2012	Green Earth Environmental Consultants	Environmental Consultant

9. **Detailed Tasks Assigned:**

Conducting the Environmental Impact Assessment, Environmental Management Plan, Public Participation, Environmental Compliance and Environmental Control Officer

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engage.

Carien van der Walt

APPENDIX G: ENVIRONMENTAL MANAGEMENT PLAN