Environmental Assessment Scoping Report for

The Proposed Poultry Farm
Establishment on Portion 193 of
the Farm Osona Commonage
No. 65, Okahandja,
Otjozondjupa Region.

APP-002511

Prepared for: Kadila Poultry Farming (Pty) Ltd PO Box 81905, Olympia, Windhoek Contact Number: +264 811275427 Contact Person: Mr. Paulo Shipoke

Email: shipokepaulo@gmail.com

Prepared by: Stubenrauch Planning Consultants

P.O. Box 41404, Windhoek

Contact Person: Bronwynn Basson Contact Number: +264 (61) 25 11 89 Fax Number: +264 (61) 25 11 89

Email: bronwynn@spc.com.na



December 2023

PROJECT DETAILS

	Environmental Scoping Rep	ort for the:		
Title	Environmental ImPoultry Farm Estable	pact Assessment dishment on Porti	for the Proposed on 193 of the Farm andja, Otjozondjupa	
Report Status	Final			
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	Kadila Poultry Farming (Pty)	Ltd		
	P O Box 81905, Olympia, Windhoek, Namibia			
Proponent	Contact Person: Mr. Paulo S	hipoke		
	Contact Number: +264 811275427			
	Email: <u>shipokepaulo@gmail.com</u>			
Environmental Assessment Practitioner	Stubenrauch Planning Consultants P.O. Box 41404, Windhoek Contact Person: Bronwynn Basson Contact Number: +264 (61) 25 11 89 Fax Number: +264 (61) 25 11 89 Email: bronwynn@spc.com.na			
Report date	December 2023			
	Name	Signature	Date	
Authors	Elina SP Vakuwile	B x	December 2023	
Director	Magnus van Rooyen	M. L 4	December 2023	

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EXECUTIVE SUMMARY

Introduction

Kadila Poultry Farming Pty Ltd hereinafter referred to as the proponent intends to undertake the following activities:

- Rezoning of Portion 193 of the Farm Osona Commonage No. 65 From "Undetermined" to "Agriculture";
- Application of Consent to commence with construction while the rezoning is in progress;
 and
- Inclusion of the rezoning in the next Zoning Scheme to be prepared for Okahandja.

The above development triggers listed activities in terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012).

As such the proponent appointed Stubenrauch Planning Consultants (SPC) to undertake an independent Environmental Assessment (EA) in order to obtain an Environmental Clearance Certificate (ECC) for the above activities. The competent authority is the Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs and Forestry (MEFT: DEAF).

Project Description

Kadila Poultry Farming Pty Ltd intends to rezone Portion 193 of the Farm Osona Commonage No. 65 from "undetermined to Agriculture" and operate a Poultry Farm on Portion 193 of the Farm Osona Commonage No. 65. Which would allow for the productive use of land. Agriculture particularly poultry farming, can make effective use of the available space. The proposed development of agriculture is aimed at enhancing food security, promoting environmental sustainability and creating economic opportunities for residents.

The concept of promoting agricultural development in Okahandja will diversify the local economy, reducing its reliance on a single sector. This diversification enhances the resilience of the community, making it less vulnerable too fluctuations in global markets. By encouraging agricultural entrepreneurship and innovation, Council can foster a dynamic business environment and attract skilled individuals who can contribute to the growth and prosperity of Okahandja. Additionally, the presence of agricultural activities can enhance the quality of life in Okahandja, promoting healthier lifestyles and creating a sense of pride and identity within the community.

Rezoning the undetermined land to agriculture will provide a significant boost to the local economy. Agriculture is a fundamental sector that generates employment opportunities in the community. It will attract investment in farming activities, agribusiness and income for the community.

Operating a poultry farm can create economic opportunities for the local community. Given that the Poultry farm is in close proximity to the Osona Village development it has the potential to

generate employment for the residents that currently live in Osona village and in the future some workers of the poultry farm can purchase or lease property from the Osona Village Development also allowing the Osona Development to generate income from this project. Furthermore, the project can both directly and indirectly through related industries create other forms of employment, such as feed suppliers, transportation services and processing facilities. This can contribute to the economic growth and development of Okahandja.

Regarding the application of Consent to commence with construction while the rezoning is in progress, the Municipality of Okahandja has shown its support for the poultry farm project by making arrangements with the Proponent to commence with the construction during the ongoing rezoning process. This demonstrates that the Municipality's trust in the Proponent's ability to deliver a project that adheres to all regulations and meets the development goals. By commencing with construction as agreed, the Proponent aims to honour the agreement and uphold their commitment to responsible and cooperative development. The Council however is to formally approve the "Consent to commence with construction while the rezoning is in process". This consent can be granted since the current land use is "Undetermined" an as such, the consent does not contravene with the Okahandja Zoning Scheme regulations.

The construction and placing of a poultry farm are crucial because the broilers that will be used for poultry farming will be located in the north-western part of the portion thus meaning it is a safe distance away from the residential area of Okahandja especially the Osona Village Development and given the size of the land that the poultry farm is proposed on. Furthermore, the servitudes that are currently on the portion also played a crucial role in the placing of the broilers.

This project puts the interests and the health of the residents as a priority. Slaughtering of the chicken farmed at the project will be taking place at NPI Processing Plant at Okapuka and not where the chickens will be farmed. The broilers will be enclosed and are to be placed at a safe distance from each other. This will ensure that even in a case where one broiler is infected, the other broilers are protected from the infection. Thus, making it difficult for the spread of diseases from one broiler to the other.

Public Participation

Communication with Interested and Affected Parties (I&APs) about the proposed development was facilitated through the following means and in this order:

- A Background Information Document (BID) containing descriptive information about the proposed activities was compiled and sent out to all identified and registered I&APs via email on 23 October 2023;
- Notices were placed in the New Era and The Namibian newspapers dated 23 October 2023 and 30 October 2023, briefly explaining the activity and its locality, inviting members of the public to register as I&APs (Appendix B); and
- A notice was fixed at the project site (see Appendix A);

Public consultation was carried out according to the Environmental Management Act's EIA Regulations. After the initial notification, the I&APs were given two weeks to submit their comments on the project (until **13 November 2023**). The comment period will remain open until the final scoping report is submitted to MEFT.

The Draft Scoping Report was circulated from the **23 November 2023** until the **06 December 2023** so that the public could review and comment on it. The overall commentary received from the public on the draft report will be documented in the comments and responses report document of this report.

Conclusions and Recommendations

With reference to **Table 7**, none of the negative construction phase impacts were deemed to have a high significant impact on the environment. The construction impacts were assessed to a *Medium to Low (negative)* significance, without mitigation measures. With the implementation of the recommended mitigation measures in Chapter 7 as well as in the EMP, the significance of the construction phase impacts is likely to be reduced to a *Low (negative)*.

With reference to **Table 7**, none of the negative operational phase impacts were deemed to have a high significance impact on the environment. The operational impacts were assessed to a *Medium* (*negative*) significance, without mitigation measures. With the implementation of the recommended mitigation measures in Chapter 7 as well as in the EMP, the significance of the construction phase impacts is likely to be reduced to a *Low* (*negative*).

It is recommended that this project be authorised because should the development not proceed the subject area will remain zoned for undetermined purposes. As such, the proposed site would not be rezoned to be used for Agricultural purposes and the poultry farm will not be established. Thus, the residents of Okahandja will not benefit or be impacted by the poultry activities proposed for the site. Operating a poultry farm can provide opportunities for skills development and capacity building within the community. Residents can gain valuable knowledge and expertise in poultry farming practices, animal husbandry and business management. These skills can empower individuals to pursue entrepreneurial ventures, leading to broader socioeconomic development.

Thus, it is put forward that the intended development will not have any negative socio-economic impacts but rather positively contributes to the development of Okahandja. The local community is expected to benefit from the development as a result of the potential job opportunities during construction as well as the increased development within the area. The significance of the social impact was therefore deemed to be *Medium (positive)*. The "no go" alternative was thus deemed to have a High (negative) impact, as all the benefits resulting from the development would not be realised.

The significance of negative impacts can be reduced with effective and appropriate mitigation provided in this report and the EMP. If authorised, the implementation of the EMP should be included as a condition of approval.

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I&AP Database & Registered List

Notification Letters and Emails sent of BID Notification Letters and Emails sent of DESR

Comments and Responses

Annexure D: Consent Letter

Annexure E: Curriculum Vitae of Environmental Assessment Practitioner

Annexure F: Environmental Management Plan

LIST OF ACRONYMS

AIDS Acquired Immune Deficiency Syndrome

CRR Comments and response report

dB Decibels

DESR Draft Environmental Scoping Report

EA Environmental Assessment

EAP Environmental Assessment Practitioner
EAR Environmental Assessment Report
ECC Environmental Clearance Certificate

ECO Environmental Control Officer

EIA Environmental Impact Assessment
EMA Environmental Management Act
EMP Environmental Management Plan
FESR Final Environmental Scoping Report

Gesellschaft für Technische Zusammenarbeit

HIV Human Immunodeficiency Virus

1&AP Interested and Affected Party

IUCN International Union for Conservation of NatureMEFT Ministry of Environment, Forestry and Tourism

MEFT: DEAF Ministry of Environment, Forestry and Tourism: Department of Environmental

Affairs and Forestry

MURD Ministry of Urban and Rural Development

MWTC Ministry of Works Transport and Communication

NAMPAB Namibia Planning Advisory Board
NPC Namibia Planning Commission

POS Public Open Space

PPP Public Participation Process

SADC Southern African Development Community

SME Small Medium Enterprise

SPC Stubenrauch Planning Consultants

USAID United States Agency for International Development

VMMC Voluntary Medical Male Circumcision

1.1 PROJECT BACKGROUND

Kadila Poultry Farming Pty Ltd hereinafter referred to as the proponent intends to undertake the following activities:

- Rezoning of Portion 193 of the Farm Osona Commonage No. 65 From "Undetermined" to "Agriculture";
- Application of Consent to commence with construction while the rezoning is in progress; and
- Inclusion of the rezoning in the next Zoning Scheme to be prepared for Okahandja.

The above are listed activities in terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012).

In terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012), the following listed activities in **Table 1** were triggered by the proposed project:

Table 1: List of triggered activities identified in the EIA Regulations which apply to the proposed project.

Activity description and No(s):	Description of relevant Activity	The portion of the development as per the project description that relates to the applicable listed activity
5.1 (d) Land Use and Development	The rezoning of land from the use for nature conservation or zoned open space to any other land use.	The proposed project includes the rezoning of land from Undetermined to Agriculture.

The above activities will be discussed in more detail in Chapter 4. The proponent appointed Stubenrauch Planning Consultants (SPC) to undertake an independent Environmental Assessment (EA) in order to obtain an Environmental Clearance Certificate (ECC) for the above activities. The competent authority is the Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs and Forestry (MEFT: DEAF).

The process will be undertaken in terms of the gazetted Namibian Government Notice No. 30 Environmental Impact Assessment Regulations (herein referred to as EIA Regulations) and the Environmental Management Act (No 7 of 2007) (herein referred to as the EMA). The EIA process will investigate if there are any potential significant bio-physical and socio-economic impacts associated

with the intended activities. The EIA process would also serve to provide an opportunity for the public and key stakeholders to provide comments and participate in the process.

1.2 PROJECT LOCATION

Portion 193 of the Farm Osona Commonage No. 65 is situated South of Okahandja, north-west of the B1 road and the Osona military base as depicted in **Figure 1** below.

1.3 LAND USE

According to the Okahandja Zoning Scheme, Portion 193 of the Farm Osona Commonage No. 65 is currently zoned "Undetermined". Portion 193 of the Farm Osona Commonage No. 65 is located on a gradual sloping terrain and is currently vacant with a few shrubs and trees.

There are no restrictive conditions registered against Portion 193 of the Farm Osona Commonage No.65, that could possibly hinder or prohibit the proposed application.

However, Portion 193 of the Farm Osona Commonage No. 65 has two (2) servitudes registered against it.

There is a 40m right of way servitude on the South-Western side of the portion and an electrical powerline of 25m wide through the subject portion close to the B1 road. Servitudes are indicated on the Rezoning maps see **Figure 7 and 8**.

These servitudes will be reserved and registered against the new Title Deed for Portion 193 of the Farm Osona Commonage No. 65.

1.4 OWNERSHIP

According to the Certificate of Consolidated Title T3528/2015, ownership of the Portion 193 of the Farm Osona Commonage No. 65, vests with Martin and Heide Wucher, and it is zoned for "undetermined" purposes in accordance with the Okahandja Zoning Scheme.

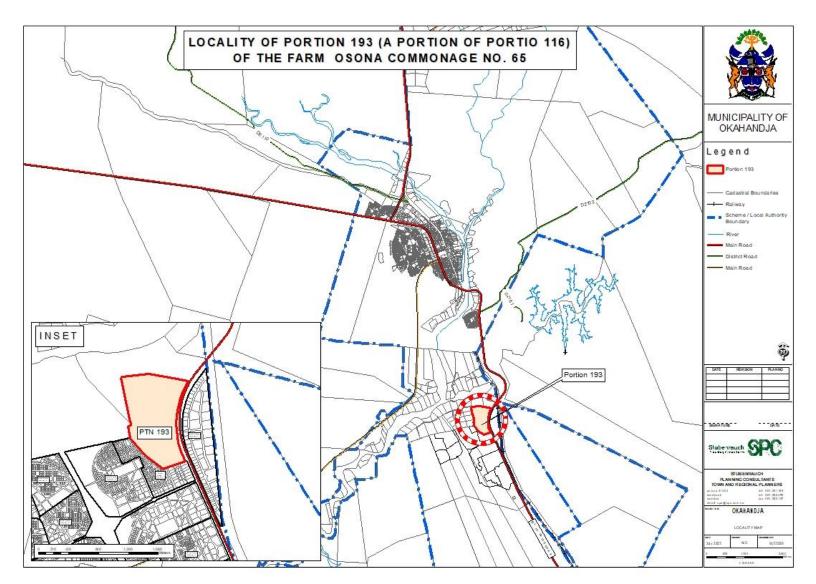


Figure 1: Locality of Portion 193 of the Farm Osona Commonage No. 65

1.5 TERMS OF REFERENCE AND SCOPE OF PROJECT

The scope of this project is limited to conducting an environmental impact assessment and applying for an Environmental Clearance Certificate for the following as indicated in section 1.1 above:

- Rezoning of Portion 193 of the Farm Osona Commonage No. 65 From "Undetermined" to "Agriculture";
- Application of Consent to commence with construction while the rezoning is in progress; and
- Inclusion of the rezoning in the next Zoning Scheme to be prepared for Okahandja.

1.6 ASSUMPTIONS AND LIMITATIONS

In undertaking this investigation and compiling the Environmental Scoping Report, the following assumptions and limitations apply:

- Assumes the information provided by the proponent is accurate and discloses all information available.
- The limitation that no alternative except for the preferred layout plans and the 'no-go' option was considered during this assessment. The unique character and appeal of Okahandja were however taken into consideration with the design perspective. Various layout alternatives were initially considered by the proponent, also taking terrain and environmental constraints into account, thus the current design plans being the most feasible result.

1.7 CONTENT OF ENVIRONMENTAL ASSESSMENT REPORT

Section 8 of the gazetted EIA Regulations requires specific content to be addressed in a Scoping / Environmental Assessment Report. **Table 2** below is an extract from the EMA and highlights the required contents of a Scoping / Environmental Assessment Report whilst assisting the reader to find the relevant section in the report.

Table 2: Contents of the Scoping / Environmental Assessment Report

Section	Description	Section of FESR/ Annexure
8 (a)	The curriculum vitae of the EAPs who	Refer to Annexure E
0 (a)	prepared the report;	Nerel to Alliexule L
8 (b)	A description of the proposed activity;	Refer to Chapter 4
	A description of the site on which the	
8 (c)	activity is to be undertaken and the location	Refer to Chapter 3
	of the activity on the site;	
0 (4)	A description of the environment that may	Pofor to Chanter 2
8 (d)	be affected by the proposed activity and the	Refer to Chapter 3

Section	Description	Section of FESR/ Annexure
	manner in which the geographical, physical,	
	biological, social, economic and cultural	
	aspects of the environment may be affected	
	by the proposed listed activity;	
	An identification of laws and guidelines that	
8 (e)	have been considered in the preparation of	Refer to Chapter 2
	the scoping report;	
	Details of the public consultation process	
8 (f)	conducted in terms of regulation 7(1) in	Refer to Chapter 5
	connection with the application, including	
	(i) the steps that were taken to notify	
	potentially interested and affected parties	Refer to Chapter 5
	of the proposed application	
	(ii) proof that notice boards,	
	advertisements and notices notifying	Refer to Annexures A and B
	potentially interested and affected parties	for site notices and
	of the proposed application have been	advertisements respectively.
	displayed, placed or given;	
	(iii) a list of all persons, organisations and	
	organs of state that were registered in terms	Refer to Annexure C
	of regulation 22 as interested and affected	Refer to Afflexure C
	parties in relation to the application;	
	(iv) a summary of the issues raised by	
	interested and affected parties, the date of	Defeate Amazuma C
	receipt of and the response of the EAP to	Refer to Annexure C
	those issues;	
	A description of the need and desirability of	
	the proposed listed activity and any	
	identified alternatives to the proposed	
	activity that are feasible and reasonable,	
8 (g)	including the advantages and disadvantages	Refer to Chapter 4
	that the proposed activity or alternatives	
	have on the environment and on the	
	community that may be affected by the	
	activity;	

Section	Description	Section of FESR/ Annexure
8 (h)	A description and assessment of the significance of any significant effects, including cumulative effects, that may occur as a result of the undertaking of the activity or identified alternatives or as a result of any construction, erection or decommissioning associated with the undertaking of the proposed listed activity;	Refer to Chapter 7
8 (i)	terms of reference for the detailed assessment;	NB – Assessment of impacts are included in this EA Report
8 (j)	An environmental management plan	Refer to Annexure F

2.1 LEGISLATION RELEVANT TO THE PROPOSED DEVELOPMENT

There are multiple legal instruments that regulate and have a bearing on good environmental management in Namibia. Table 3 below provides a summary of the legal instruments considered to be relevant to this development and the environmental assessment process.

Table 3: Legislation applicable to the proposed development

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
The Constitution of the Republic of Namibia as Amended	Article 91 (c) provides for duty to guard against "the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia."	Sustainable development should be at the forefront of this development.
	Article 95(I) deals with the "maintenance of ecosystems, essential ecological processes and biological diversity" and sustainable use of the country's natural resources.	
Environmental Management Act No. 7 of 2007 (EMA)	Section 2 outlines the objective of the Act and the means to achieve that. Section 3 details the principle of	The development should be informed by the EMA.
	Environmental Management	
EIA Regulations GN 28, 29, and 30 of EMA (2012)	GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate.	5.1 (d) Land Use and Development
	GN 30 provides the regulations governing the environmental assessment (EA) process.	
Convention on Biological Diversity (1992)	Article 1 lists the conservation of biological diversity amongst the objectives of the convention.	The project should consider the impact it will have on the biodiversity of the area.
Draft Procedures and Guidelines for conducting EIAs and compiling EMPs (2008)	Part 1, Stage 8 of the guidelines states that if a proposal is likely to affect people, certain guidelines should be considered by the proponent in the scoping process.	The EA process should incorporate the aspects outlined in the guidelines.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Namibia Vision 2030	Vision 2030 states that the solitude, silence and natural beauty that many areas in Namibia provide are becoming sought after commodities and must be regarded as valuable natural assets.	Care should be taken that the development does not lead to the degradation of the natural beauty of the area.
Water Act No. 54 of 1956	Section 23(1) deals with the prohibition of pollution of underground and surface water bodies.	The pollution of water resources should be avoided during construction and operation of the development.
The Ministry of Environment and Tourism (MET) Policy on HIV & AIDS	MET has recently developed a policy on HIV and AIDS. In addition, it has also initiated a programme aimed at mainstreaming HIV and gender issues into environmental impact assessments.	The proponent and its contractor have to adhere to the guidelines provided to manage the aspects of HIV/AIDS. Experience with construction projects has shown that a significant risk is created when migrant construction workers interact with local communities.
Urban and Regional Planning Act 5 of 2018	The Act provides to consolidate the laws relating to urban and regional planning; to provide for a legal framework for spatial planning in Namibia; to provide for principles and standards of spatial planning; to establish the urban and regional planning board; to decentralise certain matters relating to spatial planning; to provide for the preparation, approval and review of the national spatial development framework, regional structure plans and urban structure plans; to provide for the preparation, approval, review and amendment of zoning schemes; to provide for the establishment of townships; to provide for the alteration of boundaries of approved townships, to provide for the disestablishment of approved townships; to provide for the subdivision and consolidation of land; to provide for the alteration,	The subdivision and consolidation of land as well as the establishment of townships is to be done in accordance with the act.

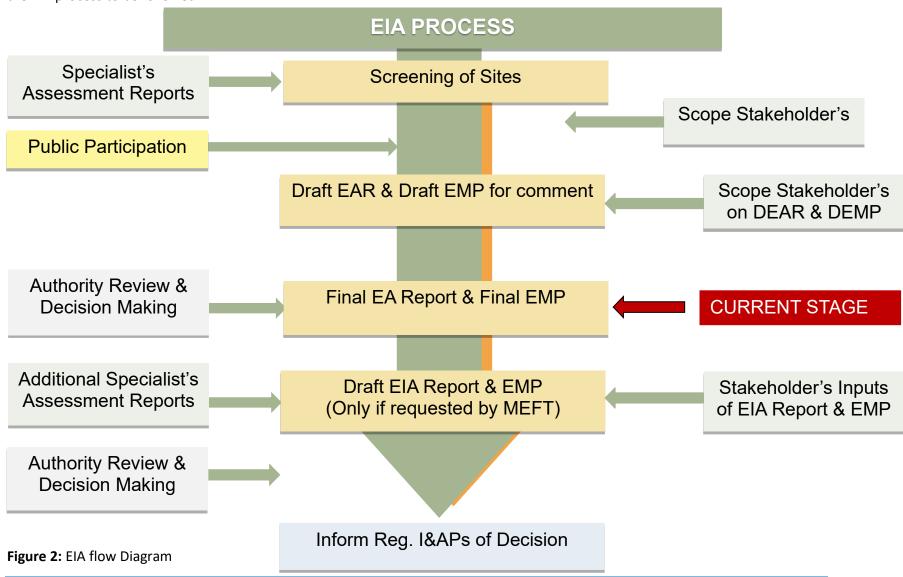
LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	suspension and deletion of conditions relating to land; and to provide for incidental matters.	
Local Authorities Act No. 23 of 1992	The Local Authorities Act prescribes the manner in which a town or municipality should be managed by the Town or Municipal Council.	The development must comply with provisions of the Local Authorities Act.
Labour Act no. 11 of 2007	Chapter 2 details the fundamental rights and protections. Chapter 3 deals with the basic conditions of employment.	Given the employment opportunities presented by the development, compliance with the labour law is essential.
National Heritage Act No. 27 of 2004	The Act is aimed at protecting, conserving and registering places and objects of heritage significance.	All protected heritage resources (e.g. human remains etc.) discovered, need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before they may be relocated.
Roads Ordinance 17 of 1972	 Section 3.1 deals with width of proclaimed roads and road reserve boundaries Section 27.1 is concerned with the control of traffic on urban trunk and main roads Section 36.1 regulates rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads Section 37.1 deals with Infringements and obstructions on and interference with proclaimed roads. 	Adhere to all applicable provisions of the Roads Ordinance.
Public and Environmental Health Act of 2015	This Act (GG 5740) provides a framework for a structured uniform public and environmental health system in Namibia. It covers notification, prevention and control of diseases and sexually transmitted	Contractors and users of the proposed development are to comply with these legal requirements.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	infections; maternal, ante-natal and neo-natal care; water and food supplies; infant nutrition; waste management; health nuisances; public and environmental health planning and reporting. It repeals the Public Health Act 36 of 1919 (SA GG 979).	
Nature Conservation Ordinance no. 4 of 1975	Chapter 6 provides for legislation regarding the protection of indigenous plants	Indigenous and protected plants must be managed within the legal confines.
Water Quality Guidelines for Drinking Water and Wastewater Treatment	Details specific quantities in terms of water quality determinants, which wastewater should be treated to before being discharged into the environment (see Appendix B).	These guidelines are to be applied when dealing with water and waste treatment
Environmental Assessment Policy of Namibia (1995)	The Policy seeks to ensure that the environmental consequences of development projects and policies are considered, understood and incorporated into the planning process, and that the term ENVIRONMENT is broadly interpreted to include biophysical, social, economic, cultural, historical and political components.	This EIA considers this term of Environment.
Water Resources Management Act No. 11 of 2013	Part 12 deals with the control and protection of groundwater Part 13 deals with water pollution control	The pollution of water resources should be avoided during construction and operation of the development. Should water need to be abstracted, a water abstraction permit will be required from the Ministry of Water, Agriculture and Forestry.
Forest Act 12 of 2001 and Forest Regulations of 2015	To provide for the establishment of a Forestry Council and the appointment of certain officials; to	Protected tree and plant species as per the Forest Act No 12 of 2001 and Forest Regulations of 2015 may

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
	consolidate the laws relating to the management and use of forests and forest produce; to provide for the protection of the environment and the control and management of forest fires; to repeal the Preservation of Bees and Honey Proclamation, 1923 (Proclamation No. 1of 1923), Preservation of Trees and Forests Ordinance, 1952 (Ordinance No. 37 of 1952) and the Forest Act, 1968 (Act No. 72 of 1968); and to deal with incidental matters.	not be removed without a permit from the Ministry of Agriculture, Water and Forestry.
Atmospheric Pollution Prevention Ordinance No 45 of 1965	Part II - control of noxious or offensive gases, Part III - atmospheric pollution by smoke, Part IV - dust control, and Part V - air pollution by fumes emitted by vehicles.	The development should consider the provisions outlined in the act. The proponent should apply for an Air Emissions permit from the Ministry of Health and Social Services (if needed).

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Hazardous Substance Ordinance 14 of 1974	To provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances; to provide for the division of such substances into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances; and to provide for matters connected therewith.	The handling, usage and storage of hazardous substances on site should be carefully controlled according to this Ordinance.
Soil Conservation Act No 76 of 1969	Act to consolidate and amend the law relating to the combating and prevention of soil erosion, the conservation, improvement and manner of use of the soil and vegetation and the protection of the water sources	The proposed activity should ensure that soil erosion and soil pollution is avoided during construction and operation.

This EIA process will be undertaken in accordance with the EIA Regulations. A Flow Diagram (refer to **Figure 2** below) provides an outline of the EIA process to be followed.



3.1 SOCIAL ENVIRONMENT

3.1.1 Socio-Economic Context

The statistics shown in **Table 4** below are derived from the 2011 Namibia Population and Housing Census (Namibia Statistics Agency, 2011), and presented from a local and regional perspective.

Table 4: Statistics of the Okahandja Constituency (Namibia Statistics Agency, 2011)

OKAHANDJA CONSTITUENCY				
ATTRIBUTE	INDICATOR			
Population	24 451			
Females	12 352			
Males	12 099			
Population under 5 years	13%			
Population aged 5 to 14 years	20%			
Population aged 15 to 59 years	61%			
Population aged 60 years and above	5%			
Female: male ratio	100:98			
Literacy rate of 15 years old and above	91%			
People above 15 years who have never attended school	9%			
People above 15 years who are currently attending school	26%			
People above 15 years who have left school	59%			
People aged 15 years and above who belong to the labour	74%			
force				
Population employed	60%			
Homemakers	13%			
Students	49%			
Retired or old age income recipients	37%			
Income from pension	8%			
Income from business and non-farming activities	12%			
Income from farming	2%			
Income from cash remittance	5%			
Wages and salaries	68%			
Main Language	Herero languages-27.1%			
	Nama/Damara and			
	Oshiwambo:21%			
OTJOZONDJUPA REGION				
ATTRIBUTE	INDICATOR			
Population	143 903			
Population aged 60 years and above	6%			
Population aged 5 to 14 years	22%			
Population aged 15 to 59 years	58%			

3.1.2 Archaeological and Heritage Context

Portion 193 of the Farm Osona Commonage No. 65 is not located in any known Heritage protection zone of Okahandja. As such, no undesirable impacts to the heritage resources of the area are anticipated to emerge from the proposed development.

3.2 BIO-PHYSICAL ENVIRONMENT

3.2.1 Climate

Okahandja is considered to have a desert climate. Okahandja' s temperatures do not fluctuate, similar to many of the coastal towns in the country, but rather remain relatively average throughout the year. Fog occurs, on average, on more than 100 days per year at Okahandja. It forms when moist cold air from the ocean and meets the hot dry air of the desert. The fog supplies fauna and flora with much of their water. Average annual temperatures are usually more than 16 °C, with average maximum temperatures between 21 °C and 25 °C and average minimum temperatures between 9 °C and 16 °C as depicted in **Figure 3** below (Robertson, Jarvis, Mendelsohn, & Swart, 2012).

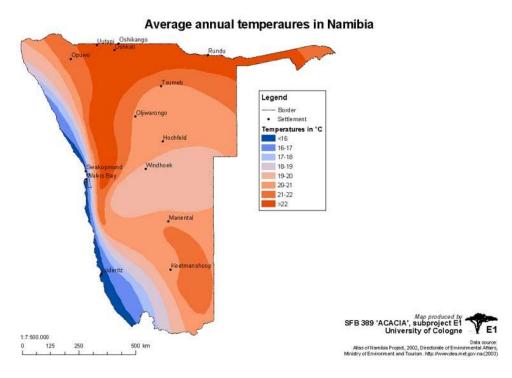


Figure 3: Annual average temperature (http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/e1_download_climate_e.htm#temperature_annual)

The climate of Okahandja is strongly influenced by the cold Benguela current which runs in a northerly direction along the coast, which in turn is driven by the South Atlantic anticyclonic climate system. Although the area is a desert, cool and foggy conditions occur most mornings and strong southerly winds are common in the afternoons. Okahandja receives annual rainfall of approximately 55 mm as indicated on **Figure 4** below.

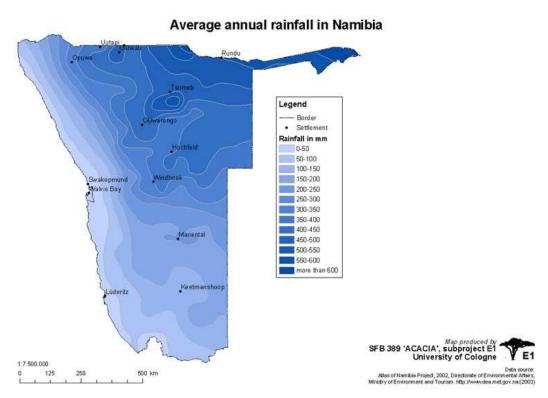


Figure 4: Average annual Rainfall (http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/pics/climate/rainfall-annual.jpg)

3.2.2 Topography, Geology, soil and Hydrogeology

The topography of the Otjozondjupa Region lies on the western edge of a vast basin of sand, and it is this sand that determines much about the vegetation, wildlife, farming and mineral potential of the region. In this region, floodplains occur between the Klein Omatako Omuramba and the Omuramba Omatako and stretch up to Okanguindi village south-east of Okakarara. They are subject to repeated seasonal flooding as a result of relatively low relief.

The soils in Otjozondjupa Region are Dolomites and limestones these rocks were originally deposited during the Neoproterozoic Damara Orogen, in an ocean formed during successive periods of intracontinental rifting spreading and the formation of passive margins. The thick succession of these rocks (Dolomites and limestones) of the Otavi Group today crop out in fold structures between Grootfontein and Opuwo.

Okahandja falls within the Damara Supergroup and Gariep Complex characterised by the Khomas group rock type (Mendelsohn, Jarvis, Roberts, et al., 2002). The soil in the area is dominated by schists. The subject area falls within the Central Namib Hydrogeological region. Okahandja falls within the Swakop catchment, together with other towns such as Windhoek, Karibib, Usakos, Otjimbingwe, and Swakopmund.

According to the 1: 250 000 geological series for Namibia, the surface geology of the project area is characterized by Swakop River alluvial deposits, successions of quaternary sand deposits (mainly carbonates or Otavo lithologies) and mica schist, meta greywacke and migmatite, of the Damara Granite Group. Damaran granite rocks present in this unit include schists of the basal Nosib Group; marbles of the Ugab and Kudis Subgroups; schist, phyllite and amphibolite of the Chuos Formation; and marble, schists and amphibolites of the Karibib and Kuiseb Formations, including the Matchless Amphibolite Belt (Earthwise, 2021).

According to the Ministry of Agriculture, Water and Rural Development (2011) the soils that characterize the greater project area is classified as Leptosoils (very shallow soil over a hard rock or a deeper soil that is gravelly and/or stony), Acrisoils (clay-rich subsoil), Ferrasoils (red and yellow weathered soils whose colours result from an accumulation of metal oxides, particularly iron and aluminium) and Vertisoils (high content of expansive clay minerals) as depicted in **Figure 5** below.

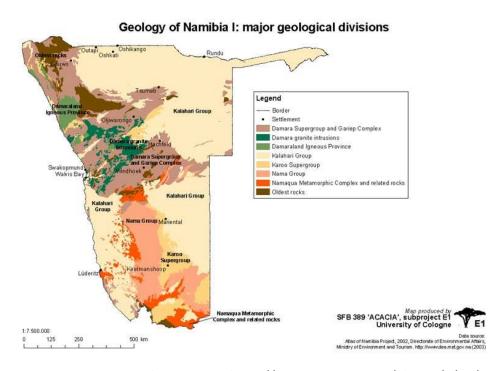


Figure 5: Geology of Namibia (http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/pics/physical/geology.jpg)

In terms of groundwater the study area falls within the Central Namib – Windhoek hydrogeological basin indicated as pale blue in **Figure 6** below. The Central Namib -Windhoek region extends from Windhoek in the east to the Atlantic Ocean in the west (near Walvis Bay). The Ugab and Kuiseb rivers form the northern and southern boundaries of this hydrogeological basin.

The proposed development will be situated on quaternary sediments (successions of quaternary sand deposits) which likely is conformably underlain by weathered sediments of the Damara Granite Group (GCS Water and Environment, 2021). The aquifer is unconfined and hence any poor-quality seepage that makes its way through the sandy sediments may impact the groundwater quality. Available data suggest that the groundwater table is in the order of 22 mbgl. However, there may be perched water levels shortly after rainfall events if there are consolidated clay lenses within the sandy formations. Infiltration water will predominantly percolate vertically into the groundwater table, while the water table (saturated zone) mimics the general topography.

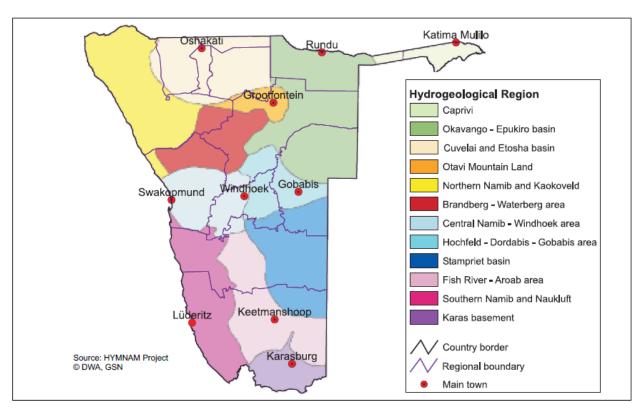


Figure 6: Groundwater basins and hydrogeological regions in Namibia

3.3 TERRESTRIAL ECOLOGY

3.3.1 Flora and Fauna

Generally, the Region is known to have grassy dwarf shrubland comprising numerous growth forms, the most common perennial forms being tufted grasses, non-succulent dwarf shrubs, succulent dwarf shrubs, stoloniferous grasses and geophytes. The eastern two-thirds of the region are dominated by savannas characteristic of Kalahari Sands, with more broad-leaf deciduous trees in the north and more thorny species in the south. The western parts are covered in thorny species growing on more rocky, shallow soils. These areas are the most degraded in the country as a result of bush encroachment.

Okahandja falls within the Tree-and-Shrub Savanna biome, which is the largest of the biomes in the country. It is particularly located in the Acacia Tree-and-Shrub Savanna sub biome, characterised by large open expanses of grasslands dotted with Acacia trees (Mendelsohn, Javis, Roberts, & Robertson, 2002). The vegetation type in this area is known as Thornbush Shrubland. This vegetation is mostly affected by the summer rainfall, frequent and widespread fires, as well as the grazing pressure from wildlife.

4.1 PROJECT COMPONENTS

As previously outlined in Section 1.1, the proposed project involves the following activities:

- Rezoning of Portion 193 of the Farm Osona Commonage No. 65 From "Undetermined" to "Agriculture";
- Application of Consent to commence with construction while the rezoning is in progress; and
- Inclusion of the rezoning in the next Zoning Scheme to be prepared for Okahandja.

These components will be described in further detail below, in terms of their design, layout and footprint.

4.2 ALTERNATIVES

As pointed out in Section 1.4 above various layout alternatives were initially considered by the proponent, ultimately resulting in the final layouts. As such only the no-go alternative will be discussed below.

4.2.1 No – Go Alternative

The no-go alternative is the baseline against which all alternatives are assessed. The no-go alternative would essentially entail maintaining the current situation, whereby the subject area will remain zoned for undetermined purposes. As such, the proposed site would not be rezoned to be used for Agricultural purposes and the poultry farm will not be established. Thus, the residents of Okahandja will not benefit or be impacted by the poultry activities proposed for the site. Thus, the no-go alternative is not considered to be the preferred option.

4.3 THE PROPOSED DEVELOPMENT

Kadila Poultry Farming Pty Ltd intends to rezone Portion 193 of the Farm Osona Commonage No. 65 from "undetermined to Agriculture" and operate a Poultry Farm on Portion 193 of the Farm Osona Commonage No. 65. Which would allow for the productive use of land. Agriculture particularly poultry farming, can make effective use of the available space. The proposed development of agriculture is aimed at enhancing food security, promoting environmental sustainability and creating economic opportunities for residents.

The concept of promoting agricultural development in Okahandja will diversify the local economy, reducing its reliance on a single sector. This diversification enhances the resilience of the community,

making it less vulnerable too fluctuations in global markets. By encouraging agricultural entrepreneurship and innovation, Council can foster a dynamic business environment and attract skilled individuals who can contribute to the growth and prosperity of Okahandja. Additionally, the presence of agricultural activities can enhance the quality of life in Okahandja, promoting healthier lifestyles and creating a sense of pride and identity within the community.

Rezoning the undetermined land to agriculture will provide a significant boost to the local economy. Agriculture is a fundamental sector that generates employment opportunities in the community. It will attract investment in farming activities, agribusiness and income for the community.

Operating a poultry farm can create economic opportunities for the local community. Given that the Poultry farm is in close proximity to the Osona Village development it has the potential to generate employment for the residents that currently live in Osona village and in the future some workers of the poultry farm can purchase or lease property from the Osona Village Development also allowing the Osona Development to generate income from this project. Furthermore, the project can both directly and indirectly through related industries create other forms of employment, such as feed suppliers, transportation services and processing facilities. This can contribute to the economic growth and development of Okahandja.

Regarding the application of Consent to commence with construction while the rezoning is in progress, the Municipality of Okahandja has shown its support for the poultry farm project by making arrangements with the Proponent to commence with the construction during the ongoing rezoning process. This demonstrates that the Municipality's trust in the Proponent's ability to deliver a project that adheres to all regulations and meets the development goals. By commencing with construction as agreed, the Proponent aims to honour the agreement and uphold their commitment to responsible and cooperative development. The Council however is to formally approve the "Consent to commence with construction while the rezoning is in process". This consent can be granted since the current land use is "Undetermined" an as such, the consent does not contravene with the Okahandja Zoning Scheme regulations.

The construction and placing of a poultry farm are crucial because the broilers that will be used for poultry farming will be located in the north-western part of the portion thus meaning it is a safe distance away from the residential area of Okahandja especially the Osona Village Development and given the size of the land that the poultry farm is proposed on. Furthermore, the servitudes that are currently on the portion also played a crucial role in the placing of the broilers.

This project puts the interests and the health of the residents as a priority. Slaughtering of the chicken farmed at the project will be taking place at NPI Processing Plant at Okapuka and not where the chickens will be farmed.

The broilers will be enclosed and are to be placed at a safe distance from each other. This will ensure that even in a case where one broiler is infected, the other broilers are protected from the infection. Thus, making it difficult for the spread of diseases from one broiler to the other.

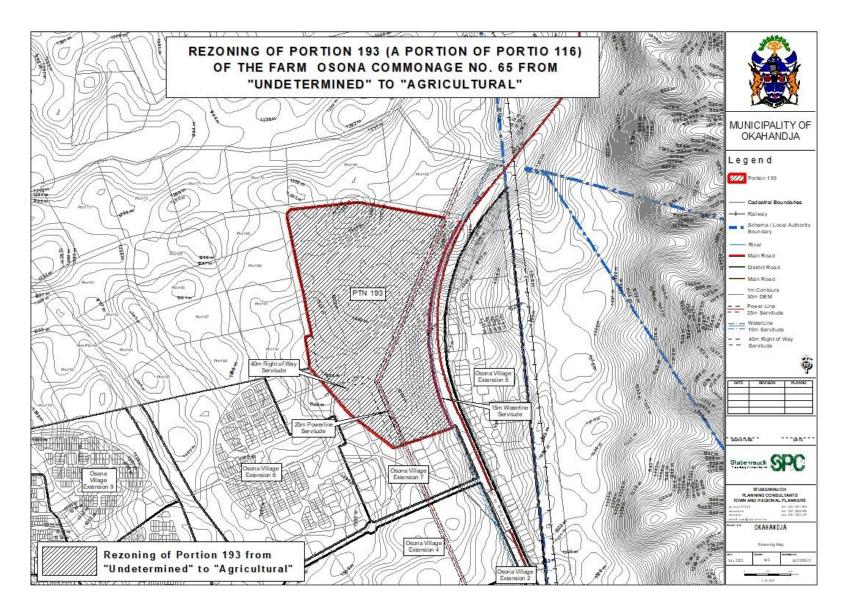


Figure 7: Rezoning of Portion 193 of the Farm Osona Commonage No. 65 From Undetermined to Agricultural

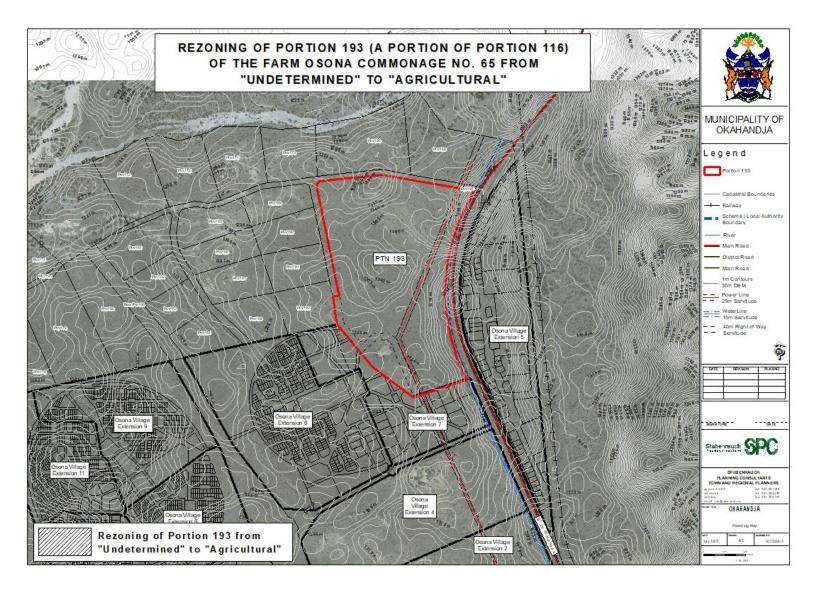


Figure 8: Aerial Map of the proposed development

4.3.1 Engineering Services and Access Provision

4.3.1.1 Electricity, Water and sewer

Portion 193 of the Farm Osona Commonage No. 65 is not serviced, however, the availability of NamWater pipeline and NamPower electric powerline are present/ nearby. Therefore, Portion 193 of the Farm Osona Commonage No. 65 will be connected to the NamPower distribution grid which currently provides electrical power to the town of Okahandja. Portion 193 of the Farm Osona Commonage No. 65 will be connected to the reticulation system of NamWater.

4.3.1.2 Storm Water

The storm water on the subject portion follows the natural drainage paths on site. Further necessary measures necessary to manage the storm water within the area will be employed in accordance with the Municipality of Okahandja's storm water drainage system.

4.3.1.3 Access Provision

Access to Portion 193 of the Farm Osona Commonage No. 65 is obtained from the B1 national Road.

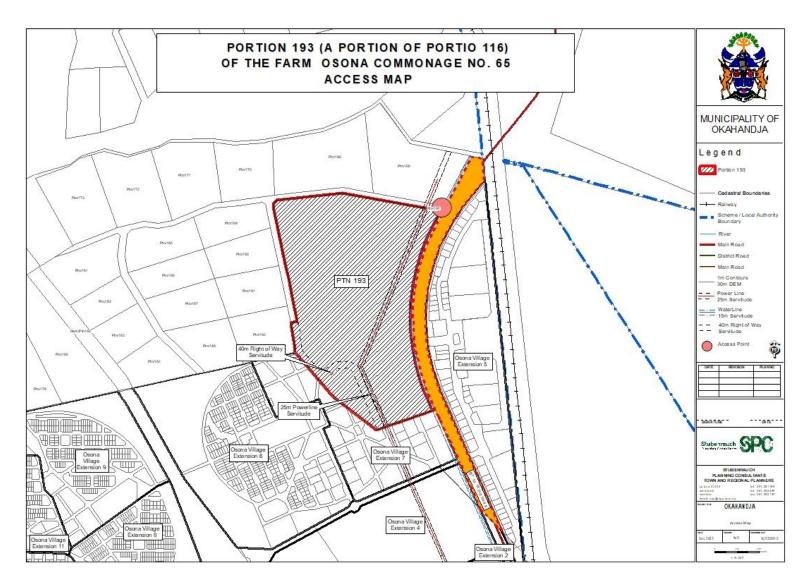


Figure 9: Access Map of the Proposed Development

5.1 PUBLIC PARTICIPATION REQUIREMENTS

In terms of Section 21 of the EIA Regulations a call for open consultation with all I&APs at defined stages of the EIA process is required. This entails participatory consultation with members of the public by providing an opportunity to comment on the proposed project. Public Participation has thus incorporated the requirements of Namibia's legislation, but also takes account of international guidelines, including Southern African Development Community (SADC) guidelines and the Namibian EIA Regulations. Public participation in this project has been undertaken to meet the specific requirements in accordance with the international best practice. Please see **Table 5** below for the activities undertaken as part of the public participation process. The I&APs were given time to comment from **23 October 2023 to 30 October 2023.**

Table 5: Table of Public Participation Activities

ACTIVITY	REMARKS
Placement of site notice/poster in Okahandja	See Annexure A
Placing advertisements in local newspapers namely the New Era and the Namibian newspapers (23 October 2023 and 30 October 2023).	See Annexure B
Written notice to surrounding property owners and Interested and Affected Parties via Email (23 October 2023)	See Annexure C

Comments were received from neighbouring resident during the EIA Phase 1 process. The comments have been attached for your reference please refer to **Annexure C.**The public interest on this project is minimal.

5.1.1 Environmental Assessment Phase 2

The second phase of the PPP involved the lodging of the Draft Environmental Scoping Report (DESR) to all registered I&APs for comment. Registered and potential I&APs were informed of the availability of the DESR for public comment *via* a letter/email dated **23 November 2023**. An Executive Summary of the DESR was also included in the letters to the registered I&APs. I&APs had until **06 December 2023** to submit comments or raise any issues or concerns they may have with regard to the proposed project.

The purpose of this chapter is to describe the assessment methodology utilized in determining the significance of the construction and operational impacts of the proposed project, and where applicable the possible alternatives, on the biophysical and socio-economic environment.

Assessment of predicted significance of impacts for a proposed development is by its nature, inherently uncertain — environmental assessment is thus an imprecise science. To deal with such uncertainty in a comparable manner, a standardised and internationally recognised methodology has been developed. Such accepted methodology is applied in this study to assess the significance of the potential environmental impacts of the proposed development, outlined as follows in **Table 7**.

Table 6: Impact Assessment Criteria

CRITERIA	CATEGORY
Impact	Description of the expected impact
Nature	Positive: The activity will have a social / economical /
Describe type of effect	environmental benefit.
	Neutral: The activity will have no effect
	Negative: The activity will have a social / economical /
	environmental harmful effect
Extent	Site Specific: Expanding only as far as the activity itself (onsite)
Describe the scale of the	Small: restricted to the site's immediate environment within 1 km
impact	of the site (limited)
	Medium: Within 5 km of the site (local)
	Large: Beyond 5 km of the site (regional)
Duration	Temporary: < 1 year (not including construction)
Predicts the lifetime of the	Short-term: 1 – 5 years
impact.	Medium term: 5 – 15 years
	Long-term: >15 years (Impact will stop after the operational or
	running life of the activity, either due to natural course or by
	human interference)
	Permanent: Impact will be where mitigation or moderation by
	natural course or by human interference will not occur in a
	particular means or in a particular time period that the impact can
	be considered temporary
Intensity	Zero: Social and/or natural functions and/ or processes remain
Describe the magnitude	unaltered
(scale/size) of the Impact	Very low: Affects the environment in such a way that natural
	and/or social functions/processes are not affected
	Low: Natural and/or social functions/processes are slightly
	altered

CRITERIA	CATEGORY
	Medium: Natural and/or social functions/processes are notably
	altered in a modified way
	High: Natural and/or social functions/processes are severely
	altered and may temporarily or permanently cease
Probability of occurrence	Improbable: Not at all likely
Describe the probability of	Probable: Distinctive possibility
the Impact <u>actually</u> occurring	Highly probable: Most likely to happen
	Definite: Impact will occur regardless of any prevention measures
Degree of Confidence in	Unsure/Low: Little confidence regarding information available
predictions	(<40%)
State the degree of	Probable/Med: Moderate confidence regarding information
confidence in predictions	available (40-80%)
based on availability of	Definite/High: Great confidence regarding information available
information and specialist	(>80%)
knowledge	
Significance Rating	Neutral: A potential concern which was found to have no impact
The impact on each	when evaluated
component is determined by	Very low: Impacts will be site specific and temporary with no
a combination of the above	mitigation necessary.
criteria.	Low: The impacts will have a minor influence on the proposed
	development and/or environment. These impacts require some
	thought to adjustment of the project design where achievable, or
	alternative mitigation measures
	Medium: Impacts will be experienced in the local and surrounding
	areas for the life span of the development and may result in long
	term changes. The impact can be lessened or improved by an
	amendment in the project design or implementation of effective
	mitigation measures.
	High: Impacts have a high magnitude and will be experienced
	regionally for at least the life span of the development, or will be
	irreversible. The impacts could have the no-go proposition on
	portions of the development in spite of any mitigation measures
	that could be implemented.

^{*}NOTE: Where applicable, the magnitude of the impact has to be related to the relevant standard (threshold value specified and source referenced). The magnitude of impact is based on specialist knowledge of that particular field.

For each impact, the EXTENT (spatial scale), MAGNITUDE (size or degree scale) and DURATION (time scale) are described. These criteria are used to ascertain the SIGNIFICANCE of the impact, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place. The decision as to which combination of alternatives and mitigation measures to apply lies with the proponent, and their acceptance and approval ultimately with the relevant environmental authority.

The SIGNIFICANCE of an impact is derived by taking into account the temporal and spatial scales and magnitude. Such significance is also informed by the context of the impact, i.e. the character and identity of the receptor of the impact.

6.1 MITIGATION MEASURES

There is a mitigation hierarchy of actions which can be undertaken to respond to any proposed project or activity (See **Figure 10** below). These cover avoidance, minimization, restoration and compensation. It is possible and considered sought after to enhance the environment by ensuring that positive gains are included in the proposed activity or project. If negative impacts occur, then the hierarchy indicates the following steps.



Figure 10: Mitigation Hierarchy

Impact avoidance: This step is most effective when applied at an early stage of project planning. It can be achieved by:

- not undertaking certain projects or elements that could result in adverse impacts;
- avoiding areas that are environmentally sensitive; and
- putting in place preventative measures to stop adverse impacts from occurring.

Impact minimization: This step is usually taken during impact identification and prediction to limit or reduce the degree, extent, magnitude, or duration of adverse impacts. It can be achieved by:

- scaling down or relocating the proposal;
- redesigning elements of the project; and
- taking supplementary measures to manage the impacts.

Restoration: This step is taken to improve degraded or removed ecosystems following exposure to impacts that cannot be completely avoided or minimised. Restoration tries to return an area to the original ecosystem that occurred before impacts. Restoration is frequently needed towards the end of a project's life cycle but may be possible in some areas during operation.

Impact compensation: This step is usually applied to remedy unavoidable residual adverse impacts. It can be achieved by:

- rehabilitation of the affected site or environment, for example, by habitat enhancement;
- restoration of the affected site or environment to its previous state or better; and
- replacement of the same resource values at another location (offset), for example, by wetland engineering to provide an equivalent area to that lost to drainage or infill.

7 ASSESSMENT OF POTENTIAL IMPACTS AND POSSIBLE MITIGATION MEASURES

7.1 INTRODUCTION

This Chapter describes the potential impacts on the biophysical and socio-economic environments, which may occur due to the proposed activities described in Chapter 4. These include potential impacts, which may arise during the operation of the proposed development (i.e. long-term impacts) as well as the potential construction related impacts (i.e. short to medium term). The assessment of potential impacts will help to inform and confirm the selection of the preferred layouts to be submitted to MEFT: DEAF for consideration. In turn, MEFT: DEAF's decision on the environmental acceptability of the proposed project and the setting of conditions of authorisation (should the project be authorised) will be informed by this chapter, amongst other information, contained in this EA Report.

The baseline and potential impacts that could result from the proposed development are described and assessed with potential mitigation measures recommended. Finally, comment is provided on the potential cumulative impacts which could result should this development, and others like it in the area, be approved.

7.2 PLANNING AND DESIGN PHASE IMPACTS

During the planning and design phase consideration should be given on aspects such as impacts of traffic and existing municipal infrastructure.

7.2.1 Traffic Impacts

There are no negative impacts anticipated from the proposed development on the surrounding areas.

7.2.2 Existing Service Infrastructure Impacts

Portion 193 of the Farm Osona Commonage No. 65 is not serviced, however, the availability of NamWater pipeline and NamPower electric powerline are present/ nearby. Therefore, Portion 193 of the Farm Osona Commonage No. 65 will be connected to the NamPower distribution grid which currently provides electrical power to the town of Okahandja.

The storm water on the subject portion follows the natural drainage paths on site. Further necessary measures to manage the storm water within the area will be employed in accordance with the Municipality of Okahandja's storm water drainage system.

The operation of a poultry farm may necessitate the development or improvement of infrastructure in the surrounding areas. This could include road upgrades, utilities and transportation networks to

facilitate the transportation of poultry products and supplies. These infrastructure enhancements can benefit not only the farm but also the broader community by improving accessibility and connectivity.

7.3 CONSTRUCTION PHASE IMPACTS ON THE BIOPHYSICAL ENVIRONMENT

The construction phase impacts are those impacts on the biophysical and socio-economic environment that would occur during the construction phase. These impacts are inherently temporary in duration but may have longer lasting effects.

7.3.1 Flora and Fauna Impacts (Biodiversity)

The trees located on the subject site should be accommodated in the proposed use for the erf. Trees protected under the Forestry Act 12 of 2001 should be protected within the development and may not be removed without a permit from the local Department of Forestry.

It is anticipated that the proposed development area and associated infrastructure (e.g. water, sewage, access route, etc.) would have localized negative implications on the environment and associated fauna and flora should the proposed mitigation measures as outlined in the EMP be enforced.

7.3.2 Surface and Ground Water Impacts

Surface and groundwater impacts may be encountered during the construction and operation phase, especially if development takes place within the rainy season. The risk of contaminating such water sources can be increased by accidental spillage of oils and fuels and any other equipment used during construction. This risk is minimized by the fact that the construction phase will be a short-term activity.

7.3.3 Soil Erosion Impacts

Given the characteristics of the proposed site, soil erosion is likely to be encountered especially if construction will take place during the rainy season, the removal of vegetation will render the soil vulnerable to erosion as they also serve the purpose of keeping the soils compacted.

7.4 CONSTRUCTION PHASE IMPACTS ON THE SOCIO-EONOMIC ENVIRONMENT

7.4.1 Heritage impacts

No archaeological and heritage resources are expected to be found on the site. The project management should however be made aware of the provisions of the National Heritage Act regarding the prompt reporting of archaeological finds. Section 3.1.2 provides an overview of the archaeological and heritage context of the town and region.

7.4.2 Health, Safety and Security Impacts

Due to the demand for construction workers during the construction of the proposed project an influx of migrant workforce who will require temporary accommodation in Okahandja might be experienced. Experience with other construction projects in a developing-world context has shown that, where migrant construction workers have the opportunity to interact with the local community, a significant risk is created for the development of social conditions and sexual behaviors that contribute to the spread of HIV and AIDS.

In response to the threat the pandemic poses, MEFT has developed a policy on HIV and AIDS. This policy, which was developed with support from USAID, GTZ and the German Development Fund, provides for a non-discriminatory work environment and for workplace programs managed by a Ministry-wide committee. The MEFT has also recently initiated a programme aimed at mainstreaming HIV and gender issues into environmental impact assessments.

7.4.3 Traffic Impacts

Traffic is expected to increase slightly during the construction phase of the project in areas where construction will take place. A number of trucks and other heavy machinery will be required to deliver, handle and position construction materials as well as to remove spoil material. Not only will the increase in traffic result in associated noise impacts, but it will also impact on the roads in the area.

In addition, establishing a poultry farm in Okahandja can contribute to local food production and reduce the reliance on imported poultry. By producing poultry products locally, the need for long-distance transportation is minimized, leading to reduced carbon emissions and smaller ecological footprint.

7.4.4 Noise Impacts

Construction may result in associated noise impacts. These noise impacts will mainly be associated with construction machinery and construction vehicles. The impact is however limited mainly to the construction period only.

7.4.5 Dust and Emission Impacts

Excavation and stockpiles during the construction phase could result in dust impacts, if not managed correctly. Dust could impact negatively on the health of the nearby community if mitigation measures are not implemented. Dust impacts are primarily associated with the construction phase.

7.4.6 Municipal Services

The construction phase will result in additional people on-site, who will require provision of the following services:

- Potable water for domestic (ablution and drinking) and construction purposes.
- Temporary toilets during the construction phase.
- Solid waste management (domestic and construction waste).

These services if not managed well are likely to create an opportunity for water wastage; litter; solid and human waste pollution.

7.4.7 Storage and Utilisation of Hazardous Substances

Hazardous substances are regarded by the Hazardous Substance Ordinance (No. 14 of 1974) as those substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances. During the construction period, the use and storage of these types of hazardous substances, such as shutter oil, curing compounds, types of solvents, primers and adhesives and diesel, on-site could have negative impacts on the surrounding environment if these substances spill and enter the environment.

7.5 OPERATIONAL PHASE IMPACTS

The operational phase impacts are those impacts on the biophysical and socio-economic environment that would occur during the operational phase of the proposed project and are inherently long-term in duration.

7.5.1 Visual and Sense of Place Impacts

The extent of this disturbance will depend on how highly the interested and affected parties valued the initial aesthetic quality of the site. The intended activities for the proposed site may alter the sense of place for the existing community and property owners situated in close proximity to the site, as well as the residents of Okahandja who frequent the site.

7.5.2 Noise Impacts

The operational activities may result in associated noise impacts, depending on the exact type of activities taking place on the properties. However due to the nature of the land uses proposed for the subject erven it is not expected that the noise levels will be significant if managed well.

7.5.3 Emission Impacts

The air quality in the area is considered to be fairly good. Additional emissions are not expected due to the land uses that are intended for the site.

7.5.4 Waste Impacts

Increased amounts of waste may be generated as a result of the operational activities at the sites. The chicken manure will be taken off-site to ensure a safe and hygienic environment for the Poultry Farm. In addition, the effective waste management on site should be practiced as per the recommendations in the EMP.

7.5.5 Social Impacts

Establishing a poultry farm can create job opportunities for the local community. The farm will require workers for various tasks such as poultry care, feeding, cleaning and maintenance. By providing employment, the farm can contribute to reducing unemployment rates and improving economic well-being of individuals and families in Okahandja.

In addition, agriculture can create new economic opportunities and stimulate local entrepreneurship. Rezoning to agriculture allows residents to engage in farming activities, leading to the establishment of small-scale businesses such as urban farms and community gardens. These ventures can generate income, create jobs and contribute to the local economy.

7.6 CUMULATIVE IMPACTS

The cumulative impact of the proposed developments regarding the degradation of the project area is very difficult to rate. If all proposed mitigation measures are however in place to minimise the overall impacts then the cumulative impact can be expected to be rated as *Medium-Low (negative)* for the proposed developments.

7.7 ENVIRONMENTAL MANAGEMENT PLAN

An Environmental Management Plan (EMP) is contained in **Annexure F** of this report. The purpose of the EMP is to outline the type and range of mitigation measures that should be implemented during the construction, operation and decommissioning phases of the project to ensure that negative impacts associated with the development are avoided or mitigated.

7.8 SUMMARY OF POTENTIAL IMPACTS

A summary of all the potential impacts from the proposed project assessed above is included in **Table 7**. The **Tables 8 – 10** provide a summary of the mitigation measures proposed for the impacts. While some difference in magnitude of the potential impacts would result from the proposed alternatives this difference was not considered to be significant for any of the potential impacts. As such, the table below applies to all proposed alternatives.

 Table 7: Summary of the significance of the potential impacts

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
				PLANNING	AND DESIGN	PHASE				
	Okahandja	No mitigation	Local	Medium	Medium term	Medium	Probable	Certain	Reversible	Medium (- ve)
1. Traffic Impacts	Farm Osona	Mitigation	Local	Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
1. Hame impacts	No go	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
	Okahandja	No mitigation	Local	Medium	Medium term	Medium	Probable	Certain	Reversible	Medium (- ve)
2. Proposed	Farm Osona	Mitigation	Local	Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
services	No go	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
				CONST	RUCTION PH	ASE				
	Okahandja	No mitigation	Local	Medium- Low	Short term	Medium	Probable	Certain	Reversible	Medium (- ve)
3. Biodiversity	Farm Osona	Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
(Fauna and Flora)	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
4. Surface & ground water	Okahandja Farm Osona	No mitigation	Local	Medium	Short term	Medium	Probable	Certain	Reversible	Medium (- ve)

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
		Mitigation	Local	Low	Short term	Medium - low	Probable	Certain	Reversible	Medium - Low (-ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	Okahandja Farm Osona	No mitigation	Local	Medium	Short term	Medium – low	Probable	Certain	Reversible	Medium – low (-ve)
5. Soil erosion	Farin Osona	Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
5. Suil el usium	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	Okahandja Farm Osona	No mitigation	Local	Very low	Short term	Very low	Probable	Certain	Irreversible	Very low(- ve)
6. Heritage		Mitigation	Local	Negligible	Short term	Negligible	Probable	Certain	Irreversible	Negligible (- ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	Okahandja	No mitigation	Local	Medium- Low	Short term	Medium- Low	Probable	Certain	Reversible	Medium- Low (-ve)
7. Health, safety	Farm Osona	Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
and security	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
8. Traffic impacts	Okahandja	No mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
	Farm Osona	Mitigation	Local	Very low	Short term	Very low	Probable	Certain	Reversible	Very low

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	Okahandja	No mitigation	Local	Medium	Short term	Medium - low	Probable	Certain	Reversible	Medium - Low (-ve)
9. Noise impacts	Farm Osona	Mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Very low (- ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	Okahandja	No mitigation	Local	Medium	Short term	Low	Probable	Certain	Reversible	Low (-ve)
10. Emissions	Farm Osona	Mitigation	Local	Low	Short term	Very Low	Probable	Certain	Reversible	Very Low (- ve)
impacts	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	_	Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	Okahandja	No mitigation	Local	Low	Short term	Low	Probable	Certain	Reversible	Low (-ve)
11. Municipal services	Farm Osona	Mitigation	Local	Very low	Short term	Very low	Probable	Certain	Reversible	Very low (- ve)
	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
12. Waste	Okahandja Farm Osona	No mitigation	Local	Low	Short term	Medium	Probable	Certain	Reversible	Medium (- ve)
	Fallii USUlid	Mitigation	Local	Very low	Short term	Low	Probable	Certain	Reversible	Low (-ve)

Description of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
		No	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	No go	mitigation			GL				2 11	
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
	Okahandja	No mitigation	Local	Low	Short term	Medium	Probable	Certain	Reversible	Medium (- ve)
13. Hazardous Substances	Farm Osona	Mitigation	Local	Very low	Short term	Low	Probable	Certain	Reversible	Very low (- ve)
Substances	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
				OPE	RATIONAL PH	ASE				
 Visual & sense of place 	Okahandja	No mitigation	Local	Medium	Medium term	Medium	Probable	Certain	Reversible	Medium (- ve)
	Farm Osona	Mitigation	Local	Medium- Low	Medium term	Medium- Low	Probable	Certain	Reversible	Medium- Low (-ve)
	No go	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
2. Noise	Okahandja	No mitigation	Local	Medium- Low	Medium term	Medium- Low	Probable	Certain	Reversible	Medium- Low (-ve)
	Farm Osona	Mitigation	Local	Low	Medium term	Low	Probable	Certain	Reversible	Low (-ve)
	No go	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral

Descr	iption of potential impact	Project alternative	No mitigation / mitigation	Extent	Magnitude	Duration	Significance	Probability	Confidence	Reversibility	Cumulative impact
3.	Emissions		No	Local	Medium-	Medium	Low	Probable	Certain	Reversible	Low (-ve)
		Okahandja	mitigation		Low	term					
		Farm Osona	Mitigation	Local	Low	Medium	Very Low	Probable	Certain	Reversible	Very Low (-
						term					ve)
		No go	No mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
			Mitigation	Local	Neutral	Medium term	Neutral	Probable	Certain	Reversible	Neutral
		Okahandja Farm Osona	No mitigation	Local	Low	Long term	Medium	Probable	Certain	Reversible	Medium (- ve)
_	Marka	Failii Osolia	Mitigation	Local	Very low	Long term	Low	Probable	Certain	Reversible	Low (-ve)
4.	Waste	No go	No mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
			Mitigation	Local	Neutral	Short term	Neutral	Probable	Certain	Reversible	Neutral
5.	Social impact	Okahandja	No mitigation	Local	High	Long term	Medium (+)	Probable	Probable	Reversible	Medium (+)
	Farm Osona	Mitigation	Local	High	Long term	Medium (+)	Probable	Probable	Reversible	Medium (+)	
		No go	No mitigation	Local	Neutral	Long term	Neutral	Probable	Probable	Reversible	Neutral
			Mitigation	Local	Neutral	Long term	Neutral	Probable	Probable	Reversible	Neutral

Table 8: Proposed mitigation measures for the planning and design phase

	PLANNING AND DESIGN PHASE IMPACTS					
Impact	Mitigation Measures					
Traffic	 Ensure that road junctions have good sightlines. Provide formal road crossings at relevant areas. Provide for speed reducing interventions such as speed bumps at relevant road sections. 					
Existing Service Infrastructure	 It is recommended that alternative and renewable sources of energy be explored and introduced into the proposed development to reduce dependency on the grid. Solar geysers and panels should be considered to provide for general lighting and heating of water and buildings. Water saving mechanisms should be considered for incorporation within the developments in order to further reduce water demands. Re-use of treated wastewater should be considered wherever possible to reduce the consumption of potable water. 					

Table 9: Proposed mitigation measures for the construction phase

	CONSTRUCTION PHASE IMPACTS
Impact	Mitigation Measures
Flora and Fauna	 Adapt the proposed developments to the local environment – e.g. small adjustments to the site layout could avoid potential features such as water bodies and vegetation. Prevent the destruction of protected and endemic plant species. Prevent contractors from collecting wood, veld food, etc. during the construction phase. Do not clear cut the entire development site, but rather keep the few individual trees/shrubs not directly affecting the developments as part of the landscaping. The plants that are to be kept should be clearly marked with "danger tape" to prevent accidental removal.

	CONSTRUCTION PHASE IMPACTS
Impact	Mitigation Measures
Surface and Ground Water Impacts	 Regular inspection of the marking tool should be carried out. The very important plants should be "camped off" to prevent the unintended removal or damage to these trees. Recommend the planting of local indigenous species of flora as part of the landscaping as these species would require less maintenance than exotic species. Transplant removed plants where possible, or plant new plants in lieu of those that have been removed. Prevent the introduction of potentially invasive alien ornamental plant species such as; Lantana, Opuntia, Prosopis, Tecoma, etc.; as part of the landscaping as these species could infest the area further over time. It is recommended that construction takes place outside of the rainy season in order to limit flooding on site and surface water pollution. No dumping of waste products of any kind in or in close proximity to surface water bodies. Heavy construction vehicles should be kept out of any surface water bodies and the movement of construction vehicles should be limited where possible to the existing roads and tracks. Ensure that oil/ fuel spillages from construction vehicles and machinery are minimised and that where these occur, that they are appropriately dealt with. Drip trays must be placed underneath construction vehicles when not in use to contain all oil that might be leaking from these vehicles. Contaminated runoff from the construction sites should be prevented from entering the surface and ground water bodies. All materials on the construction site should be properly stored. Disposal of waste from the sites should be properly managed and taken to the designated landfill site. Construction workers should be given ablution facilities at the construction sites that are located at least 30 m away from any surface water and regularly serviced.

	CONSTRUCTION PHASE IMPACTS
Impact	Mitigation Measures
	Washing of personnel or any equipment should not be allowed on site. Should it be necessary to wash construction equipment these should be done at an area properly suited and prepared to receive and contain polluted waters.
Soil Erosion	 It is recommended that construction takes place outside of the rainy season in order to limit potential flooding and the runoff of loose soil causing further erosion. Appropriate erosion control structures must be put in place where soil may be prone to erosion. Checks must be carried out at regular intervals to identify areas where erosion is occurring. Appropriate remedial actions are to be undertaken wherever erosion is evident.
Heritage	 The project management should be made aware of the provisions of the National Heritage Act regarding the prompt reporting of archaeological finds. In the event of such finds, construction must stop, and the project management or contractors should notify the National Heritage Council of Namibia immediately.
Health, Safety and Security	 Construction personnel should not overnight at the site, except the security personnel. Ensure that all construction personnel are properly trained depending on the nature of their work. Provide for a first aid kit and a properly trained person to apply first aid when necessary. Restrict unauthorised access to the site and implement access control measures. Clearly demarcate the construction site boundaries along with signage of "no unauthorised access". Clearly demarcate dangerous areas and no-go areas on site. Staff and visitors to the site must be fully aware of all health and safety measures and emergency procedures on site. The contractor must comply with all applicable occupational health and safety requirements. The workforce should be provided with all necessary Personal Protective Equipment where appropriate.

	CONSTRUCTION PHASE IMPACTS
Impact	Mitigation Measures
Traffic	 Limit and control the number of access points to the site. Ensure that road junctions have good sightlines. Construction vehicles need to be in a road worthy condition and maintained throughout the construction phase. Transport the materials in the least number of trips as possible. Adhere to the speed limit. Implement traffic control measures where necessary.
Noise	 No amplified music should be allowed on site. Inform immediate neighbours of construction activities to commence and provide for continuous communication between the neighbours and contractor. Limit construction times to acceptable daylight hours. Install technology such as silencers on construction machinery if noise levels are significantly high. Do not allow the use of horns as a general communication tool but use it only where necessary as a safety measure.
Dust and Emission	 It is recommended that dust suppressants such as Dustex be applied to all the construction clearing activities to ensure at least 50% control efficiency on all the unpaved roads and reduce water usage. Construction vehicles to only use designated roads. During high wind conditions the contractor must make the decision to cease works until the wind has calmed down. Cover any stockpiles with plastic to minimise windblown dust. Provide workers with dust masks.

CONSTRUCTION PHASE IMPACTS		
Impact	Mitigation Measures	
Waste	 It is recommended that waste from the temporary toilets be disposed of at an approved Wastewater Treatment Works. A sufficient number of waste bins should be placed around the site for the general waste. A sufficient number of skip containers for the heavy waste and rubble should be provided around the site. Solid waste will be collected and disposed of at an appropriate local land fill or an alternative approved site, in consultation with the local authority. 	
Hazardous Substances	 Storage of the hazardous substances in a bunded area, with a volume of 120 % of the largest single storage container or 25 % of the total storage containers whichever is greater. Refuel vehicles in designated areas that have a protective surface covering and utilise drip trays for stationary plant. 	

 Table 10: Proposed mitigation measures for the operational phase

OPERATIONAL PHASE IMPACTS		
Impact	Mitigation Measures	
Visual and Sense	• It is recommended that more 'green' technologies be implemented within the architectural designs and	
of Place	building materials of the development where possible in order to minimise the visual prominence of such a	
	development within the more natural surrounding landscape.	
	Natural colours and building materials such as wood and stone should be incorporated as well as the use of	
	indigenous vegetation in order to help beautify the development.	
	• Visual pollutants can further be prevented through mitigations (i.e. keep existing trees, introduce tall	
	indigenous trees; keep structures unpainted and minimise large advertising billboards).	
Noise	Do not allow commercial activities that generate excessive noise levels.	
	Continuous monitoring of noise levels should be conducted to make sure the noise levels does not exceed	
	acceptable limits.	
	No activity having a potential noise impact should be allowed after 18:00 hours if possible.	
Emissions	Consider tarring of the internal road network.	
	Manage activities that generate emissions.	
Waste	The removal of chicken manure will occur after every cycle to prevent accumulation on site, keeping the	
	nutrient rich manure from polluting surface and groundwater bodies, avoiding offensive smells and	
	ensuring the hygiene and health of the new flock.	
	The chicken coops must be dry cleaned efficiently to remove as much litter as possible and to	
	reduce the amount of wash water used.	
	Solid waste will be collected from site regularly.	
	Waste should be disposed of at an appropriate local land fill, in consultation with the local authority.	
	No waste may be buried or burned.	
	Develop a Waste Management Plan	
	The waste management plan should consider the type of waste, description, source, storage, disposal	
	method, disposal facility and responsible person.	

OPERATIONAL PHASE IMPACTS		
Impact	Mitigation Measures	
	The implementation of the waste management plan should ensure:	
	o Installation of sufficient waste bins skips or bulk containers, where necessary.	
	o All containers (bins, skips or bulk containers) shall be kept in a clean and hygienic manner.	
	o Containers (bins, skips or bulk containers) utilized for the disposal of general and hazardous waste must be	
	demarcated accordingly.	
	o Waste material may only be temporarily stored at areas demarcated for such storage.	
	o General waste shall be stored in a manner that prevents the harboring of pests.	
	o General and hazardous waste should always be stored and disposed of separately.	
	o General and hazardous waste should be disposed of in appropriately demarcated bins. Bins are then emptied	
	into appropriately demarcated skips or bulk containers once a day or more often, if required.	
Social Impacts	No specific mitigation measures are required, only that the local community be consulted in terms of possible job	
	creation opportunities and must be given first priority if unspecialised job vacancies are available.	
	 agriculture can create new economic opportunities and stimulate local entrepreneurship. 	

8 CONCLUSION

The purpose of this Chapter is to briefly summarise and conclude the FESR and describe the way forward.

8.1 CONSTRUCTION PHASE IMPACTS

With reference to **Table 8**, none of the negative construction phase impacts were deemed to have a high significance impact on the environment. The construction impacts were assessed to a *Medium to Low (negative)* significance, without mitigation measures. With the implementation of the recommended mitigation measures in Chapter 7 as well as in the EMP, the significance of the construction phase impacts is likely to be reduced to a *Low (negative)*.

8.2 OPERATIONAL PHASE

The most significant operational phase impact *medium (positive)* is the social impact. Establishing a poultry farm can create job opportunities for the local community. The farm will require workers for various tasks such as poultry care, feeding, cleaning and maintenance. By providing employment, the farm can contribute to reducing unemployment rates and improving economic well-being of individuals and families in Okahandja.

8.3 LEVEL OF CONFIDENCE IN ASSESSMENT

With reference to the information available at the project planning cycle, the confidence in the environmental assessment undertaken is regarded as being acceptable for the decision-making, specifically in terms of the environmental impacts and risks. The Environmental Assessment Practitioner believes that the information contained within this FESR is adequate to allow MEFT: DEAF to be able to determine the environmental acceptability of the proposed project.

It is acknowledged that the project details will evolve during the detailed design and construction phases. However, these are unlikely to change the overall environmental acceptability of the proposed project and any significant deviation from what was assessed in this FESR should be subject to further assessment. If this was to occur, an amendment to the Environmental Authorisation may be required in which case the prescribed process would be followed.

8.4 MITIGATION MEASURES

With the implementation of the recommended mitigation measures in Chapter 7 as well as in the EMP, the significance of the construction and operational phase impacts is likely to be reduced to a Low (negative). It is further extremely important to include an Environmental Control Officer (ECO) on site during the construction phase of the proposed project to ensure that all the mitigation measures discussed in this report and the EMP are enforced.

It is noted that where appropriate, these mitigation measures and any others identified by MEFT: DEAF could be enforced as Conditions of Approval in the Environmental Authorisation, should MEFT: DEAF issue a positive Environmental Authorisation.

8.5 OPINION WITH RESPECT TO THE ENVIRONMENTAL AUTHORISATION

Regulation 15(j) of the EMA, requires that the EAP include an opinion as to whether the listed activity must be authorised and if the opinion is that it must be authorised, any condition that must be made in respect of that authorisation.

It is recommended that this project be authorised because should the development not proceed the subject area will remain zoned for undetermined purposes. As such, the proposed site would not be rezoned to be used for Agricultural purposes and the poultry farm will not be established. Thus, the residents of Okahandja will not benefit or be impacted by the poultry activities proposed for the site.

Operating a poultry farm can provide opportunities for skills development and capacity building within the community. Residents can gain valuable knowledge and expertise in poultry farming practices, animal husbandry and business management. These skills can empower individuals to pursue entrepreneurial ventures, leading to broader socioeconomic development.

Thus, it is put forward that the intended development will not have any negative socio-economic impacts but rather positively contributes to the development of Okahandja. The local community is expected to benefit from the development as a result of the potential job opportunities during construction as well as the increased development within the area. The significance of the social impact was therefore deemed to be *Medium (positive)*.

The "no go" alternative on the other hand was deemed to have a *High (negative)* impact, as all the social benefits resulting from the development would not be realised.

The significance of negative impacts can be reduced with effective and appropriate mitigation provided in this report and the EMP. If authorised, the implementation of an EMP should be included as a condition of approval.

8.6 WAY FORWARD

The FESR is herewith submitted to MEFT: DEAF for consideration and decision making. If MEFT: DEAF approves, or requests additional information / studies all registered I&APs and stakeholders will be kept informed of progress throughout the assessment process.

9 REFERENCES

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