2020

DRAFT SCOPING REPORT FOR THE PROPOSED NEW TOMATO FARMING AND PROCESSING FACILITIES WITHIN THE JURISDICTION OF LEPELLE-NKUMPI LOCAL MUNICIPALITY IN LIMPOPO PROVINCE

NOVEMBER 2020

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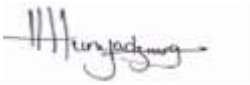
Draft Scoping Report	Rejoice Aphane  _____	Munyadziwa Rikhotso  _____ Masala Mugwagwa  _____

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LIST OF ACRONYMS AND ABBREVATIONS

ARC	Agricultural Research Council
CBA	Critical Biodiversity Area
COGHSTA	Cooperative Governance, Human Settlements and Traditional Affairs
DEA	Department of Environmental Affairs
LEDET	Limpopo Department of Economic Development, Environment and Tourism;
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
I&APs	Interested and Affected Parties
NEMA	National Environmental Management Act
NFEPA	National Fresh Water Ecosystem Priority Areas
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
WULA	Water Use Licence Application

1. INTRODUCTION OF THE PROPOSED PROJECT

Nyamane Agro Food Holdings (Pty) Ltd (Nyamane) is considering to invest in a new tomato farming and processing facilities in the Lebowakgomo Region situated within the jurisdiction of the Lepelle-Nkumpi Local Municipality in the Limpopo Province, South Africa. The proposed project entails the phased preparation of approximately 1700 hectares (ha) for the planting of tomatoes and approximately 4ha for the tomato processing facility. The development of a tomato farm and associated processing plant will require approximately 1700 hectares of land.

Nyamane proposes the development of the processing facilities for manufacturing and producing tomato paste or tomato concentrate based products, which are intended for distribution and supply to down-stream food manufacturing industries, and the anticipated infrastructure and capital investment are classified and identified as the Strategic Industrialisation Cluster Project (Integrated Farming and Agro Processing).

The proposed project aims to enhance socioeconomic development through community upliftment, social responsibility, improved household income, rural development, and empowerment incentive schemes which are amongst Nyamane Foods JV's cooperative values.

Nsovo Environmental Consulting (Nsovo) has been appointed by Nyamane, as independent environmental consultant to undertake the Environmental Impact Assessment (EIA) process, Water Use License Application (WULA) and associated licenses/permits including but not limited to Atmospheric Emission Licence (AEL) and Biodiversity Permit for the proposed tomato farming and processing facilities(hereafter referred a the project).

The project proponent is Nyamane Agro Foods Holdings (Pty) Ltd, whereas the Competent Authority is the Provincial Limpopo Department of Economic Development, Environment Tourism (LEDET).

2. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Nsovo has been appointed as the independent Environmental Assessment Practitioner (EAP) for the proposed project and meets the general requirements as stipulated in regulations 13 (3) of the NEMA EIA 2014 Regulation as amended. Nsovo therefore:

- Is independent and objective;
- Has expertise in conducting EIA's and WULAs;
- Takes into account all relevant factors relating to the application; and
- Will provide full disclosure to the applicant and the relevant environmental authority.

Table 1 below provide details of the EAP and relevant experience. A detailed CV and Qualifications are attached as **Appendix E1**.

Table 1: Details of the Environmental Assessment Practitioner (EAP)

Name of Company	Nsovo Environmental Consulting
Person Responsible	Masala Mugwagwa
Professional Registration	South African Council for Natural Scientific Professions (SACNASP)
Postal Address	Private Bag x29 Postnet Suite 697 Gallo Manor 2052
Telephone Number	011 041 3689
Fax Number	086 602 8821
Email	Masala.mugwagwa@nsovo.co.za
Qualifications & Experience	B.Sc. Honours Environmental Management **11 years of experience**
Project Related Expertise	In terms of project related expertise the EAP has completed the following projects: • EIA for the proposed Shongweni substation and Hector - Shongweni 400kV powerline in Kwazulu Natal Province. • EIA for the proposed Inyaninga substation and Inyaninga – Mbewu 400kV powerline in Kwazulu Natal Province. • EIA for the proposed Tubatse strengthening

	phase 1 – Senakangwedi B integration within the jurisdiction of Greater Tubatse Local Municipality in Limpopo Province. • EMPr, WULA and EA amendment for the proposed Juno Gromis 400kV power line. • Basic Assessment for the proposed Decommissioning and Demolition of Verwoedberg Substation and 275kV powerline. • Basic Assessment for Bloemendal Substation and loop in and out lines.

3. DESCRIPTION OF LOCALITY AND THE PROPERTY ON WHICH THE ACTIVITY IS TO BE UNDERTAKEN AND LOCATION OF ACTIVITY ON THE PROPERTY

This section provides detailed information about the location of the proposed projectand associated infrastructure. The main aim is to provide the environmental aspects found within the proposed development area, and to provide the baseline description of the surroundings.

3.1 LAND OWNERSHIP

The property earmarked for the proposed project is owned by the Phala family and is on a 45 year lease by the applicant Nyamane Agro Foods Holdings (Pty) Ltd.

3.2 LOCALITY OF THE PROPOSED PROJECT

Figure 1 below is a locality map showing the proposed study area at a scale of 1:50 000. The proposed study area is currently used for various purposes, including farming, residential, and other related activities. Refer to **Appendix A** for other project maps such as sensitivity, heritage, geology, and hydrology maps.

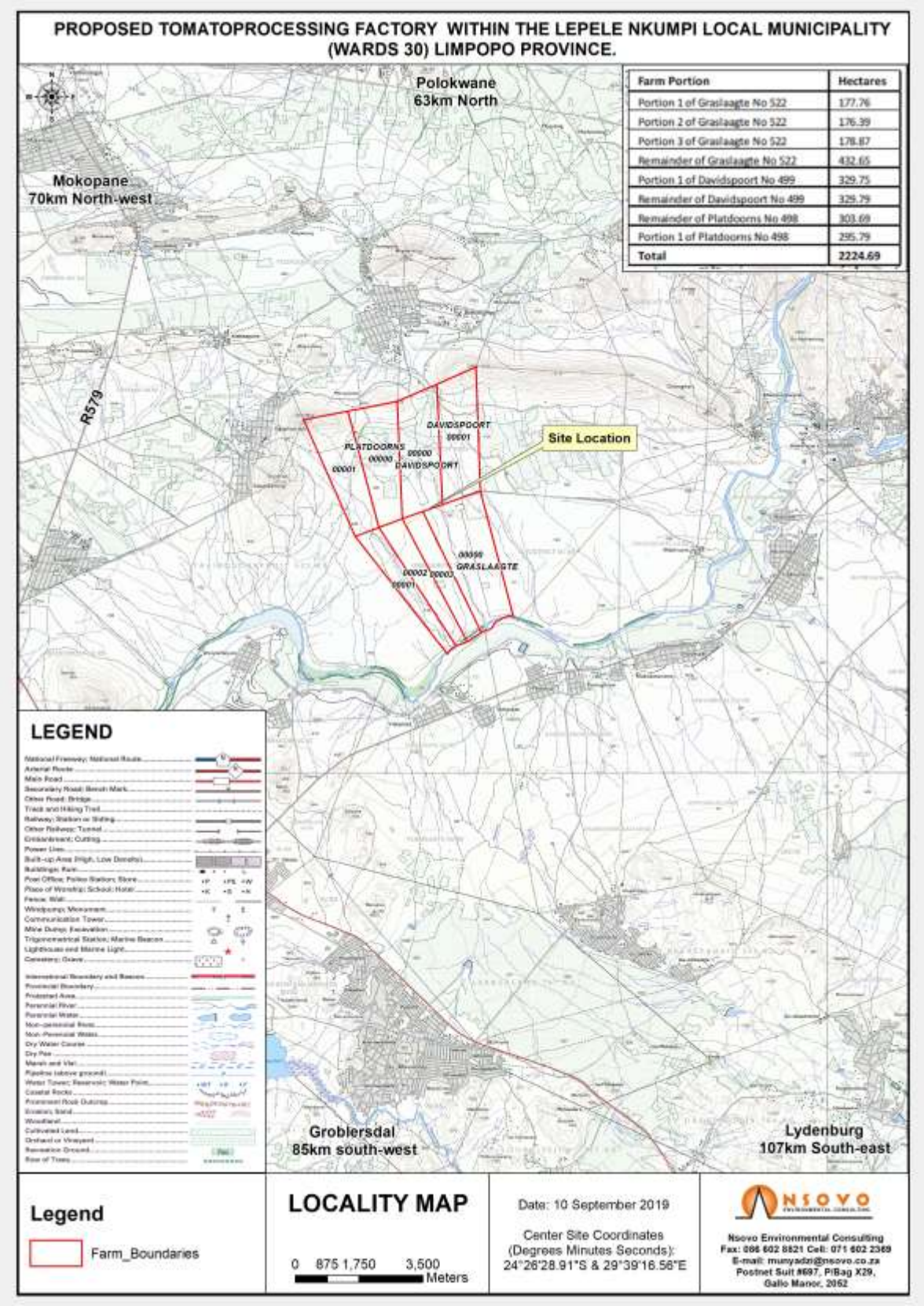

Figure 1: Locality map showing the proposed location

3.2.1 PROVINCE AND PROVINCIAL BOUNDARIES

The proposed development is within the Limpopo Province located in the northern part of South Africa. The province borders with other South African provinces such as Gauteng, North-west and Mpumalanga.

3.2.2 MUNICIPAL WARDS

The proposed project is located within Municipal Ward Number 25 and 30 of the Lepelle-Nkumpi Local Municipality within the jurisdiction of the Capricon District Municipality in the Limpopo Province.

3.3 DESCRIPTION FOT THE PROPERTY

The farms affected by the proposed development are listed in Table 2 below.

Table 2: Details of the affected properties

Farm Name	Portion	Area (Ha)	SG Codes
Graslaagte 522	Remained of 522	432.65	T0KS00000000052200000
	Portion 1 of 522	177.76	T0KS00000000052200001
	Portion 2 of 522	176.39	T0KS00000000052200002
	Portion 3 of 522	178.87	T0KS00000000052200003
Davidspoort 499	Reminder of 499	329.75	T0KS00000000049900000
	Portion 1	329.79	T0KS00000000049900001
Plardoorns 498	Portion 1 of 498	295.79	T0KS00000000049800001
	Reminder of 498	303.69	T0KS00000000049800000
Total Area (Ha)		2224.69	

3.4 SURROUNDING LAND USES

This section describes the land uses within and around the proposed study area, which includes farming and residential, and are discussed as follows:

3.4.1 RESIDENTIAL

There are several communities in proximity to the proposed site for development, and the nearest villages include Lekurung 3km north and Tjiane village, which is 5km west of the study area. Further, an informal settlement was noted within the study area, comprising of approximately seven shacks.

3.5 COMMERCIAL AND INDUSTRIAL

The main economic sectors within the Municipality are presented in Table 4 below. These include agriculture, community services, construction, mining, electricity, finance, manufacturing, transport, and trade.

Table 3: Main economic sectors (Integrated Development Plan (IDP), 2017)

Sector	Percentage Contributed
Agriculture	3.1%
Community services	30.9%
Construction	3.3%
Electricity	2.9%
Finance and business	27.6%
Manufacturing	4.3%
Mining	-
Transport	14.%
Trade	13.2%

3.6 SURFACE INFRASTRUCTURE

This section describes the surface infrastructures within the study area, which include the description of the road network, existing substations, and powerlines.

3.6.1 ROAD NETWORK

The access roads to the proposed study area are the R518 or R579 as well as gravel road through Lekurung village.

3.6.2 POWER LINES AND ASSOCIATED STRUCTURES AND INFRASTRUCTURE

There is an existing **11kV** power line within the proposed study area. Other structures noted include an informal community with informal housing (five to seven shacks)

4. DESCRIPTION OF THE SCOPE PROPOSED ACTIVITIES

This section describes the proposed activities which include the scope of the proposed project mainly focusing on the listed activities which triggers the EIA process.

4.1 BACKGROUND AND THE PROPOSED SCOPE OF WORK

The primary objective of the project is to farm and produce tomato paste or tomato concentrate based products for distribution and supply to down-stream food manufacturing industries. It is anticipated that the proposed development will enhance economic empowerment through social responsibility, improved household income and rural development.

4.2 ACTIVITIES ASSOCIATED WITH THE PROJECT

The construction phase of the proposed project will take approximately 18 months and the activities to be undertaken are discussed hereunder.

4.2.1 SITE WALK-DOWN

The site is virgin and thus considered to be relatively sensitive. Subsequently a site walk down will ensure that sensitive areas are avoided. A site walk down will be undertaken prior commencement to ensure that sensitive areas are identified, avoided where need to be, and buffers are created for conservation purposes.

4.2.2 ACCESS ROADS

As indicated above, primary access to the proposed site will be through the Regional roads (R518 or R579) and gravel road that passes through Lekurung village. Further, the proposed project will require secondary access roads that will be developed as part of the project scope, and this will include:

- Construction of unsurfaced roads to and in between the tomato fields; and
- A1000m surfaced road to the processing facility.

4.2.3 VEGETATION CLEARANCE

Given the nature of the project, vegetation clearance is a definite and would include the following:

- Clearing of an initial 500ha of the current site for the planting of tomatoes. This will include bush clearing, tilling and fertilisation in preparation for the first crop;
- Clearing of an additional 600ha per year for two years for the planting of tomatoes. This will include bush clearing, tilling and fertilisation of the second and third crop; and
- In total 1700 ha will be cleared for the planting of tomatoes at the beginning of the third year; and

The proposed clearing of vegetation will be phased over a period of three (3) years

4.2.4 PROCESSIGN PLANT

Approximately 4ha of land is required for the development of the proposed Tomato Processing Facility, and will include the following infrastructure:

- Boiler room;
- Coal storage;
- Chemical storage;
- Cooling towers;
- Evaporator train;
- Filling station; and
- Offices.

4.2.5 COMPLETION OF CONSTRUCTION WORK

On completion of construction work, the site will be rehabilitated as per the specifications of the EMPr and approved Method Statements. The rehabilitation activities will include:

- Removal of excess building material and waste;
- Repairing any damage caused by construction activities;
- Rehabilitating the area affected by temporary access roads;
- Reinstating existing roads; and
- Replacing topsoil and planting indigenous vegetation where necessary.

4.3 LISTED ACTIVITIES APPLICABLE TO THE PROJECT

The proposed development triggers listed activities in terms of the EIA Regulation of 2014 as amended in April 2017. The listed activities applicable to the proposed project are listed in Table 5 below:

Table 5: Listed Activities triggering EIA applicable to the proposed project

Listed activities	Activity/Project description
Applicable Activities Listed Under Environmental Impact Assessment Regulations, 2014 as amended Listing Notice 1	
GN R. 983 Activity 9: *The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water-* *(i) with an internal diameter of 0,36 metres or more; or* *(ii) with a peak throughput of 120 litres per second or more*	The proposed project will entail the installation of pipelines from the Olifants River to the irrigation water storage ponds. Final lengths of pipelines are still to be confirmed during the EIA phase
GN R. 983 Activity 12: *The development of—* • *dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or* • *infrastructure or structures with a physical footprint of 100 square metres or more;* *where such development occurs-* *(b) in front of a development setback; or* *(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.* The development of -	The proposed project will entail the development of water storage ponds (i.e. earth dams with lining) to store irrigation water that will be pumped from the Olifants River. The project will also entail the development of the following infrastructure and structures with a physical footprint of 100 square metres or more: • Tomato processing facility; • Construction of propagation unit; • Construction of a warehouse to store packing materials as well as the finished product; • Construction of ancillary structures and parking; • Nursery to establish seedlings for the farm; • Pump station for pumping water from the water abstraction works at the Olifants River; and • Water recycling plant.

Listed activities	Activity/Project description
GN R. 983 Activity13 *The development of facilities or infrastructure for the off stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of activity 16 in Listing Notice 2 of 2014.*	The proposed project will entail the installation of pipelines from the Olifants River to the irrigation water storage ponds (i.e. earth dams with lining).
GN R. 983 Activity 25 *The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.*	The proposed project entails the development of the water treatment or water recycling facilities within the plant.
GN R. 983 Activity 27 *The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.*	The proposed project will entail the clearance of approximately 4ha of indigenous vegetation for the development of the proposed tomato processing facility.
Applicable Activities Listed Under Environmental Impact Assessment Regulations, 2014 as amended Listing Notice 2	
GN R. 984 Activity 15 *The clearance of an area of 20 hectares or more of indigenous vegetation.*	It is anticipated that the proposed project will clear a total of approximately 1700ha of indigenous vegetation for the proposed farming activities and associated infrastructure.
GN R. 984 Activity 16 *The development of a dam where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high-water mark of the dam*	The proposed project will entail the development of two irrigation water storage ponds

Listed activities	Activity/Project description
covers an area of 10 hectares or more.	
Applicable Activities Listed Under Environmental Impact Assessment Regulations, 2014 as amended Listing Notice 3	
GN R. 985 Activity 4 *The development of a road wider than 4 metres with a reserve less than 13, 5 metres.* ***e. Limpopo*** ***i****. Outside urban areas:* *(cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; and* *(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.*	The proposed project entails the construction of roads to and in between the tomato fields. These include road thatwill not be surfaced as well as the surfaced road from the site entrance to the processing facility, which will be less than 1000m in distance.
GN R. 985 Activity 12 The clearance of an area of 300 square metres or more of indigenous vegetation. **e. Limpopo** **ii.** Within critical biodiversity areas identified in bioregional plans.	The proposed project will entail the clearance of a total of approximately 1700ha of indigenous vegetation for the planting of tomatoes.
GN R. 984 Acitivity 14 *The development of—* *(i) dams or weirs, where the dam or weir, including*	It is anticipated that the proposed project will entail the development of two irrigation water storage ponds (i.e. earth dams with lining).

Listed activities	Activity/Project description
infrastructure and water surface area exceeds 10 square metres; or *(ii) infrastructure or structures with a physical footprint of 10 square metres or more;* *where such development occurs—* *(b) in front of a development setback; or* *(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;* ***e. Limpopo*** *i. Outside urban areas:* *(dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;* *(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;*	The proposed project also entails the development of the following infrastructure or structures with a physical footprint of 100 square metres or more in Limpopo Province: • Tomato Processing facility; • Construction of a Propagation unit; • Construction of a Warehouse to store packing materials as well as the finished product; • Construction of Ancillary structures and parking; • Nursery to establish seedlings for the farm; and • Pump station to ensure the efficient and effective abstraction of water from the Olifants River.
The National Water Act, 1998 (Act 36 of 1998) Activities	
Section 21 (a) ***Taking water from a water resource.***	The proposed project entails the abstraction (through pumping) of water from the Olifants River for irrigation purpose. The water will also be abstracted from a borehole for domestic use to support approximately 90 people.

Listed activities	Activity/Project description
Section 21 (b) ***Storing water.***	The proposed project entails the development of two (2) water storage ponds (i.e. earth dams with lining) to store irrigation water pumped from the Olifants River.
Section 21 (d) ***Engaging in a stream flow reduction activity contemplated in section 36***	The taking of water from the Olifants River for farming purposes may reduce the flow of water in the stream.
Other Permits	
National Environmental Management Biodiversity Act, 2004 (No. 10 of 2004).	The proposed project development is within a Critical Biodiversity Area, and it is therefore anticipated that some protected trees may be found. Removal of such trees will requires a Tree Removal Permit in terms of National Environmental Management: Biodiversity Act.
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	Based on the information provided, the waste identified will primarily entail tomato skin and seeds, which is classified as general waste that is expected to be in considerable quantities. The proposal is to repurpose this waste as animal feed that will be sold to farmers. This may trigger listed activity under Category A of NEMWA as more information becomes available. No activities that generate hazardous waste have been identified.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	The project will include a processing plant with boilers and stacks. It is expected that this may trigger the requirement of an Atmospheric Emission License (AEL) depending on the emissions generated. The process will be studied and analysed in detail as the project progresses

Listed activities	Activity/Project description
	to confirm any triggers.

5. APPLICABLE LEGISLATION AND GUIDELINES

The amended EIA Regulation, under Appendix 2 Section 1(e) requires the description of applicable legislations in the scoping report. Therefore, this section list and describe the acts and legislations applicable to the proposed project and associated infrastructure. A list of the current South African environmental legislations, which is considered to be pertinent to the proposed development is described in **Table 4** below.

Municipal policies, plans and by-laws and world best practices were considered during the EIA process. Table 4 below provides a description of legislations that apply to the project, it is not an exhaustive analysis; however, it provides a guideline to the relevant aspects of each legislation.

Table 4: Legislation pertaining to the proposed project

Aspect	Relevant Legislation	Brief Description
Environment	• National Environmental Management: Act 1998, (Act No. 107 of 1998) as amended. • Environmental Impact Assessment Regulations, December 2014 as amended	The overarching principles of sound environmental responsibility are reflected in the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) apply to all listed projects. Construction and operation of activities have to be conducted in line with the generally accepted principles of sustainable development, integrating social, economic and environmental factors. The Environmental Impact Assessment (EIA) process followed is in compliance with the NEMA and the Environmental Impact Assessment Regulations of December 2014 as amended. The proposed development involves "listed activities", as defined by NEMA. Listed activities are an activity

Aspect	Relevant Legislation	Brief Description
		which may potentially have detrimental impacts on the environment and therefore require Environmental Authorisation (EA) from the relevant Competent Authority, in this case LEDET.
Biodiversity	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	The purpose of the National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA) is to provide for the management and conservation of South Africa's biodiversity within the framework of the NEMA and the protection of species and ecosystems that warrant national protection. As part of its implementation strategy, the National Spatial Biodiversity Assessment was developed.
Protected Areas	National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)	The purpose of this Act is to provide for the protection, conservation and management of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes.
Heritage Resources	National Heritage Resources Act, 1999 (Act No. 25 of 1999)	The National Heritage Resources Act, 1999 (Act No. 25 of 1999) legislates the necessity for cultural and heritage impact assessment in areas earmarked for development, which exceed 0.5 ha. The Act makes provision for the potential destruction of existing sites, pending the archaeologist's recommendations through permitting procedures. Permits are administered by the South African Heritage Resources Agency (SAHRA), and provincial authorities in some cases.
Air quality		The objective of the Act is to protect the environment

Aspect	Relevant Legislation	Brief Description
management and control	National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004)	by providing reasonable measures for the protection and enhancement of air quality and to prevent air pollution. The Act makes provision for measures to control dust, noise and offensive odours. Section 32 of The National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) deals with dust control measures in respect of dust control. Whilst none are promulgated at present, it provides that the Minister or MEC may prescribe measures for the control of dust in specified places or areas, either in general or by specified machinery or in specified instances, the steps to be taken to prevent nuisance or other measures aimed at the control of dust.
Noise Management and Control	Noise Control Regulations in terms of the Environmental Conservation, 1989 (Act 73 of 1989)	The assessment of impacts relating to noise pollution management and control, where appropriate, must form part of the EMPr. Applicable laws regarding noise management and control refer to the National Noise Control Regulations issued in terms of the Environment Conservation, 1989 (Act 73 of 1989).
Water	National Water Act, 1998 (Act 36 of 1998)	This Act provides for fundamental reform of law relating to water resources and use. The preamble to the Act recognises that the ultimate aim of water resource management is to achieve sustainable use of water for the benefit of all users and that the protection of the quality of water resources is

Aspect	Relevant Legislation	Brief Description
		necessary to ensure sustainability of the nation's water resources in the interests of all water users. The proposed study area is near the Olifants River; therefore, the necessary Water Use Licence (WUL) will be obtained in due course.
Agricultural Resources	Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)	The Act aims to provide for control over the utilization of natural agricultural resources in order to promote the conservation of the soil, water resources and vegetation and to combat weeds and invader plants. Section 6 of the Act makes provision for control measures to be applied in order to achieve the objectives of the Act.
Human	The Constitution of South Africa, 1996 (Act No. 108 of 1996	The Constitution of South Africa, 1996 (Act No. 108 of 1996) provides for an environmental right (contained in the Bill of Rights, Chapter 2). The state is obliged "to respect, protect, promote and fulfil the social, economic and environmental rights of everyone…" The environmental right states that: "Everyone has the right - a) To an environment that is not harmful to their health or well-being; and b) To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that - • Prevent pollution and ecological degradation; • Promote conservation; and • Secure ecologically sustainable development

Aspect	Relevant Legislation	Brief Description
		and use of natural resources while promoting justifiable economic and social development."
Waste	National Environmental Management: Waste Act 59 of 2008	This act provides fundamental reform of the law regulating waste management to protect human health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development. This act also ensures the provision of national norms and standards for regulating the management of waste by all spheres of government. The National Environmental Management: Waste Act provides for specific waste management measures; licensing and control of waste management activities; remediation of contaminated land; compliance and enforcement; and for matters connected therewith.

6. DESCRIPTION OF THE NEED AND DESIRABILITY OF THE PROPOSED ACTIVITY

This section provides justification for the need of the proposed development with focus on its associated benefits and importance to both the locals and the region at large.

6.1 MOTIVATION FOR THE DEVELOPMENT

Nyamane proposes the development of facilities for manufacturing and producing tomato paste or tomato-concentrate based products, for distribution and supply to down-stream food manufacturing industries, and the anticipated infrastructure and capital investment are classified and identified under the Strategic Industrialization Cluster Project (Integrated Farming and Agro Processing).

The proposed project will have ccumulative job opportunities for permanent key personnel on the operational facilities; and temporary jobs for construction and implementation which will also include skills transfer.

6.1.1 BENEFIT AND SUPPORTING STRATEGIES

At the **regional level**, the project would contribute to social responsibility, improved household's income, rural development and empowerment incentive schemes through the creation of employment opportunities.

There would also be a less tangible but nonetheless important benefit of positioning the Municipalities ahead in terms of job creation. At the **national level**, the project would contribute to food security and poverty elevation.

7. DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ACTIVITY, SITE AND LOCATION WITHIN THE SITE

The identification of alternatives is a crucial component of the EIA process. The identified alternatives are assessed in terms of environmental acceptability, technical as well as economic feasibility during the EIA process wherein the preferred alternative is highlighted and presented to the Authorities.

The technical and the no-go alternative are being considered for the proposed development. The project considered technical alternatives (Refer to Section 7.1) that were found to be economically and environmentally viable compared to the other options. The alternatives are presented as part of this Scoping Report and will be scrutinised further during the EIA phase.

The selection of the project alternatives was primarily based on the Nyamane prefeasibility study that technically determined the broad location based on the need of the project. Subsequent site visits were undertaken by the environmental and specialist teams.

7.1 DETAILS OF ALTERNATIVES CONSIDERED

This section describes the alternatives considered and includes the technical and no-go alternatives which are discussed below..

The proposed projects entails only one site alternative and no other site alternatives are considered. The map below (Figure 3) shows the sensitive features within the proposed site.

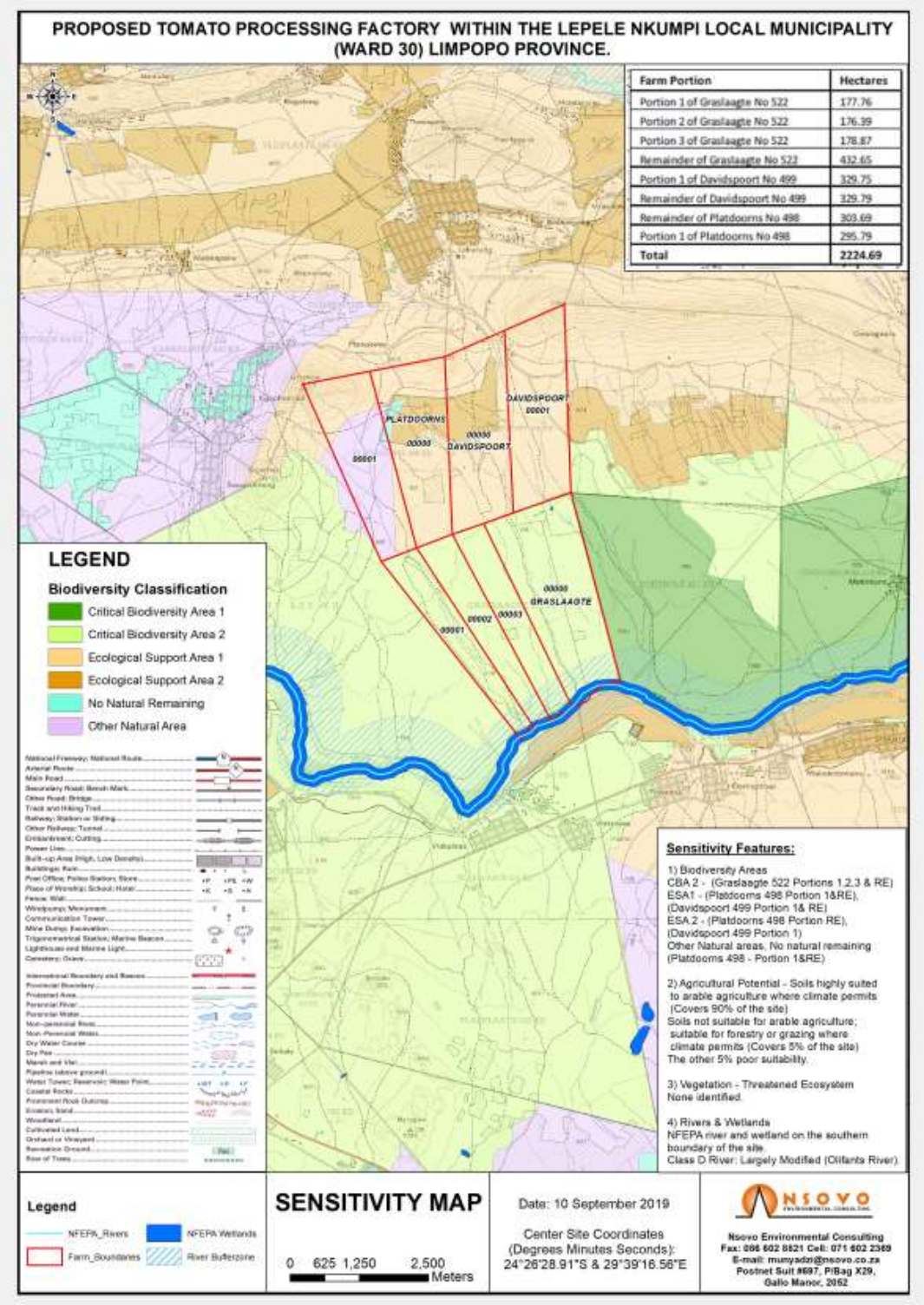

Figure 2: The sensitivity features within the study area

7.1.1 TECHNICAL ALTERNATIVES

Two technical alternatives have been identified for the proposed project i.e., the coal-fired boiler versus a gas boiler. Detailed analysis and comparison of the alternatives will be undertaken as part of the scoping phase and based on the analysis the preferred alternative will be considered and recommended for the project. The alternatives are briefly described below and a comparative analysis is presented on Tables 5 and 6 below.

7.1.2.1. Gas-Fired Boil

Gas boilers and furnaces are fuelled by natural gas, which is one of the least contaminated fuels used for boiler operation. The global warming emissions from its combustion are much lower than those from coal or oil. The burning of natural gas produces negligible amounts of sulfur, mercury, and particulates, as well as nitrogen oxides (NOx), which are precursors to smog, but at lower levels. Natural Gas is environmentally friendly, and it is one of the least expensive fuels available; therefore, the interest in natural gas as an alternative fuel for boilers will increase in South Africa.

The main challenges to promoting natural gas in South Africa are its current price and the limited distribution network of pipelines currently available as result of the low demand.

7.1.2.2. Coal Boiler

Coal, as a source of fuel, generates and releases large amounts of CO2, which has a negative impact on the environment, causing land and air pollution. Increased risk of climate change has placed organizations under tremendous pressure to use cleaner fuels in their operational activities. Coal is often used as fuel in the industrial sector as it is cheaper than other energy sources. It is, however, more carbon-intensive and thus contributes to pollution to a greater extent than other fuel sources (Giglio, 2013).

Coal boiler (also called coal-fired boiler) is widely used to generate thermal energy by burning pulverized coal that is blown into the firebox. Coal can provide lower operating costs in comparison to other fossil fuels such as oil or natural gas. However, coal produces high levels of air pollutants, such as particulate, sulfur oxides, and nitrogen oxides. Coal also produces higher carbon dioxide emissions than other fossils such as natural gas and fuel oil.

The management of waste that comes with the use of coal-fired boilers must be considered and associated measures put in place. The use of a coal-fired boiler will inevitably result in the generation of boiler ash containing unburned coal particles. Bottom ash and boiler slag also contain radioactive materials called TENORM – Technologically Enhanced Naturally Occurring Radioactive Materials (Coal fly ash, bottom ash, and boiler slag, 2014). This hazardous waste has negative impacts on the environment and will thus affect Nyamane's environmental and economic performance. Further, the contamination of groundwater as a result of the operation of coal-fired boilers is highly likely as a result of trace elements that are commonly associated with by-products produced during coal combustion.

According to the National Environmental Management Waste Act 2008 (NEMWA) (Act 59 of 2008), waste must be classified according to its characteristics to ensure responsible handling, storage, processing, treatment, and disposal of waste that also satisfies legal requirements (Wood, 2013). However, depending on the classification, boiler ash generated can be disposed of or reused in other manufacturing processes (example: brickmaking).

Table 5: The expected emissions produced from the two fuel sources

	Units	**Coal**	**Gas**
Fuel Consumption	Kg/h	945,6	585,4
Fuel Gas	Kg/h	1174,4	970,0
Fuel Gross Calorific Value	MJ/kg	26,0	42,0
Required Fuel Grade	-	Grade C -Small Coal	-
Particulate Emissions			
	Units	**Coal**	**Gas**
Particulates	Mg/nm³	250	Negligible
CO	ppm	246	123
CO²	%	12,00	6,84
SO×	ppm	999	Negligible
NO×	ppm	267	Negligible

Table 6: Comparative Analysis of the Alternatives Considered

Technical alternatives	
Coal-Fired Boiler	**Gas Boiler**
• Coal boilers have higher upfront installation cost than gas boilers, however the cost of coal and the cost of transporting the coal to the factory is far less than the cost of gas fuel. • The coal-fired boiler have higher CO^2 and sulphur compound emissions. • Coal contains mineral matter which is converted to ash during combustion. Coal ash contains contaminants like mercury, cadmium and arsenic. Without proper management, these contaminants can pollute waterways, ground water, drinking water, and the air.	• The cost of fuel for a gas fired boiler in this geographic location outweighs the upfront investments in installation costs. • Gas fired boilers have a far lower CO^2 and sulphur compound emissions in the boiler flue gas. • Gas fired boiler do not produce ash after combustion. • The main challenges to promoting natural gas in South Africa are its current price and the • Limited distribution network of pipelines currently available.

Recent statistics revealed that world coal capacity is likely to double by 2030, and, if conventional coal technology is used, CO2 emission is expected to grow by about 12.6 billion metric tons annually by 2030. The increased need to reduce CO2 emissions by 50% to avoid the impacts of climate change has been the suggestion by scientists Mathews and Caldeira, and South Africa is positively responding by embracing and implementing Carbon Tax emission. The climate scientists stated that "stabilizing climate requires near-zero emissions". Hence, the need for cleaner technology is imperative (Thompson and Fowler, 2009).

Subsequently, given the comparative analysis of coal-fired vs. gas, the use of gas is highly recommended from environmental perspective. Given the limited distribution network of pipelines currently available in relation to the remoteness of the proposed site, it may be an operational challenge to use coal. However, should the use of coal be the only viable option the client will need to take into consideration conversion at a later stage to move towards cleaner technologies. Further, the management of ash waste must be done in a more sustainable manner i.e., consideration of the reuse option vs. landfilling.

7.1.2 SCHEDULING ALTERNATIVES

The proposed tomato farming is characterised by activities that are labour intensive. Several option have been assessed and weighed from a socioeconomic perspective. Amongst such option the project considered manual labour vs. the use of machinery for tomato harvesting.

7.1.2.3. Manual labour

Manual labour will be adopted for the preparation of soils and planting of tomato seedlings; however, alternatives will be considered for harvesting. Three hundred and fifty (350) jobs will be created during the construction phase and two hundred and fifty (250) permanent jobs will be created for the operational phase. Nyamane will also implement temporary jobs with attributes to skills transfer estimated for a period of 18 (eighteen) months.

Labour required for the project will be recruited from the local communities as far as possible and will thus allow for empowerment and upliftment of the local economy.

7.1.2.3.1 Manual labour and use of machinery for tomato harvesting

The two strategies considered for harvesting tomatoes are: manual labour or use of machinery. Instead of harvesting tomatoes manually, machinery is considered to be the preferred alternative as the efficiency cost of will be less than using the manual labour, thus resulting to a better economic viability

To accommodate the unemployment crisis in the country, approximately 800 manual labourers will be used during the manual harvesting process as the intention is to make use of 50% manual process and 50% machine harvest during the two maturities.

7.1.2.4. No-go alternative

In accordance with GN R.982, consideration must be given to the option not to act. This option is usually considered when the proposed development is envisaged to have significant negative environmental impacts that mitigation measures cannot ameliorate effectively. The no-go alternative would be the option of not undertaking the development of the proposed project. It would imply that capital investment, households' income improvement, rural development and empowerment incentive schemes in the area will not be possible. Should the no-go alternative be adopted, Limpopo Province particularly, Lepelle-Nkumpi Local Municipality will be deprived of a much-needed investment that will empower their communities.

7.2 PUBLIC PARTICIPATION PROCESS

The EIA Regulations, require that during the Scoping and EIA process, the Organs of State together with Interested and Affected Parties (I&APs) and the stakeholder be informed of the application for Environmental Authorisation (EA) and also allowed an opportunity to comment on the application.

Public Participation Process (PPP) is any process that involves the public in problem-solving and decision-making; it forms an integral part of the Scoping and EIA process. The PPP provides people who may be interested in or affected by the proposed development, with an opportunity to provide comments and to raise issues or concerns, or to make suggestions that may result in enhanced benefits for the project. The primary purpose of the PPP report is as follows:

- To outline the PPP that was undertaken;
- To synthesise the comments and issues raised by the key stakeholders, I&APs; and
- To ensure that the EIA process fully addresses the issues and concerns raised.

Chapter 6, Regulation 39 through 44, of the 2014 EIA Regulations stipulates how the PPP should be conducted as well as the minimum requirements for a compliant process. These requirements include but not limited to:

Fixing a notice board at or on the fence of-

(i) The site where the activity to which the application relates is or is to be undertaken; and
(ii) A place conspicuous to the public at the boundary of the site.

Giving written notice to-

- The occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
- The owners or persons in control of the land, and occupiers of land adjacent to the site where the activity is or is to be undertaken and to any alternative site where the activity is to be undertaken;
- The municipal councillor of the ward in which the site and alternative site is situated and any organisation of rate payers that represent the community in the area;
- The municipality which has jurisdiction in the area;
- Any organ of state having jurisdiction in respect of any aspect of the activity; and

- Any other party as required by the competent authority.

Placing an advertisement in-

One of the local Newspaper within or around the proposed site

7.2.1 PUBLIC PARTICIPATION PRINCIPLES

The principle of Public Participation holds that those who are affected by a decision have the right to be involved in the decision-making process (i.e., the public's contribution will influence the decision). One of the primary objectives of conducting the PPP is to provide I&APs with an opportunity to express their concerns and views on issues relating to the proposed project. The principles of public participation are to ensure that the PPP:

- Communicates the interests of and meet the process needs of all participants.
- Seek to facilitate the involvement of those potentially affected.
- Involves participants in defining how they participate.
- It is as inclusive and transparent as possible, and must be conducted in line with the requirements of Regulation 39 - 44 of the EIA Regulations as amended.

7.2.2 APPROACH AND METHODOLOGY

The Public Participation approach adopted in this process is in line with the processes contemplated in Regulation 39 - 44 of the EIA Regulations as amended, in terms of NEMA, which provides that I&APs must be notified about the proposed project.

7.2.3 IDENTIFICATION OF INTERESTED AND AFFECTED PARTIES

Interested and Affected Parties (I&APs) identified include pre-identified stakeholders (government department), landowners and the general public. Notification and request for comments will be submitted to the following key stakeholders:

- Limpopo Department of Economic Development, Environment and Tourism;
- Limpopo Department of Transport and Public Works;
- Limpopo Department of Water and Sanitation;
- Limpopo Heritage Resources Agency;
- South African Heritage Resource Agency;
- Wildlife and Environmental Society of South Africa;
- Lepelle-Nkumpi Local Municipality;
- Department of Agriculture and Rural Development; and
- COGHSTA Lebowakgomo.

7.2.4 PUBLIC PARTICIPATION DATABASE

In accordance with the requirements of the EIA Regulations under Section 24 (5) of NEMA, Regulation 42 of GN R. 982, a Register of I&APs must be kept by the public participation practitioner. In fulfilment of this requirement, such a register is compiled, and details of I&APs, including their comments, will be updated throughout the project cycle. The database is attached as **Appendix D1.**

7.2.5 SITE NOTICES

A2, size notices informing I&APs of the availability of draft Scoping Report will be fixed at different conspicuous locations within and around the proposed project study area.

7.2.6 DISTRIBUTION OF NOTICES TO SURROUNDING LAND OWNERS / OCCUPIERS

Notification letters informing I&APs of the availability of draft scoping report will be posted via registered mail, whereas A5 notices written in English and Sepedi will be hand delivered to landowners/occupiers. These notifications will be informing stakeholders and the public of the project as well as allowing them an opportunity to register as I&AP and also to comment or raise any issues about the proposed project.

7.2.7 PLACEMENT OF ADVERTISEMENT IN THE LOCAL NEWSPAPER

An advertisement was placed on the Capricorn Voice newspaper on the 18th of September 2019. The advertisement was aimed at further informing the I&APs of the proposed activity. Thirty day period was allowed for the public to submit their comments, issues, and concerns. The proof of newspaper advertisement is attached as **Appendix D2.**

7.2.8 PLACEMENT OF DRAFT SCOPING REPORT FOR COMMENTS

The availability of the draft Scoping report for review, and comment will be advertised accordingly and copies will be made available on the Nsovo website. Further, copies of the draft Scoping report will be submitted to various departments and other stakeholders, as highlighted above.

7.2.9 PUBLIC MEETINGS

Public and focus group meetings will be scheduled accordingly to address all issues and comments raised during the scoping phase.

7.3 A SUMMARY OF ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Comments, issues, and concerns raised together with the responses provided by the Environmental Assessment Practitioner (EAP) are presented as **Appendix D3**.

8. DESCRIPTION OF THE ENVIRONMENTAL ATTRIBUTES ASSOCIATED WITH THE ALTERNATIVES FOCUSING ON THE GEOGRAPHICAL, PHYSICAL, BIOLOGICAL, SOCIAL, HERITAGE AND CULTURAL ASPECTS

This section outlines parts of the socio-economic and biophysical environment that could be affected by the proposed development. Using the project description and knowledge of the existing environment, potential interactions between the project and the environment are identified below. The potential effects of the project on the human environment, socio-economic conditions, physical and cultural resources are included.

8.1 SOCIO-ECONOMIC DESCRIPTION

This section presents the socio-economic aspects focusing on the Province and Municipality within which the proposed study area is located.

8.1.1 PROVINCIAL DESCRIPTION OF THE PROPOSED PROJECT

Limpopo is in the northernmost part of South Africa, and it borders Mpumalanga, Gauteng and North West provinces. Limpopo is characterised by bushveld, majestic mountains, primeval indigenous forests, unspoiled wilderness, and patchworks of farmland. The Province covers an area of 125 754km², which has

a population of approximately 5 779 090. The capital city of Limpopo is Polokwane, formerly known as Pietersburg.

The province is divided into five district municipalities viz. Vhembe, Mopani, Waterberg Greater Sekhukhune, and Capricorn. The proposed development is within Lepelle-Nkumpi Local Municipality.

The Limpopo Province is rich in mineral deposits, including platinum-group metals, iron ore, chromium, high and middle-grade coking coal, diamonds, antimony, phosphate, and copper, as well as mineral reserves such as gold, emeralds, scheelite, magnetite, vermiculite, silicon, and mica.

The province is a typical developing area, exporting primary products and importing manufactured goods and services. This province is the largest producer of various crops in the agricultural market due to climatic conditions that allow for double harvesting seasons.

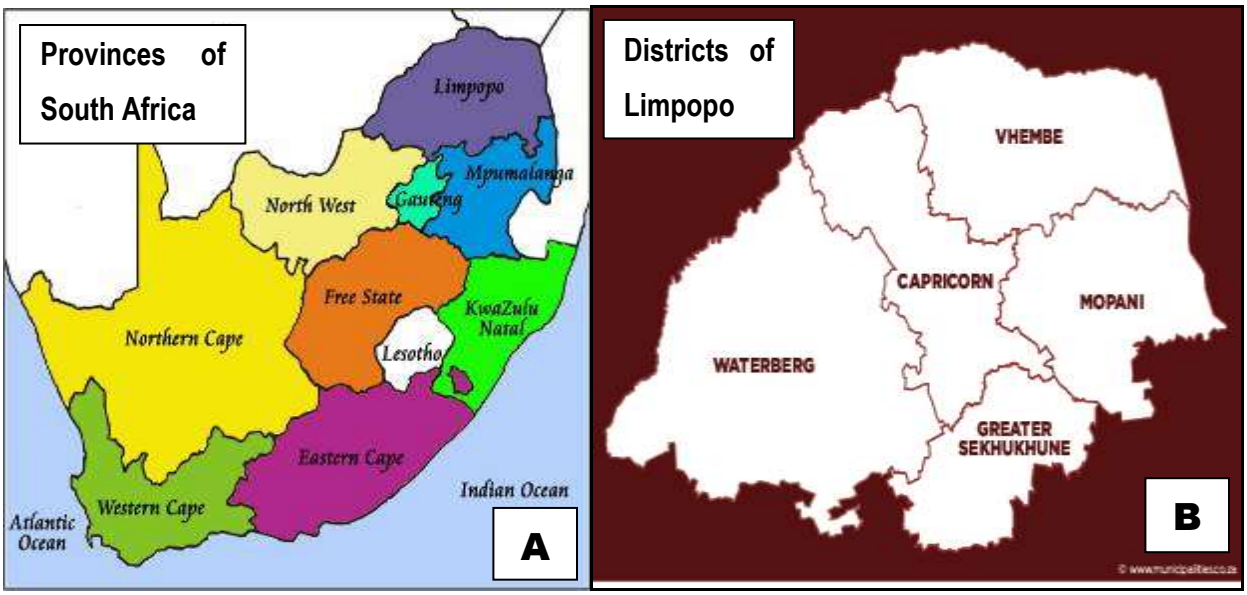

Figure 3: Photograph A shows the provinces of South Africa and Photograph B shows Limpopo province with Municipal Districts (Source: www.odm.org.za)

8.1.2 DISTRICTS MUNICIPALITY WITHIN THE STUDY AREA

The proposed development will be within the Capricorn District Municipality whichcovers an area of approximately 21 705km². Capricorn District Municipality consists of the four local municipalities, namely: Blouberg, Lepelle-Nkumpi, Molemole, and Polokwane, whereby only two local municipalities, i.e.,

Polokwane and Lepelle-Nkumpi, are within the proposed study area. The major towns in Capricorn include Alldays, Dendron, Morebeng, Polokwane, and Zebediela. The main economic sectors within Capricorn entail the following: community services (30.9%), finance (27.6%), trade (14%), transport (13.2%), manufacturing (4.3%), construction (3.3%), agriculture (3.1%) and electricity (2.9%).

Figure 4: Photograph shows the map of Capricorn districts municipality

8.1.3 LOCAL MUNICIPALITY WITHIN WHICH THE PROPOSED STUDY AREA

The proposed development is within Lepelle-Nkumpi Local Municipality which is a Category B municipality situated within the Capricorn District. This Municipality covers an area of approximately 3 463km² and is located 55km south of the Capricorn district municipality as well as Polokwane City. The proposed development traverses Wards 25, and 30 of the municipality. It is the smallest of the four municipalities in the district, making up 16% of its geographical area. It is predominantly rural and is divided into 29 wards, four of them being a township called Lebowakgomo and one of the Capricorn District's growth points. The principal town within this Municipality is Zebediela.

8.1.4 CLIMATIC CONDITION OF THE PROPOSED AREA

The study area is in the summer rainfall region, with arid winters and annual precipitation averages about 460 mm. When considering the dry northern parts of the Sekhukhune Plains Bushveld, the rainfall pattern is strongly influenced by the area's topography, varying from 416 mm in the east to 499 mm per annum in the west, and 522mm in the south to 478mm per annum in the north. Daily average temperatures range from a minimum of 8°C in winter to a maximum of 38°C in summer, with an average annual temperature of 20°C. Minimum temperatures of the below freezing point are extremely rare, even in the high-lying areas (Siebert et al. 2002).

Table 7- Average Monthly Precipitation (WR2012)

Month	Distribution % of MAP	Monthly Rain (mm)
Jan	17.7	84.3
Feb	14.3	68.0
Mar	11.2	53.1
Apr	6.15	29.2
May	2.07	9.8
June	1.01	4.8
July	0.75	3.6
August	0.87	4.1
September	2.67	12.7
October	8.63	41.0
November	17.1	81.3
December	17.5	83.1
Total (MAP)	**100.0**	**475**

7.1.2.5. Evaporation

Symons pan (S-Pan) evaporation data is based on the Water Research Council2012 derived Mean annual Evaporation for quaternary catchment B52A of 1900mm and the monthly distribution of the MAE for the evaporation zone 1A. S-Pan evaporation was converted to open water evaporation using evaporation coefficients from WR1990.

Table 8 presents the temperature and evaporation distribution applicable to the project site.

Table 8: Average Monthly Evaporation

Month	S-Pan Evaporation (mm)	Conversion Factors	Lake Evaporation (mm)
January	195	0.84	164
February	167	0.9	147
March	164	0.9	145
April	132	0.9	116
May	114	0.87	100
June	92	0.85	78
July	102	0.83	85
August	139	0.81	113
September	180	0.81	145
October	211	0.81	171
November	199	0.82	163
December	203	0.83	169
Total	**1900**		**1596**

8.1.5 GEOLOGY WITHIN THE STUDY AREA

Geology underlying the study area is made up of igneous columns of ferrogabbro, troctolite, anorthosite, magnetite layers and pipes as well as diorite from the Pretoria Group of the Vaalian era. The northern boundary of the study areas border quartzite's from the Magaliesberg Formation while the southern boundary is bordered by alluvium associated with the Olifants River.

The study area comprises of igneous type rocks that dominate the site and gives rise to medium to well-structured soils, although a secondary influence of some overlying sandy soils was also observed in a few localities, indicating weathered material from a secondary geological influence, likely the quartzites from the northern boundary. Orthic topsoils horizons dominated topsoil horizons with prismacutanic, neocutanic, and peducatunic subsoils. Some red structured and pedal sub-soil horizons were also present with typically deeper profiles. In general watercourses were dominated by alluvium deposits, including the Dundee soil form with stratified alluvium deposits were identified within the proximity of the Olifants River as well as within secondary drainage lines situated in lower terrain unit positions towards the Olifants River.

The large southern and eastern parts of this area are underlain by granite of the Lebowa Granite Suite, and some granophyre of the Rashoop Granophyre Suite (both Bushveld Complex, Vaalian). In the north, the

sedimentary rocks of the Waterberg Group (Mokolian Erathem) are most important. Specifically, sandstone, conglomerate and siltstone of the Alma Formation and sandstone, siltstone and shale of the Vaalwater Formation. Well-drained, deep Hutton or Clovelly soils often with a catenary sequence from Hutton at the top to Clovelly on the lower slopes; shallow, skeletal Glenrosa soils also occur. Land types mainly Bb, Fa, Ba, Bd and Ac.

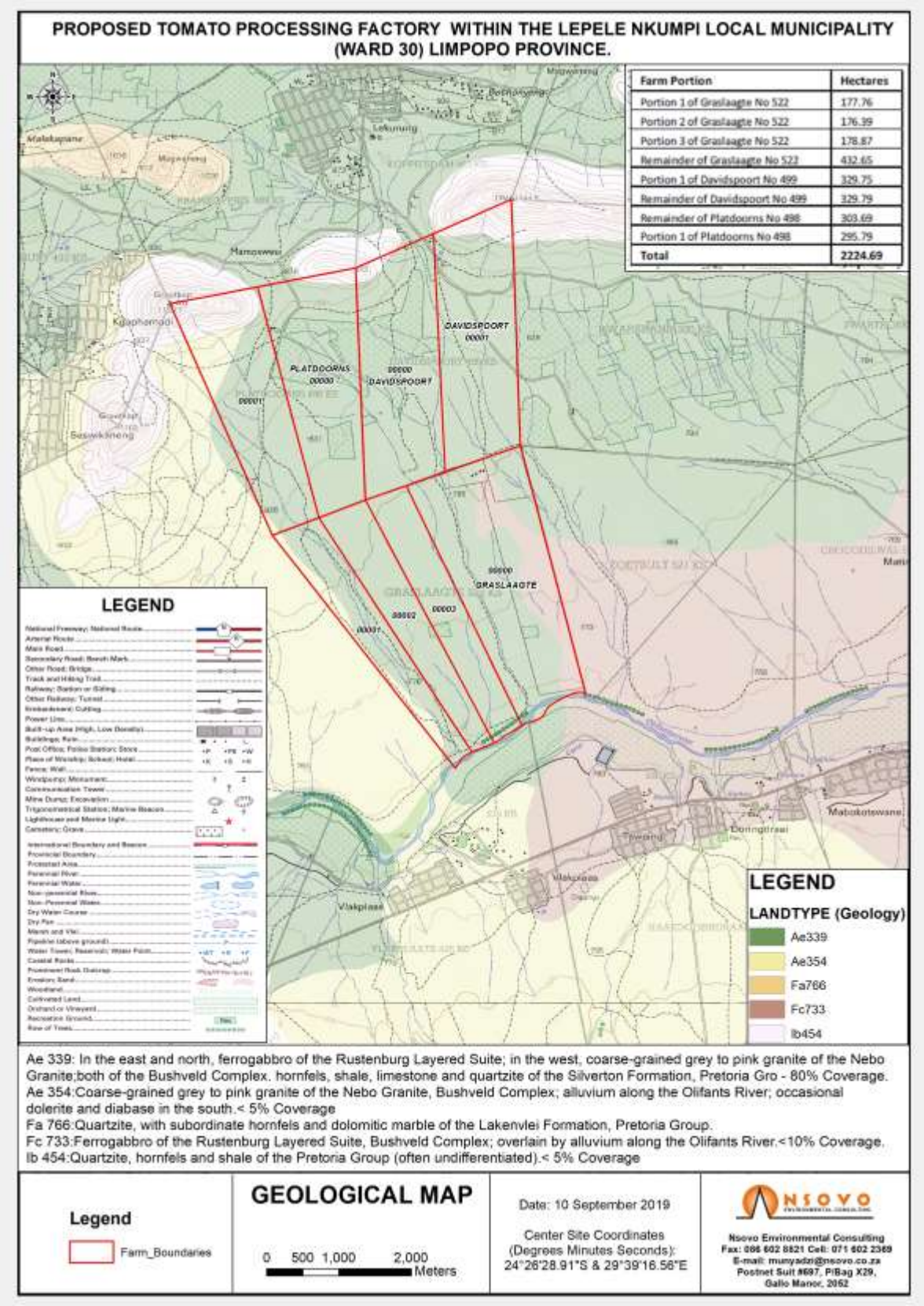

Figure 5: Geological map of the study area

8.1.6 TOPOGRAPHY OF THE STUDY AREA

The proposed study area is characterised by mountain peaks to the northern boundary and generally slopes towards the south. The peaks range in height from 1107.5 to 892.5 mamsl and form the headwaters of the streams passing through the project site. The proposed tomato processing facility infrastructure is located at the feet of two mountains with peaks 970 m and 1107.5 m and as a surface elevation between 870-850 m amsl. The mountain slopes are relatively steep with typical slopes of 0.32 (1:3.2) and 0.25 (1:4), which may need to be diverted away from the site in the Stormwater Management Plan (SMP).

8.1.7 SURFACE WATER WITHIN THE AREA

The main drainage line within the study area is the Olifants River, which forms the southern boundary of the study area. Various smaller drainage lines traverse the study area, draining into the Olifants River in the south anddrains in a north-easterly direction towards Phalaborwa in Limpopo and ultimately through Mozambique into the Indian Ocean. The study area falls within Management Class IUA 7: Middle Olifants below the Flag Boshielo Dam to the Steelpoort River confluence, consists primarily of dryland agriculture and rural subsistence farmers.

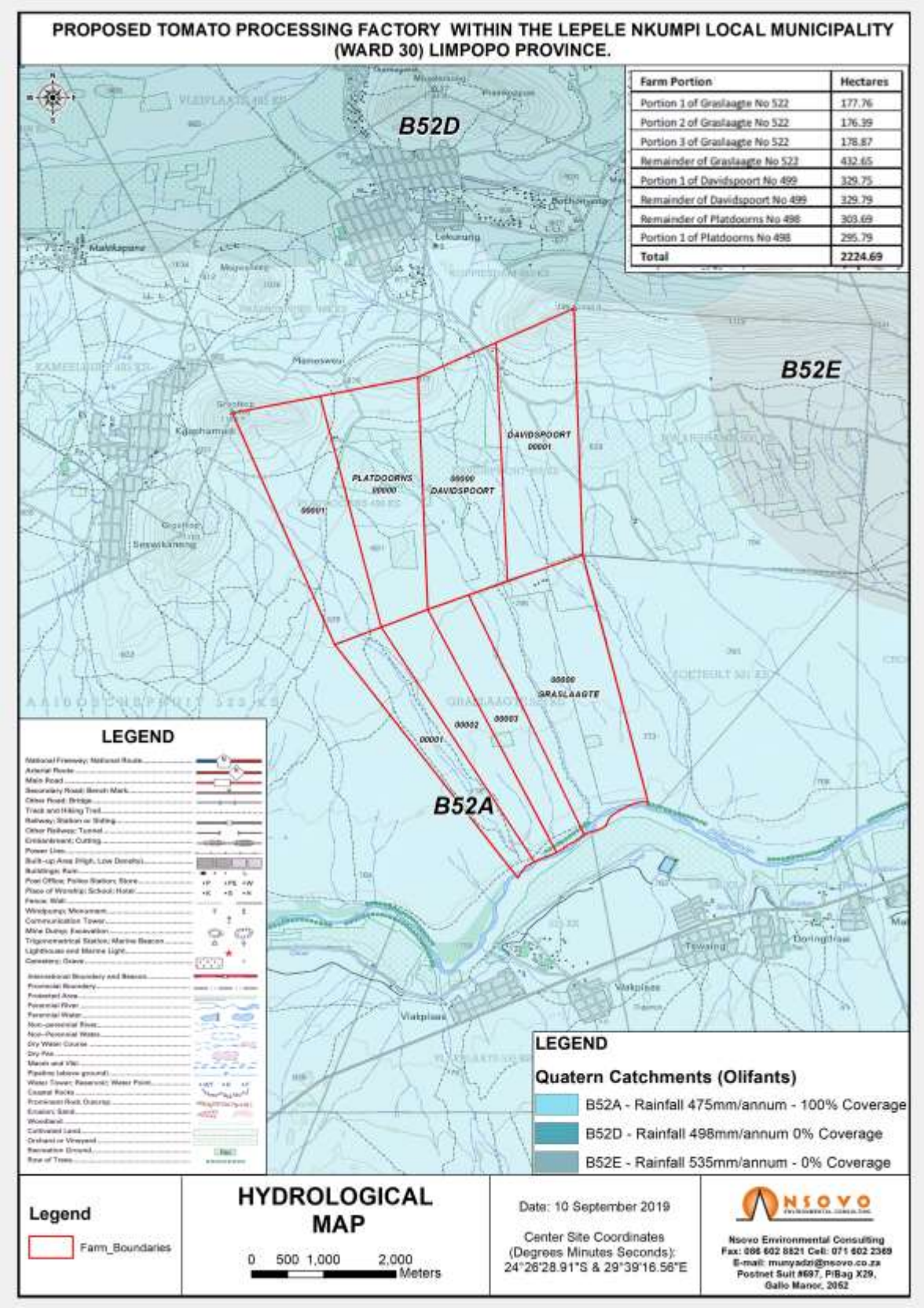

Figure 6: Hydrological map of the proposed location

8.1.8 SITES OF ARCHAEOLOGICAL AND CULTURAL SIGNIFICANCE

The Phase I Archaeological and Cultural-Heritage Impact Assessment for the proposed tomato farming and processing facilities revealed three (3) grave sites within the area earmarked for development. Some of the noted graves are over 60 years of age and thus protected against any form of alteration by the National Heritage Resources Act (Act 25 of 1999), while others appears to be unknown and will thus be viewed as those that are over 60 years of age.

Grave sites identified within the study area are indicated in the sensitivity map below.

Figure 7: Sensitivity Map highlighting Cultural heritage sites within the study area

8.1.9 AIR QUALITY AND POLLUTION

Air quality defined includes noise and odour as well as all sources of air pollution (i.e., point, area and mobile sources). The Limpopo Air Quality Management Plan has been developed to comply with the National Environmental Management: Air Quality Act, 39 of 2004, and more specifically, to provide guidance on Air Quality Management in the Sekhukhune, and Capricorn Municipal Districts. The Plan identifies air pollution sources in the proposed locations as follows:

- Clay brick manufacturing;
- Agricultural activities
- Biomass burning (veld fires);
- Domestic fuel burning (wood and paraffin);
- Vehicle emissions;
- Waste treatment and disposal;
- Dust from infrastructural development;
- Dust from unpaved roads; and
- Other fugitive dust sources such as wind erosion of exposed areas.

The ambient air quality is generally good; however, emissions from the proposed coal boiler will result in local areas of elevated concentrations of air pollutants. Ambient particulate concentrations are likely to be low in residential areas where wood is used as primary fuel source. The proposed coal fired boiler will result in an increase in carbon dioxide (CO2) and other particulate emissions.

8.1.10 VEGETATION STRUCTURE AND COMPOSITION

The study area is within the Savanna Biome (Rutherford & Westfall, 1994; Rutherford, 1997) and Central Bushveld Bioregion (Mucina & Rutherford, 2006)., wheretwo vegetation types are present The majority of the site islocated within the Sekhukhune Plains Bushveld vegetation type and the north western portion of the study area is within the Central Sandy Bushveld vegetation type. Both these vegetation types are indicted by Mucina & Rutherford to be Vulnerable (VU).

The National Land Cover database (DEA, 2014) indicates the dominant land cover type as Woodland/ Open Bush, with Thicket/ Dense Bush occurring within the ridges in the north of the study area and small portions of Low Shrub land scattered throughout the site. Low intensity cultivated field for subsistence farming are indicated within the north and south of the study area.No Protected Areas or CBA1 areas are associated with the study area.

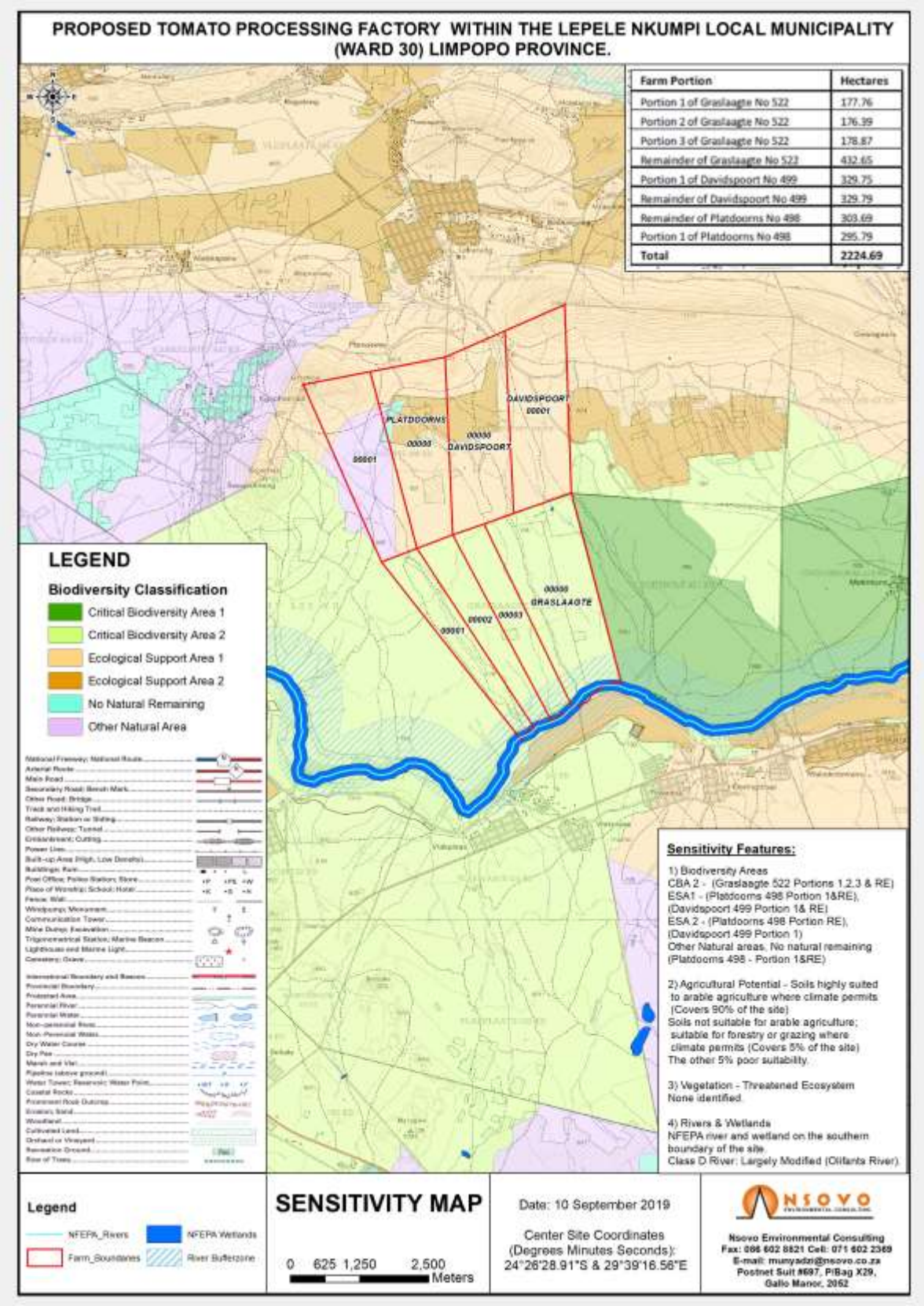

Figure 8: Sensitivity map

8.1.11 AGRICULTURE

The study area is located in the summer rainfall region, with very dry winters and an annual precipitation averaging about 460 mm. When considering the arid northern regions of the Sekhukhune Plains Bushveld, the rainfall pattern is strongly influenced by the area's topography, varying from 416 mm in the east to 499 mm per annum in the west, and 522mm in the south to 478mm per annum in the north.. Daily average temperatures range from a minimum of 8°C in winter to a maximum of 38°C in summer, with an average annual temperature of 20°C. Minimum temperatures of below freezing point are extremely rare, even in the high-lying areas (Siebert et al. 2002). The figure below depicts the study area's agricultural potential; accordingly it is evident that 80% of the proposed development is within soils which are highly suitable for arable agriculture where the climate permits.

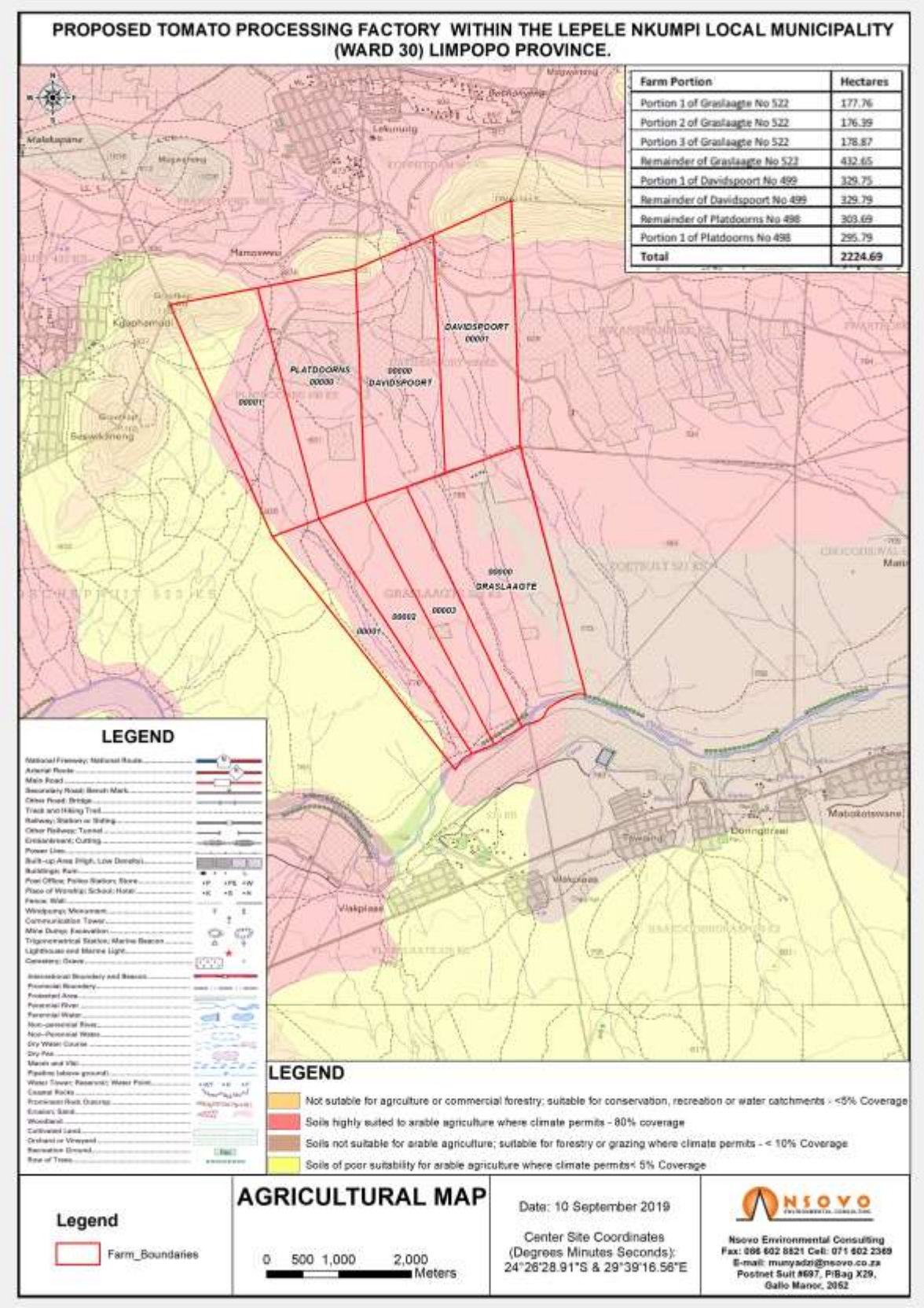

Figure 9: Agricultural potential along the alignment

9. SPECIALIST STUDY OUTCOMES

Table 9: Summary of the specialist findings

Specialist studies	Summary of findings
Wetland	Ten sections of riparian habitat were delineated within the study area and within 500m from the study area as well as sections further downstream of the study area. In addition, one wetland type, floodplain depression wetlands were associated with the Olifants River. However, due to the dominance and greater extent occupied by the riverine riparian habitat associated with the Olifants River, these wetland features were not separated and thus included under Riparian 1 (Olifants River). The perennial Olifants River was regarded as the only A-section riparian channel within the study area with the remaining nine sections of riparian habitat regarded as B-section channels as base flow was regarded as sometimes being present. Further, it was determined that there are no FEPA wetland or wetland clusters within the study area or within several kilometers from the study area. Findings of the Vegetation Reponses Assessment Index (VEGRAI), vegetation assessment conducted on riparian units identified within the study area revealed that riparian habitats associated with the study area were regarded as being in a moderately modified to largely modified state (i.e. Ecological Category C and D). The habitat was modified as a result of heavy grazing regimes causing vegetative successional changes, reduced basal cover and consequently changes to the hydrological regime. This has subsequently led to sheet, rill and gully erosion. The ecological importance of main stem Olifants river is low to moderate, with the small tributaries being moderate to high. The present state of the main stem is in an E category that is mainly due to changes in flows as a result of Flag Boshielo Dam upstream and from agricultural impacts. Alien invasive plants although rather limited, were observed within the marginal and non-marginal zones of the riparian habitat
Biodiversity	The study area is located within the Savanna Biome (Rutherford & Westfall, 1994; Rutherford, 1997) and within the Central Bushveld Bioregion (Mucina & Rutherford,

	2006). Two vegetation types are present within the study area, with the majority of the site located within the Sekhukhune Plains Bushveld vegetation type and the north western portion of the study area located within the Central Sandy Bushveld vegetation type. Both these vegetation types are indicted by Mucina & Rutherford to be Vulnerable (VU). The southern portion of the study area falls within a Critical Biodiversity Area 2 (CBA), the northern portion falls primarily within an Ecological Support Area 1 (ESA), with smaller areas in the north indicated as ESA, Other Natural Areas (ONAs) and areas with No Natural Habitat Remaining (NNR). No Protected Areas or CBA1 areas are associated with the study area. Loss of floral habitat will take place during the construction phase of the project, mainly as result of clearing for agricultural purposes and may continue during the operational phase as a result of the project activities.
Heritage	Phase I Archaeological and Cultural-Heritage Impact Assessment was conducted for the proposed tomato farming and processing facilities and it revealed three (3) grave sites within the study area. Some of the noted graves are over 60 years of age and thus protected against any form of alteration by the National Heritage Resources Act (Act 25 of 1999), while others appear to be unknown and will therefore, be viewed as those that are over 60 years of age. There are six different types of graves in South Africa, namely: • ancestral graves; • royal graves and graves of traditional leaders; • graves of victims of conflict; • graves of individuals designated by the Minister by notice in the Gazette; • historical graves and cemeteries; and • other human remains which are not covered by in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983). Burial sites and its contents are accorded the highest heritage accolades in South Africa, and elsewhere, principally by their relation with human beings. Burial sites are often the focus of emotional and ethical sentiments to people. Dealing with human remains thus

	requires the highest ethical standards, Section 36 of the National Heritage Resources Act (3) states that, no person may, without a permit issued by SAHRA or a provincial heritage resources authority: destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority. If the grave is less than 60 years, it is protected against any damage, altering or exhumation by the Human Tissue Act (Act 65 of 1983) and to local Regulations.
Hydrology	The project area falls within the Olifants WMA in the B52A quaternary catchment. The Olifants River is the only major perennial river passing on the southern boundary of the project area. Several non-perennial streams are located in the study area and drain in a southern direction towards the Olifants River. The mean annual precipitation and evaporation for the quaternary catchment B52A are 475 mm and 1900mm, respectively. The mean annual runoff (MAR) of the quaternary catchment is 4.59 million m3, of which 3% will reduce due to the project footprint should all stormwater be managed on site. The baseline water quality is relatively pristine with most parameters within standards except: • turbidity marginally exceeding the SANS 241:2015 drinking water standards for operational and aesthetic use; • total dissolved solids, electrical conductivity and calcium exceeding the Target Water Quality for Domestic Use; • electrical conductivity exceeding Target Water Quality for Irrigation; and • chloride and alkalinity exceeding Target Water Quality for Industrial Use.

10. METHODOLOGY FOR ASSESSING SIGNIFICANCE OF POTENTIAL IMPACTS

The assessment of impacts is largely based on the Department of Environmental Affairs and Tourism's (1998) Guideline Document: Environmental Impact Assessment Regulations. The assessment will consider impacts arising from the proposed activities of the project both before and after the implementation of appropriate mitigation measures.

The impacts are assessed according to the criteria outlined in this section. Each issue is ranked according to extent, duration, magnitude (intensity) and probability. From these criteria, a significance rating is obtained, the method and formula is described below. Where possible, mitigation recommendations have been made and are presented in tabular form.

The criteria given in the tables below will be used to conduct the evaluation. The nature of each impact will be assessed and described in relation to the extent, duration, intensity, significance and probability of occurrence attached to it. This will be assessed in detail during the EIA phase.

Table 10: Methodology used in determining the significance of potential environmental impacts

Status of Impact The impacts are assessed as either having a: negative effect (i.e. at a `cost' to the environment), positive effect (i.e. a `benefit' to the environment), or Neutral effect on the environment. **Extent of the Impact** (**1**) Site (site only), (**2**) Local (site boundary and immediate surrounds), (**3**) Regional (within the City of Johannesburg), (**4**) National, or (**5**) International. **Duration of the Impact** The length that the impact will last for is described as either: (**1**) immediate (<1 year) (**2**) short term (1-5 years), (**3**) medium term (5-15 years), (**4**) long term (ceases after the operational life span of the project), (**5**) Permanent.

Magnitude of the Impact
The intensity or severity of the impacts is indicated as either:
(**0**) none,
(**2**) Minor,
(**4**) Low,
(**6**) Moderate (environmental functions altered but continue),
(**8**) High (environmental functions temporarily cease), or
(**10**) Very high / Unsure (environmental functions permanently cease).

Probability of Occurrence
The likelihood of the impact actually occurring is indicated as either:
(**0**) None (the impact will not occur),
(**1**) improbable (probability very low due to design or experience)
(**2**) low probability (unlikely to occur),
(**3**) medium probability (distinct probability that the impact will occur),
(**4**) high probability (most likely to occur), or
(5) Definite.

Significance of the Impact
Based on the information contained in the points above, the potential impacts are assigned a significance rating (**S**). This rating is formulated by adding the sum of the numbers assigned to extent (**E**), duration (**D**) and magnitude (**M**) and multiplying this sum by the probability (**P**) of the impact.
S=(E+D+M)P

The significance ratings are given below
(**<30**) low (i.e. where this impact would not have a direct influence on the decision to develop in the area),
(**30-60**) medium (i.e. where the impact could influence the decision to develop in the area unless it is effectively mitigated),
(**>60**) high (i.e. where the impact must have an influence on the decision process to develop in the area).

11. DESCRIPTION OF THE ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS INCLUDING CUMULATIVE IMPACTS IDENTIFIED

This section describes the potential impacts that the proposed project may pose on the receiving environment. Impacts associated with the relevant environmental components within the study area as identified, have been assessed based on the EAP's opinion as well as consultation with specialist studies. Refer to **Table 11** below, for the potential impacts identified. These impacts are similar for all three alternatives and will be comprehensively assessed during the EIA phase.

11.1 POTENTIAL ENVIRONMENTAL IMPACTS IDENTIFIED

The Table below describes the potential environmental impacts identified.

Table 11 Summary of Potential Environmental Impact Identified

Issue	Rating	Description
Employment	Positive-No mitigation required	Job creation and investments into the project will result in opportunities during the planning and design phase. This impact will typically be limited to skilled engineers and planning professionals. Proposed project will result in very limited opportunities to the skilled local community during the construction phase. This impact will be positive and provincial in extent. Although minimal, the project will result in additional opportunities for the unskilled locals when farming activities commences. Further, the proposed mechanical harvesting will reduce the potential opportunities that could arise if manual labourers were to be used. In spite of that, the overall opportunities created would have a considerable impact in terms of community upliftment and empowerment.
Air Pollution	Neutral	Potential air pollutants during construction may be dust emanating from site preparation and excavations of the processing plant. Additional impacts are expected during the operational phase, i.e., the ploughing activities, which will be further be enhanced during windy conditions. Given the nature and magnitude of the proposed project it is anticipated that before mitigation the impact will be local in extent, and short term. Mitigation measures such as dust suppression can reduce the

Issue	Rating	Description
		impact to become site specific.
Fauna	Negative	No sensitive species or sensitive areas are flagged so far. The project will not substantially change the reigning ecological character of the general area; however loss of habitat can be expected. Given the vast land that will remain, fauna will find alternative habitat elsewhere as the proposed project will not significantly impact negatively on the assemblages and conservation of the general area. Considering the sensitive nature of the site and extent of the project, nospecies of conservation will be put at risk beyond the project footprint; however, should any species of conservation concern be encountered, these will be protected.
Flora	Negative	Potential ecological impacts resulting from the proposed development would stem from a variety of different activities and risk factors associated with the preconstruction, construction and operational phases of the project potentially including the following: **Construction Phase** • Clearing of vegetation for the purpose of preparing land for the planting of tomatoes (approximately 1700ha), construction of infrastructure and temporary infrastructure such as access roads, water abstraction works, a pump station, water storage ponds, pipelines, irrigation lines, a propagation unit (nursery) as well as contractors' laydown areas and construction of a tomato processing facility (approximately 4ha) and ancillary infrastructure. • Loss of riparian habitat due to placement and construction of infrastructure within the riparian zone. • Construction of infrastructure and temporary infrastructure, including contractors' laydown areas within

Issue	Rating	Description
		areas of increased ecological sensitivity, such as riparian areas and watercourses/ drainage lines, ridges and rocky outcrops. • Movement of construction vehicles through ecologically sensitive habitat leading to soil compaction and dust generation. • Disturbance of soils due to construction activities leading to increased erosion, particularly on steep slopes and erosion-prone soils. • Littering and dumping of waste material outside of designated areas. • Ineffective rehabilitation of exposed and impacted areas. **Operational Phase** • Ongoing disturbance within the study area and surrounds due to increased human activity and operational vehicles. • Ongoing proliferation of alien and invasive floral species may outcompete certain species. • Altered runoff patterns leading to erosion and sedimentation. • Alteration of riparian vegetation structure and composition due to altered hydrological regimes and subsequent changes to riparian and watercourse habitat. **Cumulative** The development would contribute to the cumulative fragmentation of the landscape and would potentially disrupt the connectivity of the landscape for fauna and flora and impair their ability to respond to environmental fluctuations.
Noise	Negative	In South Africa, the assessment of noise levels in the environment is governed by the South African

Issue	Rating	Description
		Bureau of Standards (SABS) noise standard 0103 – 'The measurement and rating of environmental noise with respect to annoyance and to speech communication' (SABS 1994). Additional SABS standards cover the measurement of noise over different distances from the source (SABS 0357 – 'The calculation of sound propagation by the Concave method'), and standards for different sectors (e.g. industry). An increase in noise is expected to emanate from construction activities, which might have an impact especially on the fauna within the site. Noise associated with the construction activities can be mitigated by limiting the construction operation to business hours, during which noise will not be of such a big concern to the identified farm dwellers. According to the SABS 0103 acceptable noise levels at day time is 45dBA. A noise intrusion is disturbing if it exceeds 7dBA or more. Given the nature of the project, it is highly unlikely that the stipulated noise levels will be exceeded at any given time. During the operational phase the impact of noise will also be reduced to almost insignificant levels, given the nature of the proposed project. The noise impact is low due to the nature of the proposed development. The noise impact may be local during construction and site specific during operations.
Waste	Negative	Naturally, the inhabitation of the land will result in the accumulation of various forms of waste in the area. The aesthetic value of the area would decrease if such waste is not collected and disposed of appropriately. Waste material will be generated during the construction phase. Such waste may accumulate from the workers campsite or from litter left around the work area by the labour force Other

Issue	Rating	Description
		waste substances may accumulate from cement bags amongst other construction material. The impact of waste is definite and will last for the duration of the construction phase as well as the operational phase. The waste stream will however change for the different phases.
Soil Erosion	Negative	Movement of heavy machinery as well as the bush clearing of a total of 1700ha for the planting of tomatoes will cause destabilisation of soils, which become susceptible to erosion.
Heritage	Negative	The Phase I Archaeological and Cultural-Heritage Impact Assessment for the proposed tomato farming and processing facilities revealed three (3) grave sites within the area proposed for development. Some of the noted graves are over 60 years of age and thus protected against any form of alteration by the National Heritage Resources Act (Act 25 of 1999), while others appears to be unknown and will thus be viewed as those that are over 60 years of age. Therefore, the specialist must compile Heritage Management Plan (HMP) to ensure their continuous conservation of the grave sites.
Surface and Groundwater Pollution	Negative	The proposed site is in close proximity to the Olifants River and associated tributaries. The impact on water quality, if any, could be sedimentation, decrease in quality and possible contamination of surface water and groundwater. This could result from fuel spillages, sewer systems, liquid waste, etc. An increased volume of storm water runoff, peak discharges, and frequency and severity of flooding is therefore often characteristic of a transformed catchment. The impact on water is site specific but can be local or regional if proper measures are not put in place.

Issue	Rating	Description
		A Water Use Licence Application must be lodged with Department of Water and Sanitation considering the proximity of the study area to surface water bodies which will also require Wetland delineation. The activities identified under Section 21 of the NWA include (a), (f), and (g).
Social Environment	Negative/Positive	The construction phase may result to disturbance of farm dwellers as a result of construction related activities. Other social impacts that have been identified and will be assessed further include disturbance of cultural, spiritual and religious sites, disturbance of sense of place, fencing, fire risk, and health issues among others. Conversely, a positive impact can emanate from the proposed development through employment of local residents. Also, a micro-economic environment could be created through vending/trade between contract workers and the locals.
Climate	Neutral	Local climate conditions do not appear to be of a significant concern to the proposed project. In a broader scale, the project will have impact on the local and/or global climate change due to the use of coal powered boiler.
Topography	Neutral	The proposed site is characterised by mountain peaks to the northern boundary and generally slopes towards the south. The proposed tomato processing facility infrastructure is located at the feet of two mountains with peaks 970 m and 1107.5 m and as a surface elevation between 870-850 m amsl. The mountain slopes are relatively steep with typical slopes of 0.32 (1:3.2) and 0.25 (1:4) which may need to be diverted away from the site in the Stormwater Management Plan.

Issue	Rating	Description
		The proposed farming area is on gentle slope to the south,
Traffic	Negative	A significant amount of material and equipment will be delivered to the site during the construction phase of the development. Access to site is through a number of regional roads (including R518 or R579), therefore there is the likelihood that, during construction process traffic disruption could occur. Traffic disruptions during the operational phase, will be minimal, particularly when considered across the lifespan of the project.

11.2 IMPACT RATING

The following section presents the impacts and the significance as rated by the specialists as well as the EAP. The Tables below highlight the significance of the identified impacts for both the construction and operational phases of the project. In some cases the decommissioning phase was also assessed, however, impacts of this phase will be comprehensively addressed in the EIA phase.

This section presents the assessment of anticipated impacts as well as mitigation measures. Potential impacts associated with the proposed project will include:

- Impact on Hydrology;
- Biodiversity;
- Wetland;
- Heritage;
- Air quality and climate change;
- Soils and land capability; and
- Socioeconomic;
- Traffic

The ratings are assessed with and without mitigation and colour coded as follows to indicate the significance:

High
Medium
Low

11.2.1 WETLANDS

The clearing of natural vegetation and the stripping of topsoil will result in increased runoff of sediment from the site into watercourses downstream of the study area, particularly during rainy season. Water flowing down the trenches and access roads, as well as movement of construction vehicles and personnel, could cause additional sediment to accumulate within downstream areas. The potential siltation of riparian and wetland systems downstream would alter geomorphologic functioning, the movement of water through the system (hydrological functioning) as well as having an impact on water quality within the resource.

This impact is of medium negative significance and can be reduced to a low significance.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Impact on wetlands during the Construction and operational phases							
Sedimentation of watercourse	No	Negative	5	2	4	3	33 = Medium
	Yes	Negative	2	2	4	2	16 = Low
Corrective Actions	• Management has a responsibility to inform staff of the need to be vigilant against any practice that will have a harmful effect on riparian habitat and associated watercourses. • An effective Buffer Control Zone must be established prior to any construction activities taking place which include wetland and or riparian habitat, freshwater ecosystem buffers and open space areas, • No person or vehicle will be allowed within the Buffer Control Zone, management should be vigilant in preventing personnel taking short-cuts across the Buffer Control Zone between construction sites. • All cattle must be removed from the site prior to the initiation of rehabilitation or construction activities. This would increase veld condition and thereby afford the study area higher basal coverages with associated higher sediment and erosion control properties. • The removal of cattle is also essential to realise successful rehabilitation initiatives which should be implemented prior to construction. • Further, no veld fires must be allowed for the next 3 years in order to aid veld restoration processes. • It is recommended that a site-specific rehabilitation plan be designed in conjunction with the Stormwater Management Plan, Environmental Management Plan and wetland monitoring plan. The rehabilitation plan should also investigate veld reclamation approaches that would be viable in the study area, wetland and riparian habitat for the medium and long term, including						

	recommendations on possible grazing, fire and other required management regimes.

11.2.2 POLLUTION OF WATER RESOURCES

Hydrocarbon-based fuels or lubricants spilled from construction vehicles, construction materials that are not properly stockpiled, and litter deposited by construction workers may be washed into the surface water bodies. Should appropriate ablution facilities not be provided for construction workers at the camps, the potential exists for surface water resources and surroundings to be contaminated by raw sewage. The utilisation of stormwater infrastructure for disposal of water used for washing could decrease the abundance and diversity of aquatic macro-invertebrates inhabiting the section of the wetland and riparian areas further downstream. Contaminated runoff from concrete mixing and sediment release including hydrocarbon spillages may lead to the infiltration of toxicants into the groundwater.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Impact on water resources during the construction and operational phases							
Pollution of water resources	No	Negative	5	2	6	3	39= Medium
	Yes	Negative	2	2	4	2	16 = Low
Corrective Actions	• Construction vehicles are to be maintained in good working order so as to reduce the probability of leakage of fuels and lubricants; • A walled concrete platform, dedicated store with adequate flooring or bermed area should be used to accommodate chemicals such as fuel, oil, paint, herbicide and insecticides, as appropriate, in well-ventilated areas; • Storage of potentially hazardous materials must be far removed from preferential flow paths and or stormwater infrastructure. These materials include fuel, oil, cement, bitumen etc.; • Surface water draining off contaminated areas containing oil and petrol would need to be channelled towards a sump which will separate these chemicals and oils; • Concrete is to be mixed on mixing trays only, not on exposed soil; Concrete and tar						

	shall be mixed only in areas which have been specially demarcated for this purpose; and • After all the concrete / tar mixing is complete all waste concrete / tar shall be removed from the batching area and disposed of at an approved dumpsite.

11.2.3 FAUNA

Increased levels of noise, pollution, disturbance and human presence during construction will be detrimental to fauna that has found habitat within the site. Sensitive and shy fauna would move away from the area during the construction phase as a result of the noise and human activities present, while some slow-moving species would not be able to avoid the construction activities and might be killed. Some mammals, like pangolins, and reptiles would also be vulnerable to illegal collection or poaching.

This impact is of medium significance considering the sensitivity of the study area.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Impact on Fauna during the Construction and operational phases							
Fauna Avifauna	No	Negative	1	2	4	4	28= Low
	Yes	Negative	1	1	3	3	15 = Low
Corrective Actions	• Any fauna threatened by construction activities should be removed to safety by the ECO or other suitably qualified person. • Existing roads and access routes should be used wherever possible. • During construction all vehicles should adhere to demarcated tracks or roads and the speed limit should not exceed 40km/h on larger roads and should be 20-30km/h on smaller access tracks. • All construction staff should undergo environmental induction before construction commences in order to raise awareness and reduce potential faunal impacts. • To avoid impacts on amphibians, all spills of hazardous material should be cleared in the appropriate manner according to the nature and identity of the spill and all contaminated soil removed from the site. • No fires should be allowed within the site as there is a risk of runaway veld fires. • If any parts of site such as construction camps must be lit at night, this should be						

	done with low-UV type lights (such as most LEDs) as far as practically possible, which do not attract insects and which should be directed downwards. • All hazardous materials should be stored in the appropriate manner to prevent contamination of the site.

11.2.4 FLORA

The proposed site is situated within the CBA2, ESA1 and ESA2 areas. Site preparation and construction will result in the disturbance and the loss of vegetation and potentially Loss of floral SCC (threatened, protected and endemic/ near-endemic floral species). Loss of floral habitat will take place during the construction phase of the project, mainly as result of clearing for agricultural purposes and may continue during the operational phase as a result of the project activities outlined below.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Impact on Floral Habitat							
Construction phase							
Loss of floral habitat	No	Negative	3	5	8	5	80 = High
	Yes	Negative	2	5	8	4	60 = High
Operational phase							
Loss of floral habitat	No	Negative	2	5	8	4	60= High
	Yes	Negative	1	5	8	3	42= Medium
Corrective Actions							
	• No areas should be cleared of natural vegetation if not required for construction and operational purposes of the tomato farming and processing facilities. • The location and extent of areas of increased ecological importance and sensitivity (such as riparian areas, watercourses and drainage lines (including associated buffers), ridges and rocky outcrops, as well as other ecologically sensitive areas identified during the field assessment) should be considered during the pre-						

	construction and planning phases and as far as possible the placement of areas to be planted for tomatoes, all permanent and temporary project infrastructure should avoid these areas. • Ecological connectivity between areas of increased ecological sensitivity should be maintained as far as possible. • Where areas of increased ecological sensitivity can be avoided, these areas should be indicated on site and be off limits to construction vehicles and workers. • Construction vehicles Mbe restricted to travelling on designated roadways only and vehicle access beyond the designated project footprint areas should be prohibited. • Construction camps, contractors' laydown areas and other temporary infrastructure are to be placed within areas that have already been modified and existing roads and tracks should be used during the construction process as far as possible. • Edge effects from construction activities, such as erosion and alien floral species proliferation and spread within disturbed areas, should be managed throughout all the development phases.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Impact on loss of floral species diversity							
Construction phase							
Loss of Floral Species Diversity	No	Negative	2	5	8	4	60= High
	Yes	Negative	1	5	6	3	36 = Medium
Operational phase							
Loss of Floral Species Diversity	No	Negative	2	5	8	3	45= Medium
	Yes	Negative	1	5	6	2	22=Low
Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Impact on floral SCC							
Construction phase							

Loss of floral SCC (threatened, protected and endemic/ near-endemic floral species)	No	Negative	2	5	8	4	60= High
	Yes	Negative	1	5	6	3	36 = Medium
Operational phase							
Loss of floral SCC (threatened, protected and endemic/ near-endemic floral species)	No	Negative	2	5	8	3	45= Medium
	Yes	Negative	1	5	6	2	22=Low
Corrective Actions							
	• Any fires made by construction workers, if unavoidable, should be restricted to designated areas, where accidental spread thereof can be avoided. • No harvesting of firewood or collection of floral species from natural areas surrounding the project footprint should be allowed by construction workers. • As far as possible, any floral SCC recorded during the field assessment should be conserved in situ and the loss of such species should be avoided. Where this is not possible or practical (due to the location of such species, their growth form/ habit or size), permits for the destruction, or rescue and relocation of floral SCC to nearby similar habitat within the study area, should be obtained from the LEDET or Department of Environmental Affairs (DEA), depending on the national and provincial conservation status of such species. Permits should also be obtained from DAFF for the destruction or relocation of any protected tree species in terms of the National Forests Act (Act No. 84 of 1998) which cannot be conserved in situ.						

11.2.5 HYDROLOGY

The proposed project falls within quaternary catchment B52A with all runoff from this catchment eventually draining into Olifants River, which is the only major perennial river on the southern boundary of the proposed site. Several non-perennial streams are located within the study area and drain in a southern

direction towards the Olifants River. The identified impacts are medium to low significance and mitigation measures were developed to minimise impacts on surface water resources.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Impact on erosion and sedimentation during the Construction and operational phases							
Erosion and sedimentation	No	Negative	4	2	6	3	36 Medium
	Yes	Negative	2	2	4	2	16 Low
Corrective Actions	• The construction phase must be preferable during the dry season. • The construction of surface stormwater drainage systems must be done in a manner that would protect the quality and quantity of the downstream system. • Erosion control of all river banks and farms plots must take place to reduce erosion and sedimentation processes. • Site roads should be well signposted, and speed limits must be adhered to at all times. This will assist in preserving site roads and preventing soil from being washed into watercourses. • Stormwater channels should be protected against erosion through vegetation and flow energy dissipators constructed on steep slopes and areas of high runoff velocity.						

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Chemical and hydrocarbon contamination of watercourses during the Construction and operational phases							
Chemical and Hydrocarbon Contamination of Watercourses	No	Negative	4	4	8	3	48 Medium
	Yes	Negative	1	4	4	2	18 Low
Corrective Actions	Vehicles and machinery should be serviced and maintained regularly to prevent hydrocarbon spillages that may wash off into nearby to watercourses during the rainy season.						

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	

Impact on reduction of runoff catchment and change of flow during the construction and operational phases							
Reduction of runoff catchment and change of flow regime	No	Negative	3	4	4	4	44 Medium
	Yes	Negative	2	4	4	3	30 Medium
Corrective Actions	• Minimise the dirty area, to ensure free drainage of the clean stormwater to the catchment watercourses • Design of weirs or any streamflow altering infrastructure should consider the stream geomorphology and velocities						

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Reduction of Downstream Freshwater availability on the Olifants during the operational phases							
Reduction of Downstream Freshwater Availability on the Olifants	No	Negative	3	4	6	3	39 Medium
	Yes	Negative	2	4	4	2	20 Low
Corrective Actions	The following measures to use water efficiently should be implemented: ○ Efficient irrigation schemes by ensuring that the irrigation process is controlled. ○ Use of water conservative irrigation techniques (e.g. drip over furrow irrigation or overhead). ○ Reuse dirty water as much as possible onsite at the tomato processing facility instead of obtaining fresh water from the catchment. Alternatively, treat dirty water to acceptable standards and then discharge to the catchment. • Fixing any significant leaks that may result in more water being abstracted to compensate the losses as soon as they appear. • The loss of runoff water to the catchment will continue as long as stormwater management measures are in place;						

11.2.6 SOILS AND EROSION

The loss of topsoil in South Africa is a national concern and thus erosion control should be taken seriously. Soil erosion may occur during the construction phase due to:

- Excavations particularly on steep slopes.
- Ineffective storm water management
- Excessive use of gravel roads
- Use of heavy machinery or vehicles

Construction may lead to the compaction of disturbed soils further to this the exposure of the soil to environmental factors increases the likelihood of erosion. The removal of surface vegetation will cause exposed soil conditions where rainfall and high winds can cause mechanical erosion. Rainfall and inadequate drainage systems would lead to sediments washing down into wetlands and rivers, causing sedimentation. In addition, hardened surfaces and bare areas are likely to increase surface run off velocities and peak flows received by riparian habitat and wetlands.

If adequate soil erosion measures are implemented during the construction phase of the proposed activity, this impact can be deemed to be of low significance. Where soils are highly erodible, adequate measures must be implemented to prevent undue soil erosion.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Soils and erosion	No	Negative	2	3	6	3	33 Medium
	Yes	Negative	1	2	4	2	12 Low
Corrective Actions	• A riparian channel rehabilitation program must be designed and implemented prior to the start of the construction phase and continue during the operational phase. This must include veld restoration approaches, prevention of and rehabilitation of rill and gully erosion. A 30 m buffer (exclusion) and rehabilitation zone around each riparian habitat must be implemented through fencing of the buffers (thus keeping cattle and goats out) and reseeding programs to establish a functional buffer for the riparian habitat. • An ecologically-sound stormwater management plan must be implemented at the onset of the construction phase. This must include sustainable and sensitive stormwater design for the new agricultural fields to ensure that A and B section						

	channels are not negatively affected. Stormwater run-off must reach the B section channels in a diffuse manner; • The above guidelines can be achieved through diffuse release of stormwater flows utilising the natural topography and associated contours, vegetated channels, riparian buffers and veld restoration techniques, gabion baskets etc; • The natural veld that are not being utilised by agricultural fields must be rehabilitated to increase basal cover and reduce erosion processes prevalent at the moment; • Erosion must not be allowed to develop on a large scale before effecting repairs; • A riparian monitoring program should be initiated at the start of the construction phase.

11.2.7 TRAFFIC

During the construction phase increased heavy vehicle traffic should be expected. Without management, such increased traffic loads may negatively impact existing traffic flow. Further, construction vehicles may decrease road safety for other road users and uncontrolled movement of construction vehicles may result in undue impacts to the environment through vegetation and habitat destruction.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Traffic	No	Negative	3	2	6	4	44 Medium
	Yes	Negative	2	2	4	3	24 Low
Corrective Actions	• The delivery of construction material and equipment should be limited to hours outside peak traffic times; • Access roads must be clearly marked. • Delivery vehicles must comply with all traffic laws and bylaws. • A speed limit of 30km per hour must be maintained on site.						

11.2.8 AIR POLLUTION

The potential air pollutant during construction may be dust emanating from site preparation and excavations during construction as well as exhaust fumes from construction vehicles. Given the nature and

magnitude of the proposed development it is anticipated that if not mitigated the impact will be local in extent, short term, and of medium significance and this can be reduced to low with proper mitigation.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Air pollution	No	Negative	2	2	4	4	32 = Medium
	Yes	Negative	2	1	2	3	15 = Low
Corrective Actions	• Unnecessary clearing of vegetation must be avoided to limit dust generation. • Dust suppression techniques must be implemented. These techniques will include dampening the ground with a water truck, adhering to site speed limits etc. All construction staff must wear their dust masks whenever necessary. • Dust suppression techniques must be implemented, particularly during the winter period. • Vehicles travelling on site must keep the 30km/hr. speed limit. • Burning of any form in of waste material on site is not allowed.						

11.2.9 NOISE POLLUTION

Noise generating activities on site include the following:

- Earthworks;
- Delivery of building material;
- Civil construction activities;
- Earth drilling; and
- TLB activities;
- Foundations and pouring of concrete.

An increase in noise is expected during construction as these activities will generate noise of medium significance without mitigation. Provided that the mitigations provided are adhered to, the noise impact will be manageable and of low significance.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Noise pollution	No	Negative	2	2	6	3	40 = Medium
	Yes	Negative	2	2	4	2	16 = Low
Corrective Actions	• Equipment and/or machinery which will be used must comply with the manufacturer's specifications on acceptable noise levels. • All vehicles used during construction must be regularly maintained. • Working hours must be restricted to daytime only (7am – 5pm). • Equipment with lower sound power levels which is in accordance with the Health and Safety Regulations must be used.						

11.2.10 CULTURAL AND HERITAGE RESOURCES

Three grave sites were identified and some of the graves within the site are over 60 years and thus protected against any form of alteration by the National Heritage Resources Act (Act 25 of 1999), while others appears to be unknown and will thus be viewed as those that are over 60 years of age. The identified grave sites must be avoided and left intact. The potential impact of the proposed development on the grave sites is considered to be high in significance. It is recommended that a Heritage Management Plan be put in place

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Cultural and heritage resources	No	Negative	2	5	8	4	60 =High
	Yes	N/A	N/A	N/A	N/A	N/A	
Corrective Actions	• All graves sites must be avoided. • Heritage practitioner must be assigned during bush clearing to further assess the area. • A Heritage Management Plan must be prepared to ensure that all graves in the area are protected and preserved. The management plan is an open document meaning that it should be adapted and reassessed from time to time.						

11.2.11 EMPLOYMENT CREATION

The planning and design of the development requires input from various individuals, resulting in employment opportunities for such persons. This employment would include both direct (e.g. Environmental Consultants, Engineers, Project Managers, Planners, etc.) and indirect (e.g. reviewing and commenting authorities such as the local authority planning authorities and the environmental authorities). The extent and magnitude of this impact is relatively low and short term in duration compared to the other economic impacts, and is typically restricted to a limited number of professionals. The proposed project will potentially create permanent and contract employment opportunities, and this will support the local economy as well as achieve the socio-economic imperatives. The significance is rated as medium and no mitigations were identified for this project.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Employment Creation	No	Positive	3	2	8	4	52 = Medium
	Yes	N/A	N/A	N/A	N./A	N/A	
Corrective Actions	• No mitigation measures have been identified.						

11.3 CUMULATIVE IMPACTS

Cumulative impacts in relation to an activity, means the past, present and reasonably foreseeable future impacts of an activity, considered together with the impacts of activities associated with that activity, that in itself may not be significant, but may become significant when added to the existing and reasonably foreseeable impacts eventuating from similar or diverse activities (DEA, 2014 EIA Regulations).

This section provide cumulative impacts ratings associated with the proposed project which include the waste generation, traffic and socio-economic impacts. It also outlines the mitigation measures of each rated cumulative impacts as follows:

11.3.1 WASTE GENERATION

During the construction phase a variety of waste material will be produced within the study area. The waste generation impact rating and the proposed mitigation measures are provided in table below as follows:

Aspect	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Waste	No	Negative	Local	Short term	High	Definite	Medium
	Yes	Negative	Site	Short Term	Low	High	Low
Corrective Actions	• No waste will be buried on site or incorporated into the foundation trenches; • The work force must be encouraged to sort waste into recyclable and non-recyclable waste; • No burning of waste will be allowed on site; and • Waste must be regularly removed from site and disposed of at a registered waste disposal facility.						

11.3.2 SOCIO-ECONOMIC IMPACT

The proposed development will result in a positive socio-economic impact as the demand for equipment, building material and labour will increase. Secondary service provision such as food supply, toilet hire, equipment maintenance and many more items would also stimulate the local economy especially during the construction phase. The identified impacts are medium and mitigation measure were developed to of socio-economic impacts associated with the proposed development is medium.:

Aspect	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Socio-economic	No	Positive	Regional	Short Term	High	Definite	Medium
Corrective Actions	• Contractors must by all means practice the localisation matrix while seeking for construction equipment or building materials. • For minimal jobs, the appointed contractor should by all means consider the local residents for jobs that do not need any skill transfer. • The culture and lifestyles of the communities living in close proximity to the						

	proposed development must be respected; • A register must be maintained of all complaints or queries received as well as action taken.

11.3.3 Habitat Destruction

The proposed development is located within ESA and clearance of vegetation in preparation for farming could result in a loss in broad-scale landscape connectivity and habitat loss.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Habitat destruction	No	Negative	1	2	8	4	44 = Medium
	Yes	Negative	1	2	4	3	21 = Low
Corrective Actions	• Preconstruction walk-through to identify areas of faunal sensitivity. • During construction any fauna directly threatened by the construction activities should be removed to a safe location by the ECO or other suitably qualified person. • Any trenches that are required should not be left open for extended periods as fauna such as tortoises will fall in an become trapped. Any open trenches should be checked regularly for trapped fauna. • The illegal collection, hunting or harvesting of any plants or animals at the site must be strictly forbidden. Personnel must not be allowed to wander off the construction site. • No fires should be allowed within the site as there is a risk of runaway veld fires.						

11.3.4 Alien Species Invasion

During construction, vegetation will be removed and soil disturbed. The seed of alien invasive species that occur on and in the vicinity of the construction area could spread into the disturbed and stockpiled soil. In addition, the construction vehicles and equipment are likely used on various sites could introduce alien invasive plant seeds or indigenous plants Alien vegetation could easily disperse into the watercourses through stormwater infrastructure located on site.

Issue	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Alien Species Invasion	No	Negative	2	4	6	5	60 = High
	Yes	Negative	1	3	2	3	24 = Low
Corrective Actions	• Monitor the establishment of alien invasive species within the areas affected by the construction and maintenance and take immediate corrective action where invasive species are observed to establish • Surrounding natural vegetation should not be disturbed to minimize chances of invasion by alien vegetation; • All alien seedlings and saplings must be removed as they become evident for the duration of construction and operational phase; • Manual / mechanical removal is preferred to chemical control • All construction vehicles and equipment, as well as construction material should be free of plant material. Therefore, all equipment and vehicles should be thoroughly cleaned prior to access on to the construction site. This should be verified by the ECO; • An alien invasive eradication and monitoring plan must be compiled and implemented whereby all emergent invasive species are removed during construction. The monitoring plan must also ensure that the re-emergence of invasive species is monitored continuously during the operational and decommissioning phases and that monitoring and eradication continues post decommissioning.						

11.3.5 TRAFFIC IMPACT

During the construction phase increased heavy vehicle traffic should be expected. Without management, such increased traffic loads may negatively impact existing traffic flow. Further unmanaged construction vehicles may decrease road safety for other road users and uncontrolled movement of construction vehicles may result in unnecessary impacts to the environment through vegetation and habitat destruction. The traffic impacts ratings and mitigation measures associated with the proposed project presented in the table below as follows.

Aspect	Corrective measures	Impact rating criteria					Significance
		Nature	Extent	Duration	Magnitude	Probability	
Traffic	No	Negative	Regional	Short Term	High	Medium	Medium
	Yes	Negative	Local	Short Term	Moderate	Low	Low
Corrective Actions	• The delivery of construction material and equipment should be limited to hours outside peak traffic times (including weekends) prevailing on the surrounding roads; • Access roads must be clearly marked; and • Delivery vehicles must comply with all traffic laws and bylaws.						

11.4 PLAN OF STUDY FOR EIA

The Scoping phase is fundamental as it allows for the identification of potential impacts on the environment, as well as facilitation of the process of compiling the EIA and Environmental Management Programme (EMPr). This report incorporates information from the client, specialist studies, site visits, literature reviews as well as previous environmental studies conducted in the area; it therefore, provides a comprehensive baseline of the environment at the proposed site.

This Scoping Process has followed the appropriate standards and procedure for the EIA application, as set out in the NEMA and the 2014 EIA Regulations as amended. The study includes a description of the various technical alternatives and indicates those alternatives, which should be pursued as part of the detailed assessment of the EIA process. The Impact significance of the proposed activity on the environment will be assessed in the EIA phase with the assistance of the various specialist studies.

The purpose of this section is to outline how the EIA for the proposed development will proceed. The detailed assessment phase of the EIA process entails the integration of the specialist studies for those potential impacts evaluated to be of significance. Relevant mitigation measures will be included in the EMPr. This section provides specific terms of reference and impact assessment methodology for utilisation by the specialist team and EAP.

The Plan of Study for EIA is intended to provide a summary of the key findings of the Scoping Phase and to describe the activities to be undertaken during impact assessment. The Plan of Study must provide the following:

- A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;
- A description of the aspects to be assessed as part of the environmental impact assessment process;
- Aspects to be assessed by specialists;
- A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists;
- A description of the proposed method of assessing duration and significance;
- An indication of the stages at which the competent authority will be consulted;
- Particulars of the public participation process that will be conducted during the EIA process;
- A description of the tasks that will be undertaken as part of the environmental impact assessment process; and
- Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

The EAP will ensure that the entire process is undertaken as dictated by the Regulations.

12. A DESCRIPTION OF THE ALTERNATIVES TO BE CONSIDERED AND ASSESSED WITHIN THE PREFERRED SITE, INCLUDING THE OPTION OF NOT PROCEEDING WITH THE ACTIVITY

The scoping phase assessed technical alternatives and these alternatives will be assessed further during the EIA. The preferred technical alternative will be the one with the least environmental impacts as well as providing most benefits from a socioeconomic perspective.

13. A DESCRIPTION OF THE ASPECTS TO BE ASSESSED AS PART OF THE ENVIRONMENTAL IMPACT ASSESSMENT

The following are aspects to be assessed further as part of the EIA:

- Socioeconomic

- Avifauna
- Biodiversity (flora and fauna);
- Heritage and archaeology;
- Hydrology;
- Air Quality; and
- Wetland.

14. ASPECTS TO BE ASSESSED BY THE SPECIALISTS

During the draft scoping phase, four specialist studies were undertaken and these include Biodiversity, Heritage, Wetland and Hydrological Studies and their reports are attached herein as Appendices C. The studies undertaken during the scoping phase assessed all the alternatives as well as the No-go option during the

Table 12: Details of specialist

Specialist Study	Company	Specialist
Biodiversity	Field & Form Landscape Science	Michelle de Klerk
Heritage	Vhubvo Archaeo-Heritage Consultants	Munyadziwa Magoma
Hydrology	CM Eclectic	Chenai Makamure
Wetland	Water Makers	Willem Lubbe

15. A DESCRIPTION OF THE PROPOSED METHOD OF ASSESSING THE ENVIRONMENTAL IMPACTS

The description of the proposed method of assessing the duration and significance is included in Section 10, Table 10 above.

15.1 AN INDICATION OF THE STAGES AT WHICH THE COMPETENT AUTHORITY WILL BE CONSULTED

Figure 10 below indicates the different stages at which the Competent Authority will be consulted.

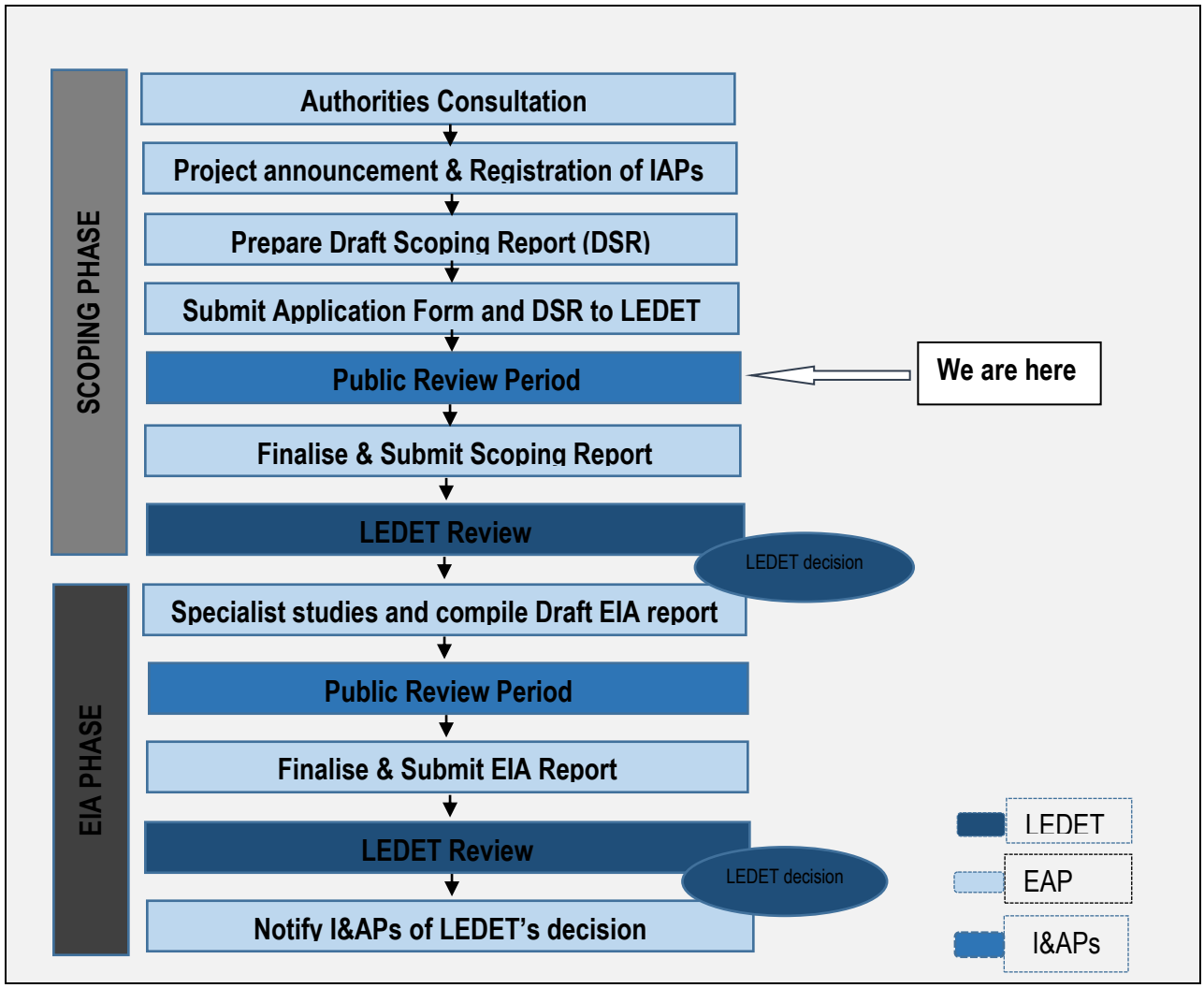

Figure 10: Stages for submitting the reports to the Competent Authority

15.2 SCOPING PHASE

The draft Scoping Report together with the Application will be submitted to LEDET for review and comment. The EAP will consider the comments and prepare responses. In addition, the report will be sent to all stakeholders to review and comment for a period of 30 days, of which any comments or issues raised will be addressed appropriately. The final Scoping Report will be submitted to the LEDET for consideration.

15.3 ENVIRONMENTAL IMPACT ASSESSMENT PHASE

The draft Environmental Impact Assessment Report will be prepared and distributed for public review and comments. Further, copies of the draft EIA will be submitted to the LEDET and other stakeholders as well. The final EIR which includes all comments received, specialist reports and recommendations will be submitted to LEDET for decision making.

The comments received will be incorporated into an updated Comments & Response Report (CRR). Additional public consultation will take place in the form of public meetings and focus group meetings as appropriate.

The purpose of the public meetings would be to present the findings of the draft EIA Report as well as the alternatives considered to the relevant stakeholders, registered I&APs and the affected landowners. Nsovo will use this forum to provide more information about the proposed development including the specialist input, and also to provide the stakeholders with the opportunity to further comment on the proposed development.

In the event that the comments and issues raised highlight information that changes or influences the impact evaluation provided in the draft EIA Report, the necessary amendments will be made to the report. The Final EIA Report will be submitted to the LEDET, subsequent to the second phase of public consultation

15.4 PARTICULARS OF THE PUBLIC PARTICIPATION PROCESS THAT WILL BE CONDUCTED DURING THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The extensive database of stakeholders developed during the scoping process will be used as a basis to ensure that those stakeholders involved in the Scoping Phase also participate in the EIA phase. The database will also be expanded to include I&APs that wish to be involved in the process. Registered I&APs will be informed of the availability of the Draft EIA Report for review and will be given 30 days to provide their comment.

15.4.1 The comments received during the review period will be incorporated into an updated Comments & Response Report. Further public consultation will take place in the form of public meetings and focus group meetings as appropriate

The purpose of the public meetings would be to present the findings of the draft EIA Report as well as the alternatives considered to the relevant stakeholders, registered I&APs and the affected landowners. Nsovo will use this forum to provide more information about the proposed development including the specialist input, and also to provide the stakeholders with the opportunity to further comment on the proposed development.

In the event that the comments and issues raised highlight information that changes or influences the impact evaluation provided in the draft EIA Report, the necessary amendments will be made and the final EIA Report will be compiled and submitted to the LEDET.

15.4.2 Advertising

The commencement of the EIA process i.e. the Scoping Phase was advertised in the Capricorn Voice newspaper in English. The proposed project was further announced publicly through the following forms of information sharing:

- Newspaper adverts providing a description of the proposed development and location, as well as contact details of where more information can be obtained and announcing the availability of the draft Report for review and comment;
- A2 and A3 notices in Sepedi and English were placed at conspicuous locations along the study area. Notices were also placed at the route alternative sites as well as at the Local Municipality office
- A5 notices were distributed in the immediate vicinity of the development; and
- Letters were submitted to key stakeholders.

Further advertising will take place during the EIA phase and will relate to the availability of the reports for public review and announcement of public meetings that will be held at strategically located sites, which will allow for maximum attendance.

15.4.3 Interaction with LEDET and other Provincial Departments

Interaction with LEDET and the other provincial authorities with jurisdiction on the proposed development undertaken during the Scoping Phase will continue into the EIA Phase of the project. Further interaction will occur in the following manner:

- Submission of the final Scoping Report to LEDET;
- A consultation meeting with various stakeholders to discuss the findings of the Draft EIA;
- Submission of the Draft final EIA report following stakeholder's review and comment and
- Notification of stakeholders of the EA once it is issued.

The draft EIR will be reviewed by I&AP's, authorities and key stakeholders. Furthermore, Report will also be published and the made available on Nsovo website for public review and also submitted to the following authorities:

Table 13 : I&AP's, authorities and key stakeholders to review draft EIR

• Limpopo Department of Agriculture and Rural Development
• Limpopo Department of Economic Development, Environment and Tourism;
• Limpopo Department of Water and Sanitation;
• Limpopo Department of Transport and Public Works;
• Limpopo Heritage Resources Agency;
• South African Heritage Resource Agency;
• Wildlife and Environmental Society of South Africa;
• Lepelle-Nkumpi Local Municipality;

15.4.4 Developing a Strategy and Resolving Key Issues

A strategy for addressing and resolving key issues is to be developed and will include:

- Details on all assessments and investigations carried out;
- Use of the Public Participation Meetings to present the findings of the reports and test the acceptability of priority issues and mitigations;

- Openly and honestly relating both positive and negative impacts of the proposed development during the Public Meetings; and
- Allowing the public to understand the consequences of the proposed development on the area.

15.5 A DESCRIPTION OF THE TASKS THAT WILL BE UNDERTAKEN AS PART OF THE ENVIRONMENTAL IMPACT ASSESSMENT

The section below indicates the tasks that will be undertaken as part of the EIA process.

15.5.1 PREPARATION OF THE DRAFT AND THE FINAL EIA REPORT AND EMPR

The draft EIA Report and EMPr will be prepared as per Appendices 3 and 4 of the EIA Regulations as amended and will include input from the specialist studies as indicated in Section 7.7.3 above.

Contents of the draft EIR (Appendix 3) will include the following:

- Details and expertise of the EAP;
- Location of the Activity;
- A plan which locates the proposed activity or activities applied for as well as associated structures and infrastructure at an appropriate scale;
- A description of the scope of the proposed activity;
- A description of the policy and legislative context within which the proposed development is located and an explanation of how the proposed development complies with and responds to the legislation and policy context;
- A motivation for the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred location;
- A motivation for the preferred development footprint within the approved site;
- A full description of the process followed to reach the proposed development footprint within the approved site;
- A full description of the process undertaken to identify, assess and rank the impacts the activity and associated structures and infrastructure will impose on the preferred location through the life of the activity;
- An assessment of each identified potentially significant impact and risk including (i) and (vii) as per the Regulations;

- A summary of the findings and recommendations of specialist reports;
- Environmental Impact Statement inclusive of (i) to (iii) as per the Regulations;
- Recommendations from the specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr as well as for inclusion as conditions of authorisation;
- The final proposed alternatives which respond to the impact management measures, avoidance, and mitigation measures identified through the assessment;
- Aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation;
- A description of any assumption, uncertainties and gaps in knowledge which relate to the assessment and mitigation measures proposed;
- A reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation;
- The period for which the environmental authorisation is required and the date on which the activity will be concluded and the post construction monitoring requirements finalised;
- The undertaking under oath by the EAP in relation to (i) and (iv) as per the regulations;

An indication of any deviation from the approved Scoping Report, including the Plan of Study including (i) and (ii) as per the Regulations;

Contents of the EMPr (Appendix 4) will include the Following:

- An EMPr must comply with Section 24N of the Act and include - details of the EAP who prepared the EMPr; and the expertise of that EAP to prepare an EMPr, including a curriculum vitae;
- A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;
- A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers;
- A description of the impact management objectives, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including (i) to (v) of the 2014 EIA Regulations as amended;

- A description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated above will be achieved, and must, where applicable, include actions as indicated on (i) to (iv) of the EIA 2017 Regulations.
- The method of monitoring the implementation of the impact management actions contemplated above;
- The frequency of monitoring the implementation of the impact management actions contemplated above;
- An indication of the persons who will be responsible for the implementation of the impact management actions;
- The time periods within which the impact management actions contemplated above must be implemented;
- The mechanism for monitoring compliance with the impact management actions contemplated above;
- A program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;
- An environmental awareness plan describing the manner in which-
- (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and
- (ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and
- Any specific information that may be required by the competent authority.

15.5.2 PUBLIC PARTICIPATION PROCESS

The draft EIA Report will be distributed to I&APs as well as the Organs of State for a 30 days review and comments period. Various means of notifying theI&APs of the availability of the draft EIA Report will be used and this include newspaper advert, e-mails, letters etc. The public participation process will be undertaken as indicated on Section 7.7.7 above.

:

15.5.3 IDENTIFY SUITABLE MEASURES TO AVOID, REVERSE, MITIGATE OR MANAGE IDENTIFIED IMPACTS AND TO DETERMINE THE EXTENT OF THE RESIDUAL RISKS THAT NEED TO BE MANAGED AND MONITORED

The aspects that will be assessed have been identified and their potential impacts and mitigation measures are indicated on Sections 7.5.1 and 7.7.2. The proposed method of assessing environmental aspects is included on Section 7.6, Table 17 above.

16. UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP

In undertaking the draft and final Scoping phases of the project the EAP has taken into consideration the requirements stipulated in the EIA Regulation as amended, as well as other relevant Acts and Regulations. The EAP hereby confirm that with the information available at the time of preparing the Scoping Report and the reports prepared by the specialists, the following has been taken into account in preparing this report:

- The correctness of the information provided in the report;
- The inclusion of comments and inputs from stakeholders and interested and affected parties; and
- Any information provided by the EAP to the interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.

Refer to **Appendix E3** for the Declaration of the EAP.

17. AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP IN RELATION TO THE LEVEL OF AGREEMENT BETWEEN THE EAP AND INTERESTED AND AFFECTED PARTIES ON THE PLAN OF STUDY FOR UNDERTAKING THE ENVIRONMENTAL IMPACT ASSESSMENT

The draft Plan of Study for EIA is part of the draft Scoping Report which will be made available to I&APs and Organs of State for a 30 days review and comment period. Comments/issues raised will be addressed and included in the Issues and Response Report (**Appendix D3**).

No agreement between the EAP and I&APs is in place.

17.1 WHERE APPLICABLE, ANY SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

No specific information required by the authority; should it be required it will be included accordingly.

17.2 ANY OTHER MATTER REQUIRED IN TERMS OF SECTION 24(4) (A) AND (B) OF THE ACT.

This Report has been prepared in terms of NEMA, its respective EIA Regulations as amended, as well as, other associated Acts and Regulations. Information that is required by the NEMA has been included in the Scoping Report and will also be included in the EIA phase.

18. DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES AND KNOWLEDGE GAPS

18.1 ASSUMPTIONS

It is assumed that technical data supplied by the client was correct and valid at the time of compilation of specialist studies and the draft Scoping report.
It is furthermore assumed that the alternatives presented by the client are feasible.

18.2 LIMITATIONS

18.2.1 PUBLIC PARTICIPATION PROCESS

Given the magnitude of the project and the various extent and portions of farms in the area of which some are private and not easily accessible, it is likely that some I&APs were not reached. However, efforts were made as part of the process to advertise on local media as well as placing of notices at noticeable places within the communities.

18.2.2 LITERATURE REVIEWS IS VIEWED AS CORRECT

The compilation of the reports was based on various literature reviews which were viewed as correct at the time. However, it is acknowledged that there might be some gaps in knowledge with regards to the literature reviewed although conceited efforts were made to attain as much information as possible.

18.2.3 HERITAGE STUDY

It is possible that the Phase 1 HIA may have missed heritage resources in the project area, as some heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once development commence.

18.2.4 VEGETATION ASSESSMENT

Vegetation studies should be conducted during the growing season of all plant species that may potentially occur. In the absence of guidance documents for biodiversity assessment in Limpopo, the Mpumalanga guidelines were used as best practise. According to the Mpumalanga Minimum Requirements for Biodiversity Assessment (Mpumalanga Tourism and Parks Agency, 2008):

"A floristic (plant) survey must be conducted during the growing season of all species that may potentially occur (this may require more than one season's survey in order to identify flowering species) with two (2) visits undertaken (November & February). Visits during other seasons will be determined by the flowering and fruiting times of species that do not occur during the summer."

However, only one season survey will be undertaken in December 2019.

19. CONCLUSION

The Draft Scoping study was undertaken in accordance with the requirements of the NEMA and the EIA Regulations as well as associated Legislations. The technical alternatives have been proposed and the primary objective was to assess the suitability of the site for the intended use as well as to assess the impacts of the proposed New Tomato Farming and Processing Facilities. This report has comprehensively addressed the baseline environment which will form the backdrop of the impact assessment. Information provided has been supported by specialist studies that were undertaken and attached hereto.

19.1 FATAL FLAWS

No fatal flaws or highly significant impacts were identified during the scoping phase that would necessitate substantial redesign or termination of the project. The main impacts are outlined below, and recommended

mitigation measures and a summary of site suitability impacts will further be assessed in detail during the EIA phase. Such potential impacts include the following:

- Impacts on flora and fauna;
- Impacts on water resources (Hydrology);
- Impacts on heritage and archaeology;
- Impact on Wetland; and
- Impact on Air quality

The subsequent EIA phase will provide a detailed assessment of the identified aspect, rate the significance accordingly and propose mitigation measures as applicable. Based on all the findings and assessment of impacts by the EAP, the site is feasible for the proposed development and will therefore be assessed further in the EIA phase. The No-Go option will also be assessed comprehensively taking into consideration specialist studies that have been recommended as part of the PPP.

20. REFERENCES

DEAT, 1998. A National Strategy for Integrated Environmental Management in South Africa. Compiled by Environomics

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