ENVIRONMENTAL IMPACT ASSESSMENT FOR THE LICENSING OF BOREHOLES, THE ABSTRACTION OF GROUNDWATER AND THE CONSTRUCTION OF RESERVOIRS TO SUPPLEMENT WATER SUPPLY FOR THE ACTIVITIES ON PORTION 7 OF FARM KLEIN OKAPUKA NO. 51, WINDHOEK, KHOMAS REGION

September 2025

App Number: 250606005897

Project Name:	ENVIRONMENTAL IMPACT ASSESSMENT FOR THE LICENSING OF BOREHOLES, THE ABSTRACTION OF GROUNDWATER AND THE CONSTRUCTION OF RESERVOIRS TO SUPPLEMENT WATER SUPPLY FOR THE ACTIVITIES ON PORTION 7 OF FARM KLEIN OKAPUKA NO. 51, WINDHOEK, KHOMAS REGION
The Proponent:	Namib Poultry (Pty) Ltd NAMIB POULTRY BECAUSE YOU DESERVE BETTER P O Box 20276 Windhoek
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EXECUTIVE SUMMARY

Green Earth Environmental Consultants have been appointed by Namib Poultry (Pty) Ltd to attend to and complete an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) in order to obtain an Environmental Clearance Certificate for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, 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).

In terms of the Regulations of the Environmental Management Act (No 7 of 2007), an Environmental Impact Assessment has to be done to address the following 'Listed Activities':

WATER RESOURCE DEVELOPMENTS

- 8.1 The abstraction of ground or surface water for industrial or commercial purposes.
- 8.2 The abstraction of groundwater at a volume exceeding the threshold authorised in terms of a law relating to water resources.
- 8.5 Construction of dams, reservoirs, levees and weirs.
- 8.7 Irrigation schemes for agriculture excluding domestic irrigation.

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

Impact on environment	Nature of impact
The utilisation of groundwater.	Negative as abstraction might result in the lowering of groundwater resources and impact on nearby boreholes. Positive as surface water resources currently used will be supplemented through the use of groundwater.
Creation of employment and transfer of skills	Positive as employment will be created
during drilling, installation of borehole	during construction and operation and
equipment, pumps and pipelines and maintenance.	people will gain new skills.
The creation of dust.	Negative during construction and operations as the roads used for drilling, installation and maintenance are gravel roads.
There will be an impact on traffic.	Negative during construction and once operational as the sites 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 operational activities.

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.
Animals, reptiles, and birds will be
disturbed during the clearing of the
land to be used for the drilling and
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installation of the boreholes, pumps
pipelines and access roads to the
boreholes as well as to inspect and
maintain pipelines. Vegetation might
also be removed in the construction
process. Permits must be obtained to
remove protected tree species.
Medium to high as land might be
cleared.
The impact will be negative in case of
spilling of hazardous materials during
drilling, construction and operation.
Low if mitigated during construction
and operations.

The environmental impacts during the operational phase of the proposed project:

IMPACTS DURING OPERATIONAL PHASE					
Aspect	Impact	Significance	Significance of		
	Type	of impacts	impacts		
		Unmitigated	Mitigated		
Ecology Impacts	-	M	L		
Dust and Air Quality	-	M	Г		
Groundwater Contamination	-	M	L		
Waste Generation	-	M	L		
Failure of Reticulation Pipeline	-	L	L		
Fires and Explosions	-	L	L		
Safety and Security	-	M	L		

IMPACT EVALUATION CRITERION (DEAT 2006):					
Criteria	Rating (Severity)				
Impact Type	+ Positive				
	O No Impact - Negative				
Significance of	L Low (Little or no impact)				
impacts	M Medium (Manageable impacts)				
	H High (Adverse impact)				

The negative impacts associated with the proposed construction and operation on the project site are the impact on the vegetation, the natural surface drainage systems, noise and dust from the construction, the transmission of diseases from people or to people involved in operations and the loss of land. Mitigation measures will be provided that can control the extent, intensity and frequency of these named impacts in order not to have substantial negative effects or results.

The type of activities that will be carried out on the site does not negatively affect the amenity of the locality and the activities do 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. However, the operational activities further on need to be controlled and monitored by the assigned managers and the proponent (Namib Poultry (Pty) Ltd).

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 following this paragraph the Environmental Commissioner of the Ministry of Environment, Forestry and Tourism is herewith requested to:

- 1. Accept the Environmental Impact Assessment;
- 2. Approve the Environmental Management Plan;
- 3. Issue an Environmental Clearance Certificate for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, Windhoek, Khomas Region for Namib Poultry (Pty) Ltd and for the following "listed activities":

WATER RESOURCE DEVELOPMENTS

- 8.1 The abstraction of ground or surface water for industrial or commercial purposes.
- 8.2 The abstraction of groundwater at a volume exceeding the threshold authorised in terms of a law relating to water resources.
- 8.5 Construction of dams, reservoirs, levees and weirs.
- 8.7 Irrigation schemes for agriculture excluding domestic irrigation.

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LIST OF ABBREVIATIONS

DCM Deputy Chief of Mission

EC Environmental Clearance

ECO Environment Control Officer

EIA Environmental Impact Assessment

EMP Environmental Management Plan

I&APs Interested and Affected Parties

MEFT Ministry of Environment, Forestry and Tourism

NPI Namibia Poultry Industries

SQM Square Meters

TIA Transport Impact Assessment

1. INTRODUCTION

Green Earth Environmental Consultants have been appointed by Namib Poultry (Pty) Ltd to attend to and complete an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) in order to obtain an Environmental Clearance Certificate for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, 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 Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) stipulate that an Environmental Impact Assessment (EIA) report and management plan are required as the following 'Listed Activities' are involved:

WATER RESOURCE DEVELOPMENTS

- 8.1 The abstraction of ground or surface water for industrial or commercial purposes.
- 8.2 The abstraction of groundwater at a volume exceeding the threshold authorised in terms of a law relating to water resources.
- 8.5 Construction of dams, reservoirs, levees and weirs.
- 8.7 Irrigation schemes for agriculture excluding domestic irrigation.

The Environmental Impact Assessment below contains information on the proposed project and the surrounding areas, the proposed operations and activities, the applicable legislation to the study conducted, the methodology that was followed, the public consultation that was conducted, and the receiving environment's sensitivity, any potential ecological, environmental and social impacts.

2. TERMS OF REFERENCE

The proponent intends to apply for an Environmental Clearance Certificate for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, Windhoek, Khomas Region. To be able to implement the project, an Environmental Impact Assessment is required. For the Environmental Impact Assessment, 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 comply with Namibia's Environmental Management Act (2007) and its regulations (2012):
- 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 operations 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.

The tasks that were undertaken for the Environmental Impact Assessment included the evaluation of the following: climate, water (hydrology), vegetation, geology, soils, social, 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. Environmental Clearance will only be obtained (from the DEA) once the EIA and EMP have 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 a desk top study, the collection of data on the project site and area from the proponent and identified stakeholders. Consequences of 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.

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

3. NEED AND DESIRABILITY

Need

Water is required by NPI, the Proponent, for the drinking and cooling of the broilers until it is slaughtered, for the slaughtering, processing, packing and cleaning activities in the abattoir as well as the cleaning of facilities, equipment, vehicles and the staff amenities like ablutions, showers, for drinking, food preparation and cleaning.

NPI's freshwater demand is approximately 1,200 m³/day and it is their intention to supplement and replace water currently supplied from NamWater with ground and surface water resources. NPI's operations on Portion 7 of Farm Klein Okapuka No. 51 obtains water from different sources, i.e. freshwater from the NamWater pipeline (approx. 800 m³/day or 24,000 m³/month) and groundwater from boreholes (approx. 400 m³/day or 12,000 m³/month).

To sustain and expand the operations of NPI and supplement the water obtained from NamWater, additional water is required from groundwater sources.

Desirability

The Drilling and Test Pumping Report prepared by SLR Environmental Consulting (Namibia) Proprietary Limited confirmed that the shortfall in water requirements for the operations of NPI can be supplemented from groundwater sources on the Farm. Finding enough water and ensuring sustainability of supply, the drilling of additional boreholes as well as the continuous monitoring of the groundwater sources will be required. The water abstracted from the groundwater sources will also require some treatment to ensure the safe use of the water. The desirability of supplementing NPI's water requirements from groundwater sources is confirmed by the Drilling and Test Pumping Report of SLR.

According to the information mentioned above, it is believed that there is a need and desirability for the project. The proposed project is desirable as the study area is suitable for the proposed operations, the activities will have a limited impact on the biophysical 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 water will be used in the construction phase, wastewater will be produced that will be handled by the proponent, land will be used for the proposed activities, few shrubs/grasses will be removed, and general construction activities will take place.

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 farms except for noise, traffic, machinery, roads and dust and there may be a visual impact because of the size of the proposed operations. Therefore, the extent that the project will have a negative impact on is not extensive.

The Duration of the project: It is estimated that the construction will take place over 1 year however the exact duration of the activities is uncertain.

The Intensity of the project: The intensity of the project is mostly limited to the site however for the above-named 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 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. BACKGROUND INFORMATION ON PROJECT

4.1.SITE DETAILS (LOCALITY AND SIZE)

Portion 7 of Farm Klein Okapuka No. 51 is located about 30km north of Windhoek next to the B1 Road leading from Windhoek to Okahandja on the western side of the road. The site is currently used for the Namibia Poultry broiler production, the broiler abattoir, a clinic, the Namib Mills Bakery, management and staff housing and supporting activities. Additional boreholes have been drilled on the site. It is the intension of the proponent to license these boreholes, obtain permission to abstract groundwater and to construct reservoirs to supplement the current water, supplied by NamWater, for the agrifood production and processing activities currently operating on the site.

See below a map indicating the Project Site and the boreholes:

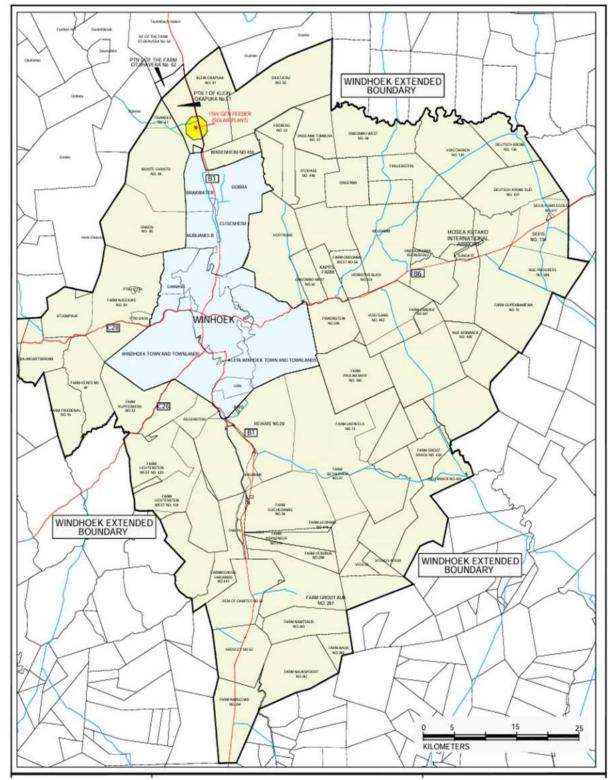


Figure 1: Location of the Project Site in relation to Windhoek

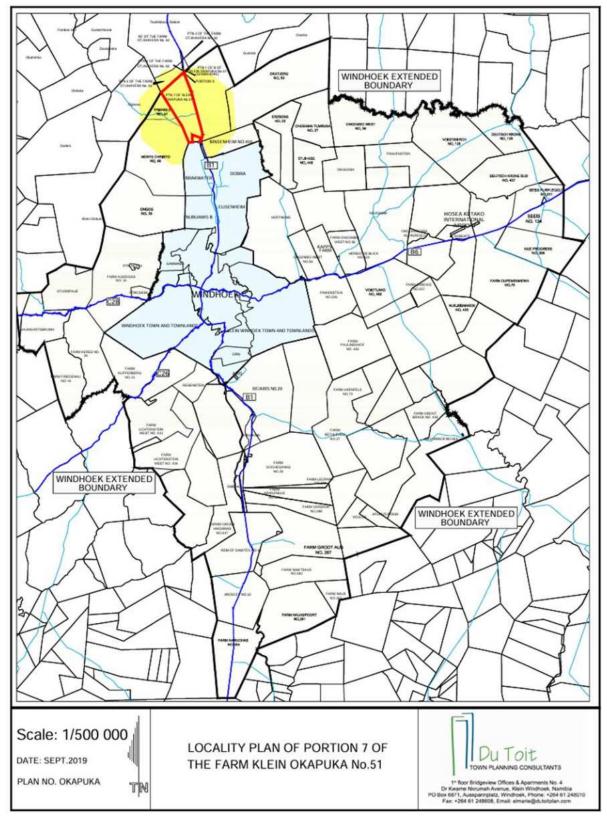


Figure 2: Portion 7 of Farm Klein Okapuka No. 51

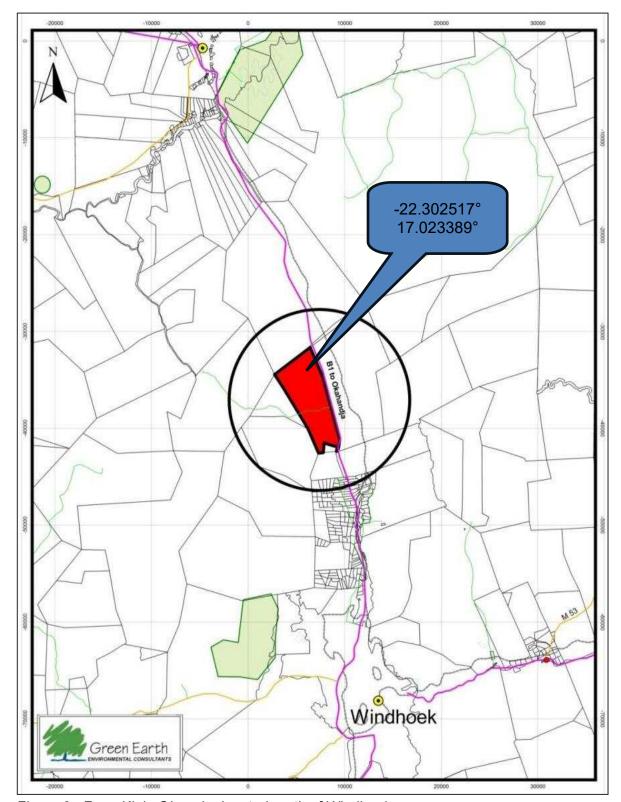


Figure 3: Farm Klein Okapuka located north of Windhoek

4.2. PROJECT DESCRIPTION

The Proponent undertook a study with the support and inputs of SLR Environmental Consulting (Namibia) Proprietary Limited into developing a long-term Integrated Water Resource Management Plan for their farming and industrial activities on the site. Water is currently obtained directly from NamWater from the Von Bach – Windhoek Pipeline. This water is supplemented with water obtained from boreholes on the farm as well as from the treatment of wastewater and process effluent to the potable standard and the recycling of the treated water.

Table 1: NPI Sources of water supply (SLR)

Water Demand and Supply			Annual (m³)
Current	NamWater	1000	365,000
	Recycling	600	219,000
	Existing Boreholes	330	120,450

Namib Poultry is intending to reach their full production capacity by the full utilisation of the existing facilities in the next 5 years. To be able to utilise the full production potential, an additional 800m³ of water is required which they intend to supply from additional boreholes and surface water dams or a combination of both (recharge of aquifer from sand storage dams).

The following information was obtained from the *Drilling and Test Pumping Report for the Namib Poultry Industries (NPI)* from *SLR Environmental Consulting (Namibia) (Pty) Ltd (2024):*

"SLR Environmental Consulting was contracted by Namib Poultry Industries (PTY) Ltd, (NPI) in 2024 to support them in the investigation for groundwater supply and permitting. The aim is developing a long-term Integrated Water Resource Management Plan (IWRMP) for their industrial activities at Farm Klein Okapuka".

A copy of the report including the drilling results and summary is attached to this EIA Report.

5. BULK SERVICES AND INFRASTRUCTURE

The site will have the following bulk services:

5.1.ACCESS AND INTERNAL ROADS

The project site is located on Portion 7 of Farm Klein Okapuka No. 51, about 30 km north of Windhoek, directly west of the B1 Highway to Okahandja. The project site access is to the western side of the B1 Highway. The access road is a gravel road leading onto the site and connecting all the operations and activities of Namib Poultry.

The gravel road is maintained by Namib Poultry. The existing roads are sufficient for the purpose of the operations and no new roads have to be created on site.

5.2. WATER SUPPLY AND REQUIREMENTS

5.2.1. WATER SUPPLY AND DEMAND BREAKDOWN

The following information was obtained from the Drilling and Test Pumping Report for the Namib Poultry Industries (NPI) from SLR Environmental Consulting (Namibia) (Pty) Ltd (2024):

"NPI has a total water demand of 2850 m³/day when running at full capacity, which is expected in approximately 5 years' time. The current and future water demand and supply figures are broken down and presented" (SLR Environmental Consulting (Namibia)) in the *Table* below:

Table 2: Water demand and supply break down

Water Demand and Supply	Source	Daily (m³) 20-hour pumping day	Annual (m³)	
Current	NamWater	1 000	365,000	
	Recycling	600	219,000	
	Existing boreholes	330	120,450	
At 100% Capacity (app. In 5 years)	Additional boreholes and other sources	920	335,800	
Total		2 850	1,040,250	

"Currently, COW has permitted the existing groundwater sources to supply 330 m³/day with Electric Conductivity (EC) less than 2,000 μ S/cm. There is 600 m³/d supplied by recycled water from the plant. This leaves a supply gap of 1000 m³/d previously supplied by NamWater to meet the current water demand of 1,930 m³/day. The remainder of 920 m³/d will be secured within the next few years". Of this 1000 m³/d, 530 m³/day was calculated to be supplied by the boreholes drilled in 2023 and 2024 depending on water quality. The shortfall of 470 m³/day is anticipated to be sourced from additional boreholes. In June 2024, NPI received permission from COW to drill an additional ten (10) boreholes to meet the shortfall of 470 m³/d".

"The water is of substandard quality and will need to be treated with a Reverse Osmosis (RO) plant to filter the borehole water, with an expected output and recover of 65%".

An abstraction permit to the quota amount of 1180 m³/day will be submitted for the cumulative volumes calculated from the 2023 and 2024 drilling results.

"It is accepted that the 1000 m³/d shortfall will only be abstracted from groundwater during times of water scarcity and only a portion of 203 m³/d will be required to maintain the membranes of the RO after the water security outlook improves" (*SLR Environmental Consulting (Namibia*)).

5.2.2. DRILLING RESULTS OF 2024

The drilling of the nine (9) boreholes was carried out between 5 and 26 July 2024, by Booysen Transport and Drilling. As per the borehole completion reports (BCR) provided by the client and drilling contractor, the following drilling methodology was applied:

- The boreholes were drilled applying the Down the Hole Hammer (DTHH) or Air Percussion method to desired depth.
- Drilling at WW205949 and WW205950 started with a diameter of 304 mm to stabilise unconsolidated formations and 6 m and 12 m standpipe with a diameter of 219 mm and 273 mm were installed, respectively.
- There after a drilling diameter 254 mm was applied to final depth and successful boreholes were installed with 177 mm uPVC casings.
- Drilling at WW205951 to WW205957 started with a diameter of 254 mm to stabilise unconsolidated formations and up to 18 m standpipe with a diameter of 219 mm was installed.
- Thereafter a drilling diameter of 254 mm was applied to final depth and successful boreholes were installed with 177 mm uPVC casings.

The formation encountered was the fractured, quartz- biotite-schist of the Kuiseb Formation (Swakop Group), with minor chlorite and quartz veins. Groundwater was struck within the fractured and weathered Kuiseb Formation and groundwater levels ranged between 14.33 and 51.71 m btc. Additional drilling information is provided in the *Table* below, with the geographical positions and water strikes outlined.

Table 3: Drilling summary report (SLR)

	Coordinate		- 2000	Depth	GWL	Water strikes	Blow
BH ID	Latitude	Longitude	Date drill	(m)	(m btc)	(m)	yield (m³/h)
Site 1	22.10.456	17.00437	05 1.1.24	105	26.00	E0 60 1E6	3
WW205949	-22.18456	17.02437	05-Jul-24	165	26.80	50,60,156	3
Site 2	22 21266	17.045401	00 1.1.24	141	10.20	34 60 100	15
WW205950	-22.31266	17.045481	08-Jul-24	141	18.20	34,60,100	15
SITE 3	22 21107	17.042042	11 1 24	10.4	14 22	72 150 175	5
WW205951	-22.31187	17.042843	11-Jul-24	194	14.33	73,159,175	5
Site 4	22 20700	17.041070	12 1 24	100	30.60	40.49.60	1
WW205952	-22.30709	17.041279	41279 13-Jul-24 182	182	30.60 40,48,60	9	
Site 5	22.24165	17.021596	16-Jul-24	123	15.98	37-48,70,100	12
WW205953	-22.24165	17.021596	16-Jul-24	123	15.96	37-48,70,100	12
Site 6	-22.26087	17.02317	19-Jul-24	129	51.75	64.75.110	5
WW205954	-22.26087	17.02317	19-Jui-24	129	51./5	64,75,112	5
Site 7	22.20006	17.020505	21 1 24	102	Name and the second sec		70.
WW205955	-22.28806	17.028585	21-Jul-24	183	dry		
Site 8	22 20025	17 027572	23-Jul-24	152	4		
WW205956	-22.29925	17.027572	23-Jui-24	153	dry		
Site 9	TDC		26 14 24	171	10.00	E7 120 14F	10
WW205957	TBC		26-Jul-24	171	18.90	57,120,145	1.8

5.2.3.TEST PUMPING RESULTS

Pumping tests were undertaken as following:

- Both Multi-rate Step Discharge Test and Constant Discharge Tests (SDT and CDT) were conducted for boreholes with blow yield above 5 m3/h.
- A four (4) hour STD was conducted on all boreholes, to ensure that a suitable rate was applied during the CDT that lasted 48 hours.
- Each test had a pumping and recovery phase, during which groundwater level readings were measured and recorded at predetermined intervals and water samples were collected in 1 L bottle during the CDT; and
- Test pumping data was evaluated by means by means of Test Pumping Analysis Software (TPA). Hydrographs showing the response of water levels during pumping and recovery phase were developed for assessing local aquifer parameters.

From the nine (9) boreholes drilled, four (4) were considered successful and were subjected to test pumping according to the methodology detailed above.

Table 4 below shows a summary of test pumping results including the following:

- The range of groundwater levels
- The residual drawdown as well
- The recovery percentages

Table 4: Summary of test pumping results (SLR)

BH ID	Test	GWL	Depth	P.I.D	Yield	Duration (h)		Max Drawdown	Residual drawdown	% Recovery											
manner.	type	(m bsu)	(m)	(m bsu)	(m³/h)	Abstraction	Recovery	(m)	(m)	10.511.0.5.0.0.0.0											
Site 2	SDT				5,10,15,20	4	4	19.89	1.58	92											
ww205950	CDT	18.06	141	120	15	48	48	32.93	2.32	93											
Site 3	SDT	14.33	44.33	44.22	44.22	44.22	44.33	44.22	44.22	44.22	44.22	14.22	44.33	194		3,4,5,6	4	4	84.78	1.77	98
WW205951	CDT		194	117	4	48	48	49.09	1.71	97											
Site 5	SDT		400	***	4,8,12,16,20	4	4	94.02	1.82	98											
WW205953	CDT	15.98	123	110	6	48	48	11.49	1.5	87											
Site 6	SDT		129	110	3,4,5,6	4	4	16.92	0.75	96											
WW205954	CDT	51.71	129		4	48	48	13.19	2.43	82											

Boreholes WW205953 and WW205954 have only reached 87% and 82% recovery.

From the test pumping data analysis hydraulic parameters were derived, and short to medium-term sustainable abstraction yields were determined. The hydrographs are presented in the SLR Report attached.

5.2.4.WATER QUALITY

One-liter water samples were collected from each borehole during the CDT. The samples were submitted and analysed by Analytical Laboratory Services (ALS) for standard water quality analysis. Groundwater classification was done in line with the Water Resources Management Act, No.11 of 2013, which proposed National Water Quality Guidelines and Standards for potable water in the following two (2) categories: The results in *Table 5* below are colour coded as follows:



Table 5: Explanation of water quality guidelines (SLR)

Category	Comment
Ideal guideline	Water with an excellent quality.
Acceptable Standard	Water with good quality or low health risk and acceptable for human consumption.
Limit transgressed	Water should ideally not be used for human consumption without consultation with specialist.

Unclassified	There are no limits assigned to these parameters.
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Table 6 shows the hydrochemistry results for the four new production boreholes. All the boreholes have high content of iron (Fe) and manganese (Mn), mostly associated with the high turbidity that releases the metals such as iron from the clay particles. The sodium (Na) and chloride (Cl) concentrations are high only in borehole WW205953.

Table 6: Summary of hydrochemistry results for four new production boreholes (SLR)

Bh ID	J I	WW205954	WW205953	WW205950	WW205951
Description of sampling point	TE 1027	BH 13, Site 6	BH 12, Site 5	BH 10 Site 2	BH 11, Site 3
Date of sampling	Units	2024/08/20	2024/08/20	2024/08/20	2024/08/20
Test item number	Ti i	1241640/1	1241640/2	1241640/3	1241640/4
рН		7.1	7.7	7.6	8.8
Electrical Conductivity	mS/m	70.6	94.5	245	127.0
Turbidity	NTU	119	94.0	161	106
Total Dissolved Solids (calc.)	mg/l	425	465	1456	740
P-Alkalinity as CaCO ₃	mg/l	<10	<10	<10	<10
Total Alkalinity as CaCO₃	mg/l	220	83	335	395
Total Hardness as CaCO₃	mg/l	296	239	394	97
Ca-Hardness as CaCO₃	mg/l	210	127	167	23
Mg-Hardness as CaCO₃	mg/l	86	111	226	74
Chloride as Cl ⁻	mg/l	77	233	546	146
Fluoride as F	mg/l	0.2	0.1	0.3	0.6
Sulphate as SO42-	mg/l	40	20	222	65
Nitrate as N	mg/l	0.6	0.4	0.4	0.2
Nitrite as N	mg/l	0.01	0.02	0.01	0.01
Sodium as Na	mg/l	59	70	345	253
Potassium as K	mg/l	9.6	12	18	10
Magnesium as Mg	mg/l	21	27	55	18
Calcium as Ca	mg/l	84	51	67	9.2
Manganese as Mn	mg/l	0.31	0.58	0.29	0.10
Iron as Fe	mg/l	15	4.3	14	7,5
Cyanide as CN-	mg/l	0.02	0.01	0.02	0.02
Phenol	mg/l	<0.05	<0.05	<0.05	< 0.05
Chromium as Cr	mg/l	0.01	0.005	0.001	0.005
Cadmium as Cd	mg/l	0.005	0.004	0.01	0.005
Lead as Pb	mg/l	0.05	0.06	<0.01	0.06
Arsenic as As	mg/l	0.03	0.02	0.02	0.03
Selenium as Se	mg/l	0.04	0.01	0.05	0.04
Copper as Cu	mg/l	0.004	0.040	0.001	<0.01
Zinc as Zn	mg/l	0.040	0.020	0.050	0.080
Cobalt as Co	mg/l	0.02	0.02	0.01	0.01
Nickel as Ni	mg/l	0.040	0.050	0.010	0.003
Mercury as Hg	mg/l	0.001	<0.01	<0.01	<0.01
Stability pH, at 25°C		7.2	7.8	7.2	7.9
Langelier Index	corrosive	-0.1	-0.1	0.4	0.9
Ryznar Index	stable	7.3	8.0	6.7	7.1
Corrosivity ratio	increasing corrosive tendency	0.7	4.2	3.0	0.7

5.2.5.THE MONITORING OF THE BOREHOLES

As the hydrogeological set-up of the study area is not well studied and documented, SLR recommends the intensive monitoring of groundwater level responses to abstraction regime as it is currently the best tool to aid in accurate groundwater management.

All the boreholes drilled by NPI since 2016 is summarised in *Table 7* below:

Table 7: A summary of boreholes drilled by NPI since 2016 (SLR)

Borehole ID	Alias	Lat	Long.	Drill Date	Depth	Drilling method	Drill Diameter	GWL	Water Strike	Blow yield	Recommended Yield	Status (mon/prod)	Drilling Contracto
					(mbgl)		mm	mbtc	mbgl	m3/h	m3/h		-
W205935	Existing 8H01	-22.338074	17.046791		58	DITH	165	7.28		3.5	3.5	1	
/W205936	Existing BH02	-22.339337	17.046576	7	75	DITH	165	4		9	9	Promotion	10/
/W205937	Existing BH03	-22.333759	17.046961	9	93.8	DITH	165	8.25		8	30	Protestion	
/W/205935	Existing BH01	-22.338074	17.046791	ġ.	65	DITH	3	120072	-				
VW205936	Existing BH02	-22.339337	17.046576		75	DITH							
/W205937	Existing 8H03	-22.344191	17.050468		93.8	DITH		- 8			4		
/W204520		-22.338124	17.03644			DITH						97	
VW204519		-22.328619	17.025978		150	DITH	1 3	- 35					
H06	Existing 8H06	-22.34245	17.047619		150	DITH		9.78			14	Production	
H07	Existing 8H07	-22.344157	17.048853	i.	150	DITH	2	5.58			14	Production	
/W205927	Sammer S	-22.3385	17.0389	2023/11/13	250	DITH	3	2.25	24, 44, 120	2	-	a andreasers a	Booysen Drilling
/W205928		-22.3388	17.0452	2023/11/16	200	DITH		9.8	16, 38, 72-100	8.5	8	Production	Booysen Drilling
/W205929		-22.3332	17.0289	2023/11/21	200	DITH		12.93	24,68	3.5	5	Production	Booysen Drilling
VW205930		-22.3122	17.0181	2023/11/25	200	DITH		10.98	26,65	3		Monitoring	Booysen Drilling
VW205931	18 8	-22.3381	17.0479	2023/12/07	250	DITH	1 13	- 3	43, 102, 220	1.1		Monitoring	Booysen Drilling
/W205932	10 0	-22.343	17.0479	2023/12/10	200	DITH	1 1	- 2	39,72	1.8	1	Monitoring	Booysen Drilling
/W205933	18 8	-22.31305	17.045	2023/12/13	200	DITH	3	19.98	24, 45, 69-169	25	20	Production	Booysen Drilling
/W205934	N 8	-22.31333	17.04556	2024/01/07	200	DITH	10	20.71	24, 44, 120	8	8	Production	Booysen Drilling
W205949	Site 1	-22.18456	17.02437	2024/07/05	165	DITH	254	26.8	50,60,156	3		Monitoring	Booysen Drilling
VW205950	Site 2	-22.31266	17.045481	2024/07/08	141	DITH	254	18.2	34,60,100	15	10	Production	Booysen Drilling
/W205951	Site 3	-22.31187	17.042843	2024/07/11	194	DITH	204	14.33	73,159,175	5	4	Production	Booysen Drilling
VW205952	Site 4	-22.30709	17.041279	2024/07/13	182	DITH	204	30.6	40,48,60	1		Monitoring	Booysen Drilling
VW205953	Site 5	-22.24165	17.021596	2024/07/16	123	DITH	204	15.98	37-48,70,100	12	6	Production	Booysen Drilling
VW205954	Site 6	-22.26087	17.02317	2024/07/19	129	DITH	204	51.75	64,75,112	5	4	Production	Booysen Drilling
VW205955	Site 7	-22.28806	17.028585	2024/07/21	183	DITH	204	dry	CANCEL S			i and the second	Booysen Drilling
VW205956	Site 8	-22,29925	17.027572	2024/07/23	153	DITH	204	dry					Booysen Drilling
VW205957	Site 9	, j		2024/07/26	171	DITH	204	18.9	57,120,145	1.8		Monitoring	Booysen Drilling
VW205958	Site 10	-22.41081	17.021479	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	171		165			2.5			
ite 12024	8 8				96	DITH		11.95		10		Production	
ite 2 2024	18 8			į.	8 3	DITH	3	5.8		8		Production	
VW204518		-22.28817	17.0012	2016/07/05	300	Mud Rotary and DTTH	12.25	100.29	179	1			Human Drilling
VW204519		-22.32861	17.02598	2016/07/12	120	DITH	203	1.5	22,55,70,106	12		production	Human Drilling
VW204520		-22.3381	17.03654	2016/07/14	163	DITH	203		48	4			Human Drilling
VW204521	10 0	-22.23773	17.02022	2016/07/16	150	DITH	203	Dry		Dry		3	Human Drilling
VW204522		-22.24089	17.02147	2016/07/19	163	DITH	203	18.6	96	0.6			Human Drilling
/W204503	- 8	-22.3123	17.02926	2016/06/03	121	DITH	203	11.34	13	Dry		2	Human Drilling
VW2045Q4	8 8	-22.3153	17.02267	2016/06/05	100	DITH	203	191000112	96	Dry		3	Human Drilling
VW204505		-22.31533	17.02309	2016/06/06	130	DITH	203		96	Dry			Human Drilling
VW204506	1 3	-22.3165	17.01794	2016/06/12	150	DITH	203	- 3	96	Dry			Human Dritting
VW204507		-22.28318	17.00314	2016/06/07	250	DITH	203	94	121,193	1			Human Drilling
VW204508	12 - 2	-22.28833	17.00117	2016/06/16	180	DITH	203	103.7	103.156	0.5		8	Human Drilling

Figure 4 below gives an overview of the boreholes drilled on Farm Klein Okapuka since 2016:

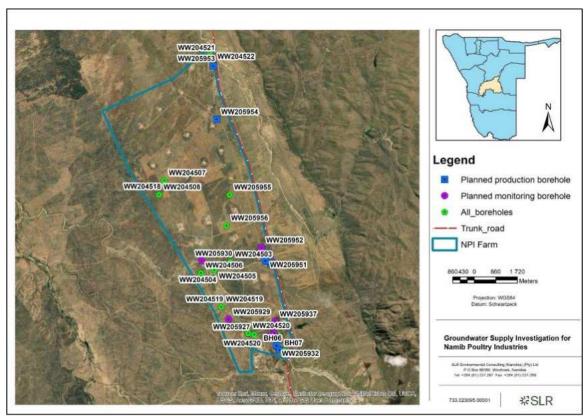


Figure 4: Overview of boreholes drilled on Klein Okapuka, since 2016 (SLR)

With previous studies by SLR, the boreholes in *Table 8* below have been identified as preferred production boreholes and the associated monitoring boreholes.

Table 8: Groundwater level monitoring frequency (SLR)

Borehole ID	Depth	GWL	Status	Frequency		
	(mbgl)	mbtc		First 6 months	After 6 months	
WW205928	200	9.8	Monitoring	Bi-monthly	Monthly	
WW205936	75	4	Monitoring	Bi-monthly	Monthly	
WW205937	93.8	8.25	Monitoring	Bi-monthly	Monthly	
WW205935	58	7.28	Monitoring	Bi-monthly	Monthly	
WW205930	200	10.98	Monitoring	Bi-monthly	Monthly	
WW205932	200		Monitoring	Bi-monthly	Monthly	
WW205949	165	26.8	Monitoring	Bi-monthly	Monthly	
WW205929	200	12.93	Monitoring	Bi-monthly	Monthly	
WW205952	182	30.6	Monitoring	Bi-monthly	Monthly	
BH06	150	9.78	Production	monthly	Monthly	
BH07	150	5.58	Production	Monthly	Monthly	
WW205933	200	19.98	Production	Monthly	Monthly	
WW205934	200	20.71	Production	Monthly	Monthly	
WW205950	141	18.2	Production	Monthly	Monthly	
WW205951	194	14.33	Production	Monthly	Monthly	
WW205953	123	15.98	Production	Monthly	Monthly	
WW205954	129	51.75	Production	Monthly	Monthly	

SLR propose that each monitoring borehole as identified is to be monitored on bimonthly (twice a month) frequency for the first six (6) months of pumping, thereafter once a month. The data should be digitised and used to draw time series graphs to clearly depict the patterns undergone by the groundwater levels. With the production of brine on site, water quality analysis is advised on a bi-annual frequency, where the parameters will be informed by the final effluent constituents of the brine, which will be advised by the client.

These data, additional to being captured by NPI in a database, must be submitted to COW monthly, in a form of abstraction returns. These returns outline the active production boreholes and their monthly production data, operational standby production boreholes with their bi-weekly groundwater level data, and the monitoring boreholes with their bi-weekly groundwater levels monitoring data.

A template of the abstraction returns is attached in Appendix D of SLR's Report.

Figure 4 to Figure 6 show the production boreholes and the monitoring boreholes that should comprise the groundwater monitoring network.

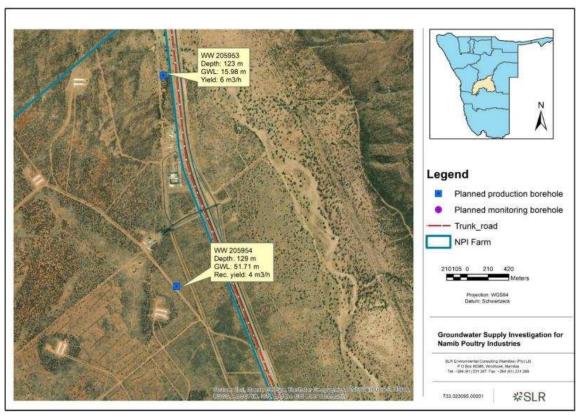


Figure 5: Location of planned production and monitoring boreholes located north of the farm with hourly production rates to be applied for 16 hours a day (SLR)

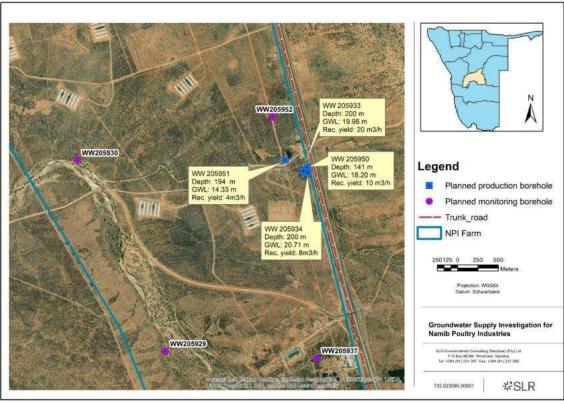


Figure 6: Location of planned production and monitoring boreholes located midway of the farm with hourly production rates to be applied for 16-hours a day (SLR)

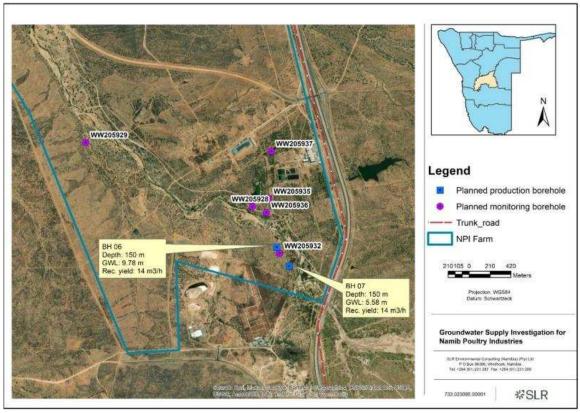


Figure 7: Location of production and monitoring boreholes located in the south of the farm. Production boreholes are as advised by Namib Poultry Industries as determined by water quality. The production rates are for a 16-hour pumping day (SLR)

The eligibility of the borehole is not only determined by the yield, but also by the groundwater chemistry. Thus, the displayed production boreholes are as per advice of NPI.

For monitoring and management purposes, the following requirements are to be followed, as well as the permit conditions to be provided by CoW in the pending abstraction permit.

- The production boreholes must all be fitted with flow meters, automated water level transducers or dipper-tube pipes to allow for frequent groundwater level measurements.
- The groundwater levels in the production boreholes are to be scheduled and measured when the boreholes have been resting for at least eight (8) hours after pumping stopped.
- Water chemistry must be analysed at least twice a year.

5.2.6. CONCLUSION AND RECOMMENDATIONS

From the drilling and test pumping analysis, SLR concluded as follows:

- Based on measuring of water levels in observation boreholes during test pumping, there is hydraulic connectivity between the boreholes which are concluded to be tapping from the same water bearing feature, however additional monitoring is required to confirm the extent of the connectivity.
- There is no alluvium intersected and that the groundwater is hosted in the fractures.
- Although production boreholes have been suggested based on the sustainable yield, the client makes the final selection of production boreholes which considers both the yield and the EC of the groundwater.
- With only the 65% of the water being recoverable from the R.O. treatment plant, the 470 m3/d shortfall is not yet achieved from these additional boreholes.

With the above stated, the following recommendations are made:

- From this drilling campaign, the following boreholes, WW205950, WW205951, WW205953, and WW205954, are recommended for production while remaining boreholes are recommended as monitoring boreholes as per monitoring plan provided.
- It is recommended to adhere to the monitoring plan which will inform the real time influence of the abstraction volumes on the immediate boreholes.
- Current production boreholes are installed with a telemetric system, the new production boreholes must be installed with the same.
- The recommended and maximum abstraction rates for the four (4) recommended production boreholes for 16 hours/day pumping, is given in the *Table 9* below:

Table 9: Recommended abstraction rates (SLR)

	T	k	s	Aquifer type	Analysis Method	Recom	mended pu	ımping
BH ID	(m²/d)	(m/d)	()			(m³/h)	Pumping duration (Hours)	(m³/d)
Site 2 WW205950	10	0.15	0.0006	Uniform flux + Boundary	Gringarten I	10	16	160
Ste 3 WW205951	2	0.01		Uniform flux + Boundary	Gringarten I	4	16	64
Site 5 WW205953	5	0.07		Uniform flux + Boundary	Gringarten I	6	16	96
Site 6 WW205954	8	0.27		Uniform flux + Boundary	Gringarten I	5	16	80
			Total Abst	traction m ³	/d	1.3	In	400

5.2.7.PERMITTING

An abstraction permit application will be submitted to CoW, requesting for a total volume of 1180 m³/d. An EC of <3000 μ S/cm is ideal for the RO plant, thus, boreholes considered for production take both the yield and EC into consideration. The planned production boreholes are as presented in Table 10.

Table 10: List of the planned production boreholes (SLR)

Drilling Campaign	Source	Daily (m³) 16-hour pumping day	Annual (m³)
Previous drilling	BH06, BH07	330	120,450
Dec 2023 – Jan 2024	WW205933 WW205934	450	164,250
June 2024	WW205950 WW205951 WW205953 WW205954	400	146,000
Total		1180	430,500

5.3. ELECTRICITY RETICULATION

Electricity is obtained from NamPower, an onsite PV Plant and is supported by diesel generators at the broiler sites during power failures.

5.4. SEWAGE DISPOSAL

Household sewage from people working and residing on the site as well as from the cleaning of the rearing-, laying- and broiler houses is currently contained and disposed of in environmentally friendly bio box drains located on the sites. This sewage is then collected in a tanker and taken to the onsite wastewater treatment plant which also treat the process effluent of the broiler abattoir to the 'potable standard' and which is recycled for use on the farm and in the abattoir. The household sewer process water generated at the processing plant is directly linked up with the wastewater treatment facility.

5.5. SOLID WASTE DISPOSAL/REFUSE REMOVAL

The waste generated on the site includes normal household waste, dead chickens, unusable intestines, blood, fat and chicken manure. The normal household waste is sorted and stored on site into different recyclables 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 disposed of at the approved waste disposal/landfill site. The dead chicken, unusable intestines and chicken manure will be used in the biogas plant to produce energy once the plant is constructed and in operation.

5.6. FIRE PROTECTION

The Proponent has the necessary fire protection infrastructure / extinguishers as per municipal requirements. A Fire Protection Specialist has introduced a proper fire protection plan with the required infrastructure and is overseeing the annual auditing and maintenance of the infrastructure.

6. PERMITS ALREADY OBTAINED

City of Windhoek granted the following conditional approvals to NPI:

- Authorization to explore groundwater potential through the drilling of boreholes.
- An Interim Authorisation which conditionally approved a Water Abstraction Permit.

Authorization to explore groundwater potential on Portion 7 of Farm Klein Okapuka No. 51 was approved by the City of Windhoek. See letter below from the City of Windhoek approving the drilling application:

DEPARTMENT OF INFRASTRUCTURE, WATER AND TECHNICAL SERVICES

59

ENO:

80 Independence Avenue

WINDHOEK, NAMIBIA

S. Mulele

e-mail: INF@windhoekcc.org.na

www.cityofwindhoek.org.na

Tel: (+264) 61 290 2335

DATE: 17/06/2024

TEL: 061-290 3067

REF: 16/1

Namib Poultry Industries (PTY) Ltd P.O. Box 20276, Klein Okapuka Farm, B1 Highway Windhoek. Namibia

Dear Ms. E. Gustavo

APPLICATION FOR AUTHORIZATION TO SINK TEN (10) BOREHOES FOR GROUNDWATER EXPLORATION OF POTENTIAL TOWARDS UTILIZATION FOR INDUSTRIAL PURPOSES ON PORTION 7 OF FARM KLEIN OKAPUKA NO. 51.

- 1. Your application dated 16 April 2024 on the above subject matter, refers.
- 2. The application is for authorization to sink additional explorative boreholes on the abovenamed farm to establish potential for future abstraction and use as reserve water supply source for industrial purposes.
- 3. The presented total water demand for the operation is 2850 m³ per day at maximum operational capacity. However, the present scale of operations requires 2000 m³ per day, met through the following available sources;
 - 3.1 1000 m³ per day is supplied from NamWater.
 - 3.2 600 m³ per day is from recycled process water.
 - 3.3 330 m³ per day is from abstraction from existing old boreholes.
- 4. The application is made given the current water security outlook, where the supply of 1000 m3 per day from NamWater is uncertain and thus alternative sources are required to ensure uninterrupted production operations. The recent borehole drilling program secured 530m3 per day towards the referred uncertain volume, however an additional 470 m³ per day remains unmet and is required to holistically address the shortfall should any interruptions occur.
- 5. The City considered the above provided information and prior engagements on the matter and resolved as follows;
 - 5.1 The drilling of ten (10) explorative boreholes is approved, subject to the following;
 - The maximum drilling depth of the borehole shall be 200m. This depth shall not be exceeded unless authorised after a request is submitted to the Strategic Executive Infrastructure, Water and Technical Services or Delegate.
 - That an appropriate size casing should be installed to accommodate a 25mm pipe for the monitoring of water levels. Else, provision should be made for removal of

All official correspondence must be addressed to the Chief Executive Officer

- installation when so required for monitoring of water levels by the City as and when required.
- A borehole completion report must be submitted to the City providing all details of the drilled borehole.
- iv. Rock or drill chips from the boreholes are to be collected by the Drilling Contractor and preserved during the works, at 1meter intervals. In the absence of a Hydrogeologist, it is your responsibility to describe the rock samples and take a photograph of their drilling sequence on the ground. The drill chips shall be collected in drill chip trays and submitted, together with above information, to the City after completion of drilling.
- v. It is important to note that test pumping of the borehole will be crucial to establish the sustainability and effect of abstraction from any other existing boreholes on the aquifer. In addition, test-pumping data will be considered in the allocation of a quota for abstraction should it be necessary.
- vi. A water sample must be collected and tested for quality before the water is used for any purposes envisaged and the results should be submitted to the City.
- No works shall begin prior to issuing a notification five (5) days in advance to the responsible Municipal official as per details provided.
- viii. This letter does not automatically constitute approval for abstracting of water from the borehole. Once successful, application to abstract water shall be submitted separately and allocation of a quota for abstraction will be determined based on test pumping information supplied, if deemed necessary.
- ix. Further, take note that should the municipal water supply infrastructure extend to service the area in future, rights over use of the borehole shall be ceded to the City.
- 5.2 Thant since no authorization exists for the current abstractions from the existing boreholes, an interim application to abstract be made with the City, however a final application will be required for the entire borehole scheme once all the work is completed.
- 5.3 That the use of the existing and future boreholes constitutes a wellfield or a water supply scheme and thus environmental approvals will be required prior any allowance for bulk abstractions.
- 5.4 That the operation of the developed scheme will be further subject to a formal tripartite understanding or agreement between the City, NamWater and NPI.
- 5.5 This approval will come to expiry on the 30 June 2026 if unutilised.
- 5.6 Should you accept the above stated conditions, please complete Annexure 1(a) to this letter and return for official confirmation. Failure to returning a signed form, shall be deemed negation of the conditions and thus render this authorization invalid.

You are herewith requested to confirm your acceptance of the above conditions by signing and returning this notice within 7 days of receipt.

RE:	APPLICATION FOR AUTHORIZATION TO SINK TEN (10) BOREHOES FOR EXPLORATION OF GROUNDWATER POTENTIAL TOWARDS UTILIZATION FOR INDUSTRIAL PURPOSES ON PORTION 7 OF FARM KLEIN OKAPUKA NO. 51.
We tre	ist the above is found in order.
Sincer	ely,
[Reco	mmended /Not Recommended - for Approval]
Mr. D	Louw ING CHIEF ENGINEER: BULK WATER & WASTEWATER
[Appr	oved/ Not Approve d]
M.S ACTI	sincerely Husselmann NG STRATEGIC EXECUTIVE: INFRASTRUCTURE, WATER TECHNICAL SERVICES

Cc: The Chief Executive Officer; Namibia Water Corporation Limited.

18.06.2024

City of Windhoek through an **Interim Authorisation** conditionally approved a Water Abstraction Permit for industrial purposes (agricultural processing) for Portion 7 of Farm Klein Okapuka No. 51. It was issued by the City of Windhoek on 17 October 2024. See the permit with the conditions below:

DEPARTMENT OF INFRASTRUCTURE, WATER AND TECHNICAL SERVICES

59

80 Independence Avenue WINDHOEK, NAMIBIA

THE RESIDENCE OF THE PARTY OF T

Tel: (+264) 61 290 2335

c-mail: INF@windhoekcc.org.na

www.cityofwindhoek.org.na

ENQ: S. Mulele

DATE: 17/10/2024

TEL: 061-290 3067 REF: 16/1

Namib Poultry Industries (PTY) Ltd P.O. Box 20276, Klein Okapuka Farm, B1 Highway Windhoek. Namibia

Dear Ms. E. Gustavo

RE: APPLICATION FOR AUTHORIZATION TO ABSTRACT GROUNDWATER FROM ONSITE BOREHOLES FOR INDUSTRIAL PURPOSES (AGRICULTURAL PROCESSING) ON PORTION 7 OF FARM KLEIN OKAPUKA NO. 51.

- 1. Your application dated 19 September 2024 on the above subject matter, refers.
- The application is for authorization to abstract groundwater from boreholes on the property towards security of supply in times of restricted supply from conventional sources.
- Groundwater abstracted from the boreholes will be utilized for purposes of agricultural food
 processing, in anticipation of insecure supply from the Namibia Water Corporation
 (NamWater), should drought conditions prevail.
- 4. The required volume for abstraction is 1 180 m³ per day from the following boreholes:
 - 4.1 Boreholes BH06 and BH07, that are legacy boreholes with combined sustainable yield of 330m³ per day.
 - 4.2 Boreholes WW205933 and WW205934 from 2023 drilling campaign with combined sustainable yield of 450m³ per day.
 - 4.3 Boreholes WW205950, WW205951, WW205953 and WW205954 from 2024 drilling campaign with a combined sustainable yield of 400m³ per day.
- The combined scheme capacity comprising of old and new boreholes totals a sustainable yield of 424, 800 m³ per annum.
- 6. This application was reviewed with consideration of prior correspondences and conditions therein. The following conditions were taken into account in fulfilment towards consideration for authorization to abstract from the scheme:
 - 6.1 That the applicant submits proof of environmental clearance certificate.
 - 6.2 That the applicant develops and submit a water management plan.
 - 6.3 That a tripartite agreement be reached between NamWater, the City of Windhoek and the applicant, on utilization of the developed scheme.

All official correspondence must be addressed to the Chief Executive Officer

- Taking into consideration the following factors; (a) the outcomes of the drilling campaigns (2023 and 2024), prior existing information and latest results from testing of old pre-existing boreholes and (c) conditions highlighted in point 6 above, it was resolved as follows;
 - 7.1 That your application for abstraction from the stated boreholes (point 4.1-4.3) can only be approved as interim measure for the remaining term to the end of the 2024/25 rainy season. Thus, this <u>interim authorization</u> is <u>approved</u> for abstraction of 424 800m³ per annum premised on the present state of water security to the central areas and standard conditions of Annexure 1(b).
 - 7.2 Formalization of authorization to abstract in the 2025/26 rainy season shall be subject to the declared water security situation and further to the following;
 - 7.2.1 That the applicant submits proof of environmental clearance.
 - 7.2.2 That the applicant develops and submit a water management plan.
 - 7.2.3 That a tripartite agreement be reached between Namwater, the City of Windhoek and the applicant, on utilization of the developed scheme.
 - 7.2.4 Comprehensive submission of a monitoring data and report
 - 7.3 Meanwhile, the City of Windhoek will continue to review and validate the results from the completed drilling campaigns for comprehensiveness.
- Should you accept the above stated conditions, please complete Annexure 1(a) to this letter
 and return for official confirmation. Failure to return a signed form, shall be deemed
 negation of the conditions and thus render this authorization invalid.

You are herewith requested to confirm your acceptance of the above conditions by signing and returning this notice within 7 days of receipt.

Not Recommended []	
NATION O WACONNATION	
VATER & WASTEWATER	
Not Approved	[]
	VATER & WASTEWATER

ACTING STRATEGIC EXECUTIVE: INFRASTRUCTURE, WATER

AND TECHNICAL SERVICES

Cc: The Chief Executive Officer; Namibia Water Corporation Limited.

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 site and area in general were reviewed to determine potential environmental issues and concerns.

b) Site assessment (site visit)

A site visit was conducted and the immediate surrounding area was assessed. Further site visits to investigate the environmental parameters on site to enable further understanding of the potential impacts on site also took place.

c) Public participation

The public was invited to give input, comments and opinions regarding the proposed project. Notices were placed in two local newspapers (New Era and the Namibian of 18, 19, 20 and 25 March 2025) on two consecutive weeks inviting the public to participate and provide comments on the proposed project. Copies of the newspaper notices are attached to this report. Notices were also placed on the Notice Board of the City of Windhoek - see attached. The closing date for any questions, comments, inputs or information on the Newspaper Notices was 9 April 2025. The closing date for comments / inputs / questions on the Background Information Document was 27 June 2025.

A Background Information Document was sent to all the neighbouring farms for info and comments. See below the list of neighbours who received the BID:

Farm Name	Email address
Otjiseva No. 420	otjiseva@mweb.com.na
Hans-Dieter Wiss	
Triangle No. 47	otjiseva@mweb.com.na
Hans-Dieter Wiss	
Remainder of Monte Christo No. 46	fritz.roethel@gmail.com
Fritz Röthel	
Portion 5 (a Portion of Portion A) of Klein	pliebenberg@meatco.com.na
Okapuka No. 51	
Meatco	
Patric Liebenberg	
The Remainder Portion 135 of Farm Brakwater	dirk@stone.com.na
No. 48	
Dirk Mudge	
Portion 159 (a Portion of Portion) Farm	dirk@stone.com.na
Brakwater No. 48	
Dirk Mudge	

Portion 1 of B of Klein Okapuka No. 51	swillie@iafrica.com.na
Anton Seabrooke	
Re / Portion A of Klein Okapuka No. 51	anja.foxy14@gmail.com
Anja Flachberger	
Portion 5 of Farm Otjihavera No. 62	splaatjie@namibmills.com.na
Namib Mills	
Suvi Plaatjie	
Portion 7 of Farm Klein Okapuka	JHuman@npi.com.na
Namib Poultry	
Janneman Human	

No comments or objections were received from the info shared in the public participation process

d) Scoping

Based on the desk top study, site visits 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 project, 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. ASSUMPTIONS AND LIMITATIONS

It is assumed that the information provided by the proponent (Namib Poultry (Pty) Ltd), SLR Environmental Consulting (Namibia) and the Project Manager and other relevant parties are accurate. Alternative sites were not evaluated as the proposed site is the site owned by the proponent. 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.

9. 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 are the following:

- The Namibian Constitution
- The Environmental Management Act (No. 7 of 2007) and Regulations (2012)
- The Water Resources Management Act (No 11 of 2013) and Water Resources Management Regulations (WRMA)
- City of Windhoek Groundwater Management Policy
- 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 ensure that the natural resources and features like rivers, plants, trees as well as water resources are protected and sustained by providing measures against destroying the environment and the natural resources. This article recommends that a relatively high level of environmental protection is called for in respect of activities which might impact on these natural resources. 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 the environmental rights, the proponent, Namib Poultry (Pty) Ltd, should consider the following in devising an action plan in response to these articles:

- Implement a "zero-harm" policy, which would guide decisions and operations.
- 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 Environmental Control System (ECS).

ENVIRONMENTAL MANAGEMENT ACT (NO. 7 OF 2007) AND REGULATIONS (2012)

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:

WATER RESOURCE DEVELOPMENTS

- 8.1 The abstraction of ground or surface water for industrial or commercial purposes.
- 8.2 The abstraction of groundwater at a volume exceeding the threshold authorised in terms of a law relating to water resources.
- 8.5 Construction of dams, reservoirs, levees and weirs.
- 8.7 Irrigation schemes for agriculture excluding domestic irrigation.

Cumulative impacts associated with the project must be included as well as public consultation. The Act further requires all major industries and developers 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. They 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 fits in with the surrounding activities and does not have a negative impact on the prevailing environment. No further de-bushing or land clearing is required for the agricultural activities and no additional water above the current abstraction allocation is required for the continues operation of the project.

THE WATER RESOURCES MANAGEMENT ACT (NO 11 OF 2013)

Water Resources Management Act (No 11 of 2013) provide for the management, development, protection, conservation, and use of water resources; to establish the Water Advisory Council, the Water Regulatory Board and the Water Tribunal; and to provide for incidental matters. Part VIII of the Act stipulates the conditions to comply with before a permit is issued for the abstraction and use of water for irrigation purposes.

For the purposes of the application and renewal of the water abstraction license, the following sections of the Act are applicable:

Section 33 of the Act - Application for licence to abstract and use water:

- 33. (1) A person who wishes to abstract and use water may apply to the Minister for a licence to abstract and use water in the prescribed manner and form, which application must include:
- (a) the name of the applicant;
- (b) the water resource from which the proposed abstraction will be made;
- (c) the proposed location of the abstraction;
- (d) the type and location of the proposed beneficial use;
- (e) the names of owner and occupier of the land upon which the proposed beneficial use will be made;
- (f) the proposed rate and volume of the abstraction;
- (g) the proposed timing of the abstraction;
- (h) a description of any waterworks necessary to accomplish the proposed abstraction and put the abstracted water to beneficial use and a proposed schedule for the completion of such waterworks;
- (i) a description of the proposed treatment that will be given to the abstracted water, including any chemicals proposed to be applied to the water;
- (j) a description of the volume, rate and chemical composition of any effluent or return flow resulting from application of the abstracted water to beneficial use and a description of the location that any such effluent or return flow is expected to enter a water resource; and
- (k) any additional information the Minister may prescribe.
- (2) An applicant for a licence to abstract and use water must, at least 60 days before he or she submits the application to the Minister, issue a notice in the Gazette -
- (a) inviting all interested persons to submit their objections in writing, if any; and
- (b) stating the place at and period within which objections are to be submitted, which period may not be less than 30 days.
- (3) An application for a licence to abstract and use water must be accompanied by -
- (a) proof of publication of the notice referred to in subsection (2), and all the objections, if any;
- (b) the prescribed fee; and
- (c) an environmental impact analysis of the proposed abstraction of water upon the environment and existing water users and water resources.

Section 35 of the ACT - Criteria upon which licence to abstract and use water may be issued:

- 35. (1) In deciding whether a licence to abstract and use water should be issued, the Minister must consider the following criteria –
- (a) whether the proposed abstraction and use of water are consistent with -
- (i) the objectives and principles referred to in sections 2 and 3, respectively;
- (ii) the Master Plan; and
- (iii) any reservation of water made under section 27;
- (b) the impact of the proposed abstraction upon existing water users, water resources and the water reserved or allocated for environmental uses;
- (c) the safe yield of the aquifer from which the abstraction is proposed, if the application is for the abstraction of groundwater;
- (d) the conformity of the proposed use with the efficient water management practices;
- (e) the need to redress the effects of past racial and gender discrimination;
- (f) the likely effect of the proposed abstraction -
- (i) on the quality of any water resource, and on aquatic ecosystems dependent on the resource:
- (ii) on Namibia's international obligations relating to internationally shared waters;
- (g) the need to ensure the efficient and beneficial use of water resources;
- (h) the existence of any traditional community and the extent of customary rights and practices in, or dependent upon, the water resource to which an application for the licence relates: and
- (i) any additional criteria the Minister may prescribe.
- (2) If the application for a licence to abstract and use water relates to a shared watercourse, the Minister, in addition to the criteria referred to in subsection (1), must consider the following matters -
- (a) the volume of water abstracted and used by all concerned persons or communities;
- (b) the nature of the uses dependent on the watercourse, including the economic and cultural value of the use:
- (c) the number of persons relying upon the watercourse for domestic, agricultural or commercial purposes;
- (d) the date on which the abstractions of water from the watercourse commences;
- (e) the availability and reliability of alternative sources of water to support existing uses; and
- (f) the increases in demand for water from the watercourse reasonably expected to occur in the foreseeable future.
- (3) The Minister may issue more than one licence to abstract and use water from one water resource, subject to such terms and conditions as will enable concurrent use of the same resource by the applicants.

The licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply.

CONCLUSION AND IMPACT

It is believed that by adhering to the stipulations of the Act, the activities of the project will not have a negative impact.

CITY OF WINDHOEK GROUNDWATER MANAGEMENT POLICY

Permission for the drilling of boreholes and extraction of ground water is evaluated by City of Windhoek against the guidelines of their Water Management Plan. Thus, City of Windhoek's permission must be obtained for the drilling of boreholes as well as the abstraction of groundwater in the Windhoek Municipal Area. The final approval of the extraction of this water is subject to obtaining Environmental Clearance from the Ministry of Environment, Forestry and Tourism.

Appendix 1(b)



Standard Conditions for Groundwater Abstraction from Boreholes

- The installation, operation, and maintenance of the borehole installation(s) will be for the account of the applicant.
- Water abstracted from the borehole(s) may be used to augment supplies for sustaining
 production subject to the City's annually confirmed Water Management Plan Category, and
 not to increase current production capacity or be utilized outside of an official confirmed
 supply shortage.
- To monitor borehole abstractions, a water meter and an hour meter must be installed at the cost
 of the applicant, however, the City of Windhoek reserves the right as and when required to
 install water meters with appropriate technology necessary for remote recording.
- Provision must be made for a 25mm pipe or similar alongside the rising main through which a water level meter can be inserted for water level measurements.
- All data available on the borehole(s) and accumulated during operation must be submitted to
 the City of Windhoek on a monthly basis. This data should include at least, but not limited to,
 the Rest Water Level (RWL), Pump Water Level (PWL), and abstraction volumes.
- Analysis of the water quality must be done at least once per annum from the production boreholes and the results forwarded to the City of Windhoek.
- Please forward all the data as well as a copy of any permit issued by the Department of Water Affairs for attention of Mr. S. Mulele, Hydrogeologist, Siyamana. Mulele@windhoekcc.org.na
- The borehole site(s) must be accessible for officials of the City of Windhoek to take water samples for water quality analysis, and to confirm water level and consumption readings as and when required.
- A proposal on how the water abstracted will be treated to suitable standards, and the method of disposal of the waste products, must be submitted to the Strategic Executive: Infrastructure, Water and Technical Services for approval prior to implementation.
- Water may not be transferred across property boundaries nor taken off-site, unless with the express written approval of the Strategic Executive: Infrastructure, Water and Technical Services.
- Water sourced directly from the aquifer or further treated in-house (i.e. per approval referred in condition 10), may not be sold to or consumed by any third party.
- No pipelines from these boreholes may be connected to the potable water infrastructure of the City of Windhoek.
- The City of Windhock reserves the right to cancel, amend and/or add further conditions to this
 authorization as and when necessary or should any of the above conditions not be complied
 with.

OTHER LAWS, ACTS, REGULATIONS AND POLICIES

Table 11: Laws, Acts, Regulations and Policies

	Acts, Regulations and Policies
	gulations & Policies consulted:
Pollution	The Pollution Control and Waste Management Bill is currently in
Control and	preparation and is therefore included as a guideline only. Of reference
Waste	to the mining, Parts 2, 7 and 8 apply. Part 2 provides that no person
Management	shall discharge or cause to be discharged, any pollutant to the air from
Bill (guideline	a process except under and in accordance with the provisions of an air
only)	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.
Water	The Water Resources Management Act (No. 11 of 2013) stipulates
Resources	conditions that ensure effluent that is produced to be of a certain
Management	standard. There should also be controls on the disposal of sewage,
Act	the purification of effluent, measures should be taken to ensure the
7100	prevention of surface and groundwater pollution and water resources
	should be used in a sustainable manner.
Hazardous	The Ordinance applies to the manufacture, sale, use, disposal and
Substances	dumping of hazardous substances, as well as their import and export
Ordinance	and is administered by the Minister of Health and Social Welfare. Its
(No. 14 of	primary purpose is to prevent hazardous substances from causing
1974)	injury, ill-health or the death of human beings.
The Minerals	The Minerals (Prospecting and Mining) Act No. 33 of 1992 provide
(Prospecting	for the reconnaissance, prospecting and mining of minerals in Namibia
and Mining)	and the exercise of control over the minerals. No person shall carry
Act (No. 33 of	on any reconnaissance operations, prospecting operations or mining
1992)	operations in, on or under any land in Namibia, except under and in
1002,	accordance with a non-exclusive prospecting license, a mining claim
	or a mineral license. An estimate of the effect which the proposed prospecting operations and mining operations may have on the
	environment and the proposed steps to be taken in order to minimize
	or prevent any such effect should be determined. The claim holder
	should take all reasonable steps necessary to secure, in accordance
	with any applicable law, the safety, welfare and health of persons
	employed in the claim area and to prevent or minimize any pollution of
	the environment. The claim holder should maintain, in accordance with
	any applicable law, in good condition and repair all accessory works in
Atmospharia	such claim area. Part 2 of the Ordinance governs the control of noxious or offensive
Atmospheric Pollution	
Pollution	gases. The Ordinance prohibits anyone from carrying on a scheduled

Prevention	process without a registration certificate in a controlled area. The
Ordinance of	registration certificate must be issued if it can be demonstrated that
Namibia (No.	the best practical means are being adopted for preventing or reducing
11 of 1976)	the escape into the atmosphere of noxious or offensive gases
, , , , , , , , , , , , , , , , , , , ,	produced by the scheduled process.
Nature	The Nature Conservation Ordinance (No. 4 of 1975) covers game
Conservation	parks and nature reserves, the hunting and protection of wild animals,
Ordinance	problem animals, fish and indigenous plant species. The Ministry of
	Environment, Forestry and Tourism (MEFT) administer it 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.
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).

Green Earth Environmental Consultants believe the above administrative, legal and policy requirements which specifically guide and govern the development at the proposed project site will be followed and complied with in the assessment of the activity.

10. AFFECTED RECEIVING ENVIRONMENT

10.1.BIODIVERSITY AND VEGETATION

The vegetation on Farm Klein Okapuka forms part of the Tree and Shrub Savannah Biome, specifically the Highland Savannah. The project site is showing evidence of some human inference namely informal tracks are present on some areas of the site and a few gravel roads are present on the site.

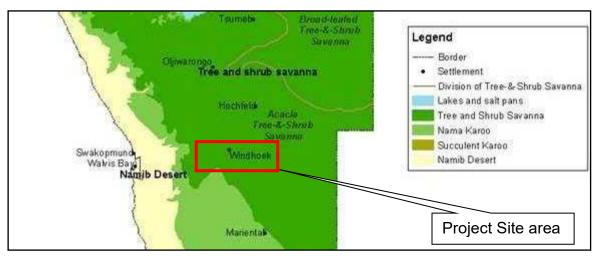


Figure 8: Biomes of Namibia (Atlas of Namibia, 2002)

During the site visit, various species of trees/shrubs were identified on and near the proposed project area. Of these, 6 species (*Acacia erioloba*, *Albizia anthelmintica*, *Boscia albitrunca*, *Ozoroa crassinervia*, *Searsia lancea* & *Ziziphus mucronata*) are protected under Forestry legislation with 1 species also being "near-endemic" (*Ozoroa crassinervia*).

The most important tree/shrub species expected from the general area are the various protected species and species of conservation concern and include *Commiphora dinteri* (endemic), *Cyphostemma bainesii* (endemic, NC), *Cyphostemma currorii* (NC) and *Heteromorpha papillosa* (endemic). All aloe species are protected in Namibia and other species potentially occurring in the general area are *Aloe hereroensis* and *Aloe zebrina* (*Rothmann*, 2004). None of the species are exclusively associated with the project area.

Small birds and insects were observed during the site visit. The natural characteristics of the project site namely the vegetation clearance and the destruction of habitats are expected to further on have a low impact on the environment before the mitigation measures are taken and after the mitigation measures are taken, the impact will be very low.

10.2.CLIMATE

No specific climate data is available for the project site. Farm Okapuka and surroundings in general is characterized with a semi-arid highland savannah climate typified as very hot in summer and moderate dry in winter. The highest temperatures are measured in December with an average daily temperature of maximum 31°C and a minimum of 17°C. The coldest temperatures, conversely, are measured in July with an average daily maximum of 20°C and minimum 6°C (*Weather - the Climate in Namibia*, 1998 – 2012). The area therefore has low frost potential.

Rainfall in the form of thunderstorms is experienced in the area during the summer months between October and April. The annual average rainfall for the area is 350mm to 400mm however the average evaporation rate is 3 400mm a year (*Weather - the Climate*

in Namibia, 1998 – 2012). Over 70% of the rainfall occurs in the summer months' period between November and March. Rainfall in the area is typically sporadic and unpredictable however the average highest rainfall months are January to March.

Wind is expected to prevent the spread of any nuisance namely noise and smell. The predominant wind in the region is easterly with westerly winds from September to December (*Weather - the Climate in Namibia*, 1998 – 2012). Extreme winds are experienced in the months of August and September and thus significant wind erosion on disturbed areas is visible.

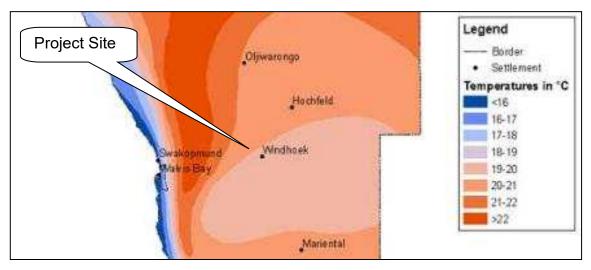


Figure 9: Temperatures in Namibia (Atlas of Namibia Project, 2002)

10.3.GEOLOGY AND SOILS

The Project Site is in the Khomas Trough on a geological area classified as Damara Supergroup and Gariep Complex. See Map below:

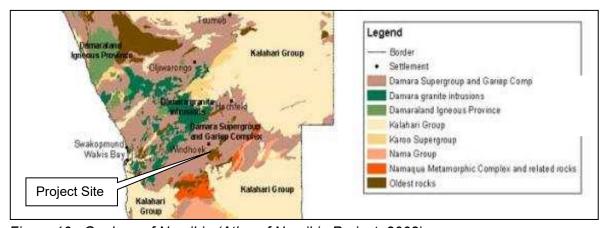


Figure 10: Geology of Namibia (Atlas of Namibia Project, 2002)

10.4.GEOHYDROLOGICAL CHARACTERISTICS OF THE SITE

The bedrock geology of the area consists primarily of highly deformed rocks of the Kuiseb Formation rocks of the Swakop Group. The dominant lithologies are metagreywacke and mica schist. See Map below:

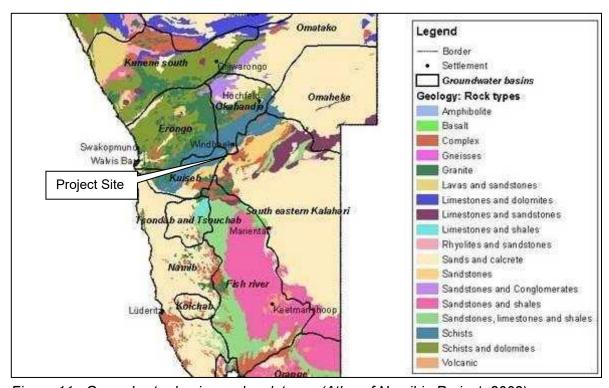


Figure 11: Groundwater basins and rock types (Atlas of Namibia Project, 2002)

The Hydrogeological Map of Namibia shows that the study area falls in a zone of rock bodies with little groundwater potential (generally low; locally moderate potential) in an area of metamorphic rocks.

The formation encountered during the drilling exercises was the fractured, quartz- biotite schist of the Kuiseb Formation (Swakop Group), with minor chlorite and quartz veins. Groundwater was struck within the fractured and weathered Kuiseb Formation and groundwater levels ranged between 14.33 and 51.71 meter below top of the borehole casing (btc).

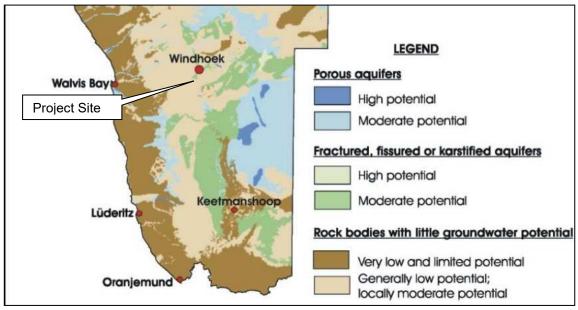


Figure 12: Hydrogeological Map of Namibia (Geological Survey of Namibia, 2015)

It can therefore be concluded that the geological and geohydrological settings limit the flux of groundwater between different groundwater bodies or aquifers in the schist bedrock, thus limiting the movement of potential pollutants within this rock type; limit the probability that groundwater utilisation in one area will adversely affect groundwater availability in surrounding areas, and could result in higher flux within homogenous layers (Geological Survey of Namibia, 2015).

10.5.GROUNDWATER

Ground water pollution can have a negative effect on the receiving environment as well as on the surrounding areas. Soil, geological and geo-hydrological characteristics of the site indicate that the potential significance that water resources will be damaged is very small. For ground water to be contaminated, large amounts of oil or fuel will have to seep through the soil over a period. The Water Resource Management Act (No. 24 of 2004) stipulates that even the potential source of pollution still requires attention namely planning, controlling and managing the possible pollution of the receiving environment as the cumulative impact of many environmentally harmful incidents will in the long run have a detrimental impact on the downstream water sources, resources and users. With precautionary measures that are in place, groundwater contamination is easily prevented, and the proposed operations are not expected to have a detrimental impact on water resources in the area.

10.6.SURFACE WATER

Surface water flow in a catchment is largely determined by rainfall (quantity and intensity), potential evapotranspiration and catchment relief. A drainage system comprises all the elements of the landscape through which or over which water travels within that drainage basin. These elements include the soil, vegetation growing on it, geological materials underlying the soil, stream channels carrying surface water and the zones where water is held in the soil and moves below the surface. It also includes

constructed elements such as pipes and culverts, cleared and compacted land surfaces, and pavement and other impervious surfaces unable to absorb water. The hydrology of a region is thus characterised by the collection, movement and storage of water through a drainage basin.

Alteration of a natural drainage basin through for instance urbanisation can impose dramatic changes in the movement and storage of water. These changes can have negative impacts on other parties that use water for industrial, domestic and livestock watering purposes in the immediate vicinity or downstream.

The major potential impacts of the proposed project on surface water primarily relates to the generation of increased run-off, water quality and possible pollution: Increased storm water and run-off due to vegetation removal during construction. Potential pollution can be due to storage, handling or spillage of hazardous substances and chemicals, potential pollution due to transportation and potential pollution due to sewage disposal and storm water.

Erosion and sedimentation could result from soils that are being exposed during the clearing of land; grading and the installation of underground utilities namely water pipes or related infrastructure, etc. Erosion and sedimentation could further result in the degradation of habitats in the rainy season. Severe impacts may occur if erosion and sedimentation impacts are not taken into consideration namely loss of valuable topsoil, vegetation and habitat. The infrastructure that will be constructed on the site is believed to have a limited impact on erosion and sedimentation since drainage channels will be kept open and will be incorporated in the operations.

10.7.SOCIAL-ECONOMIC COMPONENT

The proposed project will have a positive impact on the socio-economic environment because of employment creation, waste reduction and the provision of energy. Apart from the proponent's intension to make a profit out of the proposed activities, advantages to the area are numerous. The proposed operations will create the need for more business activities such as building maintenance, vehicle maintenance, electrical and additional support for existing businesses etc.

The proposed project will create semi permanent and permanent employment. Since most land use in and around the area is characterised by farming, manufacturing, abattoir and bakery related activities, the operations will not have a negative impact on the neighbours or the surrounding areas.

10.8.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.

10.9.SENSE OF PLACE

The proposed activities will not have a large/negative impact on the sense of place in the area. 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 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 in the operational phase.

10.10. HEALTH

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). 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 work place. The introduction of external workers into the area is sometimes accompanied with criminal activities posing security risks for neighbours. However, the proponent will take certain measures to prevent any activity of this sort. The welfare and quality of life of the neighbours and workforce needs to be considered for the project to be a success on its environmental performance. Conversely, the process should not affect the overall health of persons related to the project including the neighbours.

10.11. ROAD INFRASTRUCTURE

Development is usually associated with an increase in vehicles to and from the site since worker busses, delivery vehicles and trucks are needed for construction and operations. It is important that all vehicle drivers be informed of their potential impact on the environment and on the roads, and that the necessary measures should be taken to prevent any accidents as a result of increased traffic.

11. ASSESSMENT AND EVALUATION

Development, no matter the type or scale, within an un-spoilt or even altered natural environment, is bound to have an impact or further impacts on the environment. This assessment concentrates on both the positive and negative impacts of the proposed housing development. The positive impacts are in terms of financial gain, employment creation and provision of building material.

12. IMPACT ASSESSMENT AND EVALUATION

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

Table 12: Impact Evaluation Criterion (DEAT 2006)

Criteria	Rating (Severity)				
Impact Type	+VE	Positive			
	0	No Impact			
	-VE	Negative			
Significance of impact being	L	Low (Little or no impact)			
either	М	Medium (Manageable impacts)			
	н	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 CONSTRUCTION

Some of the impacts that the project may have on the environment includes water will be used for the construction and operation activities, electricity will be used 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 will make use of water in its construction phase.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Signific	ance
	,,,,,					Unmitigated	Mitigated
Ecology	-VE	2	3	4	3	M	L

12.1.2. ECOLOGICAL IMPACTS

The proposed project will be in a semi disturbed natural area which is sparsely 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	Signific	ance
	,,,,					Unmitigated	Mitigated
Ecology	-VE	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 due to the sandy nature of the top soils. 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. No unnecessary revving of engines or operation of vehicles is allowed. In general, the servicing of these extensions is envisaged to have minimal impacts on the surrounding air quality.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Signific	ance
	7,60					Unmitigated	Mitigated
Dust & Air Quality	-VE	2	2	2	2	М	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 will 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 workers should be equipped with ear protection equipment.

Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Signific	ance
	7,7					Unmitigated	Mitigated
Noise	-VE	2	1	4	2	М	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 work place.

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 they are available on site, always. 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	-VE	1	2	4	2	М	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	Signific	ance
	7,60					Unmitigated	Mitigated
Ground- water	-VE	2	2	2	2	М	L

12.1.7. SEDIMENTATION AND EROSION

Vegetation stabilizes the area against wind 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 Sedimenta tion	-VE	1	2	4	2	М	L

12.1.8. GENERATION OF WASTE

This can be in a form of rubble, cement bags, pipe and electrical wire cuttings. This 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.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Signific	ance
	,,,,,					Unmitigated	Mitigated
Waste	-VE	1	1	4	2	М	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's should not be washed within 25m of any surface water body.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Signific	ance
	,,,,					Unmitigated	Mitigated
Surface water	-VE	2	2	4	3	М	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	Signific	ance
	,,,,,					Unmitigated	Mitigated
Traffic	-VE	2	2	4	3	М	L

12.1.11. FIRES AND EXPLOSIONS

There should be enough water available for firefighting purposes. Ensure that all firefighting devices are in good working order and they are serviced. All personnel must 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	Signific	ance
	,,,,					Unmitigated	Mitigated
Fires and Explosions	-VE	2	2	4	2	М	L

12.1.12. SENSE OF PLACE

The placement, design and construction of the proposed development 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 land and it will not be visually unpleasing.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Signific	ance
	,,,,					Unmitigated	Mitigated
Nuisance Pollution	-VE	1	1	2	2	L	L

12.2.IMPACTS DURING 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. No firewood may be collected on the site. 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	Signific	ance
	,,,,,					Unmitigated	Mitigated
Ecology Impacts	-VE	1	2	4	2	М	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 of maintenance might also occur. All maintenance of bulk services and infrastructure at the project site must be designed to enable environmental protection.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-VE	2	2	4	4	М	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 heath impact on groundwater users. Potential impact on the natural environment from possible polluted groundwater also exits.

Impact Evaluation

Aspect	Impact Type	Scale Duration Magni	Magnitude	tude Probability	Significance		
	.,,,,					Unmitigated	Mitigated
Groundwater contamination	-VE	2	2	4	2	М	L

12.2.4. GENERATION OF WASTE

Household waste from the activities at the site and from the staff working at the site will be generated. This waste will be 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	Signific	ance
						Unmitigated	Mitigated
Waste Generation	-VE	1	2	2	2	М	L

12.2.5. FAILURE IN RETICULATION PIPELINES

There may be a potential release of sewage, storm-water 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	Signific	ance
						Unmitigated	Mitigated
Failure of Reticulation Pipeline	-VE	1	1	4	2	L	L

12.2.6. FIRES AND EXPLOSIONS

Food will be prepared on gas fired stoves. There should be enough water available for firefighting purposes. Ensure that all fire-fighting devices are in good working order and they are serviced. All personnel must 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	Signific	ance
	7,60					Unmitigated	Mitigated
Fires and Explosions	-VE	2	1	4	2	L	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		Significance	ance
	.,,,,					Unmitigated	Mitigated		
Safety & Security	-VE	1	3	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 when added to other past, present, and reasonably foreseeable future actions regardless of what person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period. 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 of diverse activities or undertakings in the area.

Possible cumulative impacts associated with the proposed project includes sewer damages/maintenance, vegetation and animal disturbance, uncontrolled traffic and destruction of the natural 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 construction and operational phase.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance Unmitigated	Mitigated
Cumulative Impacts	-VE	1	3	4	3	L	L

13. INCOMPLETE OR UNAVAILABLE INFORMATION

The exact number of people that will be employed will depend on the type and scope of the activities and the number of individuals needed at each phase of the operations. The Environmental Management Plan (EMP) will therefore include all the possible negative effects of the project in general that could be operated on the site in order to prevent any pollution or harmful impacts whether to neighbours or the environment.

14. 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 for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, Windhoek, Khomas Region of Namib Poultry (Pty) Ltd that may not be undertaken without an Environmental Clearance Certificate.

The specific site has the full potential to be used for the proposed activities. It is believed that the activities will not have a severe negative effect on the environment. It is also believed that this project can largely benefit the economic/employment and water needs of the area.

The negative environmental impacts that may be visible in the operational phase of the project include increases in solid waste generation and wastewater generation 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. As a result of the above-mentioned possible negative impacts on the receiving and surrounding environment, an Environmental Management Plan (EMP) is required to eliminate and guide the operational phase of the project. The operations of Namib Poultry (Pty) Ltd are believed to be an asset to the residents of Windhoek and the Namibian citizens.

After assessing all information available on this project, *Green Earth Environmental Consultants* are of the opinion that the proposed project of Namib Poultry (Pty) Ltd will not have a large impact on the environment. The accompanying EMP will focus on mitigation measures that will remediate or eradicate the negative or adverse impacts.

15. RECOMMENDATION

It is therefore recommended that the Ministry of Environment, Forestry and Tourism through the Environmental Commissioner support and approve the Environmental Clearance: for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, Windhoek, Khomas Region and to issue an Environmental Clearance for the following 'Listed Activities':

WATER RESOURCE DEVELOPMENTS

- 8.1 The abstraction of ground or surface water for industrial or commercial purposes.
- 8.2 The abstraction of groundwater at a volume exceeding the threshold authorised in terms of a law relating to water resources.
- 8.5 Construction of dams, reservoirs, levees and weirs.
- 8.7 Irrigation schemes for agriculture excluding domestic irrigation.

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APPENDIX A: NEWSPAPER NOTICES







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PUBLIC NOTICE ENVIRONMENTAL IMPACT ASSESSMENT

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CALL FOR PUBLIC PARTICIPATION/COMMENTS

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Closing date for 1 April 2025

MALTAHOHE COMMUNITY/ PUBLIC MEETING Stakeholders are strated to attend a public meeting to discuss the establishment of a township.

Project: Portion 19 of the Remains of Maltahohe Townsands No 35

Details of Meeting: 3 April 2025 936h30 at PA Schmidt School Hall Propenent: Maltahana Village Council

FACTORY MANAGER

Cosing date: 28 March 2025 Please email CV to ambler lee@botmail.com

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CALL FOR PUBLIC PARTICIPATION/COMMENTS

ENVIRONMENTAL IMPACT
ASSESSMENT TO OBTAIN AN
ENVIRONMENTAL
CLEARANCE FOR THE
LICENSING OF BOREHOLES,
THE ABSTRACTION OF
GROUNDWATER AND
THE CONSTRUCTION OF
RESERVOIRS TO SUPPLEMENT
WATER SUPPLY FOR THE
ACTIVITIES ON PORTION 7 OF
FARM KLEIN OKAPUKA NO. 51,
WINDHOEK, KHOMAS REGION

Green Earth Environmental Consultants have been appointed to attend to and complete an Environmental Impact Assessment and Environmental Impact Assessment Clearance Certificate as per the requirements of the Environmental Impact Assessment Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (SN 30 in GG 4878 of 6 February 2012) of the Invitronmental Impact Consultant Regulations (SN 30 in GG 4878 of 6 February 2012) of the Invitronmental Impact Consultant Regulations (SN 30 in GG 4878 of 6 February 2012) of the Environmental Impact State Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of the Environmental Impact Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of the Environmental Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of the Environmental Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 10 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 30 in GG 4878 of 6 February 2012) of 2012 in Consultant Regulation (SN 3

Name of proponent: Namib Poultry Industries (Pty)

Project location and description:
Portion 7 of Farm Klein Okapuka
No. 51 is located about 30km north
of Windhoek next to the B1 Road
leading from Windhoek to Okahandja on the western side of the
road. The site is currently used for
the Namibia Poultry broiler production, the broiler abattoir, a clinic, the
Namib Mills Bakery, management
and staff housing and supportied
activities. Additional boreholes have
been drilled on the site. It is the intension of the proponent to licence
these boreholes, obtain permission
to abstract groundwater and to
construct reservoirs to supplement
the current water, supplied by Namwater, for the agrifood production
and processing activities currently
operating on the site.

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 intertest is shown. Registered is APs will be notified of the date and venue of the public assessment.

The last date for comments and/ or registration is 9 April 2025. Contact details for registration and further information:

Green Earth Environmental Consultants Contact Persons: Charlie Du Toit/ Carien van der Walt Tel: 0811273145 E-mail: carien@greenearthnamibia.com

CALL FOR PUBLIC PARTICIPATION/ COMMENTS ENVIRONMENTAL IM-PACT ASSESSMENT TO OBTAIN AN ENVIRONMENTAL CLEARANCE FOR THE LICENSING OF BOREHOLES. THE ABSTRACTION OF GROUNDWA-TER AND THE CONSTRUCTION OF RESERVOIRS TO SUPPLEMENT WATER SUPPLY FOR THE ACTIVITIES ON POR-TION 7 OF FARM KLEIN OKAPUKA NO. 51, WINDHOEK, KHOMAS REGION 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. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, Windhoek, Khomas Region. Name of proponent: Namib Poultry Industries (Pty) Project location and description: Portion 7 of Farm Klein Okapuka No. 51 is located about 30km north of Windhoek next to the B1 Road leading from Windhoek to Okahandja on the western side of the road. The site is currently used for the Namibia Poultry broiler production, the broiler abattoir, a clinic, the Namib Mills Bakery, management and staff housing and supporting activities. Additional boreholes have been drilled on the site. It is the intension of the proponent to licence these boreholes, obtain permission to abstract groundwater and to construct reservoirs to supplement the current water, supplied by Namwater, for the agrifood production and processing activities currently operating on the site. 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 intertest is shown. Registered I & APs will be notified of the date and venue of the public meeting. The last date for comments and/or registration is 9 April 2025. Contact details for registration and further information: Green Earth Environmental Consultants Contact Persons: Charlie Du Toit/Carien van der Walt Tel: 0811273145 E-mail: carien@greenearthnamibia.com

CLAO250000575

CALLFORPUBLICPARTICIPATION/ COMMENTS

ENVIRONMENTAL IMPACT
ASSESSMENT TO OBTAIN AN
ENVIRONMENTAL
CLEARANCE FOR THE
LICINSING OF BOREHOLES, THE
ASSTRACTIONOFGROUNDWATER
AND THE CONSTRUCTION OF
RESERVOIRS TO SUPPLEMENT
WATER SUPPLY FOR THE
ACTIVITIES ON PORTION 7 OF
FARM KLEIN OKAPUKA NO. 51,
WINDHOEK, KHOMAS REGION

Green Earth Environmental Consultants have been appointed to attend to and complete an Environmental Impact Assessment and Environmental Impact Assessment (EMP) to obtain an Environmental Clearance Certificate as per the requirements of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN. 30 of GG. 4878 of 5 February 2012) for the licensing of borefoles, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Niein Okapuka, Windhoek, Khomas Region.

Name of proponent: Namib Poultry Industries (Pty)

Project location and description:
Portion 7 of Farm Klein Okapuka
No. 51 is located about 30km north
of Windhoek next to the BL Road
leading from Windhoek to Okahandja
on the western side of the road.
The site is currently used for the
Namibia Poultry broiler production,
the broiler abottoir, a clinic, the
Namibia Poultry broiler production,
the broiler abottoir, a clinic, the
Namibia Poultry broiler production,
the broiler abottoir, a clinic, the
Namiba Mills Bakery, management
and staff housing and supporting
activities. Additional boreholes
have been dilled on the site. It is
the intension of the proponent to
licence these boreholes, obtain
permission to abstract groundwater
and to construct reservoirs to
supplement the current water,
supplied by Namwater, for the
agrifood production and processing
activities currently operating on
the site.

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 inter

The last date for comments and/or registration is 9 April 2025. Contact details for registration and further information:

Green Earth Environmental Consultants Contact Persons; Charlie Du Tolt/ Carien van der Walt

Tel: 0811273145 E-mail: carlen@greenearthnamibia.





CALL FOR PUBLIC PARTICIPATION/COMMENTS

ENVIRONMENTAL IMPACT
ASSESSMENT TO OBTAIN AN
ENVIRONMENTAL
CLEARANCE FOR THE
LICENSING OF BOREHOLES,
THE ABSTRACTION OF
GROUNDWATER AND
THE CONSTRUCTION OF
RESERVOIRS TO SUPPLEMENT
WATER SUPPLY FOR THE
ACTIVITIES ON PORTION 7 OF
FARM KLEIN OKAPUKA NO, 51,
WINDHOEK, KHOMAS REGION

Green Earth Environmental Consultants have been appointed to attend to and complete an Environmental Impact Assessment and Environmental Impact Assessment Clearance Certificate 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) or the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka. Windhoek, Khomas Region.

Name of proponent: Namib Poultry Industries (Pty)

Project location and description: Portion 7 of Farm Klein Okappuka No. 51 is located about 30km north of Windhoek next to the BJ Road leating from Windhoek to Okahandja on the western side of the road. The site is currently used for the Namibia Poullry broiler production, the broiler abattor, a clinic, the Namibi Mills Bakery, management and staff housing, and supporting activities. Additional boreholes have been dilled on the site, it is the intension of the proponent to licence these borsholes, obtain permission to abstract groundwater and to construct reservoirs to supplement the current water, supplied by Namwater, for the agarfood production and processing activities currently, operating on the site.

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 intertest is shown. Registered I & APs will be notified of the date and venue of the public meeting.

The last date for comments and/or registration is 9 April 2025.
Contact details for registration and further information:

Green Earth Environmental Consultants Contact Persons: Charlie Du Toit/ Carsen van der Walt. Tel: 08112/3145 E-mail: carien@greenearthnam/bia.com

CALL FOR PUBLIC PARTICIPATION/ COMMENTS ENVIRONMENTAL IM-PACT ASSESSMENT TO OBTAIN AN **ENVIRONMENTAL CLEARANCE FOR** THE LICENSING OF BOREHOLES, THE ABSTRACTION OF GROUNDWA-TER AND THE CONSTRUCTION OF RESERVOIRS TO SUPPLEMENT WA-TER SUPPLY FOR THE ACTIVITIES ON PORTION 7 OF FARM KLEIN OKAPU-KA NO. 51, WINDHOEK, KHOMAS RE-GION 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. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, Windhoek, Khomas Region.

Name of proponent: Namib Poultry Industries (Pty)

Project location and description:
Portion 7 of Farm Klein Okapuka No.
51 is located about 30km north of
Windhoek next to the B1 Road leading
from Windhoek to Okahandja on the
western side of the road. The site is
currently used for the Namibia Poultry
broiler production, the broiler abattoir,
a clinic, the Namib Mills Bakery, management and staff housing and supporting activities. Additional boreholes
have been drilled on the site. It is the
intension of the proponent to licence
these boreholes, obtain permission

as abstract groundwater and to construct reservors to supplement the ourself water, supplied by Namwater, by the agrifood production and processing activities currently operating on the site. 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 intertest is shown. Registered I & APs will be notified of the date and venue of the public meeting. The last date for comments and/or registration is 9 April 2025. Contact details for registration and further information: Green Earth Environmental Consultants Contact Persons: Charlie Du Toit/Caries van der Walt Tet: 0811273145

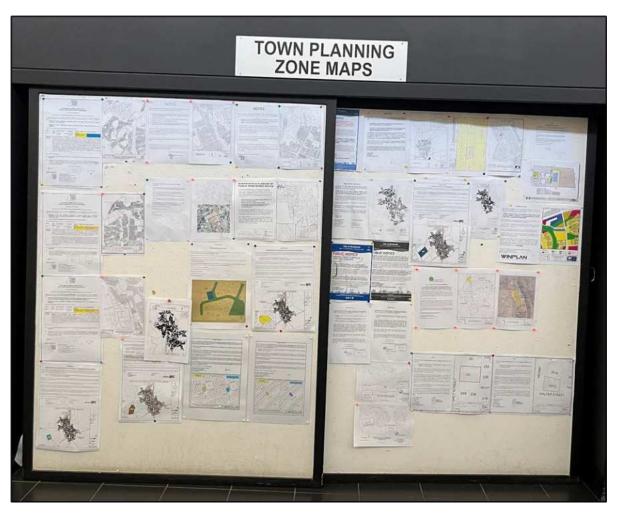
E-mail: carien@greenearthnambia.com CLAO250000575

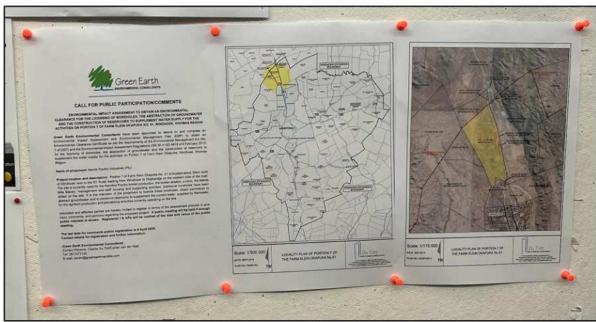
CALL FOR PUBLIC PARTICIPATION/COMMENTS ENVIRONMENTAL IMPACT ASSESSMENT TO OBTAIN AN
ENVIRONMENTAL CLEARANCE FOR THE LICENSING OF
BOREHOLES, THE ABSTRACTION OF GROUNDWATER AND
THE CONSTRUCTION OF RESERVOIRS TO SUPPLEMENT WATER SUPPLY FOR THE ACTIVITIES ON PORTION 7 OF FARM
KLEIN OKAPUKA NO. 51, WIND-

HOEK, KHOMAS REGION Green have been appointed to attend to and complete an Environmental Impact Assessment and Environto obtain an Environmental Clear ance Certificate as per the requirements of the Environmental Management Act (No. 7 of 2007) and the Environmental Impac Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, Windhoek, Khomas Region. Name of proponent: Namib Poultry Industries (Pty) Project location and description: Portion 7 of Farm Klein Okapuka No. 51 is located about 30km north of Windhook next to the B1 Road leading from Windhook to Okahandja on the western side of the road. The site is currently used for the Namibia Poultry broiler production, the broile abattoir, a clinic, the Namib Mils Bakery, management and staff housing and supporting activities. Additional boreholes have been drilled on the site. It is the intension of the proponent to licence these boreholes, obtain permission to abstract groundwater and to construct reservoirs to supplement the current water, supplied by Namwater, for the agrifood production and processing activities currently operating on the site. 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 intertest is shown. Registered I & APs will be notified of the date and venue of the public meeting. The last date for comments and/or registration is 9 April 2025. Contact details for registration and further information: Green Earth Environmental Consultants Contact Persons; Charlie Du Tolt/Carien van der Wall Tel: 0811273145 E-mail: carien@ greenearthnamibia.com

CLA0250000575

APPENDIX B: NOTICE ON NOTICE BOARD

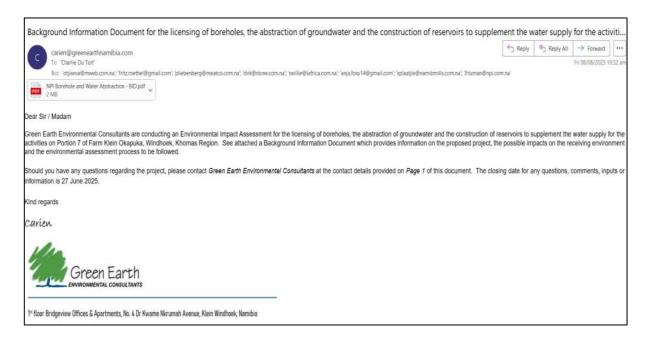


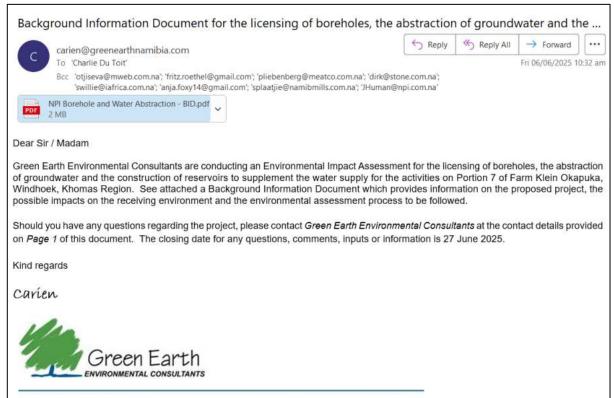


APPENDIX C: LIST OF NEIGHBOURS

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

APPENDIX D: EMAIL SENT TO NEIGHBOURS





Background Information Document for the licensing of boreholes, the abstraction of groundwa... Reply ≪ Reply All -> Forward carien@greenearthnamibia.com To 'info@eia-tracker.org.na' Mon 16/06/2025 12:41 pm NPI Borehole and Water Abstraction - BID.pdf Dear Sir / Madam Green Earth Environmental Consultants are conducting an Environmental Impact Assessment for the licensing of boreholes, the abstraction of groundwater and the construction of reservoirs to supplement the water supply for the activities on Portion 7 of Farm Klein Okapuka, Windhoek, Khomas Region. See attached a Background Information Document which provides information on the proposed project, the possible impacts on the receiving environment and the environmental assessment process to be followed. Should you have any questions regarding the project, please contact Green Earth Environmental Consultants at the contact details provided on Page 1 of this document. The closing date for any questions, comments, inputs or information is 27 June 2025. Kind regards carien

APPENDIX E: EMAIL FROM INTERESTED PARTY

Comments received:

From: info@eia-tracker.org.na <info@eia-tracker.org.na>

Sent: Sunday, 20 April 2025 2:56 pm To: carien@greenearthnamibia.com

Subject: Environmental Impact Assessment to Obtain an Environmental Clearance for the Licensing of Boreholes, the Abstraction of Groundwater, and the Construction of Reservoirs to Supplement Water Supply for the Activities on Portion 7 of Farm Klein

Okapuka No. 51

Dear Sir/Madam

I am also hereby requesting to be registered as an I&AP for the EIA:

Environmental Impact Assessment to Obtain an Environmental Clearance for the Licensing of Boreholes, the Abstraction of Groundwater, and the Construction of Reservoirs to Supplement Water Supply for the Activities on Portion 7 of Farm Klein Okapuka No. 51, Windhoek, Khomas Region.

Would you also forward me the BID including the project site coordinates?

Regards,

https://eia-tracker.org.na

Simeon Namweya EIA Tracking and Monitoring in Namibia (EIA Tracker) Namibian Environment and Wildlife Society Cell:+264 81 354 9340

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 F: CURRICULUM VITAE OF CHARLIE DU TOIT

1. Position: Environmental Practitioner

Name/Surname: Charl du Toit
 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

EAPAN Member (Membership Number: 112)

6. Membership of

Professional

Association:

7. Languages:	Speaking	Reading	Writing

English Good Good Good Afrikaans Good Good Good

8.	Employment	<u>From</u>	<u>To</u>	<u>Employer</u>	Position(s) held
----	------------	-------------	-----------	-----------------	------------------

Record: 2009 Present Green Earth Environmental

Environmental Practitioner

Consultants

2005 2008 Elmarie Du Toit Manager

Town Planning
Consultants

2003 2005 Pupkewitz General Manager

Megabuild

1995 2003 Agra Cooperative Manager Trade

Limited

Namibia Chief Agricultural

1989 1995 Development Consultant

Corporation

Ministry of

Agricultural

1985

1988

Agriculture

Researcher

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 G: CURRICULUM VITAE OF CARIEN VAN DER WALT

1.	Position:	Environmental Consultant
1.	Position:	Environmental Consult

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	iversity of Stellenbosch B.A. (Degree) Environment and	
	Development	
University of South Africa	B.A. (Honours) Environmental	2012 to 2013
	Management	

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	То	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 H: DRILLING AND TEST PUMPING REPORT FOR NPI

APPENDIX I: WATER RESOURCES MANAGEMENT PLAN

APPENDIX J: ENVIRONMENTAL MANAGEMENT PLAN