Appendix G.6

SOCIAL REPORT

Phefumula Emoyeni One (Pty) Ltd

PHEFUMULA EMOYENI ONE WIND ENERGY FACILITY

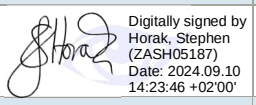
Social Impact Assessment

TYPE OF DOCUMENT (VERSION) INTERNAL

PROJECT NO. 41105236

DATE: SEPTEMBER 2024

QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Social Impact Assessment			
Date	September 2024			
Prepared by	Yvette Mmanasoe			
Signature				
Checked by	Steve Horak			
Signature	 Digitally signed by Horak, Stephen (ZASH05187) Date: 2024.09.10 14:23:27 +02'00'			
Authorised by	Steve Horak			
Signature	 Digitally signed by Horak, Stephen (ZASH05187) Date: 2024.09.10 14:23:46 +02'00'			
Project number	41105236			
Report number	01			
File reference	\\corp.pbwan.net\za\Central_Data\Projects\41100xxx\41105236 - Phefumela Emoyeni WEF\41 PA\01-Reports\03-Specialists\Social\EIA Phase			

CONTENTS

TABLES

FIGURES

CONTENTS OF THE SPECIALIST REPORT – REFERENCING

Appendix 6	A specialist report prepared in terms of these Regulations must contain-	Section in the Report
1.(a)	details of— (i) the specialist who prepared the report; and (ii) the expertise of that specialist to compile a specialist report including a curriculum vitae;	Appendix A
b)	a declaration that the specialist is independent in a form as may be specified by the competent authority	Section 1
c)	an indication of the scope of, and the purpose for which, the report was prepared;	Section 2
cA	an indication of the quality and age of base data used for the specialist report;	Section 2
cB	a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change;	Section 8
d	the duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;	N/A
e	a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Section 2
f	details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternative;	Section 6
g.	an identification of any areas to be avoided, including buffers;	Section 6
h.	a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Figure 6-1
i.	a description of any assumptions made and any uncertainties or gaps in knowledge;	Section 3
j.	a description of the findings and potential implications of such findings on the impact of the proposed activity or activities;	Section 6.1

k.	any mitigation measures for inclusion in the EMPr;	Section 8
l.	any conditions for inclusion in the environmental authorisation;	N/A
m.	any monitoring requirements for inclusion in the EMPr or environmental authorisation;	Section 8
n.	a reasoned opinion— (i) whether the proposed activity, activities or portions thereof should be authorised;	Section 8.4
iA	regarding the acceptability of the proposed activity or activities; and	Section 8.4
ii	if the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;	Section 8.4
o.	a description of any consultation process that was undertaken during the course of preparing the specialist report;	Section 6
p.	a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	Section 6
q.	any other information requested by the competent authority.	N/A

DECLARATION OF INDEPENDENCE

The Specialist.

I Yvette Mmanasoe as the appointed specialist hereby declare/affirm the correctness of the information provided as part of the application, and that I:

- in terms of the general requirement to be independent (tick which is applicable):

X	other than fair remuneration for work performed/to be performed in terms of this application, have no business, financial, personal or other interest in the activity or application and that there are no circumstances that may compromise my objectivity; or
	am not independent, but another EAP that is independent and meets the general requirements set out in Regulation 13 has been appointed to review my work (Note: a declaration by the review specialist must be submitted).

- have expertise in conducting specialist work as required, including knowledge of the act, regulations and any guidelines that have relevance to the proposed activity;
- will ensure compliance with the EIA Regulations 2014;
- will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the application;
- will consider, to the extent possible, the matters listed in regulation **18** of the regulations when preparing the application and any report, plan or document relating to the application;
- will disclose to the proponent or applicant, registered interested and affected parties and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority or the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority (unless access to that information is protected by law, in which case I will indicate that such protected information exists and is only provided to the competent authority);
- declare that all the particulars furnished by me in this form are true and correct;
- am aware that it is an offence in terms of Regulation 48 to provide incorrect or misleading information and that a person convicted of such an offence is liable to the penalties as contemplated in Section 49B(2) of the National Environmental Management Act, 1998 (Act 107 of 1998).

Signature of the specialist

WSP Africa

Name of company

15/ 08/2024

Date

Acronyms

Abbreviation	Definition
BESS	Battery Energy Storage System
CBD	Central Business District
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESIA	Environmental and Social Impact Assessment
GVA	Gross Value Add
HV	High Voltage
IDP	Integrated Development Plans
IFC	International Finance Corporation
LED	Local Economic Development
MIDP	Msukaligwa Integrated Development Plan
MLM	Msukaligwa Local Municipality
MSDF	Municipal Spatial Development Framework
PS	Performance Standards
SAPS	South African Police Services
SIA	Social Impact Assessment
STI	Sexually Transmitted Infections
WEF	Wind Energy Facility
WSP	WSP Africa Group Africa

1 INTRODUCTION

Phefumula Emoyeni One (Pty) Ltd is proposing the development of a Wind Energy Facility (WEF) of up to 550MW, to be located approximately 16km north-west of Ermelo, in the Mpumalanga Province of South Africa. The project falls within the Msukaligwa Local Municipality and Gert Sibande District Municipality, of the Mpumalanga Province.

In order for the proposed project to proceed, it will require an environmental authorisation (EA) from the competent authority (CA) (i.e., the National Department of Forestry, Fisheries and Environment, (DFFE). WSP Group Africa (Pty) Ltd (WSP) has been appointed by Phefumula Emoyeni One (Pty) Ltd as the independent Environmental Assessment Practitioner (EAP) to undertake an Environmental Impact Assessment (EIA) as part of the requirement for an EA application in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), for the proposed renewable energy facility.

To compile a comprehensive EIA, various specialist studies are required, social impact study is identified as the required specialist study. This report will therefore be submitted together with the above-mentioned EIA as a social impact specialist study to support the EA application.

1.1 PROJECT BACKGROUND

The proposed Phefumula Emoyeni One WEF will have a project area of approximately 33 660 hectares (ha). Within this project area the extent of the buildable area will be subject to finalisation based on technical and environmental requirements. Site access is via the N17 or N11. The Phefumula Emoyeni One WEF will be located over 95 farm portions (Figure 1-1).

1.2 PROJECT DESCRIPTION

The proposed project consists of two subprojects named the Phefumula Emoyeni One WEF (up to 550MW) and the Phefumula Emoyeni One Electrical Grid Infrastructure up to 400 kV Grid Connection and Main Transmission Substation located in Msukaligwa Local Municipality, which falls under the Gert Sibande District Municipality. The WEF will include a Battery Energy Storage System (BESS). The BESS will store excess energy generated by the wind facility. The BESS will have a storage capacity of up to 200MW/800MWh, allowing for up to 6-8 hours of energy storage.

1.3 PROJECT LOCATION

The proposed project is located 16km Northwest of Ermelo and 32km East of Bethal, in Msukaligwa Local Municipality, situated within the Gert Sibande District Municipality in Mpumalanga Province, See **Source:**

Figure 1-2 for regional context and Figure 1-1 for the locality map.

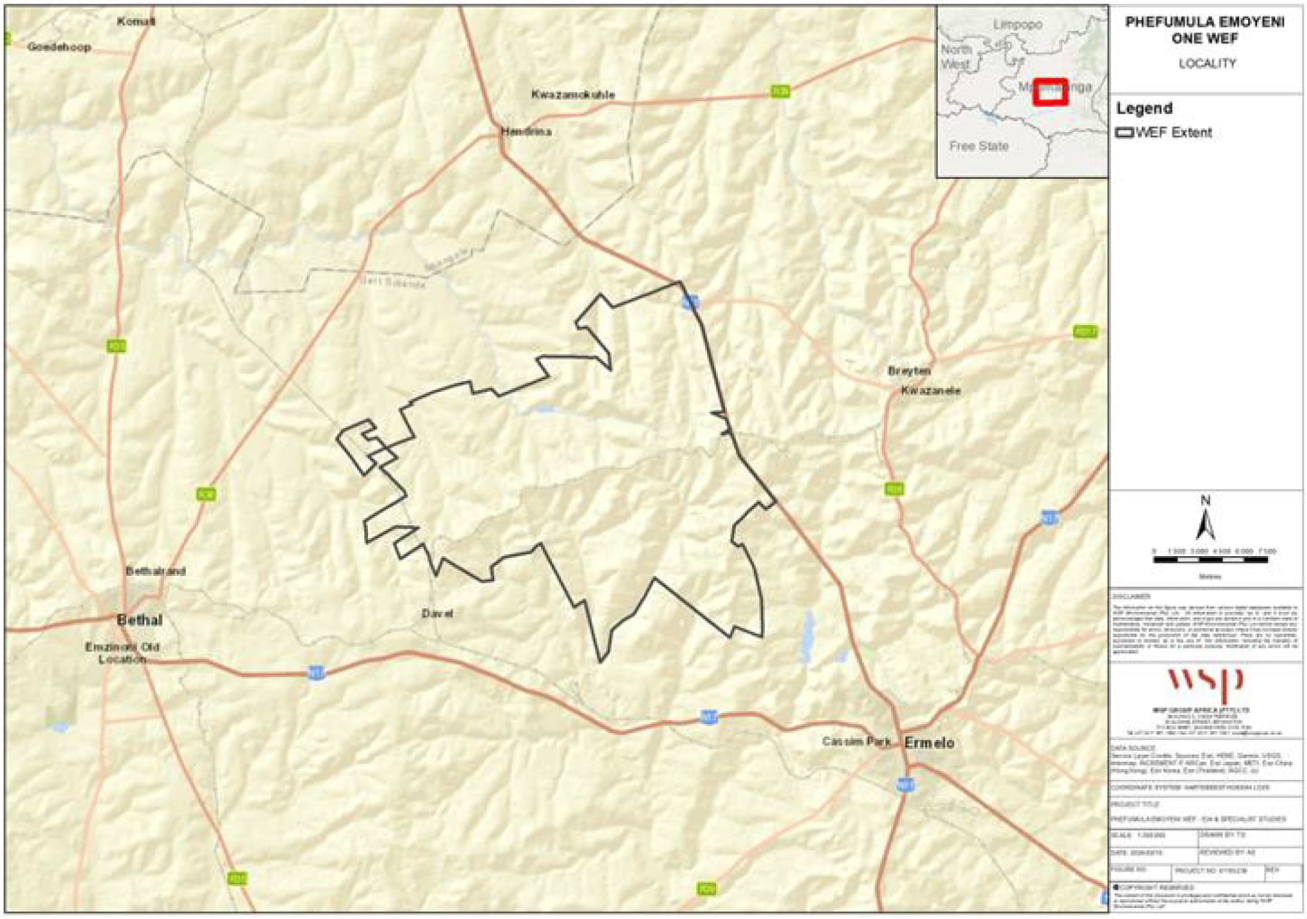
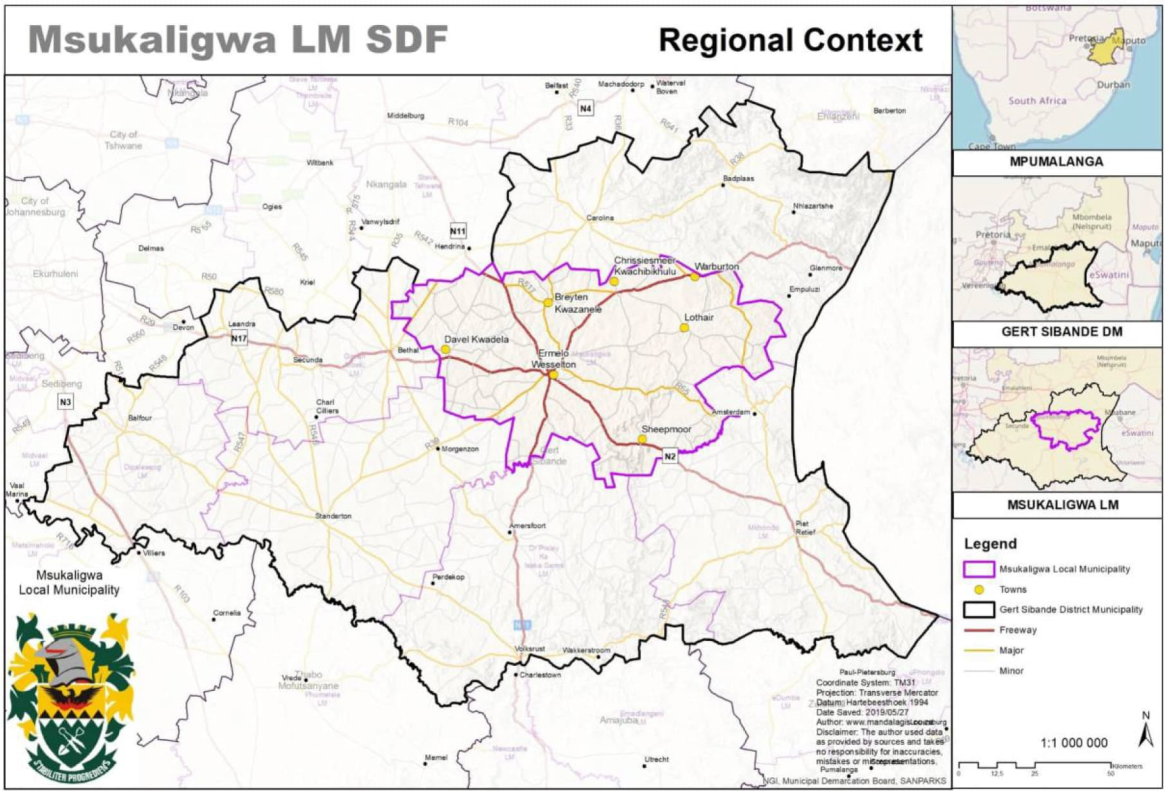


Figure 1-1 – Locality Map



Source: (Msukaligwa Municipality, 2022)

Figure 1-2 - Regional Context

2 SOCIAL IMPACT METHODOLOGY

The Social Impact Assessment (SIA) methodology will be integrated into the environmental assessment process. The SIA will combine primary qualitative data collection and secondary research. The SIA process will leverage on the public participation events and interactions to gather qualitative social information required for the impact assessment.

2.1 DATA COLLECTION

To understand the socio-economic baseline conditions of the project-affected areas and the socio-economic implications of the proposed project to the receiving environment, WSP conducted secondary desktop data collection (desktop review) and will conduct primary data collection as part of the stakeholder consultation process.

2.1.1 DESKTOP REVIEW

WSP reviewed available documents to obtain information regarding the socio-economic conditions in the study area. The documents reviewed include the following:

- Recent Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDF) of the Msukaligwa Local Municipality and Gert Sibande Municipality.
- Socio-economic and demographic statistics sourced from Statistics South Africa (Stats SA), 2011, and the Statistics South Africa, Community Survey 2016
- Documents concerning the proposed project, which included the project description document.
- Available maps and satellite imagery.

These documents were used to develop the social baseline for the project.

2.1.2 PRIMARY DATA COLLECTION

Public participation is a primary data collection tool. The comments and response reports from the EA process is an essential input into the SIA. The social team has provided specific information requirements for inclusion in the public participation process. An online focus group meeting will be conducted if required, and the public meeting will be used to inform the SIA further. On completion of the stakeholder engagement process, this SIA will be updated accordingly.

2.2 SOCIAL IMPACT ASSESSMENT

The assessment will consider the social issues and aspects based on secondary and primary research. The results and recommendations of the various specialist studies will be used to identify potential impacts on sensitive social receptors. The alternatives will be assessed, probable social consequences will be forecast, and measures to avoid or mitigate adverse impacts and enhance any positive effects related to the project will be provided. The mitigation measures will be included in the Environmental Management Programme (EMPr), which will be developed for the project.

3 ASSUMPTIONS AND LIMITATIONS

3.1 ASSUMPTIONS

- The information provided by the applicant is up to date and accurately represents the project.
- It is assumed that the indicated project site is technically suitable for the proposed project.
- The secondary data is assumed to reflect the local social context accurately.

3.2 LIMITATIONS

- The EA public participation process was undertaken in the scoping phase and will continue throughout the environmental authorisation process. Comments, opinions and concerns received from interested and affected parties have been considered in the SIA.

4 APPLICABLE LEGISLATION AND POLICIES

The social baseline study for this project considers the relevant South African legislative requirements. **Table 4-1** summarises the appropriate guiding regulations, legislation, and best practices for the SIA.

Table 4-1 - Legislation, Guidelines or Standard

Aspect	Description	Relevance to Project
National Legislation		
Constitution of the Republic of South Africa, Act 108 of 1996, Chapter 2: Bill of Rights.	Bill of Rights, where every citizen is equal and has the right to human dignity, an environment that is not harmful, property, housing, healthcare, education, food, and water. Freedom of expression, association, movement, religion, belief, language, and culture.	Forms the basis of all social and related rights and focus. The project needs to consider human rights in every phase of the project life cycle and not infringe on any human rights.
National Environmental Management Act, 1998 (NEMA) (ACT NO 107 of 1998)	The act provides the legislative framework for integrating good environmental management practices into all development activities in South Africa. The act also provides for the following right: 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- i. prevent pollution and ecological degradation. ii. promote conservation; and iii. secure ecologically sustainable development and use of natural resources while promoting a justifiable economic and social development. The National Environmental Management Act broadly states that the participation of all interested and affected parties in environmental governance must be promoted, achieving equitable and effective participation and that the	Phefumula Emoyeni One is applying for Environmental Authorisation in terms of this act. Impact rating is also based on the severity of the impact to the rights of people to an environment that is not harmful to their health or well-being. A public participation process will form part of the EA process.

Aspect	Description	Relevance to Project
	involvement of vulnerable and disadvantaged persons be ensured.	
National Environmental Management: Protected Areas Act, 57 of 2003	The act protects and conserves ecologically viable areas representing South Africa's biological diversity, natural landscapes, and seascapes.	Phefumula Emoyeni One will undertake an ecological impact assessment to mitigate negative impacts and conserve the ecology within their operating area. Note that there are no gazetted protected areas within the study area
National Water Act (Act 36 Of 1998).	The National Water Act ensures that projects and future interventions maintain water resources' capability to meet basic human needs. It seeks to support equitable water access and efficient, sustainable, and beneficial use. Future developments must reduce and prevent the pollution and degradation of water resources.	There are several water sources on and surrounding the proposed project. Phefumula Emoyeni One will be applying for a Water Use Licence.
National Development Plan	The NDP aims to achieve its goal by growing an inclusive economy, building capabilities, enhancing the state's capacity and promoting leadership and partnerships throughout society. A key focus of the NDP is the country's ability to return to a state of continuous and uninterrupted electricity supply. This uninterrupted supply was to be achieved by increasing the electricity generation reserve margin from 1% (2014) to 19% in 2019, requiring the development of 10 Giga Watt (GW) of additional electricity capacity by 2019 against	The baseline is guided by the National Development Plan.

Aspect	Description	Relevance to Project
	the 2010 baseline of 44GW. Five of the 10 GW were to be sourced from renewable energy sources, with a 2GW to be operational by 2020. The NDP aims to acquire 2GW of renewable energy to move the country to less carbon-reliant energy production by 2030.	
National Spatial Development Perspective	According to the National Spatial Development Perspective, spatial development should, where appropriate, accommodate and promote private economic ventures, which can aid sustainable economic growth, relieve poverty, increase social investment, and improve service delivery. Consequently, municipal-level spatial planning has been considered where relevant.	This influences municipal spatial plans which determines the suitable location to place the project.
Spatial Planning and Land Use Management Act (Act 16 of 2013)	The Act ensures that projects maintain progress in promoting social and economic inclusion. Future interventions should promote the efficient and sustainable use of land interventions and contribute towards redressing equity concerns in the affected communities through land use management systems.	This influences municipal spatial plans which determines the suitable location to place the project.
National Energy Act (Act No. 34 Of 2008)	The Electricity Regulation Act gives the Minister of Energy the power to determine the need for new generation capacity and to take the initiative for its procurement. It also states that one needs a generation licence to produce over one megawatt of electricity. The Act aims to strengthen energy planning in the Electricity Regulation Act (Act No. 4 of 2006), Second Amendment (2011). The Act gives the Minister of Energy power to determine new generation capacity and approve the generation and procurement of electricity. A licence for generation capacity is subject to ministerial approval. The Electricity Regulations on new generation capacity were amended in 2015. This amendment provides for renewable energy power	The Project is intended to supply electricity.

Aspect	Description	Relevance to Project
	generation, including PV generation.	
Promotion of Administrative Justice Act, Act 3 of 2000 (PAJA).	Under the provisions of the Public Administrative Justice Act, 3 of 2000 (PAJA), an administrative action also includes a decision made by an organ of the state or by a person or body exercising a public power or performing a public function that adversely affects the rights of any person. Therefore, the public has a right to a lawful, reasonable, and procedurally fair administrative process and to be given the reasons for administrative actions.	Phefumula Emoyeni One will undertake a public participation process to ensure the affected public can access information regarding the proposed project.
Protection of Personal Information Act, 4 of 2013 (POPI).	The act promotes the protection of personal information and balances the right of privacy recognised by the Constitution with various needs and interests, like economic and social progress. POPI regulates how personal information may be processed and establishes voluntary and compulsory measures, including an Information Regulator. POPI is concerned with collecting, storing, using, and destroying personal information. Unless part of a regulatory process that requires the rightful notification of interested and affected parties or to protect the rights of third parties, personal information may be used only with stakeholders' expressed permission.	During the Public participation and stakeholder, the participant's information will not be published unless permitted by the participant.
Municipal Policies		
Msukaligwa Local Municipality Integrated Development Plan 2022- 27 (MIDP).	The plan serves as a strategic plan document for the municipality. It details the municipality's short term and long-term objectives and strategies aligned with the Provincial and National Development Plan.	Phefumula Emoyeni One will utilise the MIDP to identify the social profile of the municipality and align the project activities with the applicable municipal current and planned infrastructure and objectives.
Msukaligwa Spatial Development Framework 2019-2024 (Municipal Spatial Development Framework (MSDF),2019).	The MSDF is a required tool to address historically distorted, unviable, and unsustainable spatial patterns and challenges caused by apartheid planning.	Phefumula Emoyeni One will utilise MSDF to align the spatial planning of the municipality with their proposed activities.

5 SOCIAL BASELINE

The social baseline describes the social profile of the project-affected area based on desktop research. The regional, district and local context describes the geographical setting of the project. The demography of the project-affected area is provided. The community health and safety forms part of the social baseline and describes the health and safety statistics within the municipality. The local governance arrangements are provided, as well as how the municipality is governed and its leadership structures.

5.1 REGIONAL CONTEXT

The proposed project is in Mpumalanga Province, located in the Northeastern part of South Africa. Mpumalanga Province covers an area of 76 495km² and has a population of approximately 5 143 324. The capital city of Mpumalanga is Mbombela, and other major cities and towns include Emalahleni, Secunda, eMkhondo, Malelane, Middelburg, Barberton, and Ermelo which is the closest town to the proposed project.

The province is divided into three district municipalities: Ehlanzeni, Nkangala Districts, and Gert Sibande, in which the proposed project is located. These three districts are further subdivided into 17 local municipalities. The proposed development is situated in the Msukaligwa Local Municipality. The principal language spoken in Mpumalanga are siSwati (27, 67%), isiZulu (24.1%), Xitsonga (10, 4%) And isiNdebele (10%) (Mpumalanga Province, 2024)

The unemployment rate in South Africa during the first quarter of the year stood at 42.4% and at 49,7 % in Mpumalanga Province (Stats SA, 2023).

5.2 DISTRICT CONTEXT

Gert Sibande District Municipality is a Category C municipality in Mpumalanga Province. It is bordered by the Ehlanzeni and Nkangala District Municipalities to the north, KwaZulu-Natal and the Free State to the south, Swaziland to the east, and Gauteng to the west. **See Source:**

Figure 1-2

The district covers an area of 31 840km², making it the largest of the three districts in the province. It comprises seven local municipalities: Govan Mbeki, Chief Albert Luthuli, Dipaleseng, Mkhondo, Lekwa, Dr Pixley ka Isaka Seme and Msukaligwa. The population is 1 283 459 which grew exponentially from 1 043 194 in 2011. The population age group from 14 – 64, known as the working age group has increased to 67,6 % from 63. 9 % in 2011. The population of under 15 years of age has decreased to 27,3 % from 31,6 % in 2011. (Municipalities of South Africa, 2023).

5.3 LOCAL MUNICIPAL CONTEXT

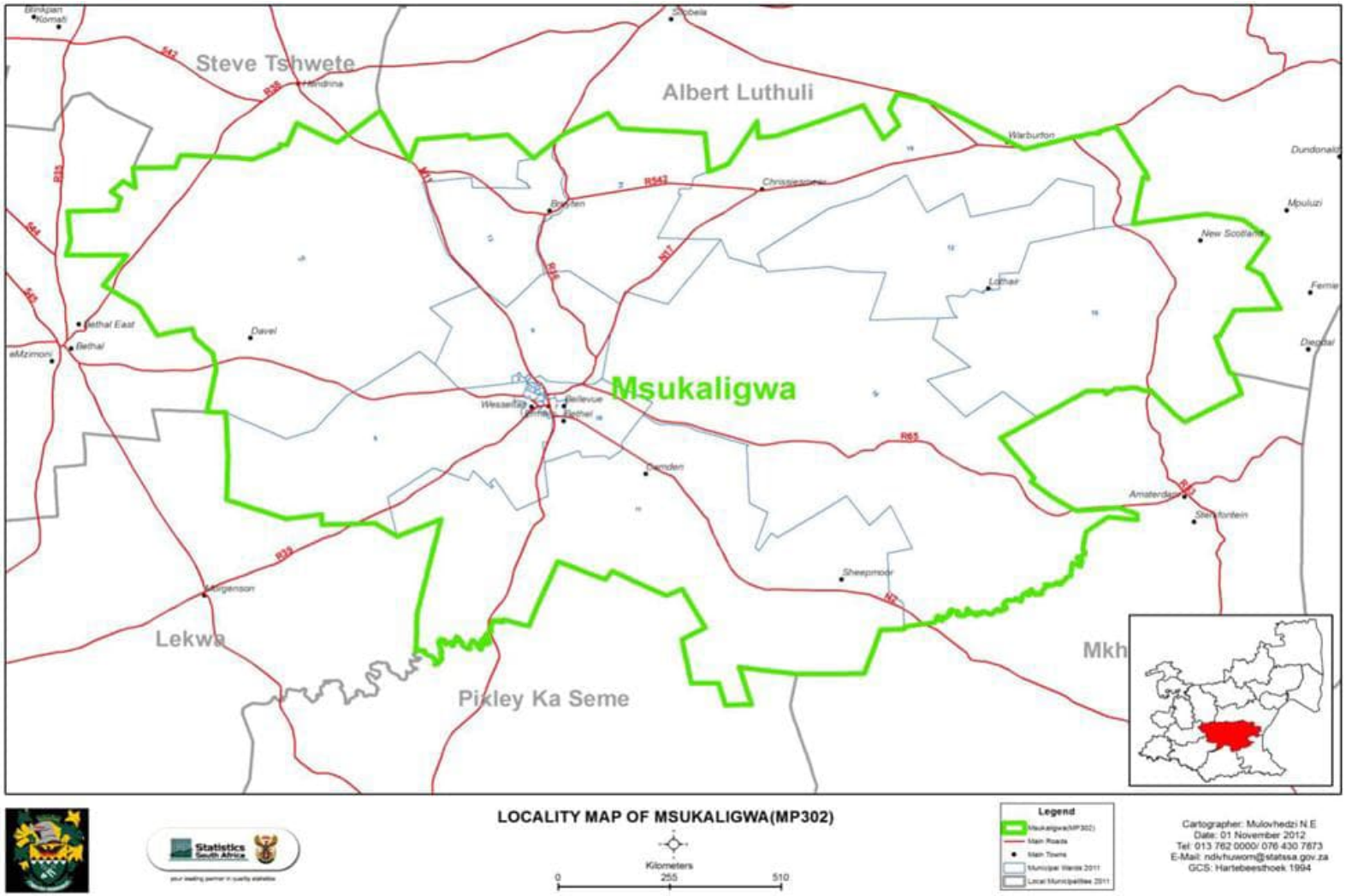
5.3.1 ADMINISTRATIVE CONTEXT

Msukaligwa Local Municipality covers an area of 6 016 km². It is one of the seven local municipalities within the Gert Sibande District Municipality. It has a population of 149 377 people. Msukaligwa Local Municipality is the 3rd most populated municipality in the District of Gert Sibande.

The Msukaligwa Municipality is bounded by Govan Mbeki Municipality, Chief Albert Luthuli Local Municipality, Mkhondo Local Municipality and Lekwa Local Municipality. It is accessible through three

National Roads and Provincial main roads, which are N2, N11, and N17, R33, R39, R65 and R542.
Source: (Msukaligwa Municipality, 2022)

Figure 5-1 below depicts the local context.



Source: (Msukaligwa Municipality, 2022)

Figure 5-1 - Local Context

5.3.2 INSTITUTIONAL CONTEXT

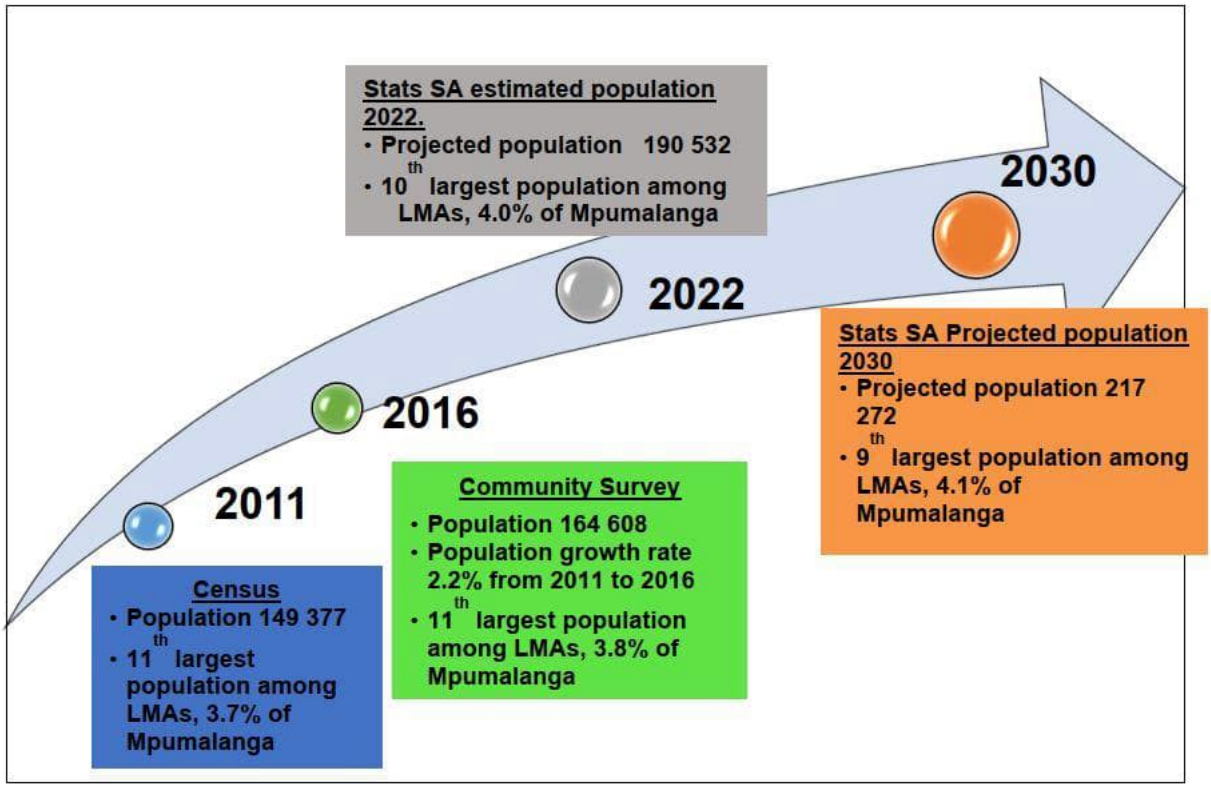
Msukaligwa Municipality comprises 19 Wards and 19 ward councillors, with wards 1-9 and 17 clustered within Ermelo town and Wesselton Township (Msukaligwa Municipality, 2022). The executive mayor of Msukaligwa is Cllr Mapulane Precious Nkosi. The Speaker is Cllr Ntomfuthi Sarah Xaba, Whip Council is Cllr Pretty Thabile Sibeko. To govern the municipality, there are member of the mayoral committee for the following disciplines: Planning and Economic Development, Finance, Community and Social Services, Corporate Services and Technical services

5.3.3 POPULATION

According to (Stats SA, 2024), the municipality has a population of 199 314 recorded in 2022. Msukaligwa therefor ranked fourth out of seven local municipalities within the category of population size, situated in Gert Sibande District Municipality.

According to Stats SA Mid-Year Population Estimates 2021, the estimated population number for 2022 was 190 532 people or 14.8% of the Gert Sibande District population and Stats SA projects that in 2030, the population will increase to 217 272 or 15.0% of the district. This will pressure infrastructure, service delivery and employment opportunities within the municipality.

The number of households in Msukaligwa increased from 40 932 to 51 089 households between 2011 and 2016 (more than 10 000 households). According to (Stats SA, 2024), the estimated number of households in 2022 is 67 827 and projected to increase to 71 899 households by 2030 (see **Figure 5-2** Error! Reference source not found.**).**



Source (Department of Economic Development and Tourism, 2021/2022)

Figure 5-2 – Population Projections

6 GENDER AND AGE PROFILE

Statistics South Africa's 2022 Census indicates that the majority of the population in Msukaligwa Local Municipality is young, with individuals aged 15 to 64 years making up 69.0% of the total population.. The general trend is a decrease in children between 1 and 14 years since 2011, with an increase in the working age group (15-64 years). This trend may indicate decreased birth rates however not reduced population growth. The population has increased by over 50 000 people from 2011 to 2022. The female population exceeds the male population by just over two percent (51.3%). See **Figure 6-1** for the population pyramid.

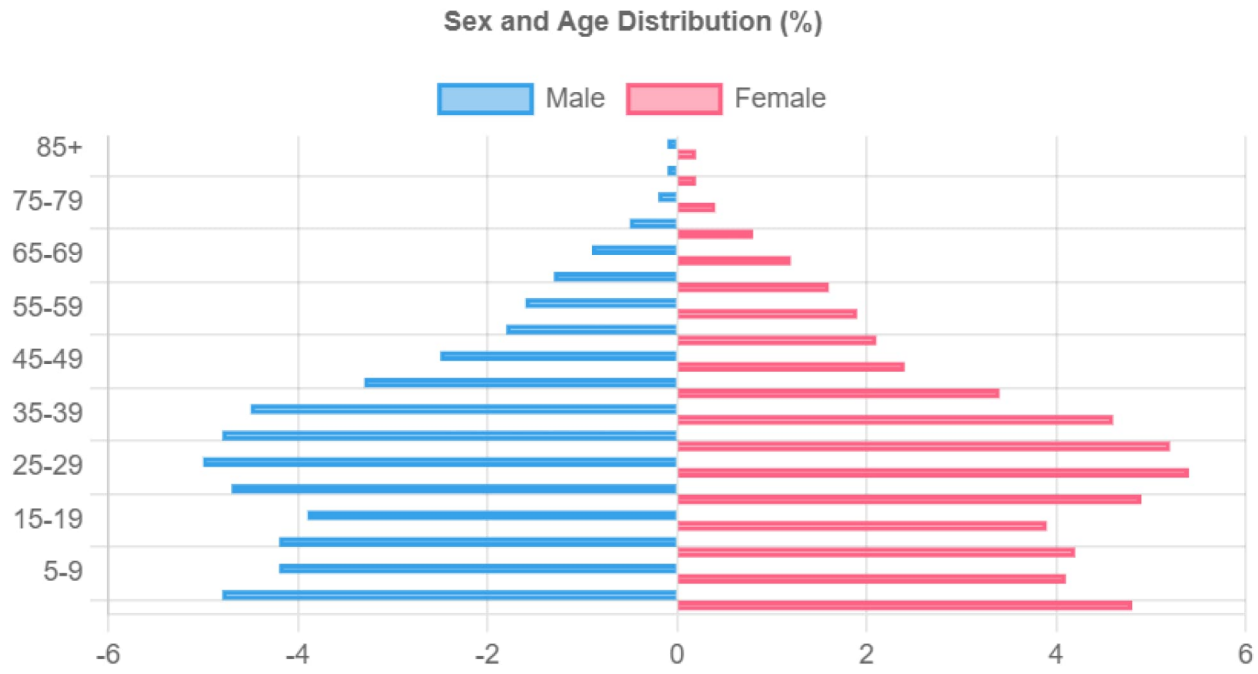


Figure 6-1 - Population Pyramid, 2016 ((Stats SA, 2024)

6.1.1 EDUCATIONAL PROFILE

Table 6-1 indicates that, 9.6% of persons with no schooling decreased between 2011 and 2016. Despite this positive decrease, a population of children within the municipality remain without education. Msukaligwa's grade 12 pass rates decreased from 80.6% in 2014 to 76.4% in 2020. The pass rate decreased by 55.3% between 2020 and 2021, mainly due to Covid-19-related factors. The admission rate to university/degree studies deteriorated to 32.6% in 2021 regarding ranking in the province. In 2016, only 79.0 % of students completed grade 7. However, there was a slight improvement in functional literacy within the municipality in 2020 when 85.6% of students over 15 years were recorded to have passed grade 7 (Msukaligwa Municipality, 2022).

There is also a challenge in accommodating the educated youth in the area, as there are insufficient suitable employment opportunities available.

Table 6-1 – Educational Levels

Educational Indicators					
% Population 15+ with no schooling		**2011**		**2016**	
		8.2 %		9.6 %	
% Population 15+ with matric and post matric qualification		23.6 %		39.6%	
Grade 12 Pass Rate	2014	2020	2021	Admission to B degree studies	2021
	80.6 %	76.4 %	71.1 %		32.6 %
Functional Literacy rate					
Age 15yr+ and completed grade 7 or higher					
2011	2015			2016	2020
79.0 %	80.8 %			81.4 %	85.6 %

(Msukaligwa Municipality, 2022)

6.1.1.1 Educational Facilities

Msukaligwa Municipality has one FET College. Considering the continuous population growth within the Municipality and the shortage of skills within communities, there is a need for a tertiary institution within the district. The Msukaligwa Local Municipality IDP indicates that with the development within the municipality comes a need for a high school at Ermelo Ext. 32, 33, 34 and New Ermelo area, Khayelihle, close to Emadamini and Thusi Ville, and additional primary schools, except for those mentioned in **Table 6-2**. The table also indicates an imbalance in the number of primary schools compared to the number of high schools (Stats SA, 2011).

Table 6-2 – Educational Facilities

Educational Facility	Number
Primary Schools	71
High Schools	6
Combined Schools	12
Secondary Schools	11
Tertiary institutions	0
FET Colleges	1
Training Centres/Adults Education	9
No. of Private Schools	3

Educational Facility	Number
Day Care Centres	40

(Msukaligwa Municipality, 2022)

6.1.2 LABOUR PROFILE

Table 6-3 below indicates the labour force comparison within Msukaligwa Municipality from 2011 to 2016. The unemployment rate in the municipality stood at 23.6% in 2016, which decreased from 26.8 % in 2011. Furthermore, data from 2016 showed a reduction in economically active persons compared to 2011 figures. This reduction in unemployment figures indicates that the labour market was absorbing more people, or it could have resulted from retirement rates as figures showed an increase in economically active people.

According to the Provincial Department of Economic Development and Tourism, the unemployment rate for females and males is 31.4 % and 18.1 %, respectively, with the youth being the highest at 34.5 % in 2016. This information will assist when planning any developmental intervention within the municipality. The total unemployment rate in Mpumalanga was recorded at 36.2 % according to (Stats SA, 2024) which is an increased by 1.3 % from 2023.

Table 6-3 – Employment Status

Employment Status	2011	2016
Employed	41 698	43 751
Unemployed	15267	15 084
Economically active	56969	53208
Not Economically active	51476	52565
Total	149 377	164 608

Statistics South Africa, Census 2011 and Community Survey 2016

6.1.3 EMPLOYMENT SECTOR CONTRIBUTION

The Municipality comprises sectors that contribute to the regional economy and employ the people of Msukaligwa and surrounding areas.

Table 6-4 below depicts that in 2020, the industries contributing to the increment in employment over the years include trade (22.0%), Community services (15.3%), finance (12.5%), manufacturing (10.4%) and mining (9.5%). Though there is a slight decrease in trade and community services, this played a role in the employment increase.

Table 6-4 – Employment per sector & Contribution to Regional (Gert Sibande) GVA

Sector	Employment	Contribution to GHA	Employment	Contribution to GVA
	2015		2020	
Agriculture	11.5%	14.6%	6.3%	18.5%
Mining	7.7%	11.5%	9.5%	5.6%
Manufacturing	0.8%	9.5%	3.0%	19.2%
Utilities	0.8%	9.5%	3.0%	19.2%
Construction	3.9%	7.4%	7.5%	17.0 %
Trade	23.7%	20.4%	22.7%	23.3%
Transport	6.9%	28.7 %	5.2 %	31.0 %
Finance	9.6%	24.3%	12.5%	24.5%
Community	19.0%	21.4%	15.3%	23.0%
Private Households	9.1 %	-	7.6 %	
Total	**100%**	**13.4 %**	**100%**	**16.7 %**

(Msukaligwa Municipality, 2022)

6.1.3.1 Inequality and Poverty Levels

From 2011 to 2016, Msukaligwa experienced an increase in impoverished people. According to Statistics South Africa, the poverty rate (individuals living in South Africa with less than R945 a month) was 38.2 %. Municipalities can collaborate with private entities to alleviate poverty through local economic development interventions. The Gini Co-efficiency [1]has not improved from 2011 to 2016. This indicates high inequality in terms of income distribution. The total number of people living in poverty in 2011 was 56 823, which slightly improved to 60 213 in 2016. The absolute poverty Gap is 137 million Rands. This indicates that those living under the poverty line will have to obtain a further 137 million Rands collectively to be over the threshold. (Statistics South Africa, 2016). Refer to **Table 6-5** below.

[1] The Gini coefficient is a statistical measure of economic inequality in a population.

Table 6-5 – Population and People below the minimum living standard

Indicators	2011	2016
The Gini Co-efficiency	0.61	0.61
Poverty Rate[2]	33.6%	38.2 %
People in Poverty	56,823	60.213
Poverty Gap (R Million)[3]	R137	

(Msukaligwa Municipality, 2022)

6.1.4 COMMUNITY HEALTH

According to the Msukaligwa Municipality IDP, the Department of Health reported in 2013 that the Human Immunodeficiency Virus (HIV) infection rate was 46.5 % among the antenatal clients tested, which increased compared to the year 2012 with a rate of 34.4%. Msukaligwa IDP also indicates a shortage of health facilities, with only a single private hospital and one government hospital. See below **Table 6-6** for health facilities available within the municipality. (Msukaligwa Municipality, 2022),

Table 6-6 – Health facilities

Facilities	Number
Private Hospitals	1
Primary Health Care Clinics	10
Mobile Clinics	4
Government Hospitals	1
Infectious Hospital (TB)	1
Dentists	4
Gynaecologist	1
Social Workers	12
Private Doctors	20

(Msukaligwa Municipality, 2022)

[2] The poverty rate is the ratio of the number of people (in a given age group) whose income falls below the poverty line
[3] The poverty gap index is a measure of the degree of poverty. It is defined as extent to which individuals on average fall below the poverty line, and expresses it as a percentage of the poverty line

7 SENSITIVE SOCIAL RECEPTORS

Sensitive social receptors refer to local people within a 5 km radius of the proposed project that may be influenced by the project activities due to their proximity to the proposed project area. Furthermore, Sensitive receptors maybe people who may be vulnerable to social impacts caused by the project. The proposed project area covers an area of 33 660 ha. **Figure 7-1** is a satellite image which indicates potentially sensitive social receptors within the 5 km radius of the boundary of the proposed project area. Kwa-Dela is a township within 5 km from the project boundary. It has an area extent of approximately 96 ha. Kwa-Dela has a population of 3781 (Stats SA, 2011). There are two provincial roads, one on the east of the project, R542 connecting to Breyton and the other, R38 lies on the west side of the project area towards Hendrina located in the Nkangala District Municipality. Within 3 km lies Davel, a small town with roughly a population of 1193. New Street is the road that intercepts the town, connecting it to Kwa-Dela, which connects to the national road N17. Closer within the 2 km radius, are several farms, agricultural farm buildings, farm dwellings and the national road, N11.

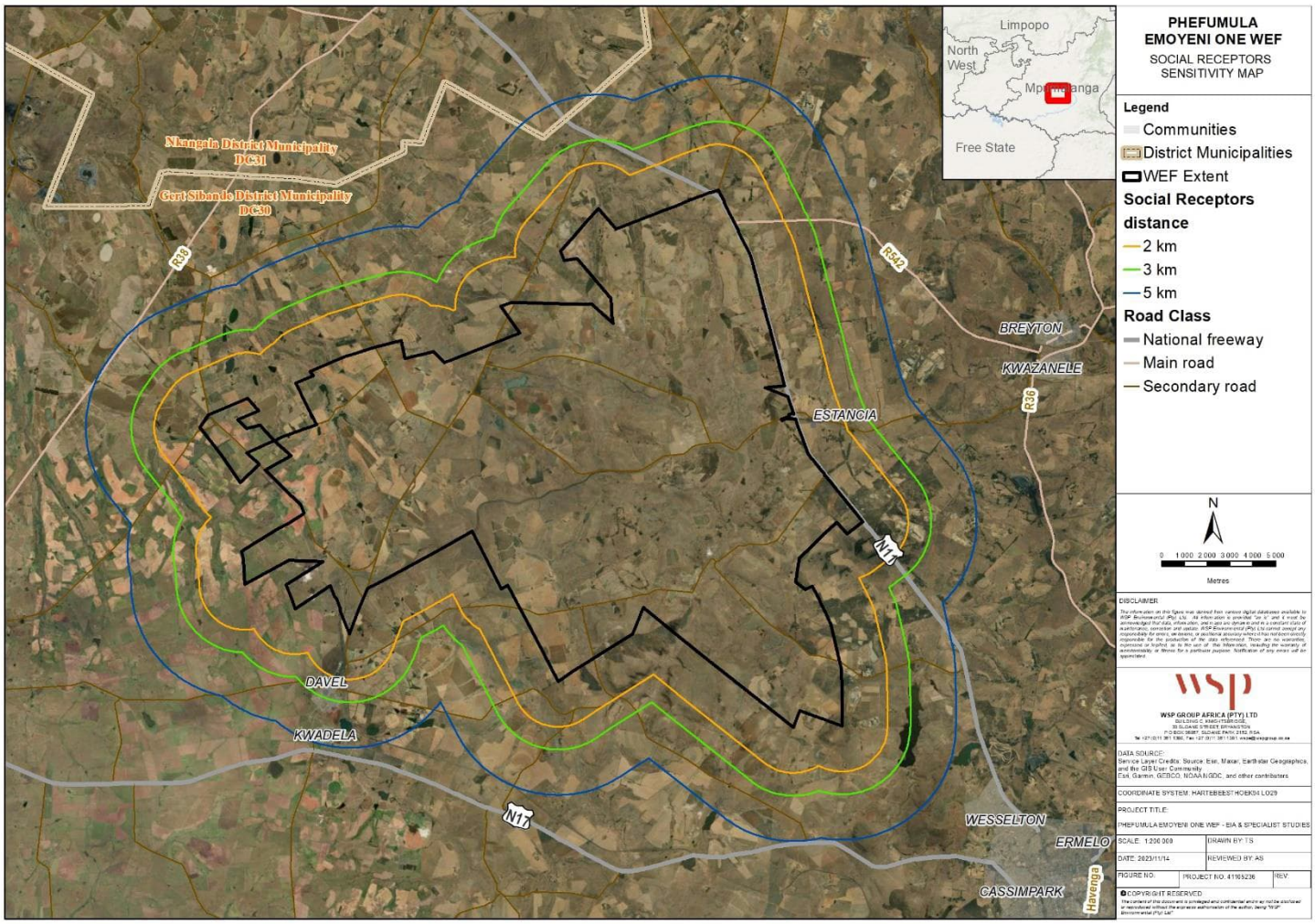


Figure 7-1 - Social Receptors Sensitivity Map

The project site is located primarily within farmlands. There are few farm buildings located within the project boundary illustrated in black points and labelled as noise receptors on **Figure 7-2.** These points have been identified as receptors susceptible to noise generated from the project site. A 1km buffer is recommended by the noise specialist to be a safe distance to protect receptors from noise which may become a nuisance. Apart from noise, other factors that may adversely affect the social aspect of the community surrounding are the following, Potential burial sites identified by heritage impact specialists, potential zones demarcated for renewable projects within 100m and 500m radius of the project boundary, existing roads situated within the project boundary, and freshwater resources flowing within the project area**. Figure 7-3** indicated the combined sensitivity map and proposed development infrastructure for the project. After consideration of other contributing social and environmental impacts than noise, a new layout has been designed to strategically place the wind turbines in suitable areas within the boundary to avoid adverse social impacts.

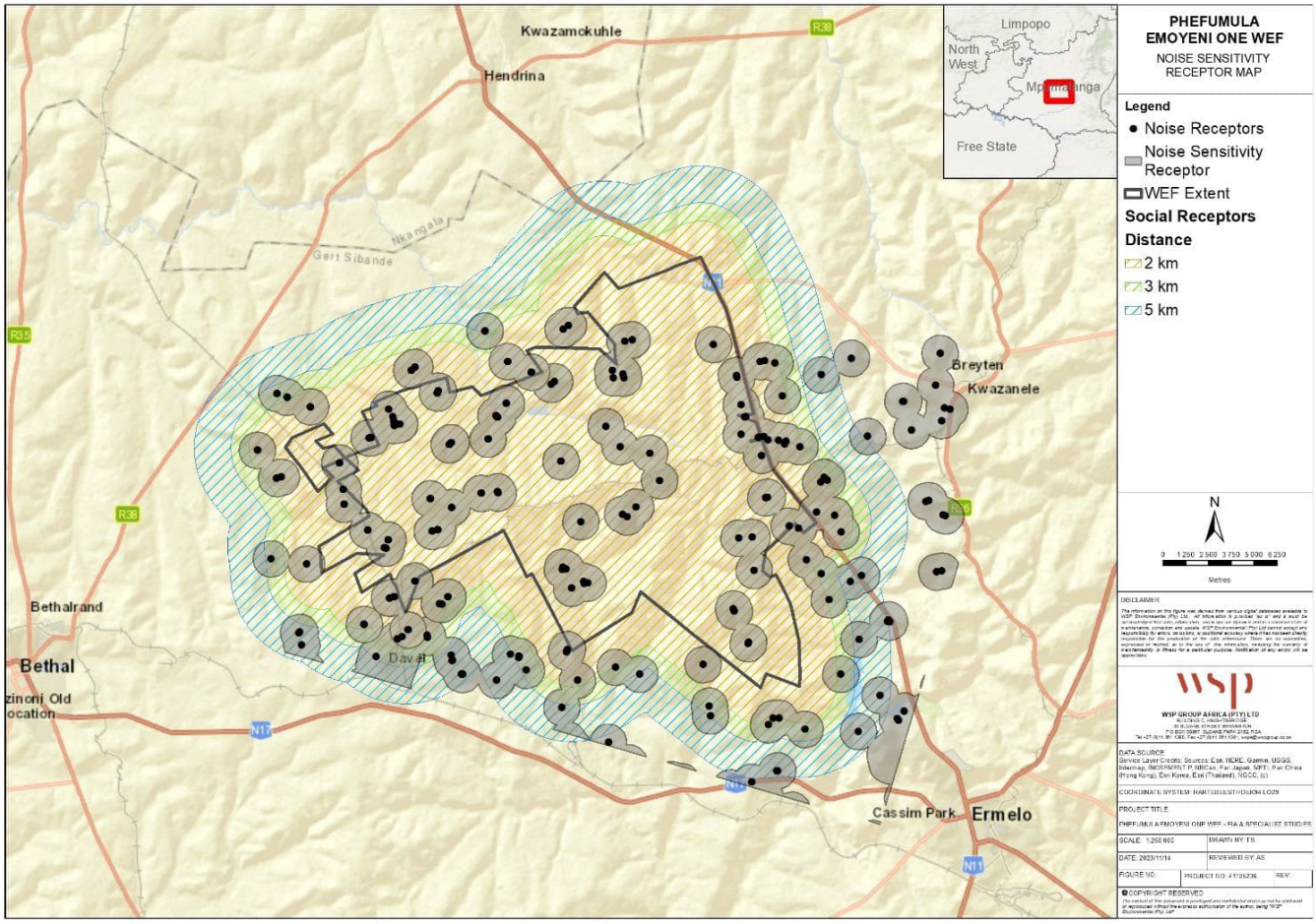


Figure 7-2 - Noise Sensitivity Receptor Map

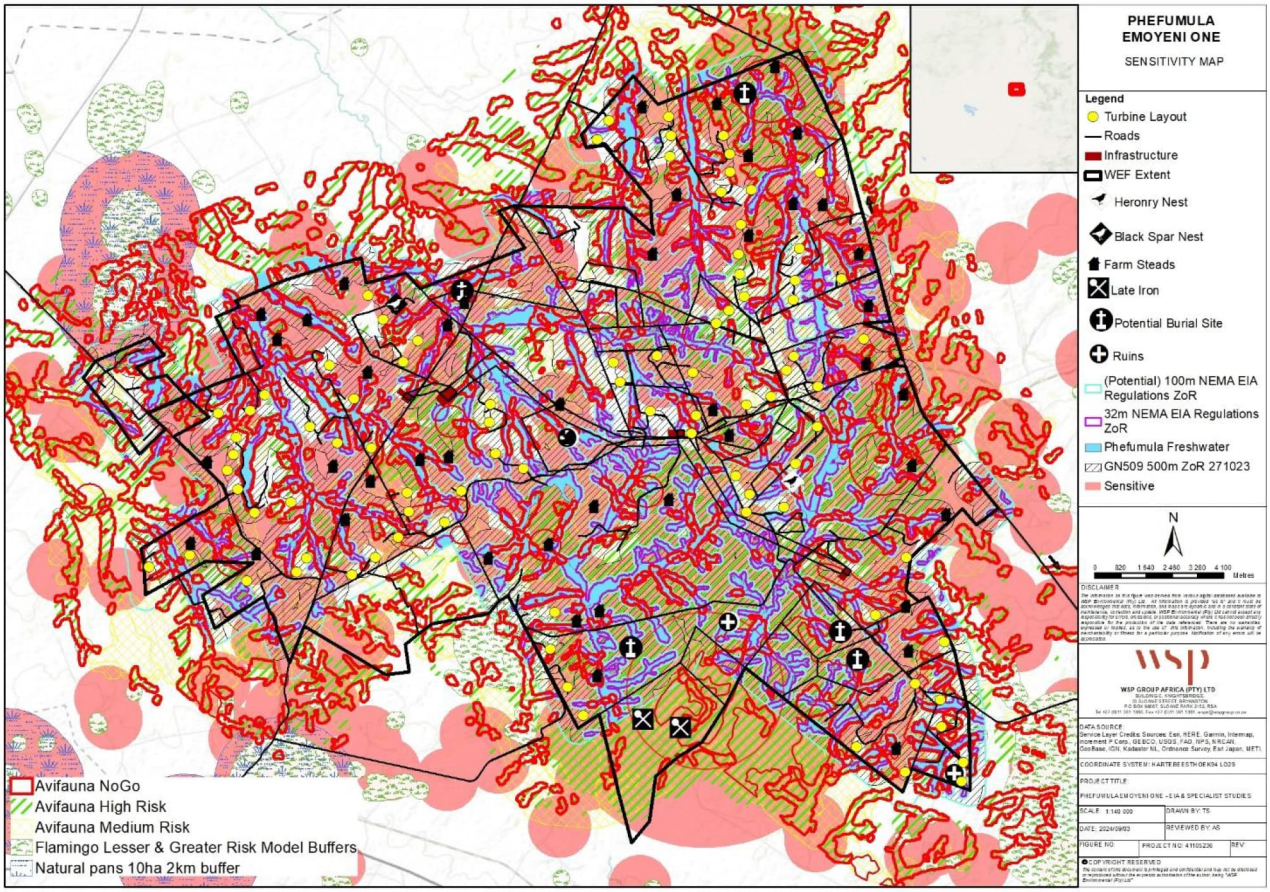


Figure 7-3 - Combined Sensitivity Map and Proposed Development Infrastructure

7.1 COMMENTS AND RESPONSE RECEIVED DURING THE SCOPING PHASE PUBLIC PARTICIPATION PROCESS

As mentioned above, sensitive social receptors are not only restricted to the physical exposure of the project activity within a radius of 5km, however can be expanded to people who may be vulnerable to social impacts that may be caused by the project activities. The SIA has leveraged the public participation process conducted during the scoping phase to analyze the views, concerns, and opinions of the interested and affected parties regarding the project. The table represents comments received from registered interested and affected parties via email during the scoping phase.

From the comments received, five comments pertained to social impacts. The first comment raises a concern on the footprint of the project that may adversely affect the terrestrial environment which is classified as Critical Biodiversity Areas and Ecological Support Areas. Although this may be perceived to be an issue pertaining to the biophysical environments, the response by the applicant addresses a social impact. The applicant proposes a utilisation of the existing roads and reduction of the width of the roads. By reducing the footprint of the road, the dust emission which may be a nuisance to the nearby farmsteads, may be reduced. Furthermore, some farmers maybe reliant on

freshwater wetlands and water resources to irrigate their crops, the applicant suggest that a stakeholder workshop will be held with all affected stakeholders to discuss mitigation measures, i.e. offsets to address this impact further. The second comment pertains to a concern for a potential untimely fire caused by the project infrastructure. The risk of the untimely fires is that may be destructive towards the nearby farmsteads' properties, health and may cause fatalities. The biodiversity specialists replied to the comment by stating that mitigation measures will be in place during construction phase and construction workers will implement measures to limit wildfires. The Safety Health and Environment risk mitigation measures will also be implemented.The rest of the comments pertain to the proliferation of renewable energy applications. The applicant response indicates that project infrastructures cover an area of 240.4ha, i.e., 0.71% of the total 33 604.8ha project.

From the comments and responses, the sensitive social receptors maybe identified as the local authorities responsible for the safeguard of water resources and the management of renewable energy supply. The general concern is that sensitive natural resources maybe disturbed and there may be a surplus supply of renewable energy against a low demand of energy which may potentially result in social impact discussed in the following section.

8 IMPACT ASSESSMENT

The impact assessment is conducted by identifying potential social impacts during the construction, operational and decommissioning phases of the project. For the EIA phase, impacts are assessed for pre-mitigation and post-mitigation.

8.1 ASSESSMENT METHODOLOGY

The assessment utilises identified receptors and resources against defined assessment criteria, to develop and describe measures that will be taken to avoid, minimise or compensate for any adverse environmental impacts, to enhance positive impacts, and to report the significance of residual impacts that occur following mitigation.

The key objectives of the risk assessment methodology are to identify any additional potential environmental issues and associated impacts likely to arise from the proposed project, and to propose a significance ranking. Issues / aspects will be reviewed and ranked against a series of significance criteria to identify and record interactions between activities and aspects, and resources and receptors to provide a detailed discussion of impacts. The assessment considers direct, indirect, secondary as well as cumulative impacts.

A standard risk assessment methodology is used for the ranking of the identified environmental impacts pre-and post-mitigation (i.e. residual impact). The significance of environmental aspects is determined and ranked by considering the criteria presented in **Table 8-1**.

Table 8-1 – Impact Assessment Criteria and Scoring System

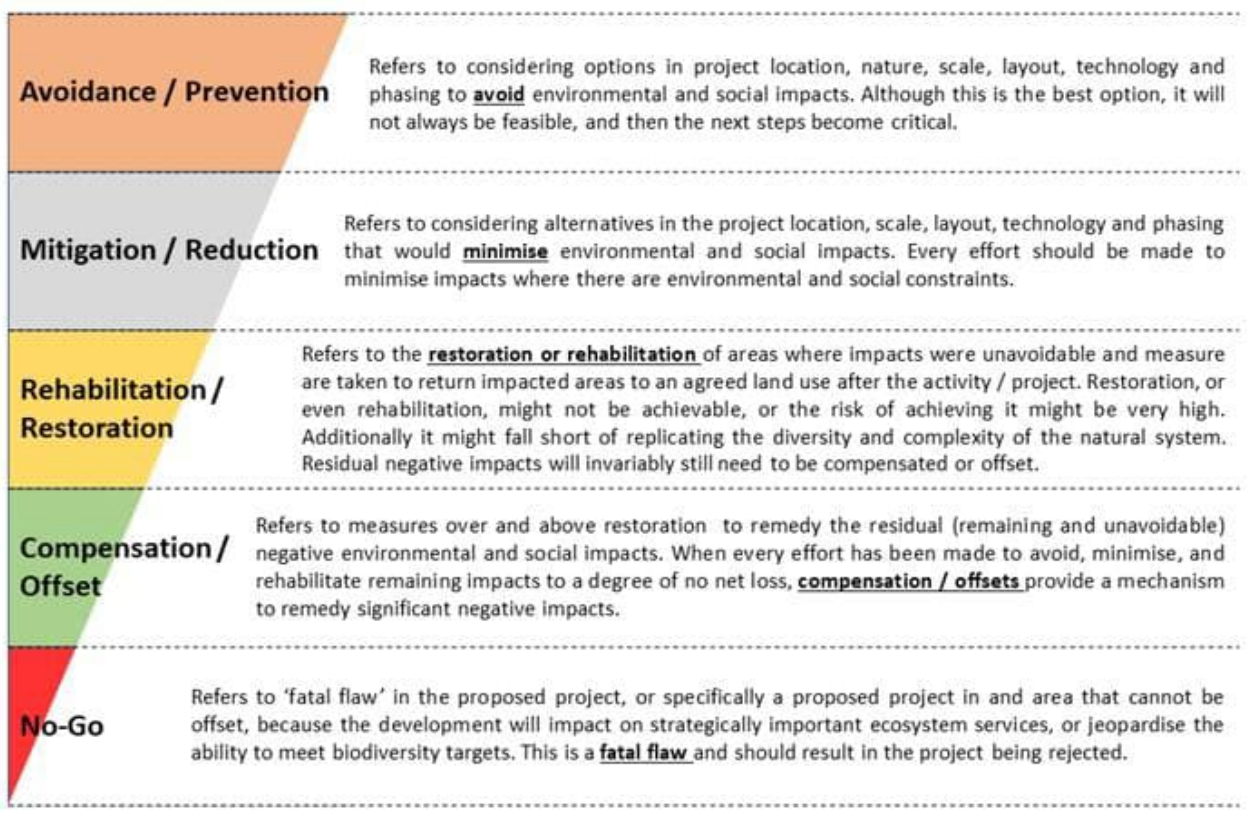
CRITERIA	SCORE 1	SCORE 2	SCORE 3	SCORE 4	SCORE 5
Impact Magnitude (M) The degree of alteration of the affected environmental receptor	Very low: No impact on processes	Low: Slight impact on processes	Medium: Processes continue but in a modified way	High: Processes temporarily cease	Very High: Permanent cessation of processes
Impact Extent (E) The geographical extent of the impact on a given environmental receptor	Site: Site only	Local: Inside activity area	Regional: Outside activity area	National: National scope or level	International: Across borders or boundaries
Impact Reversibility (R) The ability of the environmental receptor to rehabilitate or restore after the activity has caused environmental change	Reversible: Recovery without rehabilitation		Recoverable: Recovery with rehabilitation		Irreversible: Not possible despite action
Impact Duration (D) The length of permanence of the impact on the environmental receptor	Immediate: On impact	Short term: 0-5 years	Medium term: 5-15 years	Long-term: Project life	Permanent: Indefinite
Probability of Occurrence (P) The likelihood of an impact occurring in the absence of	Improbable	Low Probability	Probable	Highly Probability	Definite

pertinent environmental management measures or mitigation					
Significance (S) is determined by combining the above criteria in the following formula:	$[S = (E + D + R + M) \times P]$ $Significance = (Extent + Duration + Reversibility + Magnitude) \times Probability$				
IMPACT SIGNIFICANCE RATING					
Total Score	4 to 15	16 to 30	31 to 60	61 to 80	81 to 100
Environmental Significance Rating (Negative (-))	**Very low**	**Low**	**Moderate**	**High**	**Very High**
Environmental Significance Rating (Positive (+))	**Very low**	**Low**	**Moderate**	**High**	**Very High**

8.2 MITIGATION SEQUENCE/HIERARCHY

The mitigation sequence/hierarchy is shown in Figure 8-1. The mitigation hierarchy is used to guide measures suitable to mitigate each impact after assessment.

Figure 8-1 - Mitigation sequence/hierarchy



9 IDENTIFICATION AND DESCRIPTION OF IMPACTS

Based on the collected secondary data and expert knowledge, impacts were identified and categorised according to the project phase in which they are likely to occur, i.e., construction, operational, and decommissioning.

9.1 CONSTRUCTION PHASE

The project's construction phase is labour intensive, and there is, therefore, more potential to influence the social change of the project environment. The activities required are the construction camp, site offices, material laydown area, construction of internal roads, Operations and Management Office Building, three, excavations of turbine foundations, three substations and internal powerlines construction. These construction activities will require a labour force. **Table 9-1** summarises the impact assessments during the construction phase.

9.1.1 LOCAL JOB CREATION, AND BUSINESS OPPORTUNITIES

9.1.1.1 Background

The construction phase is expected to be 36 months. The employment skills required will be 43% skilled, 45% semi-skilled and 36% low-skilled. Members from the local communities in the area, specifically Ermelo, would be able to qualify for most of the low-skilled and semi-skilled employment opportunities. Most of these employment opportunities will accrue to historically disadvantaged members of the community.

Due the lack of diversification in the local economy the potential use of local companies is likely to be limited. Most benefits are therefore likely to accrue to contractors and engineering companies based outside the Msukaligwa Local Municipality. The local service sector will also benefit from the construction phase. The potential opportunities would be linked to accommodation, hospitality, cleaning, transport, and security, etc. associated with the construction workers on the site and external contractors. This will have a potential moderate positive impact post-mitigation

9.1.1.2 Measures to Enhance Local Job Creation, Training and Business Opportunities

To enhance job creation, the project should prioritise local recruitment for low-skilled work and invest in skills development for locals to improve their competitiveness in the job market. The proponent should liaise with the Msukaligwa Local Municipality with regards the establishment of a database of local companies, specifically Broad-Based Black Economic Empowerment companies, which qualify as potential service providers (e.g., construction companies, hospitality companies, waste collection companies, security companies etc.) prior to the commencement of the tender process for construction service providers. These companies should be notified of the tender process and invited to bid for project-related work.

- Preparation and implementation of a stakeholder engagement plan (SEP) prior and during the construction phase.
- Where possible, the proponent should make it a requirement for contractors to implement a 'locals first' policy for construction jobs, specifically for semi and low-skilled job categories.
- The proponent should consider the option of establishing a Monitoring Committee (MC) for the construction phase that representatives from local landowners, farming associations, and the

local municipality. This MC should be established prior to commencement of the construction phase and form part of the SEP.

9.1.1.3 Impact

This will have a potential moderate positive impact prior mitigation This will have a potential high positive impact post-mitigation.

9.1.2 INFLUX OF JOB SEEKERS

9.1.2.1 Background

Based on a report by (Stats SA, 2024), the unemployment rate in South Africa during the first quarter of the year stood at 42.4% and at 49,7 % in Mpumalanga Province The high unemployment rate drives for job seekers who may feel compelled to relocate to areas experiencing development to secure employment opportunities. However, such a move can potentially negatively affect the local community. There will also be added pressure on the existing municipal infrastructure and services. This includes an increase in traffic, water usage and housing demands. Additionally, the influx of people from different cultures and languages may impact the local culture, increase in crime and change in family structures, leading to a sense of displacement for locals.

9.1.2.2 Mitigation Measures: Influx of Job Seekers

Recruitment procedures should prioritise local employment to limit influx. Local skill development programmes must be implemented to improve the local skill pool to be competitive in the labour market. Phefumula Emoyeni One WEF could partner with the municipality to implement community programmes and facilities to ease the pressure on municipal services and infrastructure. Additionally, the following can be done Preparation and implementation of a SEP prior to and during the construction phase.

- The proponent, in consultation with the LM, should investigate the option of establishing a MC to monitor and identify potential problems that may arise due to the influx of job seekers to the area. The MC should also include the other proponents of solar energy projects in the area.
- The proponent should implement a “locals first” policy, specifically with regard to un-skilled and low-skilled opportunities.
- The proponent should implement a policy that no employment will be available at the gate.
- The proponent and the contractor should implement an HIV/AIDS, communicable diseases and Tuberculosis (TB) awareness programme for all construction workers at the outset of the construction phase.

9.1.2.3 Impacts

The impact significance is rated as medium negative prior mitigation, and the impact significance is rated as very low negative post-mitigation.

9.1.3 RISK TO SAFETY, LOSS OF AGRICULTURAL LAND AND DAMAGE TO FARM INFRASTRUCTURE

9.1.3.1 Background

The project is located within 95 farm portions including state-owned land. The primary land use of the project area is agricultural. The main commodity farmed within the site is maize.

The physical construction of the infrastructure discussed in the project description will require a clearance of vegetation. The project proponent intends to develop approximately 2% of the area, a portion of the area will be within the croplands. This will result in the loss of farmland and could have a potential negative impact on the local agricultural sector. The presence and movement of construction workers on and off the site poses a potential safety threat to local famers and farm workers in the vicinity of the site. In addition, farm infrastructure, such as fences and gates, may be damaged and stock losses may also result from gates being left open and/or fences being damaged, or stock theft linked either directly or indirectly to the presence of construction workers on the site.

9.1.3.2 Risk To Safety, Loss of Agricultural Land and Damage to Farm Infrastructure Mitigation Measures

- The project should limit constructing infrastructure during planting and harvesting season.
- Disturbed areas should be rehabilitated post-construction phase.
- Preparation and implementation of a SEP prior to and during the construction phase.
- The proponent should enter into an agreement with the local farmers in the area whereby damages to farm property etc. during the construction phase will be compensated for. The agreement should be signed before the construction phase commences.
- All farm gates must be closed after passing through.
- Contractors appointed by the proponent should provide daily transport for low and semi-skilled workers to and from the site.
- The proponent should hold contractors liable for compensating farmers and communities in full for any stock losses and/or damage to farm infrastructure that can be linked to construction workers.
- The proponent should implement a Grievance Mechanism that provides local farmers with an effective and efficient mechanism to address issues related to report issues related to damage to farm infrastructure, stock theft and poaching etc.
- The Environmental Management Plan must outline procedures for managing and storing waste on site, specifically plastic waste that poses a threat to livestock if ingested.

9.1.3.3 Significance

The significance is rated as moderate negative prior to mitigation, and low negative post-mitigation.

9.1.4 INCREASED RISK OF WILDFIRES

9.1.4.1 Background

The presence of construction workers and construction-related activities on the site poses an increased risk of wildfires that could, in turn pose, a threat to livestock, crops, wildlife and farm infrastructure. The potential risk of grass fires will be higher during the dry, windy winter months from May to October. The impacts will be largely local and can be effectively mitigated.

9.1.4.2 Mitigation Measures for Increased Risk of Wildfires

- Preparation and implementation of a SEP prior to and during the construction phase.

- The proponent should enter into an agreement with the local farmers in the area whereby damages to farm property etc., during the construction phase will be compensated for. The agreement should be signed before the construction phase commences.
- Contractor should ensure that open fires on the site for cooking or heating are not allowed except in designated areas.
- Smoking on site should be confined to designated areas.
- Contractor should ensure that construction-related activities that pose a potential fire risk, such as welding, are properly managed and are confined to areas where the risk of fires has been reduced. Measures to reduce the risk of fires include avoiding working in high wind conditions when the risk of fires is greater. In this regard special care should be taken during the high-risk dry, windy summer months.
- Contractor should provide adequate fire-fighting equipment on-site, including a fire-fighting vehicle.
- Contractor should provide fire-fighting training to selected construction staff. In the advent of a fire being caused by construction workers and or construction activities, the appointed contractors must compensate farmers for any damage caused to their farms. The contractor should also compensate the fire-fighting costs borne by farmers and local authorities.

9.1.4.3 Significance

The significance is rated low- negative prior mitigation and the impact would be rated low negative post-mitigation.

9.1.5 COMMUNITY HEALTH, SAFETY AND SECURITY

9.1.5.1 Background

The movement of construction vehicles and increased human activity may have a **low negative impact** on the community's health, safety and security. This could damage farm fences and buildings, increase crime, theft or killing of livestock, and theft of farm produce. While the creation of jobs is positive, it may also introduce changes in lifestyle, such as multiple sexual relations, which could lead to a higher infection rate of HIV/STIs within the project area.

9.1.5.2 Mitigation Measures: Community Health, Safety and Security

The project should employ security personnel onsite during construction to implement security. The project should include monthly health talks and coordinate health and safety campaigns to educate personnel and the community on general health, safety and security issues.

9.1.5.3 Significance

The significance is rated low negative prior mitigation and the impact would be rated very low negative post-mitigation

9.1.6 ENVIRONMENTAL HEALTH IMPACT

9.1.6.1 Background

The construction activities will result in increased noise and dust and alter the visual aesthetics of the area. This may result as a nuisance to nearby receptors. Furthermore this could affect their sleeping patterns and cause respiratory health problems.

9.1.6.2 Mitigation Measures: Environmental Health Impact

- The project must implement the measures in the EMPr to mitigate dust emission, noise, and visual impacts. The project must establish onsite complaints register to record and address complaints regarding noise and dust impacts from the facility's construction.
- The proponent should implement a Grievance Mechanism that provides local farmers and other road users with an effective and efficient mechanism to address issues related to construction-related impacts, including damage to local gravel farm roads.
- Implementation of a road maintenance programme throughout the construction phase to ensure that the affected roads maintained in a good condition and repaired once the construction phase is completed.
- Maintain and repair of all affected road portions during the construction period where required.
- Dust suppression measures must be implemented on un-surfaced roads, such as wetting on a regular basis and ensuring that vehicles used to transport building materials are fitted with tarpaulins or covers.
- All vehicles must be roadworthy, and drivers must be qualified and made aware of the potential road safety issues and need for strict speed limits.

9.1.6.3 Significance

The significance will be rated low prior mitigation and very low negative post-mitigation

9.1.7 SUMMARY OF CONSTRUCTION PHASE IMPACTS

Table 9-1 presents a summary of the construction phase impacts.

Table 9-1 – Construction phase impacts

Impact	Impact significance without mitigation	Impact significance with mitigation
Local Job Creation, Training and Business Opportunities	**Positive- Moderate**	**Positive- High**
The influx of Job Seekers	**Negative - Medium**	**Negative- Very Low**
Risk to safety, loss of agricultural land and damage to farm infrastructure	**Negative - Medium**	**Negative- Low**
Increased Risk to Wildfires	**Negative - Low**	**Negative- Low**
Community Health, Safety, and Security	**Negative - Low**	**Negative- Very Low**
Environmental Health Impact	**Negative - Low**	**Negative- Very Low**

9.2 OPERATIONAL PHASE

The project activities will be operational during this phase, whereby renewable energy will be produced, stored, and supplied to the consumers. See **Table 9-2** for a summary of the social impacts associated with the operational phase.

9.2.1 JOB CREATION AND BUSINESS OPPORTUNITIES

9.2.1.1 Background

The project undertakes that local South Africans will be employed during the construction phase. Most workers will be low-skilled, with approximately 30 – 40 % semi-skilled.

9.2.1.2 Mitigation Measures: Job Creation and Business Opportunities

The project and its employees will require procurement of goods and services for the operations phase. Local procurement must be emphasised. Such an approach will increase the local economic growth when the local entrepreneurs and businesses are procured for the supplies and services. Job Creation and Business Opportunities Mitigation Measures

To enhance job creation, the project should prioritise local recruitment for low-skilled workers and invest in skills development for locals to improve their competitiveness in the job market. Mitigation measures mentioned in Section 8.1.1 must be applied during the operational phase. Additionally, local businesses should be prioritised to supply goods and services to the project during operations.

9.2.1.3 Significance

This shows a potential moderate positive impact prior mitigation and high positive post-mitigation.

9.2.2 THE INFLUX OF JOB SEEKERS

9.2.2.1 Background

As discussed in the construction phase, there will also likely be an influx of job seekers during the operational phase. This has the potential to affect the local community negatively.

An increase in job seekers may increase pressure on the existing municipal infrastructure and services. This includes an increase in road traffic, water usage and housing demands. The influx of people from different cultures and languages may impact the local culture, language and family structures, leading to a sense of displacement for the locals.

9.2.2.2 Mitigation Measures: Influx of Job Seekers

Recruitment procedures should prioritise local employment to limit influx. Local skill development programmes must be implemented to improve the local skill pool to be more competitive in the labour market. Phefumula Emoyeni One WEF could partner with the municipality to implement community programmes and facilities to ease the pressure on municipal services and infrastructure.

9.2.2.3 Significance

The significance is rated as moderate negative prior mitigation, the impact will be rated low negative post-mitigation.

9.2.3 COMMUNITY HEALTH, SAFETY AND SECURITY

9.2.3.1 Background

The movement of vehicles and increased human activity may damage buildings, increase crime, theft or killing of livestock. This is generally associated with influx of people at highly active place which was previously inactive or slowly active.

9.2.3.2 Mitigation Measures - Community Health, Safety and Security

The project should employ security personnel during the operational phase to secure the project and its assets. The project should train its personnel in health and safety. The staff should also receive training on how to interact with locals. Additionally, the mitigation measures mentioned in Section 8.1.5 should be considered.

9.2.3.3 Significance

The significance prior mitigation will be moderate negative and low negative post-mitigation

9.2.4 ENVIRONMENTAL HEALTH IMPACT

9.2.4.1 Background

The operational activities will result in increased noise and alter the visual aesthetics of the area.

9.2.4.2 Environmental Health Impact Mitigation Measures

The project will have to refer to the approved EMPr to mitigate dust emission, and noise impacts. Furthermore, the project must establish complaints register on site to record and address complaints on noise, dust and visual impacts arising from the project. Refer to Section 8.1.5 for additional mitigation measures.

9.2.4.3 Significance

The significance is rated to be low negative impact before, and low negative post-mitigation.

9.2.5 ENERGY GENERATION

9.2.5.1 Background

The wind energy generated will be an alternative to coal-powered energy. This will have a moderate positive impact because the project will produce renewable energy, less air-pollutant emissions, and more reliable energy source to the energy consumer.

9.2.5.2 Mitigation Measures

Operations management systems must be planned, monitored, and evaluated regularly to ensure that production, financial, human resources and other Key Performance Indicators targets are routinely achieved.

9.2.5.3 Significance

The significance will be rated positive-moderate prior mitigation, and the impact will be rated positive-high post-mitigation.

9.2.6 SUMMARY OF OPERATIONAL PHASE IMPACTS

Table 9-2 presents a summary of the operational phase impacts.

Table 9-2 – Operational phase impacts

Impact	Impact significance without mitigation	Impact significance with mitigation
Job Creation and Business Opportunities	**Positive - Moderate**	**Positive - High**
Influx of Job Seekers	**Negative - Medium**	**Negative - Low**
Environmental Health	**Low- Negative**	**Negative Low**
Community Health, Safety and Security	**Negative - Low**	**Negative Low**
Energy Generation	**Positive - moderate**	**Positive High**

9.3 DECOMMISSIONING PHASE

The decommissioning phase is a phase in the project where the projection operational activities cease to operate. Refer to **Table 9-3** for a summary of the decommissioning phase, and SIA.

9.3.1 LOSS OF EMPLOYMENT

9.3.1.1 Background

Employees will have to lose their jobs during the decommissioning phase due to retrenchment, which is unavoidable during the phase. This will result in a decrease in employment.

9.3.1.2 Mitigation Measures: Loss of Employment

It is recommended that the project establishes a structured employment forum consisting of representatives of employees, and organised labour, i.e. Labour Unions and Human Resource experts. The forum will have to be established during the operational phase for effectiveness. The forum will be responsible for planning fair retrenchment compensation packages, including financial compensation or alternative employment opportunities elsewhere for the retrenched employees. Furthermore, skills development programmes must be incorporated within the retrenchment packages for eligible retrenched employees.

9.3.1.3 Significance

The significance is rated as a negative medium impact before mitigation and negative low post-mitigation.

9.3.2 LOSS OF LIVELIHOODS

Employees, business owners, and entrepreneurs will likely lose their livelihoods during the decommissioning phase. The impact is predicted to have a negative - high impact on the livelihoods of the receptors.

9.3.2.1 Livelihood Mitigation Measures

It is recommended to include skills development programs in the retrenchment packages offered to eligible employees. This will equip them to compete more effectively with other job seekers in the

market. To facilitate this process, the forum discussed in section 9.3.1 of this report will coordinate with companies looking for employees with the skills retrenched workers possess.

In addition, creating a community engagement forum comprising community leaders, municipal LED representatives, and local business representatives could be effective. This forum will be a structured organisation that will ensure that affected businesses are developed to continue trading even after the decommissioning phase of the project. This will help to sustain the market and support economic growth in the area. The impacts will be rated **negative - moderate**.

9.3.3 SUMMARY OF DECOMMISSIONING IMPACTS

Table 9-3 presents a summary of the decommissioning impacts.

Table 9-3 – Decommissioning Impacts

Impact	Impact significance without mitigation	Impact significance with mitigation
Loss of Employment	**Negative - Medium**	**Negative Low**
Loss of Livelihoods	**Negative - High**	**Negative- Moderate**

Table 9-4 – Summary of All Impacts

CONSTRUCTION

Impact number	Aspect	Description	Stage	Character	Ease of Mitigation	Pre-Mitigation							Post-Mitigation						
						(M+	E+	R+	D)x	P=	S	Rating	(M+	E+	R+	D)x	P=	S	Rating
Impact 1:	Local Job Creation, training and business Opportunities	Increase in local employment, training and business opportunities	Construction	positive	moderate	4	3	3	3	3	**39**	**P3**	5	4	3	4	4	**64**	**P4**
					Significance	**P3 - Moderate**							**P4 - High**						
Impact 2:	Influx of job seekers	Increased number of people seeking for jobs	Construction	negative		3	3	3	3	4	**48**	**N3**	2	2	1	2	2	**14**	**N1**
					Significance	**N3 - Moderate**							**N1 - Very Low**						
Impact 3:	Increased Risk to Wildfires	Increased Risk to Wildfires due construction activities	Construction	negative		2	2	3	2	3	**27**	**N2**	2	1	3	2	2	**16**	**N2**
					Significance	**N2 - Low**							**N2 - Low**						
Impact 4:	Risk to safety, loss of agricultural land and damage to farm infrastructure	Risk to safety, loss of agricultural land and damage to farm infrastructure	Construction	negative		3	1	4	3	3	**33**	**N3**	2	1	3	3	3	**27**	**N2**
					Significance	**N3 - Moderate**							**N2 - Low**						
Impact 5:	Community Health, safety and security	Threat to Community health, safety and Security	Construction	negative		2	3	3	1	2	**18**	**N2**	2	2	1	2	2	**14**	**N1**
					Significance	**N2 - Low**							**N1 - Very Low**						
Impact 6:	Environmental Health Impact	Noise and dust generated from construction vehicles	Construction	negative		2	2	3	2	3	**27**	**N2**	2	1	3	1	2	**14**	**N1**
					Significance	**N2 - Low**							**N1 - Very Low**						

OPERATIONAL

Impact number	Receptor	Description	Stage	Character	Ease of Mitigation	Pre-Mitigation							Post-Mitigation						
						(M+	E+	R+	D)x	P=	S		(M+	E+	R+	D)x	P=	S	
Impact 1:	Job Creation and Business Opportunities	Increase in local employment	Operational	positive		4	3	3	4	3	**42**	**P3**	4	3	3	4	4	**56**	**P3**
					Significance	**P3 - Moderate**							**P3 - Moderate**						
Impact 2:	Influx of job seekers	Increased number of people seeking for jobs	Operational	negative		4	3	3	4	3	**42**	**N3**	2	2	3	3	2	**20**	**N2**
					Significance	**N3 - Moderate**							**N2 - Low**						
Impact 4:	Community Health, safety and security	threat to Community health, safety and Security	Operational	negative		2	2	3	4	2	**22**	**N2**	2	2	3	3	2	**20**	**N2**
					Significance	**N2 - Low**							**N2 - Low**						
Impact 5:	Environmental Health	Nuisance from dust and noise generated	Operational	negative		2	1	3	4	2	**20**	**N2**	2	1	3	2	2	**16**	**N2**
					Significance	**N2 - Low**							**N2 - Low**						
Impact 7:	Visual Impacts	Obstruction of natural scenic view	Operational	negative		2	1	3	4	2	**20**	**N2**	2	1	1	3	2	**14**	**N1**
					Significance	**N2 - Low**							**N1 - Very Low**						
Impact 9:	Energy Generation	Provision of more reliable, stable energy source	Construction	positive		3	4	1	4	5	**60**	**P3**	4	4	3	4	5	**75**	**P4**

					Significance	**P3 - Moderate**							**P4 - High**						
DECOMMISSIONING																			
Impact number	**Receptor**	**Description**	**Stage**	**Character**	**Ease of Mitigation**	**Pre-Mitigation**							**Post-Mitigation**						
						(M+	**E+**	**R+**	**D)x**	**P=**	**S**		**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	
Impact 2:	Employment	retrenchment of employees	Decommissioning	negative		4	4	3	5	3	**48**	**N3**						**0**	**#N/A**
					Significance	**N3 - Moderate**							**#N/A**						
Impact 4:	Livelihood	loss of livelihood (increase in poverty)	Decommissioning	negative		4	4	4	4	4	**64**	**N4**	3	3	2	3	3	**33**	**N3**
					Significance	**N4 - High**							**N3 - Moderate**						

10 CUMULATIVE IMPACTS

Cumulative social impacts can be defined as changes to the social environment triggered by the combined impact of current, past, present and future human activities and natural processes.

10.1 SENSE OF PLACE

10.1.1 BACKGROUND

The potential cumulative impacts on the area's sense of place will be linked mainly to potential visual impacts. These issues relate to wind energy facilities and their associated infrastructure. The relevant issues identified include:

- Combined visibility (whether two or more wind farms will be visible from one location).
- Sequential visibility (e.g. the effect of seeing two or more wind farms along a single journey, e.g. road or walking trail).
- The visual compatibility of different energy facilities in the same vicinity.
- Perceived or actual change in land use across a character type or region.
- Loss of a characteristic element (e.g. viewing type or feature) across a character type caused by developments across that character type.

Cumulative impacts need to be considered from dynamic and static viewpoints. For example, the experience of driving along a tourist road is regarded as a dynamic sequence of views and visual impacts, not just as the cumulative impact of several developments on one location. The viewer may only see one renewable energy facility and the associated infrastructure at a time. Still, each successive stretch of the road is dominated by views of renewable energy facilities, which can be argued to have a cumulative visual impact (Environmental Protection and Heritage Council, 2010).

There are several renewable energy projects located within a 55 km range of the project site.

There is, therefore, the possibility of combined and sequential impacts. However, given the site's location, the potential impact of the proposed energy-generating facilities and associated infrastructure on the area's sense of place is likely to be limited. The cumulative impacts are also expected to be low with mitigation, specifically given the site's location.

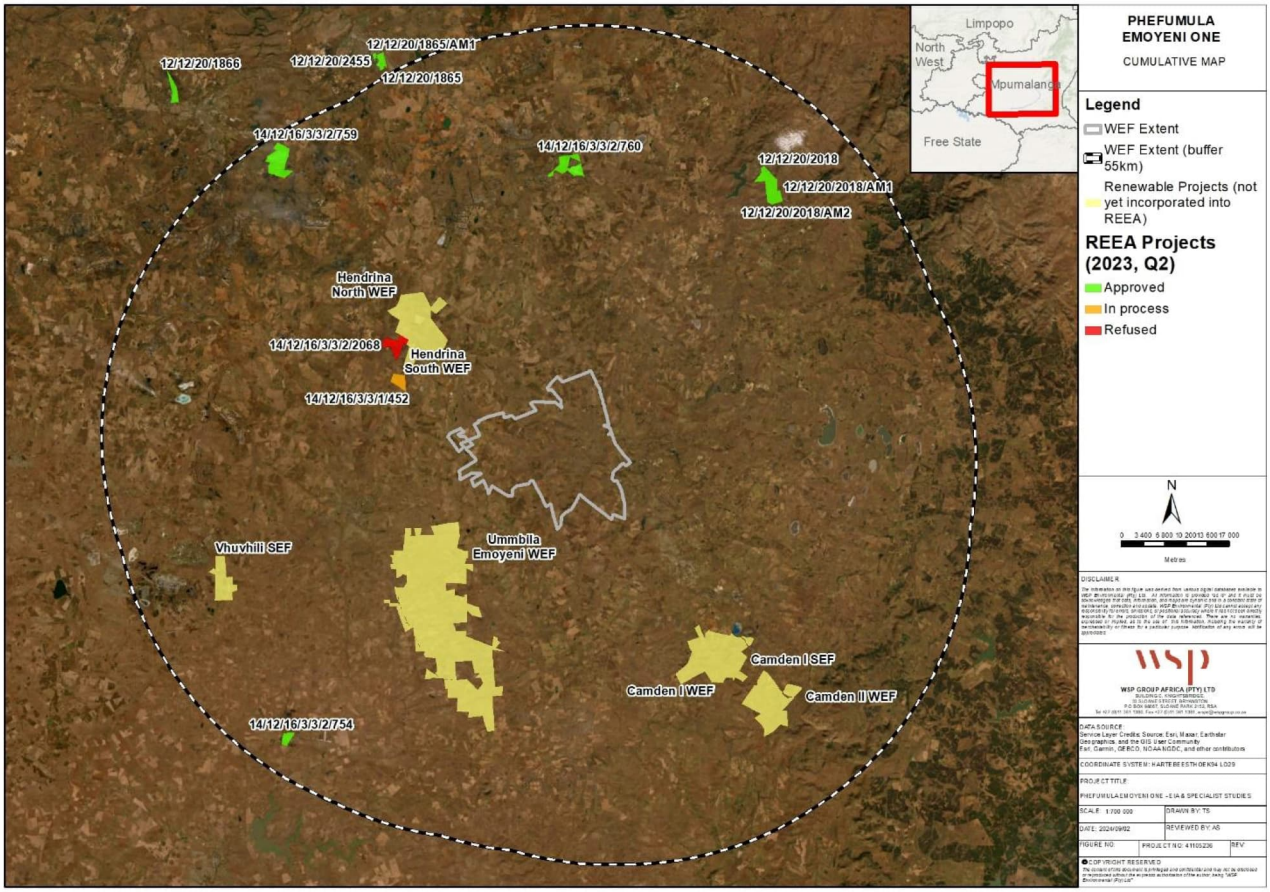


Figure 10-1 - Cumulative Impact Map

10.1.2 MITIGATION MEASURES: SENSE OF PLACE

The recommendations contained in the Visual Impact Assessment should be implemented.

10.1.3 SIGNIFICANCE

The significance of this impact is rated negative low prior mitigation and negative medium post-mitigation.

10.2 LOCAL SERVICES AND ACCOMMODATION

10.2.1 BACKGROUND

The development of multiple renewable energy projects has the potential to put a strain on local services and accommodations, particularly during the construction phase. The goal will be to source as many un-skilled and semi-skilled employees from the local municipality as possible during the construction and operational phases of the project. Sourcing skills locally will relieve the strain on local services, accommodations, and the nearby town of Ermelo However, considering the construction phase's brief duration, the potential impact is expected to be limited.

The potential impact should also be considered in light of the possible beneficial cumulative effects on the local economy linked with the planned facilities and accompanying renewable energy projects

in the local municipality. Such benefits will generate chances for investment in the municipality, such as upgrading and expanding existing services and building new residences

10.2.2 MITIGATION MEASURES: LOCAL SERVICES AND ACCOMMODATION

The proponent should liaise with the Msukaligwa Local Municipality to address potential impacts on local services.

10.2.3 IMPACT

The significance of this impact is rated negative- moderate prior to mitigation and negative low post-mitigation.

10.3 LOCAL ECONOMY

10.3.1 BACKGROUND

In addition to the potential negative impacts, establishing renewable energy facilities and associated infrastructure will create several socio-economic opportunities for the Msukaligwa Local Municipality. The positive cumulative economic opportunities include the creation of employment, skills development and training opportunities, and downstream business opportunities.

The potential cumulative benefits for the local and regional economy are associated with the construction and operational phases of renewable energy projects and related infrastructure, extending over 20-25 years. However, steps must be taken to maximise employment opportunities for local community members and support skills development and training programmes.

10.3.2 MITIGATION MEASURES LOCAL ECONOMY

The proponent should liaise with the Msukaligwa Local Municipality to identify and support potential local economy and business development opportunities for SMMEs.

10.3.3 SIGNIFICANCE

The significance is positive low and positive and rated medium pre and post-mitigation respectively.

10.4 SUMMARY OF CUMULATIVE IMPACT

The cumulative impacts are identified as sense of place which result as a result of visual change of scenic views because of a number of solar PV and wind energy facilities within the sight of a viewer. Local services and accommodation could negatively affect the local municipality service delivery due to limited resources. Socio-Economic opportunities may rise as a result of increased renewable energy facilities within the municipality. **Table 10-1** indicates a summary of the cumulative impacts.

Table 10-1 – Summary of cumulative impacts

Cumulative impact	Impact significance prior mitigation	Impact significance post-mitigation
Sense of place	**Negative - Medium**	**Negative - Low**
Local Services and Accommodation	**Negative - Low**	**Negative - Low**

Local Economy	**Negative - Low**	**Positive - Medium**

11 CONCLUSION

The SIA baseline findings show that the project will positively impact the community, including power generation, employment, and economic benefits. The negative impacts include visual, loss of livelihood, community health, safety and security. phase. The assessments and mitigations of the impacts are based on secondary data and primary data. See **Table 9-4** for the summary of all the impacts of all the project phases.

The EA rewalted stakeholder engagement has not yet been undertaken. Hence, this report reflects the scoping social impacts. This report will be updated based on the issues and comments registered on completion of the stakeholder engagement process.

12 BIBLIOGRAPHY

Department of Economic Development and Tourism. (2021/2022). *Department of Economic Development and Tourism Annual Report.*

Environmental Protection and Heritage Council. (2010, July). *National Wind Farm Development Guidelines - Draft.* Retrieved from https://www.nepc.gov.au/sites/default/files/2022-09/draft-national-wind-farm-development-guidelines-july-2010.pdf

Mpumalanga Province. (2024). *Mpumalanga Province.*

Msukaligwa Municipality. (2022). Msukaligwa Local Municipality Final Integrated Development Plan 2022-2023. Mpumalanga.

Stats SA. (2011). 2011 Population Census.

Stats SA. (2023). Quarterly Labour Force Survey.

Stats SA. (2024). *Census.*

Stats SA. (2024). *Quarterly Labour Force Survey.*

Building 1, Maxwell Office Park
Magwa Crescent West, Waterfall City
Midrand, 1685
South Africa

wsp.com