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Project report

Olifants Management Model Programme Bulk Raw Water Study Phase (OMMP-BRWSP- Phase 2F

Social Impact Assessment

Lebalelo Water User Association

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List of acronyms and abbreviations

Acronyms and abbreviations	Description
AIDS	Acquired immunodeficiency syndrome
BA	Basic Assessment
CA	Competent Authority
CBA	Critical Biodiversity Area
CDM	Capricorn District Municipality
COLTO	Committee of Land Transport Officials
DEA	Department of Environmental Affairs
DFA	Development Facilitation Act
DFFE	Department of Forestry, Fisheries and the Environment
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
ECA	Environmental Conservation Act, No. 73 of 1989
EIA	Environmental Impact Assessment
EMPrs	Environmental Management Programmes
FTLM	Fetakgomo Tubatse Local Municipality
GDP	Gross Domestic Product
GN	General Notice
HDA	Housing Development Agency
HIV	Human immunodeficiency virus
I&APs	Interested and Affected Parties
IDP	Integrated Development Plan
IFC	International Finance Corporation
LED	Local Economic Development
LM	Local Municipality
LNLM	Lepelle-Nkumpi Local Municipality
LWUA	Lebalelo Water User Association
MYPE	Statistics South Africa, Mid-Year Population Estimates
NEMA	National Environmental Management Act, No. 107 of 1998
NDP	National Development Plan
NIP	National Infrastructure Plan
NWA	National Water Act, 1998
NWRS2	National Water Resources Strategy (June 2013)
OMM	Oliphants Management Model
ORWRDP-2	Phase 2 of the Olifants River Water Resources Development Project
OMMP-BRWSP	Olifants Management Model Programme Bulk Raw Water Supply Study Phase
PAPs	Project Affected Persons
PAJA	Promotion of Administrative Justice Act (3 of 2000).
PP	Public Participation
PPP	Public Participation Process
PS	Performance Standard
PTOs	Permission to Occupy
RAP	Resettlement Action Plan
RDP	Reconstruction and Development Programme
RoD	Record of Decision
RRoD	Revised Record of Decision
SAPS	South African Police Services

Acronyms and abbreviations	Description
SIA	Social Impact Assessment
SIP	Strategic Integrated Project
SMMEs	Small, Medium and Micro Enterprises
SPLUMA	Spatial Planning and Land Use Management Act
Stats SA	Statistics South Africa
STIs	Sexually Transmitted Infections
TA	Traditional Authorities
TCTA	Trans-Caledon Tunnel Authority
TIA	Traffic Impact Assessment
WSA	The Water Service Act, 1997
WTW	Water Treatment Works
ZNJV	Zutari Ndodana Joint Venture

Executive Summary

Introduction

Environmental authorization is being sought for the Olifants Management Model Programme Bulk Raw Water Study Phase (OMMP-BRWSP). As part of this application, the Lebalelo Water Use Association (LWUA), on behalf of the Department of Water and Sanitation (DWS), is requesting approval for the proposed Phase 2F re-alignment and associated infrastructure, including the necessary access and internal roads along the entire Phase 2F alignment.

The proposed development requires a Basic Assessment (BA) under the National Environmental Management Act (NEMA), Act No. 107 of 1998. It is expected to have both positive and negative social implications, whether intended or unintended, on the affected communities. This document, therefore, presents the Social Impact Assessment (SIA) for the proposed development.

Methodology

- The Social Impact Assessment (SIA) and its recommendations have been developed in alignment with South Africa's legal and policy framework, as well as international best practices (International Finance Corporation (IFC) Performance Standards). The key activities undertaken by the specialist to successfully complete the SIA are outlined below:A ***desktop review:*** A desktop review of various relevant secondary data sources in the public domain including census reports, Government / Municipal reports, and available specialist reports associated with the proposed development.

- A ***site visit:*** to verify baseline data and identify potential social impacts based on real-world observations. During the site visit, the specialist did not engage with the project's Interested and Affected Parties (I&APs).

- ***Identification of potential impacts***: Anticipated positive and negative impacts have been identified and categorised in terms of the project phase in which they are likely to occur viz., pre-construction and construction, operation, and decommissioning.

- ***Rating of impacts:*** Impacts have been rated in terms of their anticipated duration, extent, intensity, and probability. Duration, extent, and intensity ratings were combined into a measure of an impact's expected consequence. Consequence ratings, in turn, were combined with probability ratings to give a measure of an impact's overall significance.

- ***Identification of appropriate mitigation measures:*** mitigation measures have been identified to avoid or ameliorate negative socio-economic impacts and to enhance positive ones. The rating procedure described above was then repeated to assess the expected consequence, probability, and significance of each impact after mitigation. This post-mitigation rating indicates the significance of residual impacts, while the difference between an impact's pre-and post-mitigation ratings, therefore, represents the degree to which the recommended mitigation measures are expected to be effective in reducing or ameliorating that impact.

- **Cumulative impacts:** An overview on cumulative impacts has been provided based on specialist opinion, taking into consideration similar developments.

- ***Assessment of no-go alternative:*** the assessment of the no-go alternative has been assessed based on specialist opinion considering the South African strategic plan for water provision.

Overview of the Socio-economic conditions

The proposed pipeline is located in Fetakgomo Tubatse Local Municipality and Lepelle-Nkumpi Local Municipality, including the socio-economic conditions of the two municipalities in SDM and Capricorn District Municipality (CDM), all within Limpopo Province, South Africa. Although the municipalities are dominated by mining, lack of education seems to be the dominate impact in CDM having the highest

poverty rate in Limpopo. Based on the reviewed socio-economic secondary data, it can be concluded that communities are in need of improved education, job opportunities, socio-economic improvement and potable water.

Identified impacts, ratings and mitigation measures

Identified impacts and associated ratings and mitigation measures are summarised below:

Impact	Pre-mitigation:						Recommended mitigation	Post-mitigation:					
	Duration	Extent	Intensity	Consequence	Probability	Significance		Duration	Extent	Intensity	Consequence	Probability	Significance
Pre-construction and Construction													
Land Acquisition	Short-term	Local	Moderate - negative	Slightly beneficial	Certain	Moderate - negative	As per IFC PS5, land should always be accessed or acquired in consultation and negotiation with the affected people. LWUA has already initiated the process with the TA and private landowners.	Short-term	Local	Low - negative	Slightly beneficial	Certain	Low - negative
Temporal disturbance to grazing land	Short-term	Site-specific	Moderate - negative	Slightly detrimental	Certain	Low - negative	It is recommended that the contractor actions the following measures; • Engage with livestock owners in advance to communicate construction timelines and potential disruptions; • Implement a phased construction schedule to minimise the extent of land disturbance at any time; • Maintain access routes to grazing areas where feasible and implement controlled crossing points for livestock. Should grazing be deemed as not feasible during construction phase, alternative grazing arrangements should be in place, such as identifying and providing temporary alternative grazing areas for affected livestock owners; and • Restoring disturbed land after construction by regrading, reseeding with	Short-term	Site-specific	Low - negative	Negligible	Certain	Low - negative

							native grass species, and ensuring soil stabilization to promote regrowth of forage.						
Resettlement of households	Short-term	Local	Very high - negative	Moderately detrimental	Certain	High - negative	It is recommended that resettlement should be guided by international best practices and accompanied by a comprehensive RAP. It goes beyond solely adhering to the legislative compensation requirements. According to the best practices, IFC PS5 encourages project sponsors to plan and execute involuntary resettlement as a development initiative to ensure that the livelihoods and living standards of project affected people are improved.	Short - term	Local	Moderate - negative	Slightly detrimental	Certain	Moderate - negative
Employment opportunities	Short-term	Regional	Moderate - positive	Moderately beneficial	Certain	Moderate - positive	It is recommended that the contractor should carry out the recruitment process in accordance with South African laws that regulate labour rights, working conditions and employer responsibilities. Additionally, to maximise local employment benefits, the IFC PS2 recommends that: • Preference should be granted to qualified local workers • Local procurement of goods and services should be prioritised • Skills development such as training should be planned and facilitated for selected people who will be	Short-term	Regional	High - positive	Moderately beneficial	Certain	High - positive

							employed during the construction phase • Equal opportunities should be granted to both males and females • Compensation should be competitive, and a safe working environment should be ensured • Establish a system of addressing labour concerns						
Procurement of goods and services	Short-term	Regional	Moderate - positive	Moderately beneficial	Certain	Moderate - positive	Procurement of goods and services will be done as per the existing OMM Procurement Policy which aims to support and develop local communities, suppliers, and previously disadvantaged groups for economic upliftment. Furthermore, the procurement of goods and services will be guided by the Preferential Procurement Policy Framework Act (Act 5 of 2000). The contractor will need to implement quality control measures, to ensure that all goods and services are of required quality. It is essential that the contractor notes that The IFC Performance Standards require responsible procurement by ensuring fair, transparent, and competitive sourcing, prioritizing local suppliers, and managing social and environmental risks in supply chains. Companies must prevent forced labour, child	Short-term	Regional	Very high - positive	Highly beneficial	Certain	High - positive

							labour, and unsafe working conditions, promote ethical labour practices, and ensure contractor compliance with environmental and social standards while supporting sustainable local economic development.						
Community expectations	Short-term	Local	Very high - negative	Moderately detrimental	Certain	High - negative	To manage community expectations project information should be made available to the community. The project information should include detailed requirements for employment, procurement, or other project related opportunities. Have an information centre placed strategically that will house project related information and where community members can log their project related grievances on a grievance mechanism. The information centre could be established at existing buildings within the communities along the proposed pipeline. The buildings can include TAs offices, local community halls, clinics or local schools. The contractor should also seek information on wages paid to the locals on previous projects in the area and better communicate the proposed wages and benefits. To communicate it to the	Short-term	Local	Low - negative	Slightly detrimental	Certain	Low - negative

							community before the recruitment process commences, to better manage community expectations regarding wages and benefits associated to the project.						
Damage to local roads and access roads	Short-term	Local	Very high - negative	Moderately detrimental	Very likely	Moderate - negative	The contractor to conduct a condition assessment of the road pre-construction, and post construction. Additionally, the contractor will design and construct the access roads in accordance with the Standard Specifications for Roads and Bridge Works for State Road Authorities, 1998, prepared by the COLTO. It is recommended that the mitigation measures stipulated in the TIA report to be implemented by the contractor during the construction phase.	Short-term	Local	Moderate - negative	Slightly detrimental	Fairly likely	Low - negative
Healthy, safety, and security	Short-term	Local	High - negative	Moderately detrimental	Very likely	Moderate - negative	Impact related to health and safety will be managed as per the recommendations made in other specialist studies, such as the Defence Impact Assessment (DIA) and TIA, and as per the duties as defined in the Construction Regulations (Occupational Health and Safety Act). It is recommended that the contractor should: • implement safety measures such as having appropriate signage and fencing/barricades on	Short-term	Local	Moderate - negative	Slightly detrimental	Fairly likely	Low - negative

							site to keep local community members and livestock away from falling into the dugout ditches. • Use flaggers and barriers to separate work zones from public areas • Implement dust and noise control measures • Implement traffic management plans to prevent accidents with construction vehicles Plan and facilitate a community health and safety workshop, including a similar workshop employees • develops an Emergency Prevention and Response Plan for potential fire, flooding, cave-ins and hazardous material spills • Appoint a Health & Safety Officer to oversee compliance, including conducting regular inspections and audits to identify and correct hazards • deploys Security personnel stationed at the project site to avoid vandalism/ site specific criminal activities, protecting the broader community will remain the responsibility of the SAPS. • engage with the Provincial commissioner to assist with handling potential construction mafia.						

Modification of the sense of place	Short-term	Site-specific	High - negative	Slightly detrimental	Very likely	Low - negative	The contractor should aim at minimising disruption during construction by involving the community in the planning process and ensuring that the landscape is restored to its original state after construction to preserve the community's sense of place. The households which are likely to experience resettlement should be supported during livelihood restoration to help preserve their connection to the land.	Short-term	Site-specific	Moderate - negative	Slightly detrimental	Very likely	Low - negative
							Operation						
Access to potable water for defined communities	Long-term	Local	Low - positive	Moderately beneficial	Certain	Moderate - positive	An experienced and qualified service provider should be appointed to construct the pipeline. The SDM Water Master Plan and Water Sector Plan to be updated with defined communities which will benefit from the OMM Programme to receive potable water.	Long-term	Local	High - positive	Highly beneficial	Certain	High - positive
Access to bulk raw water for mine members	Long-term	Regional	Low - positive	Highly beneficial	Certain	High - positive	The SDM Water Master Plan and Water Sector Plan to be updated and include the mine members of the OMM Programme to receive bulk raw water supply for their mine operations.	Long-term	Regional	High - positive	Highly beneficial	Certain	Very High - positive
Employment opportunities	Long-term	Regional	Moderate - positive	Highly beneficial	Fairly likely	Moderate - positive	Employment opportunities during this phase can be enhanced by prioritizing local workers for maintenance roles and engaging local businesses for pipeline maintenance contracts, ensuring that the	Long-term	Regional	High - positive	Highly beneficial	Very likely	High - positive

							community benefits from long-term employment opportunities						
Health and safety	Long-term	Site-specific	Moderate - negative	Moderately detrimental	Fairly likely	Low - negative	It is recommended that the developer develop a health and safety plan that outlines the safety measures and procedures implemented when undertaking maintenance at the projects infrastructure.	Long-term	Site-specific	Low - negative	Slightly detrimental	Fairly likely	Low - negative
Decommissioning													
No access to potable water	Short-term	Local	Very high - negative	Moderately detrimental	Certain	Very high - negative	Prior to the decommissioning of the potable water the beneficiaries should be notified. The municipality should have an alternative source of potable water.	Short-term	Local	Moderate - negative	Slightly detrimental	Certain	Moderate - negative
No access to bulk raw water	Short-term	Regional	Very high - negative	Highly detrimental	Certain	Very high - negative	Prior to the decommissioning of the bulk raw water the mine members should be notified. The district municipality should have an alternative source of bulk raw water.	Short-term	Regional	Moderate - negative	Moderately detrimental	Certain	High - negative

No-go alternative

Code	Impact	Pre-mitigation:					
		Duration	Extent	Intensity	Consequence	Probability	Significance
1	No-go alternative	Long-term	Regional	Very high - negative	Extremely detrimental	Certain	Very high - negative

Cumulative impacts

It is anticipated that cumulative impacts are likely to arise due to the combined effects of the proposed development. The three identified cumulative impacts which are likely to arise as a result of the proposed pipeline re-alignment and its associated developments are linked to impacts related to population influx, community health and multiplier effects on the local economy.

Conclusion and Recommendations

The proposed re-alignment and associated developments are strategic infrastructure development projects which are aligned with the National Infrastructure Plan (NIP) and the overall goals of the National Development Plan (NDP). The findings of the SIA indicate that the recommended mitigation measures are expected to reduce the significance of the identified negative impacts to acceptable levels, while positive impacts will on average be significantly enhanced to maximise benefits to surrounding communities. It is finally recommended that the developer should respectively consider the proposed mitigation and maximisation measures included in the report to decrease the effect of negative impacts on communities and maximise the effect of positive impacts. Additionally, the specialist recommends that the proposed development should be authorised since the no-go alternative would hinder the execution of the national strategic plans aimed at providing potable water to communities for social use.

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1 Introduction

Environmental authorisation is being sought for the proposed Olifants Management Model Programme Bulk Raw Water Study Phase (OMMP-BRWSP). For this application, the Lebalelo Water Use Association (LWUA), on behalf of the Department of Water and Sanitation (DWS), seeks authorisation for the proposed Phase 2F re-alignment and associated infrastructure, including the access and internal roads for the entire Phase 2F alignment.

The proposed developments trigger a Basic Assessment (BA) in terms of the National Environmental Management Act (Act No 107 of 1998). It is anticipated that the proposed development will result in social implications (positive and negative, intended, or unintended) on the receiving social environment. As such, this document presents the Social Impact Assessment associated with the proposed development

The sub-sections in this section provide an overview of the proposed development, the purpose of this SIA and the structure of the SIA.

1.1 Project Overview

1.1.1 Project Location

The proposed Phase 2F pipeline and the development or widening of access and internal roads are located in the Fetakgomo Tubatse Local Municipality (FTLM) and Lepelle-Nkumpi Local Municipality (LNLM) area, within the SDM and Capricorn District Municipality (CDM), in the Limpopo province, South Africa Along the pipeline route, several mines are located, including RPM Twickenham, Cromex Mining Mecklenburg, Sefateng Chrome Mines, and ARM Bokoni Platinum Mine (Atok), previously owned by Anglo Platinum. This area is recognised as part of the Critical Biodiversity Area (CBA) and situated within the Sekhukhune land Centre of Floristic Endemism, known for its diverse plant life and habitat suitable for endemic species. A general layout of all the project phases and pipeline alignments is illustrated in Figure 1-1 below.

Phase 2F proposed re-alignment sections of the pipeline are proposed on three (3) farm portions (Figure 1-1). The farm portions are listed below including the landowners (See Table 1-1 below).

Table 1-1: Phase 2F project affected farm portions and landowners

Farm portion	Landowner	Land dynamics
Middelpunt 420 KS RE	National Government of the Republic of South Africa	Customary land use rights: Baroka ba Nkwana Traditional Authority
Blauwbloemetjieskloof 428 KS RE	National Government of the Republic of South Africa	Customary land use rights: Baroka ba Nkwana Traditional Authority
Surbiton 115 KT RE	National Government of the Republic of South Africa	Customary land use rights: Magadimane Traditional Authority

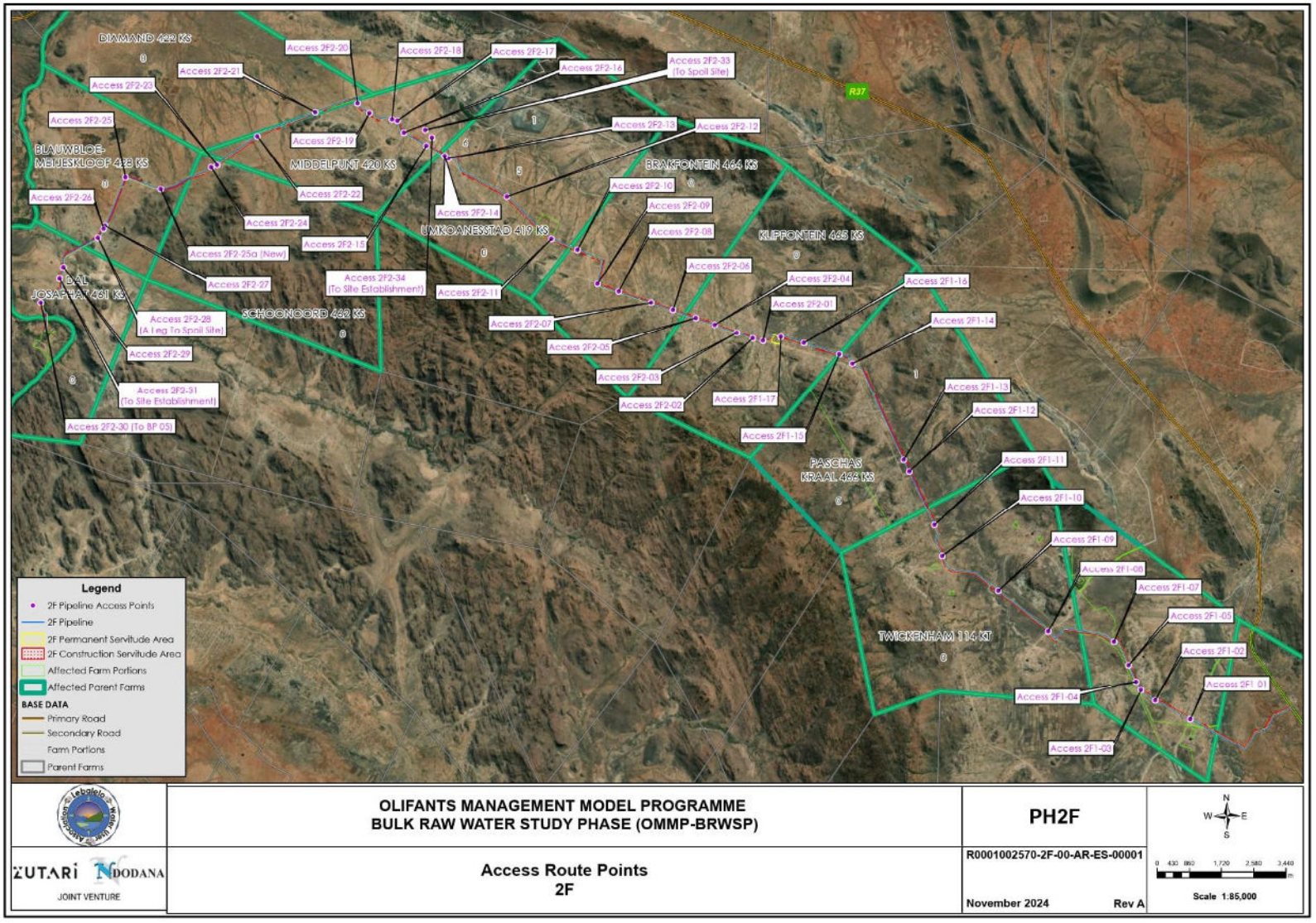

Figure 1-1: Map indicating the current proposed location and alignment of Phase 2F scope

1.1.2 Project Background

The LWUA appointed the Zutari Ndodana Joint Venture (ZNJV) for the provision of professional services for the Olifants Management Model Programme Bulk Raw Water Study Phase (OMMP-BRWSP).

Phase 2 of the ORWRDP-2 is a DWS project, which underwent an environmental impact assessment (EIA) process and obtained a positive Record of Decision (RoD) from the Department of Environmental Affairs (DEA)[1] in 2006 in terms of the Environmental Conservation Act, No. 73 of 1989 (ECA). After many appeals by large organisations, including the Kruger National Park, the Minister decided to grant the Revised RoD (RRoD) (ref: 12/12/20/553), dated 16 October 2006.

The approved ORWRDP-2 consists of various phases these were previously implemented by the Trans-Caledon Tunnel Authority (TCTA). The phases are designed and implemented in a phased manner, depending on need and availability of finances. For this reason, phase specific Environmental Management Programmes (EMPrs) are developed and submitted for approval to the Competent Authority (CA).

- **Phase 2A:** Construction of De Hoop Dam
- **Phase 2B:** Pipeline from Flag Boshielo Dam to Pruissen near Mokopane (72 km)
- **Phase 2B+:** Consists of a raw water pipeline from Pruissen Reservior to the proposed Sekuruwe Water Treatment Works (WTW), including offtakes to the proposed Mokopane WTW and two commercial user offtakes.
- **Phase 2C:** Pipeline from De Hoop Dam to Mooihoek
- **Phase 2F:** Pipeline from Steelpoort to Mooihoek (24 km)
- **Phase 2E**: Pipeline from Mooihoek to Havercroft Junction (14 km)
- **Phase 2F:** Pipeline from Havercroft Junction to Olifantspoort (44 km)
- **Phase 2G**: Possible second pipeline parallel to Phase 2B
- **Phase 2H:** Changes and additions to the current Phase 2H (Lebalelo Network); and
- **Phase 2I:** Pipeline from the De Hoop Dam to the proposed Eskom Tubatse Pump-storage Hydro-electric Scheme.

The ORWRDP-2 has since been reconstituted to become the OMMP-BRWSP in recent years, with the LWUA acting as the implementing agent for the following portions of the project:

- Phase 2B
- Phase 2B+
- Phase 2F2; and
- Phase 2F

Furthermore, since inception, the project has acquired the status of strategic importance, and recently on 05 March 2023 the project was classified as a Strategic Integrated Project (SIP) under the SIP 19 (i.e., Water and Sanitation Infrastructure Portfolio). As such, it is critical that the project must be expedited in terms of Schedule 2 (Section 17(2)) of the Infrastructure Development Act, No. 23 of 2014. The purpose of this piece of legislation is to provide facilitation and coordination of public infrastructure development which is of economic significance or social importance in South Africa and to ensure that infrastructure development in the country is given priority in planning, approval, and implementation.

Phase 2F comprises approximately 60 km of pipeline intended to convey water to the Olifantspoort Water Treatment Works (WTW), thereby augmenting the water supply to Polokwane and surrounding rural areas. The alignment of Phase 2F starts near Havercroft Junction, deviating from the R37 to take a more direct route to the Olifantspoort WTW, following existing gravel roads along part of the way. The pipeline starts as a 1,200 mm diameter over 18.5 km, reducing to a 1,000 mm diameter over 25.6 km, originating at the Klipfontein Balancing Dam (or Break Pressure Dam) with a projected capacity of 21 ML.

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[1] Now referred to as the Department of Forestry, Fisheries and the Environment (DFFE).

[2] Changes in this phase will be administratively implemented as Phase 2H.

An Environmental Authorisation (EA) (ref:14/12/16/3/3/1/1626) was obtained for Phases 2E & 2F in May 2017, for the alignment from the Department of Forestry, Fisheries and the Environment (DFFE). This authorisation was valid for five (5) years and lapsed in June 2022. Following an interactive public participation process (PPP) in April 2022, facilitated by Department of Water and Sanitation (DWS) and Zutari Ndodana Joint Venture (ZNJV), Condition 7 of the EA was amended on 2 May 2017 (ref: 14/12/16/3/3/1/1626/AM1). The revised condition stipulates that the activity must commence within ten years of the authorisation issue date (i.e., by 2 May 2027), after which the authorisation will lapse, necessitating a new application for EA to proceed with the activity. Several listed activities outlined in the NEMA Listing Notice 1 [General Notice (GN) R983 of 2014] and Listing Notice 3 (GN R985 of 2014) are expected to be triggered by the construction of the newly proposed infrastructure of Phase 2F, along with the associated access and internal roads. Consequently, these activities require authorisation by means of a BA process as outlined in Regulations 19 - 20 of the Environmental Impact Assessment (EIA) Regulations of 2014 (GN R982 of 2014). Included in this application, as part of the project infrastructure, are the access and internal roads required for the construction of the entire Phase 2F alignment.

1.2 Purpose of the SIA

The purpose of the SIA is to;

- Provide an overview on the socio-economic conditions in the social receiving environment
- Identify and review policies and legislation which may have relevance to the activity from a social perspective;
- Identify potential positive and negative social impacts associated with the proposed re-alignment and associated developments of Phase 2F;
- Assess, categorise, and rate the impacts based on the project phase in which they are likely to occur viz., pre-construction and construction, operation and decommission;
- Recommend feasible mitigation measures for identified negative impacts and enhancements measures for identified positive impacts; and
- Identify potential cumulative impacts which are likely to be associated with the proposed development and asses the no-go alternative
- Provide comment on the need and desirability of the proposed activity from a social perspective, including specialist opinion and concluding remarks on the proposed development.

1.3 Structure of the SIA

This SIA has been structured as follows:

- ***Chapter 1- Introduction (this chapter):*** provides an overview on the proposed development, purpose of the SIA and the structure of the SIA document.
- ***Chapter 2- SIA Approach and Methodology:*** provides an overview of the methodology and approach used in preparing this SIA
- ***Chapter 3 – Legal and Policy Framework:*** This chapter reviews the legal and policy context that informed the SIA
- ***Chapter 4 – Social Baseline:*** This chapter provides an analysis of the social context of the proposed project area.
- ***Chapter 5 – Anticipated Social Impacts:*** This chapter provides an analysis of the anticipated social impacts associated with construction and pre-construction phase, operational phase and decommission phase mitigation measures for identified potential negative impacts which have social implications

- ***Chapter 6 – Assessment of No*-go Alternative**: This chapter provides an overview of the assessment of no-go alternative
- ***Chapter 7 – Potential Cumulative Impacts:*** provides an overview of the potential cumulative impacts for the proposed realignment of the proposed pipeline and associated development
- ***Chapter 8 – Concluding Remarks***: Provides the concluding remarks of the SIA
- ***Chapter 9 – References***: Provides the references used in preparing this SIA

2 Social Impact assessment approach

The SIA was a desktop study together with a site visit, as such, the social specialist did not undertake any external engagements as part of the assessment. The desktop and site visit are sufficient to assess the impacts and mitigation measures.

2.1 Site visit

The specialist undertook a site visit on the 1st of November 2024, which was limited to site observations only. No stakeholder engagements were undertaken during this visit. Site observations during this phase was deemed crucial at it allowed the specialist to verify data, understand local conditions, identifying potential impacts, and recommend context-specific mitigation measures.

2.2 Desktop review

Secondary data sources were reviewed to develop an understanding of the socio-economic baseline prevailing in the proposed study area, the documents reviewed include:

- Available digital ariel photography of the proposed re-alignment and associated developments;
- Statistical publications from Statistics South Africa (Stats SA); and
- Census data (Stats SA).

Specialists' reports have been reviewed to gain an understanding of the proposed developments and to scope for other anticipated impacts which are likely to have social implications. The reviewed specialist's documents include:

- Environmental Sensitivity Screening report for the proposed re-alignment and associated development; and,
- Specialist studies viz., defence impact assessment, agricultural compliance statement and traffic baseline study.

This draft SIA has been prepared prior to the PPP, as such the Public Participation (PP) report could not be reviewed to scope for potential social impacts. Prior to finalisation of the SIA document, the specialist will:

- Review all PP reports prepared as part of the BA process; and
- Review final specialists reports for alignment, especially alignment on mitigation measures for identified potential negative impacts which have social implications.

2.3 Identification of impacts

Positive and negative impacts likely to be induced by the proposed developments have been identified taking into consideration similar projects and specialists' knowledge and experience, including the observations made by the specialist during the site visit .

2.4 Scope of impact assessment

Potential Impacts have been assessed per project phase in which they are likely to occur, namely, pre-construction and construction, operation and decommissioning phase. An overview of cumulative impacts has been provided based on specialist opinion, considering similar developments. The no-go alternative has also been assessed by the specialist

2.5 Ratings of impacts

This section briefly outlines the proposed method for assessing the significance of the potential environmental and socio-economic impacts identified during the pre-construction and construction, operational and decommissioning phase.

For each predicted impact, criteria are applied to establish the significance of the impact based on likelihood (probability) and consequence, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place.

The criteria that contribute to the consequence of the impact are **INTENSITY** (the degree to which pre-development conditions are changed); the **DURATION** (length of time that the impact will continue); and the **EXTENT** (spatial scale) of the impact. The sensitivity of the receiving environment and/or sensitive receptors is incorporated into the consideration of consequence by appropriately adjusting the thresholds or scales of the intensity, duration, and extent criteria, based on expert knowledge. For each impact, the specialist applies professional judgement to ascribe a numerical rating for each criterion according to the ratings provided. The consequence is then established using the formula:

Consequence = intensity x (duration + extent)

Depending on the numerical result of this calculation, the impact's consequence would be classified as one of the following:

- Extremely; highly; moderately; slightly detrimental;
- Negligible; or
- Slightly, moderately, highly, or extremely beneficial.

To determine the significance of an impact, the probability (or likelihood) of that impact occurring is also considered. In assigning probability, the specialist must consider the likelihood of occurrence and the degree of uncertainty and detectability of the impact. Significance is calculated according to the following formula:

Significance = consequence x probability

Depending on the numerical result of this calculation, the impact would fall into a significance category of one of the following:

- Very Low;
- Low (negative or positive);
- Moderate (negative or positive);
- High (negative or positive);
- Very High (negative or positive).

2.6 Impact mitigation and enhancement measures

Feasible mitigation and enhancement measures have been identified for each potential impact based on specialist recommendations and expertise.

3 Legal and Policy framework

This section provides context of the South African legal and policy framework and development plans which are relevant to the assessment and management of social implications associated with proposed development projects, including international standards (the International Finance Corporation (IFC) Environmental and Social Performance Standards).

3.1 National legal and policy framework

3.1.1 Constitution of the South Africa (No. 108 of 1996)

Development projects in south Africa should aim to comply will South African constitutional and common law by carrying out all activities with due diligence and care for the rights of others. As contained in the Constitution the rights of all South Africans are protected as outlined in Chapter 2: The Bill of Rights. These rights form the basis of democracy in South Africa. The Constitution (including the Bill of Rights) binds the Legislature, the Executive, the Judiciary, and all organs of state and is the overriding legislation of South Africa. While all items in the Bill of Rights are considered to be of equal importance, key items in the Bill of Rights that have a bearing on social rights and issues in this project include (but are not necessarily limited to):

- Life: Everyone has the right to life;
- Human Dignity: Everyone has inherent dignity and the right to have their dignity respected and protected;
- Equality: Everyone is equal before the law and has the right to equal protection and benefit from the law;
- Freedom of religion, belief, and opinion: Everyone has the right of freedom of conscience, religion, thought, belief, and opinion;
- Environment: Everyone has the right to an environment that is not harmful to their health or well-being, and 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 and the use of natural resources while promoting justifiable economic and social development;
- Property: No person may be deprived of property except in terms of the law of general application, and no law may permit arbitrary deprivation of property. Property may be expropriated only in terms of the law of general application for a public purpose or in the public interest. The public interest includes South Africa's commitment to land reform and to reforms to bring about equitable access to all South Africa's natural resources. Property is not limited to land;
- Health care, food, water, and social security: Everyone has the right to have access to health care services, including reproductive health care, sufficient food and water and social security, including, if they are unable to support themselves and their dependents, appropriate social assistance;
- Language and culture: Everyone has the right to use the language and participate in the cultural life of their choice, but no one exercising these rights may do so in a manner inconsistent with any provision of the Bill of Rights;
- Cultural, religious, and linguistic communities: Persons belonging to cultural, religious, or linguistic communities may not be denied the right, with other members of the that community to enjoy their culture, practice their religion and use their language, and to form, join and maintain cultural, religious, and linguistic associations and other organs of civil society. These rights must be exercised in a manner that is consistent with any provision in the Bill of Rights;
- Access to information: Everyone has the right of access to any information held by the state and any information that is held by another person and that is required for the exercise or protection of any rights; and,
- Just administrative action: Everyone has the right to administrative action that is lawful, reasonable, and procedurally fair. Everyone whose rights have been adversely affected by administrative action

has the right to be given written reasons. This right has been given effect via the Promotion of Administrative Justice Act ((PAJA) Act 3 of 2000).

3.1.2 Traditional Leadership and Governance Framework Amendment Act (23 of 2009)

Act 23 of 2009 amends the Traditional Leadership and Governance Framework Act (Act 41 of 2003) and provides for communities to decide for themselves if they want to be regarded as a traditional community in terms of their customs and to observe a system of customary law.

The implications of this Act are that it describes the roles and powers of traditional leaders and the manner in which communication with traditional communities should occur. The Act also prescribes the power held by the Traditional Authorities (TA) within the project area in terms of acting on behalf of communities within their area of jurisdiction. This is relevant in respect of land acquisition negotiates and granting access to the construction team.

3.1.3 Restitution of Land Rights Act (22 of 1994)

Subject to the provisions of this Act a person shall be entitled to claim title in land if such claimant or his, her or its antecedent -

(a) was prevented from obtaining or retaining title to the claimed land because of a law which would have been inconsistent with the prohibition of racial discrimination contained in section 9(3) of the Constitution had that subsection been in operation at the relevant time; and

[Para. (a) substituted by s. 4 of Act 63/97]

(b) proves that the registered owner of the land holds title as a result of a transaction between such registered owner or his, her or its antecedents and the claimant or his, her or its antecedents, in terms of which such registered owner or his, her or its antecedents held the land on behalf of the claimant or his, her or its antecedents.

3.1.4 Prevention of Illegal Eviction from Unlawful Occupation of Land Act (19 of 1998)

The Act came into operation on 5 June 1998, was enacted to firstly repeal the former Prevention of Illegal Squatting Act, 52 of 1951, which was to be deemed to be both draconian and unconstitutional, and secondly to put in its place a law which was aligned to the new constitutional dispensation. The objective of the Act are:

To provide for the prohibition of unlawful occupation;

- To set out procedures for the eviction of unlawful occupiers, including urgent proceedings and evictions at instance of an organ of State;
- To prohibit receipt or solicitation of consideration in respect of the unlawful occupation of land;
- To allow for the mediation of disputes in terms of the Act, and;
- To provide for offences.

3.1.5 National Environmental Management Act (No. 107 of 1998) (NEMA)

This Act provides that sustainable development requires the integration of social, economic, and environmental factors in the planning, implementation, and evaluation of decisions in order to ensure that development serves present and future generations. The Act further sets out the process for public participation. The social relevance of NEMA to social impact and management is provided below:

- Development projects must be socially, environmentally, and economically sustainable;
- The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in light of such consideration and assessment; The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured;
- Decisions must consider the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge;
- Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law;
- Community well-being and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means;
- Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural, and social interests equitably;
- Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must consider the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option;
- Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons;
- Equitable access to environmental resources, benefits, and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination;
- The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected;
- The environment is held in public trust for the people. The beneficial use of environmental resources must serve the public interest and the environment must be protected as the peoples' common heritage; and
- The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.

3.1.6 National Water Act, 1998 (NWA)

The NWA seeks to ensure that the country's water resources are protected, used, developed, conserved, managed, and controlled in a sustainable and equitable manner for the benefit of all people. The NWA assigns the national government as the public trustee of the water resources. Acting through the Minister of Water and Sanitation, it has the power to regulate the allocation, use, flow, and control of all water in the Republic.

3.1.7 The Water Service Act, 1997 (WSA)

The overall objective of the WS Act is to provide a framework regarding municipalities' role as Water Services Authorities, and to look after the interests of consumers. It also provides clarity regarding the role of other water services institutions, especially water services providers and water boards. The WS Act prescribes the legislative duty of municipalities as WSA to supply water and sanitation according to national norms and standards. In addition, it regulates Water boards as important water service providers. It acknowledges that although municipalities have authority to administer water supply services and sanitation services, all government spheres are required to works towards this objective, within the limits of physical and financial feasibility.

3.1.8 Spatial Planning and Land Use Management Act (No. 16 of 2013) (SPLUMA)

The Spatial Planning and Land Use Management Act (SPLUMA) has been implemented on 1 July 2015. The Act aims to reform and guide legislation pertaining to spatial planning and land use management. It enables government to formulate policies, plans and strategies for land use and land development that addresses existing spatial, economic, and environmental challenges. The Act also repeals the Development Facilitation Act of 1995. All municipalities are required to develop land use and zoning plans within five years.

3.1.9 Municipal Systems Act (Act No.32 of 2000)

The Municipal Systems Act provides for the principles, mechanisms and processes that are necessary to enable municipalities to move progressively towards the social and economic upliftment of local communities, and to ensure universal access to essential services that are affordable to all. In accordance with this Act, all municipalities are required to develop and implement a five-year Integrated Development Plan (IDP) and Spatial Development Framework (SDF) for their administrative areas. Section 35 of the Act confirms the statutory status of the municipal IDPs and SDFs. The Act also states that, apart from serving as principal strategic planning instruments to guide and inform municipal decisions on land use, the IDP binds the municipality in the exercise of its executive authority. However, where there is inconsistency between a municipality's policy and national or provincial legislation, national legislation should prevail.

3.1.10 Development Facilitation Act (Act No. 67 of 1995) (DFA)

The Development Facilitation Act (DFA) outlines various principles concerning land development in Section 3 of the Act. Some of the relevant principles are briefly highlighted below (Babour, 2007). These principles include (but are not limited to):

- Promoting the integration of the social, economic, institutional, and physical aspects of land development;
- Optimising the use of existing resources including such resources relating to agriculture, land, minerals, bulk infrastructure, roads, transportation, and social facilities;
- Promoting integrated land development in rural and urban areas in support of each other;
- Promoting the availability of residential and employment opportunities in close proximity to or integrated with each other;
- Promoting a diverse combination of land uses, also at the level of individual erven or subdivisions of land;
- Discouraging the phenomenon of "urban sprawl" in urban areas and contributing to the development of more compact towns and cities;
- Contributing to the correction of the historically distorted spatial patterns of settlement in the Republic and to the optimum use of existing infrastructure in excess of current needs;
- Encouraging environmentally sustainable land development practices and processes;
- Promoting land development which is within the fiscal, institutional, and administrative means of the Republic;
- Promoting the establishment of viable communities and sustained protection of the environment.

3.1.11 Labour legislation

The following acts should be considered when developing employment policies associated with the proposed development, the following acts should be considered:

- Employment Equity Act, 1998 (Act No. 55 of 1998);
- Basic Conditions of Employment Act, 1997 (Act No. 75 of 1997);

- Labour Relations Act, 1995 (Act No. 66 of 1995); and
- Skills Development Act, 1998 (Act No. 97 of 1998 as amended).

3.1.12 Health and Safety legislation

The following acts are applicable during the pre-construction, construction, and operation phases:

- Occupational Health and Safety Act (Act 85 of 1993) and Regulations
- Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993).

3.1.13 National Water Resources Strategy (June 2013) (NWRS2)

This strategy provides a national framework against which water resources across the country will be managed and, in this sense, aims to;

"…*ensure that national water resources are protected, used, developed, conserved, managed and controlled in an efficient and sustainable manner towards achieving South Africa's development priorities in an equitable manner over the next five to 10 years. This Strategy responds to priorities set by Government within the National Development Plan (NDP) and National Water Act (NWA) imperatives that support sustainable development. The NWRS2 acknowledges that South Africa is a water-stressed country and is facing a number of water challenges and concerns, which include security of supply, environmental degradation and resource pollution, and the inefficient use of water*" (Department of Water Affairs, 2013a, p. iii).

3.1.14 National Development Plan (2011) (NDP)

The National Development Plan of 2010 proposes to "invigorate and expand economic opportunity through infrastructure, more innovation, private investment, and entrepreneurialism. The Plan aims to ensure that all South Africans attain a decent standard of living through the elimination of poverty and reduction of inequality. The core elements of a decent standard of living identified in the Plan are, housing, water, electricity and sanitation, safe and reliable public transport, quality education and skills development, safety, and security; quality health care, social protection, employment; recreation and leisure, clean environment, and adequate nutrition.

3.1.15 National Infrastructure Plan 2050, Phase I

The National Infrastructure Plan 2050 (NIP 2050) Phase I was published in the Government Gazette of 11 March 2022. The goal of the NIP 2050 is to create a foundation for achieving the National Development Plan's vision of inclusive growth. Prepared by Infrastructure South Africa (ISA), the NIP 2050 offers a strategic vision and plan that link top NDP objectives to actionable steps and intermediate outcomes. It is further envisaged that infrastructure development projects will contribute significantly to the goals of the NDP. The NDP anticipates, amongst others, universal and reliable access to water of an acceptable quality and quantity in support of a strong, inclusive economy and a healthy environment by 2030, a commitment that must be sustained thereafter.

3.2 International Standards

The IFC Performance Standards are crucial during SIA because they provide a structured framework for identifying, mitigating, and managing environmental and social risks in development projects. These standards ensure that projects, such as water pipeline infrastructure, are implemented in a way that

minimizes negative impacts on communities, respects human rights, and promotes sustainable development. By following IFC standards, project developers can enhance social acceptance, reduce conflicts, and ensure that development benefits are shared equitably. The applicability of the standards is presented in Table 3-1 below.

Table 3-1: IFC Performance standards and their applicability

IFC Performance standards	Applicability to SIA for a water pipeline project, including associated development
PS 1: Assessment and Management of Environmental and Social Risks and Impacts	Essential for identifying, assessing, and managing potential social impacts (e.g., displacement, access to resources, labour conditions).
PS 2: Labor and Working Conditions	Relevant for ensuring fair treatment, occupational health & safety, and labour rights for workers involved in construction and maintenance.
PS 3: Resource Efficiency and Pollution Prevention	Ensures responsible water usage, prevents pollution, and mitigates impacts on surrounding communities relying on local water sources.
PS 4: Community Health, Safety, and Security	Addresses risks such as waterborne diseases, accidental leaks, and potential conflicts over water access in affected communities.
PS 5: Land Acquisition and Involuntary Resettlement	Critical if land must be acquired for pipeline routes, affecting housing, farmland, or local businesses. Compensation and livelihood restoration may be required.
PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Ensures the pipeline does not harm ecologically sensitive areas that local communities depend on for fishing, farming, or cultural purposes
PS 7: Indigenous Peoples	If Indigenous communities are in the project area, this ensures their rights, cultural heritage, and land use practices are respected and compensated.
PS 8: Cultural heritage	Protects culturally significant sites, burial grounds, or historical locations that might be impacted by excavation and construction.

4 Social Baseline

This section presents the social baseline of FTLM and LNLM, including the socio-economic conditions in SDM, CDM and Limpopo province.

4.1 Geographical Description of the project area

The re-alignment of phase 2F and its associated developments is proposed in the FTLM and LNLM which falls within the SDM and CDM in the Limpopo province.

The Limpopo Province is South Africa's most northern province and covers an area of 125 754 km^2, it shares international borders with Mozambique, Zimbabwe, and Botswana. It also borders the Gauteng, Mpumalanga, and Northwest Provinces.

The FTLM came into existence after the amalgamation of the Greater Tubatse Local Municipality and the Fetakgomo Local Municipality in 2016 FTLM is a category C municipality.

The FTLM municipal area of jurisdiction approximately covers 4550.00 square kilometres in size. The municipality is mostly rural landscape with only six (6) proclaimed townships and 342 villages. FTLM is characterised by inadequate infrastructure, major service backlogs, a weak economic base, dispersed human settlement and high poverty levels (The Final IDP/budget – 2024/2025 FTLM). There is a strong presence of TA in the region, with TA being responsible for the day to day running of these areas.

According to FTLM IDP (2024/25), the municipal region has a large presence of mining activities along the R37 and R555. In the district the mining sector is predominant in Burgersfort and approximately 60% of the mines are operational in Burgersfort within the municipal region.

According to LNLM IDP (2024/25), the LM is located in the southern part of the CDM, the Local Municipality (LM) is one of four local municipalities within CDM. LNLM is dominantly rural, about 95% of the municipality's land is under the jurisdiction of Traditional Authorities. The LM covers 3,464.00 hectares, which represents 16% of the districts total land which includes a total of 94 settlements divided into 30 wards. Zebediela is identified as an Intervention Area for rural development and potential rural tourism node, as the municipality lacks a strong tourism destination area (LNLM IDP 2024/2025).

According to LNLM IDP (2024/25), the municipality is advantageously located in several Provincial roads, Dilokong Provincial Corridor between Polokwane and Burgersfort. The R37 and R519 provides the residents with access to link with areas in Africa neighbouring countries in the North and Gauteng in the South.

4.1.1 Population dynamics and spatial status

FTLM is a Special Economic Zones programme which requires to accommodate industrialisation within the municipality as a mining town. According to Stats SA (2022), FTLM saw an increase in the total population of 147 012, from 428 948 recorded in 2011 to 575 960 recorded in 2022. According to the FTLM IDP (2024/2025), the municipality has the highest population in the Sekhukhune District. Table 4-1 below indicates the population distribution of SDM and FTLM by gender. As shown in Figure 4-1, the municipality has a significantly higher population of females to males.

Table 4-1: The population distribution of SDM and FTLM by gender

2016 COMMUNITY SURVEY				**2022 STATS SA**			
Municipality	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Average Annual Growth Rate**
Sekhukhune District	548,463	621,299	1,169,762	629,558	707,247	1,336,805	2,1

Fetakgomo Tubatse	238,458	251,923	490,381	275,658	300,302	575,960	2.9

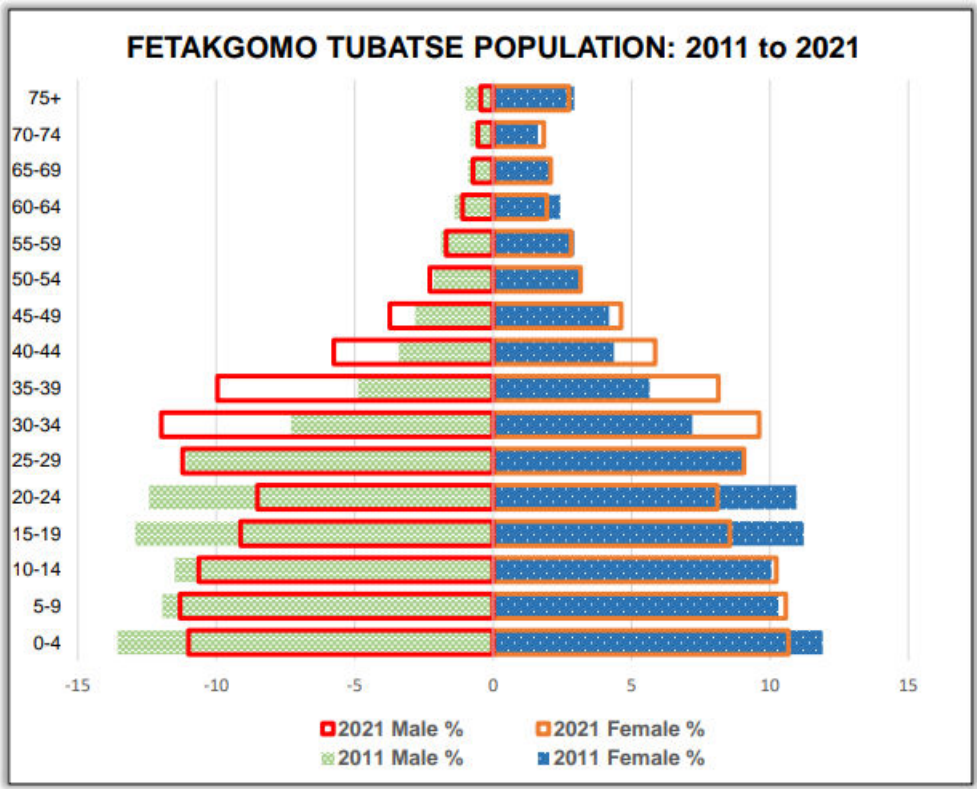

Figure 4-1: FTLM population distribution by age and gender *(Source: CSIR Evidence Guide (2021))*

According to LNLM IDP (2024/25), the municipality recorded an estimated population of 284,404 people. The 30 wards have an average size of 9,400 people in the municipality and an average household size of 3.6 (Table 4-2).

Table 4-2: Lepelle-Nkumpi Local Municipality demographics (Source: Census 2022)

Municipality	Population			No. of Households			Average Household Size		
	2001	2011	2022	2001	2011	2022	2001	2011	2022
LNLM	228,636	231,239	284,404	51,245	59,682	78,217	4.4	3.9	3.6

4.1.2 Income distribution

Majority (72%) of FTLM income distribution was recorded below R38,200 per annum. According to the FTM IDP (2024/25) 16% of the 72% have no source of income and this has worsened by the predominant education levels within the municipality. The low-level income distribution could be impacted by the education levels of the population, resulting in significant socio-economic versatility and economic diversification through limiting the type of investment that can be directed into the municipality.

Table 4-3: FTLM total distribution of income per annum (*Source: StatsSA Census 2011*)

Income per annum range	Percentage (%)
No income	16
R1 – R4,800	6
R4,801 – R9,600	12
R9,601 – R19,600	20
R19,601 – R38,200	18
R38,201 – R76,400	13
R76,401 – R153,800	9

Income per annum range	Percentage (%)
R153,801 – R307,600	4
R307,601 – R614,400	2
R614,401 – R1,228,800	0
R1,228,801 – R2,457,600	0
R2,457,6001 or more	0

According to the LNLM IDP (2024/25), the province is one of the poorest in the country, with an estimated 14% of households having no form of income compared to the National trends which stands at 15%. As shown in Table 4-4 below, 25% of households' annual income distribution is in the range of R9,601 – R19,600, the municipality saw a decrease by 3% from 2007. According to the LNLM IDP (2024/25), most of the high-income earners of R153,801 are mostly in the Township of Lebowakgomo, an urban area within the municipality.

Table 4-4: Percentage annual household income distribution for Lepelle-Nkumpi, 2001, 2007 and 2011 (Source: Census 2011)

	2001	2007	2011
Income per annum range	**Percentage (%)**		
No income	32	11	15
R1 – R4,800	11	8	6
R4,801 – R9,600	25	13	12
R9,601 – R19,600	14	27	25
R19,601 – R38,200	8	21	21
R38,201 – R76,400	6	11	8
R76,401 – R153,800	3	4	6
R153,801 and more	1	3	7

4.1.3 Economy

According to the FTLM IDP (2024/25), the municipality is the largest with a higher poverty rate within the SDM, although the mining sector and agricultural activities are driving the local economy. The northern section of the municipal area has the most marginalised local economy with little to no economic base. However, the region has started to benefit economically from the mines due to the development of mines within the LM. As indicated above in the income distribution section 16% of the population have no source of income, which impacts the improvement of the local economy.

According to the IHS Market regional explorer version 2142, the economic growth in the municipalities within the Sekhukhune district between 2010 to 2020 was -0.34%. While both Elias Motsoaledi and Ephraim Mogale experienced a positive economic growth between 2010 to 2020, FTLM had the lowest and negative economic growth of -1.90%.

According to the FTLM IDP (2024/25), the Limpopo province contributed 7% to the National Gross Domestic Product (GDP) of R4.65 trillion in 2018 which resulted in ranking eight in terms of the GDP contribution. SDM contributed 0.88% to the national GDP and 12.2% to Limpopo's GDP. FTLM contributes the highest at 48.9% towards the district's GDP. Mining is the major source of employment not only to the LM but also the district.

According to the LNLM IDP (2024/25), the Government Services are the biggest contributor (31%) towards the local GDP. The Mining sector follows the Government services with 17% and since 2011 the mining sector may have experienced a decline due to closure/downscaling of Hwelereng Mine and Zebediela Bricks.

According to the LNLM IDP (2024/25), the LM is the second largest contributor to the district's GDP at 13.86%. The mining sector in LNLM is the second largest contributor to the local GDP with a contribution of 17% and may hold great potential for long-term prospects for the municipality.

4.1.4 Education

According to the FTLM IDP (2024/25), 41% of the population have done some secondary education. The entry level criteria of underground workers in the mines and low-level income households could have had an influence on the majority of the population having done some secondary education. According to the FTLM IDP (2024/25), 6% of the population have not done any schooling, whereas only 6% have completed higher education.

Table 4-5: FTLM education levels

Highest level of education	Percentage (%)
No Schooling	12
Some Primary	6
Completed Primary	3
Some Secondary	41
Grade 12/Std 10	31
Higher Education	6
Other	1

According to the LNLM IDP (2024/25), approximately 33% of the population have completed matric and post-matric qualifications. On the other hand, approximately 67% of the population have no matric or have dropped out of school at primary or secondary level.

4.1.5 Housing types

According to the FTLM IDP (2024/25), the municipality signed a Memorandum of Understanding (MOU) with The Housing Development Agency (HDA) for the development of Townships and Reconstruction and Development Programme (RDP) housing. FTLM has the highest number of backlogs in almost all area of the municipal development areas and strategic measures have been placed to actively eradicate the lack of adequate housing. According to the FTLM IDP (2024/25), one of the strategic measures the municipality has undertaken was to acquire land from private landowners as well as the state. The municipality plans to acquire more land to achieve the municipality's City Development Strategy.

In 2022, the FTLM housing typology consisted mostly of (94.6%) formal housing, whereas in 2016 the municipality recorded 85.7% formal housing. Informal housing has seen a decrease from 9.5% in 2011 to 3.2% in 2022. Table 4-6 below provides a snapshot of the progress made in addressing the backlog through the municipality's strategic measures to achieve sustainable development. According to FTLM IDP (2024/25), since the implementation of the Rural Densification Programme the municipality has seen a decrease in the traditional settlements from 6.9% in 2016 to 1.7% in 2022.

Table 4-6: FTLM housing typologies *(Source: StatsSA Census (2011); Community Survey (2016) and StatsSA Census (2022))*

Year	Formal (%)	Traditional (%)	Informal (%)	Other (%)
2011	85.6	4.0	9.5	0.9
2016	85.7	6.9	6.3	1.1
2022	94.6	1.7	3.2	0.6

According to the LNLM IDP (2024/25), the municipality has 95% of its households are formal dwellings, despite the rural nature of the area (Table 4-7). The municipality intends to update its Housing Sector Plan so that it aligns with the National Development Plan. Cooperative Governance, Human Settlements and Traditional Affairs compiled the Provincial Multi-year Housing Development Plan 2014 – 2019, while the municipality is not being prioritised for subsidies for informal settlement upgrading in the near future.

Table 4-7: LNLM distribution of households by types of main dwelling - 2001, 2011 and 2016 (Source: Community survey 2011)

Year	Formal (%)	Traditional (%)	Informal (%)	Other (%)
2001	89	9	2	-
2011	95	3	3	-
2016	84	4	4	4

4.1.6 Access to Basic Services

Access to Electricity

According to FTLM IDP (2024/25), Eskom is the only provider of electricity within the region. Most parts of the region are rural and have no electricity resulting in negative impacts on local economic development and community projects. According to FTLM IDP (2024/25), the municipality has taken the required steps to position itself as an additional provider of electricity together with Eskom within the region. Table 4-8 below shows that 12.8% of the residents have no access to electricity while 83.0% have access to electricity.

Table 4-8: Electricity Access for FTLM *(Source: Stats SA Community Survey, 2016)*

Access to electricity	Percentage (%)
Yes	83.0
No	12.8
Unspecified	4.2

According to FTLM IDP (2024/25), the main energy source used for cooking by households is electricity (66.4%), wood (23.3%) and paraffin (8.4%). While the rest of the population's main energy source for cooking is gas, solar and other sources of electricity.

According to the LNLM IDP (2024/25), all the villages have access to the electricity. 98% of the households in the municipality have been provided with electricity.

Access to Water

According to FTLM IDP (20224/25), 63% have access to water provided by a regional or local service provider, while 39% of households obtain their water from rivers and other sources, such as boreholes. Of that 63%, about 22.2% of the households depend on piped water from within their yard, and 21.5% depend on piped water from a communal source (shown in Figure 4-2).

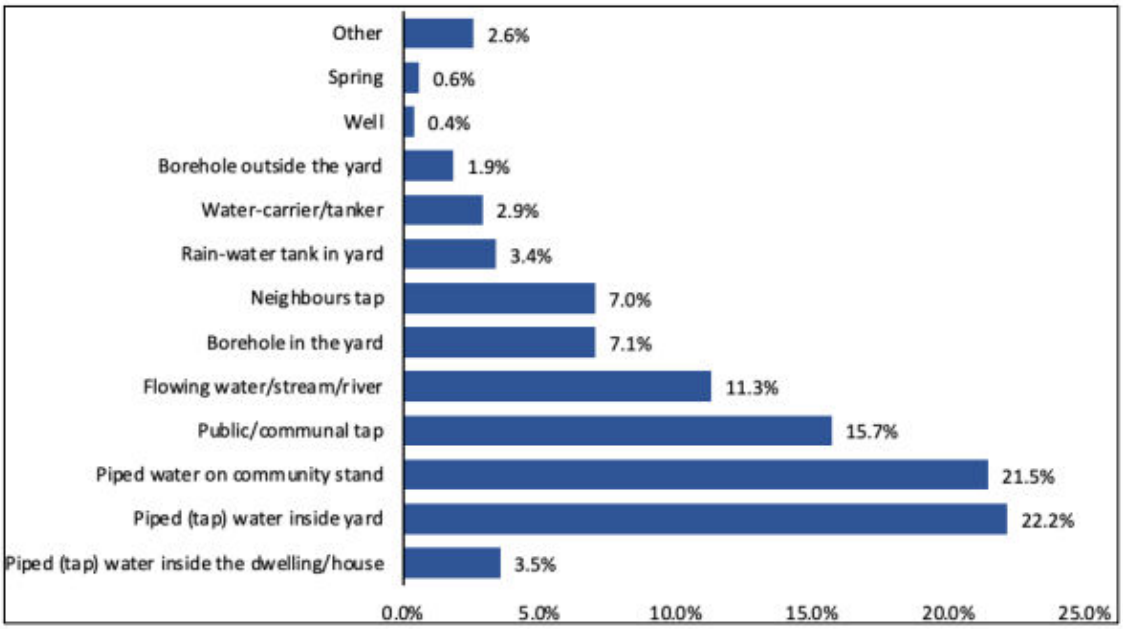

Figure 4-2: FTLM main sources of drinking water in FTLM *(Stats SA Community Survey 2016)*

According to LNLM IDP (2024/25), approximately 80% in 2022 of the households have access to water above the RDP standard compared to 62% in 2016. The collaboration between the District Municipality and DWS managed to put up bulk and reticulation infrastructure in the municipality. As a result, in the near future, all households will be served with reliable and uninterrupted potable water supply with yard connection.

Access to Sanitation

According to the FTLM IDP (2024/25), a collective of 81.3% of the households still rely on pit toilets, while only 4.2% of the households' toilets are connected to a public sewerage system. There's a likelihood of water contamination in the community, as FTLM has been recorded as still using the bucket toilet system (Figure 4-3).

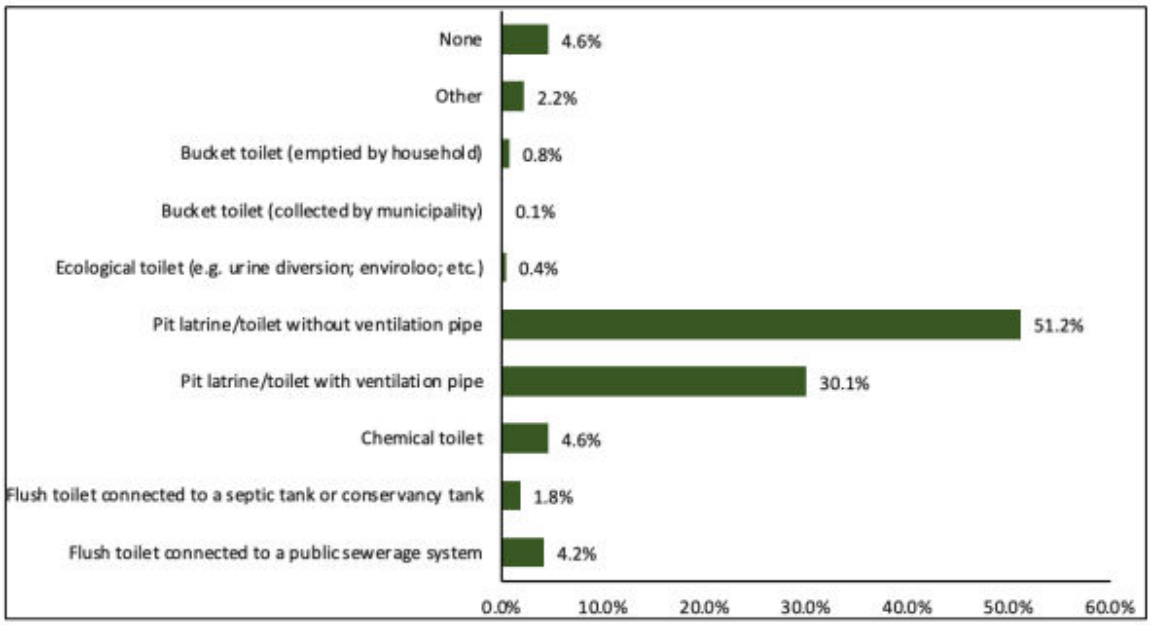

Figure 4-3: Sanitation Facilities in FTLM *(Stats SA Community Survey 2016)*

According to the LNLM IDP (2024/2025), Lebowakgomo Township is the only area within the municipality with a sewer system, although the sewer plant for wastewater treatment is operating far above its designed capacity. Less than one percent of households have no sanitation facilities.

4.1.7 Migration and Urbanisation Trends

The latest data source of migration available is the StatsSA 2022 Mid-year population estimates. It is on provincial levels.

Table 4-9 below, indicates that Limpopo experienced a negative net migration of -187,356 people in the period of 2016-2021. The in-migration was much less than the out-migration. Figure 4-4 provides a snapshot of the provincial migration streams of Limpopo. The largest pool of people migrated to Gauteng (75.5%), Mpumalanga (10.4%) and North-West (7.1%). Over the period of 2016 to 2021, 468,149 people migrated out of Limpopo. Further, the in-migration saw a total of 280,793 with the most significant portion of people 37% coming from Gauteng and 32% outside of South Africa.

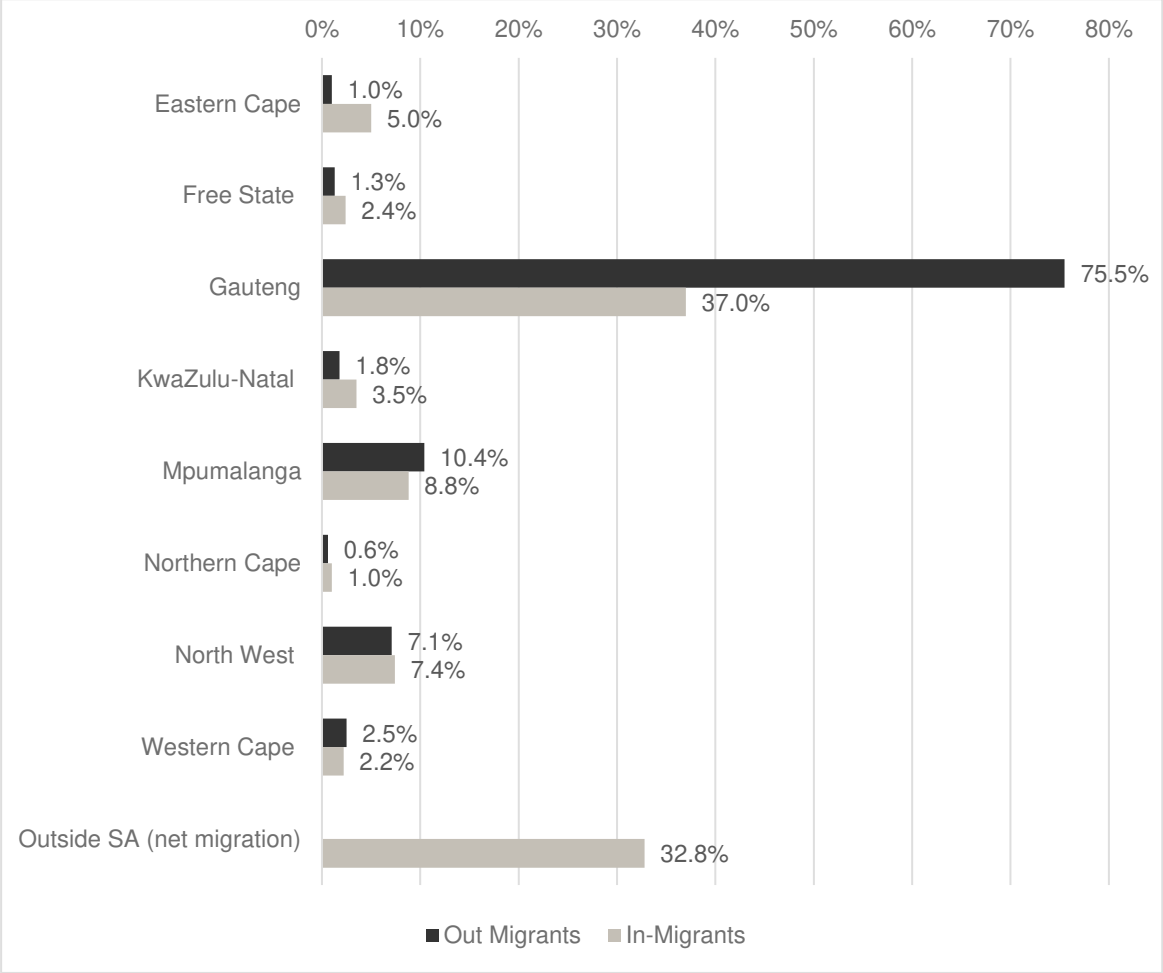

Figure 4-4: Limpopo estimated provincial migration streams, 2016-2021 (*Source: StatsSA Mid-Year Population Estimates (MYPE), 2022)*

Table 4-9: Estimated provincial migration streams, 2016 to 2021 ***(Source: StatsSA Mid-Year Population Estimates (MYPE), 2022)***

Province in 2016	Province in 2021												
	EC	FS	GP	KZN	LIM		MP	NC	NW	WC	Out-migrants	In-migrants	Net migration
Eastern Cape (EC)	0	13,111	146,972	98,810	**14,087**	**5.0%**	16,900	8,130	37,856	175,892	511,757	192,412	-319,345
Free State (FS)	8,561	0	83,352	7,981	**6,653**	**2.4%**	10,948	9,215	24,137	12,390	163,237	134,719	-28,517
Gauteng (GP)	52,240	40,607	0	70,611	**103,774**	**37.0%**	83,059	12,678	111,642	98,742	573,354	1,559,881	986,527
KwaZulu-Natal (KZN)	26,145	12,657	230,144	0	**9,819**	**3.5%**	37,693	8,834	12,014	34,307	371,614	288,533	-83,081
Limpopo (LIM)	**4,580**	**5,937**	**353,514**	**8,415**	**0**	**-**	**48,472**	**2,649**	**33,017**	**11,564**	**468,149**	**280,793**	**-187,356**
	1.0%	**1.3%**	**75.5%**	**1.8%**	**-**	**-**	**10.4%**	**0.6%**	**7.1%**	**2.5%**			
Mpumalanga (MP)	5,315	5,494	141,862	13,311	**24,664**	**8.8%**	0	2,446	14,130	10,308	217,531	282,740	65,208
Northern Cape (NC)	4,582	9,226	17,372	5,882	**2,756**	**1.0%**	4,668	0	13,209	18,936	76,632	88,320	11,688
North-West (NW)	5,423	12,311	113,111	6,377	**20,785**	**7.4%**	12,423	24,660	0	9,528	204,618	320,161	115,543
Western Cape (WC)	53,601	8,451	65,638	13,846	**6,115**	**2.2%**	7,680	13,493	8,834	0	177,658	469,984	292,325
Outside SA (net migration)	31,965	26,925	407,915	63,299	**92,140**	**32.8%**	60,896	6,214	65,320	98,317			

5 Anticipated Social Impacts

5.1 Pre-construction and Construction phase

5.1.1 Land Acquisition

The re-alignment of the pipeline, access and internal roads of phase 2F are proposed on three farm portions as shown in Table 1-1 (*chapter* 1). The farm portions are respectively owned by TA (National Government, Republic of South Africa). As such, it is anticipated that the developer will require land access prior to the construction of the proposed development. Acquiring the mentioned land will allow for the development of the proposed pipeline, access and internal roads.

Table 5-1 shows the Land Acquisition impact rating and mitigation measures, pre and post mitigation.

Table 5-1: Land Acquisition

<table>
<tr><th colspan="5">IMPACT DESCRIPTION: Land Acquisition</th></tr>
<tr><td>Predicted for project phase:</td><td colspan="4">Pre-construction and Construction</td></tr>
<tr><td colspan="5">PRE-MITIGATION</td></tr>
<tr><td>Dimension</td><td>Rating</td><td colspan="3">Motivation</td></tr>
<tr><td>Duration</td><td>Short-term</td><td>Land acquisition will be required prior to the construction of the pipeline and the associated consultations and negotiations will be conducted over a short-term period.</td><td rowspan="4">Consequence:
Slightly beneficial</td><td rowspan="4">Significance:
Moderate - negative</td></tr>
<tr><td>Extent</td><td>Local</td><td>The impact will prevail at a local level with all the affected landowners.</td></tr>
<tr><td>Intensity</td><td>Moderate - negative</td><td>limited dependency on the land is assumed, hence the moderate rating</td></tr>
<tr><td>Probability</td><td>Certain</td><td colspan="2">Land acquisition is certain as the developer doesn’t own the affected land portions.</td></tr>
<tr><td colspan="5">MITIGATION:</td></tr>
<tr><td colspan="5">As per IFC PS5, Land should always be accessed or acquired in consultation and negotiation with the affected people. LWUA has already initiated the process with the TA and private landowners.</td></tr>
<tr><td colspan="5">POST-MITIGATION</td></tr>
<tr><td>Dimension</td><td>Rating</td><td colspan="3">Motivation</td></tr>
<tr><td>Duration</td><td>Short-term</td><td>Land acquisition will be required prior to the construction of the pipeline and the associated consultations and negotiations will be conducted over a short-term period.</td><td rowspan="3">Consequence:
Slightly beneficial</td><td rowspan="4">Significance:
Low - negative</td></tr>
<tr><td>Extent</td><td>Local</td><td>Impact will prevail at a local level with all the affected landowners.</td></tr>
<tr><td>Intensity</td><td>Low - negative</td><td>The on-going engagements and the presence of compensation schemes mitigates the intensity of the loss</td></tr>
<tr><td>Probability</td><td>Certain</td><td colspan="2">Land acquisition is certain as the developer doesn’t own the affected land portions.</td></tr>
</table>

5.1.2 Temporal disturbance to grazing land

It was noted during the site visit that there was livestock grazing along the project area, the livestock included cattles and goats. . As such, during the construction phase of the underground water pipeline,

grazing land for cattle and goats may be temporarily disturbed due to excavation, machinery movement, and restricted access. This may impact livestock grazing patterns and forage availability. However, once construction is complete, the land can be rehabilitated and restored to its original use, ensuring minimal long-term impact on livestock farming.

Table 5-2 shows the temporal disturbance to grazing land impact rating and mitigation measures, pre and post mitigation.

Table 5-2: Temporal disturbance to grazing land

<table>
<tr><th colspan="5">IMPACT DESCRIPTION: Temporal disturbance to grazing land</th></tr>
<tr><td>Predicted for project phase:</td><td colspan="4">Pre-construction and Construction</td></tr>
<tr><td colspan="5">PRE-MITIGATION</td></tr>
<tr><td>Dimension</td><td>Rating</td><td colspan="3">Motivation</td></tr>
<tr><td>Duration</td><td>Short-term</td><td>Impact is anticipated to happen during the construction phase</td><td rowspan="3">Consequence: Slightly detrimental</td><td rowspan="4">Significance: Low - negative</td></tr>
<tr><td>Extent</td><td>Site-specific</td><td>Disturbance anticipated to happen on site</td></tr>
<tr><td>Intensity</td><td>Moderate - negative</td><td>The anticipated project phase activities will result in temporal disturbance for grazing</td></tr>
<tr><td>Probability</td><td>Certain</td><td colspan="2">Temporal disturbance is certain</td></tr>
<tr><td colspan="5">MITIGATION:</td></tr>
<tr><td colspan="5">It is recommended that the contractor actions the following measures;
Engage with livestock owners in advance to communicate construction timelines and potential disruptions;
Implement a phased construction schedule to minimise the extent of land disturbance at any time;
Maintain access routes to grazing areas where feasible and implement controlled crossing points for livestock. Should grazing be deemed as not feasible during construction phase, alternative grazing arrangements should be in place, such as identifying and providing temporary alternative grazing areas for affected livestock owners; and
Restoring disturbed land after construction by regrading, reseeding with native grass species, and ensuring soil stabilization to promote regrowth of forage.</td></tr>
<tr><td colspan="5">POST-MITIGATION</td></tr>
<tr><td>Dimension</td><td>Rating</td><td colspan="3">Motivation</td></tr>
<tr><td>Duration</td><td>Short-term</td><td>Impact is anticipated to be short-term</td><td rowspan="3">Consequence: Negligible</td><td rowspan="4">Significance: Low - negative</td></tr>
<tr><td>Extent</td><td>Site-specific</td><td>Impact likely to be site-specific</td></tr>
<tr><td>Intensity</td><td>Low - negative</td><td>Impact likely to be low following the recommended mitigation measures</td></tr>
<tr><td>Probability</td><td>Certain</td><td colspan="2">Temporal disturbance is certain</td></tr>
</table>

5.1.3 Resettlement of households

In 2018 the construction of the pipeline initially required the resettlement of approximately 40 households along the proposed route (Figure 5-1). However, following a re-alignment of the pipeline to minimize displacement, the number of affected households has been significantly reduced to nine (9) households (this is based on aerial imagery and specialist observation while on-site). While the re-aligned route has mitigated large-scale displacement, the resettlement of these 9 households will still have social and economic impacts. Affected families may experience disruptions to their livelihoods, access to services, social networks, and cultural ties to the land. Figure 5-2 below showcase a typical households found in the proposed project area.

As these structures are on tribal land it is assumed that Permission to Occupy (PTOs) are issued to land rights holders such as the residential PTOs to occupants of homesteads and business PTOs to business owners. There are thus informal land rights applicable to the land. The developer will need to engage with the affected TA together with the Limpopo Department of Agriculture and Rural Development including other relevant provincial and local Government stakeholders in identifying appropriate land for the affected households to be resettled to. Especially, in the process of identifying land for relocation of

the affected households engaged in livestock rearing or crop cultivation. It is important to ensure that the potentially identified land is suitable and of adequate quality to support the re-establishment of their livelihoods.

Figure 5-1: Aerial image of the re-alignment (purple and red colour) and old alignment (green colour)

Figure 5-2: Typical household found in the proposed project area

Table 5-3 shows the resettlement of households impact rating and mitigation measures, pre and post mitigation.

Table 5-3: Resettlement of households

IMPACT DESCRIPTION: Resettlement of households				
Predicted for project phase:	Pre-construction and Construction			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	It is anticipated that the resettlement process will be undertaken prior to construction over a short-term period	Consequence: Moderately detrimental	Significance: High - negative
Extent	Local	It is anticipated that the extent of the impact will be local		
Intensity	Very high - negative	Anticipated resettlement is likely to be high negative if not managed		
Probability	Certain	The proposed route has been re-aligned to reduce the number of affected households. The current proposed pipeline route passes through 9 households		
MITIGATION:				
It is recommended that resettlement should be guided by international best practices and accompanied by a comprehensive RAP. It goes beyond solely adhering to the legislative compensation requirements. According to the best practices, IFC PS5 encourages project sponsors to plan and execute involuntary resettlement as a development initiative to ensure that the livelihoods and living standards of project affected people are improved.				
POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	It is anticipated that the resettlement process will be undertaken prior to construction over a short-term period	Consequence: Slightly detrimental	Significance: Moderate - negative
Extent	Local	It is anticipated that the extent of the impact will be local		
Intensity	Moderate - negative	The intensity of this impact likely to be reduced to		

		moderate if managed accordingly		
Probability	Certain	The proposed route has been re-aligned to reduce the number of affected households. The current proposed pipeline route passes through 9 households		

5.1.4 Employment opportunities

It is anticipated that employment opportunities will be triggered for skilled, semi-skilled and unskilled workforce during the construction phase. This will have a positive socio-economic impact, particularly for the local population, by providing income-generating opportunities and skill development The developer's project activities and associated recruitment policy will determine the number of locally employed people during the construction phase of the proposed development, it is anticipated that other skilled and specialised positions will be sourced nationally

Table 5-4 shows the employment opportunities impact rating and mitigation measures, pre and post mitigation.

Table 5-4: Employment opportunities

IMPACT DESCRIPTION: Employment opportunities				
Predicted for project phase:	Pre-construction and Construction			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	Impact will prevail during the construction phase, which is anticipated to be short-term	Consequence: Moderately beneficial	Significance: Moderate - positive
Extent	Regional	Impact likely to extend regionally		
Intensity	Moderate - positive	Benefit likely to be moderate should a clear & sound policy be not in place		
Probability	Certain	Employment opportunities are certain during construction of any development project		
MITIGATION:				
It is recommended that the contractor should carry out the recruitment process in accordance with South African laws that regulate labour rights, working conditions and employer responsibilities. Additionally, to maximise local employment benefits, the IFC PS2 recommends that: • Preference should be granted to qualified local workers • Local sourcing should be prioritised • Skills development such as training should be planned and facilitated for selected people who will be employed during the construction phase • Equal opportunities should be granted to both males and females • Compensation should be competitive, and a safe working environment should be ensured • Establish a system of addressing labour concerns				
POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	Impact will prevail during the construction phase, which is anticipated to be short-term	Consequence: Moderately beneficial	Significance: High - positive
Extent	Regional	Recruitment likely to extend regionally		
Intensity	High - positive	Benefit likely to be very high should a clear and sound policy be in place		
Probability	Certain	Employment opportunities are certain during construction of any development project		

5.1.5 Procurement of goods and services

During the construction phase, development projects are known to require the procurement of goods and services. Therefore, it is anticipated that this project will require the procurement of goods and services for the proposed development. The developer will require various goods and services, such as the purchase of equipment and building supplies. This requirement is likely to generate economic opportunities for existing Small, Medium and Micro Enterprises (SMMEs) and new SMMEs in the area. New SMMEs are likely to be established due to the proposed development. Although, it is anticipated that several goods and services might be required to be sourced from outside the project area, resulting the developer to procure goods and services from SMMEs from outside the project area.

Table 5-5 shows the procurement of goods and services impact rating and mitigation measures, pre and post mitigation.

Table 5-5: Procurement of goods and services

IMPACT DESCRIPTION: Procurement of goods and services				
Predicted for project phase:	Pre-construction and Construction			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	Impact will prevail during the construction phase, which is anticipated to be short-term	Consequence: Moderately beneficial	Significance: Moderate - positive
Extent	Regional	Procurement likely to extend regionally		
Intensity	Moderate - positive	Benefit likely to be moderate should a clear & sound policy be not in place		
Probability	Certain	Procurement of goods and services is certain during construction of any development project		
MITIGATION:				
Procurement of goods and services will be done as per the existing OMM Procurement Policy which aims to support and develop local communities, suppliers, and previously disadvantaged groups for economic upliftment. Furthermore, the procurement of goods and services will be guided by the Preferential Procurement Policy Framework Act (Act 5 of 2000). The contractor will need to implement quality control measures, to ensure that all goods and services are of required quality It is essential that the contractor notes that The IFC Performance Standards require responsible procurement by ensuring fair, transparent, and competitive sourcing, prioritizing local suppliers, and managing social and environmental risks in supply chains. Companies must prevent forced labour, child labour, and unsafe working conditions, promote ethical labour practices, and ensure contractor compliance with environmental and social standards while supporting sustainable local economic development.				
POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	Impact will prevail during the construction phase, which is anticipated to be short-term	Consequence: Highly beneficial	Significance: High - positive
Extent	Regional	Procurement likely to extend regionally		
Intensity	Very high - positive	Benefit likely to be very high should a clear and sound policy be in place		
Probability	Certain	Procurement of goods and services is certain during construction of any development project		

5.1.6 Community expectations

Development projects tend to spark the local communities' expectations, and it is anticipated that their expectations of employment will be very high during the construction phase. Resulting the doorstep communities are anticipated to have high expectations related to employment and business opportunities. Should these expectations not be met, individuals and community groups can mobilize against the project or hold the project office hostage if employment demands aren't met.

Table 5-6 shows the community expectations impact rating and mitigation measures, pre and post mitigation.

Table 5-6: Community expectations

IMPACT DESCRIPTION: Community expectations				
Predicted for project phase:	Pre-construction and Construction			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	Impact will prevail during the construction phase, which is anticipated to be short-term	Consequence: Moderately detrimental	Significance: High - negative
Extent	Local	Local communities likely to have expectations		
Intensity	Very high - negative	Expectations likely to be very high if not managed		
Probability	Certain	Expectations are certain during construction of any development project		
MITIGATION:				
To manage community expectations project information should be made available to the community. The project information should include detailed requirements for employment, procurement, or other project related opportunities. Have an information centre placed strategically that will house project related information and where community members can log their project related grievances on a grievance mechanism. The information centre could be established at existing buildings within the communities along the proposed pipeline. The buildings can include TAs offices, local community halls, clinics or local schools. The contractor should also seek information on wages paid to the locals on previous projects in the area and better communicate the proposed wages and benefits. To communicate it to the community before the recruitment process commences, to better manage community expectations regarding wages and benefits associated to the project.				
POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	Impact will prevail during the construction phase, which is anticipated to be short-term	Consequence: Slightly detrimental	Significance: Low - negative
Extent	Local	Local communities likely to have expectations		
Intensity	Low - negative	Expectations likely to be low-negative to minor if managed		
Probability	Certain	Expectations are certain during construction of any development project		

5.1.7 Damage to local roads and key intersections

Based on the site visit the recently upgraded R37 road is in good condition. According to the Traffic Impact Assessment (TIA), the key road network affected by transport related activities linked to the construction phase include Hackney Road, R37, D4180, D4182, D4185 and D4190. The key intersections that are shown in the Figure 5-3 below, are illustrated as follows;

- Intersection 1: R37/D4185
- Intersection 2: R37/D4182
- Intersection 3: R37/D4180
- Intersection 4: R37/D4190

During this phase the transportation of machinery, construction material and construction workers will be transported on road network. Therefore, it is anticipated that an increase of traffic in the area could subject the road network and key intersections to damage and reduction of road capacity. Heavy duty trucks and construction vehicles can cause damage to the current road conditions as well as contribute to increased dust and congestion on the roads. During peak hours it is anticipated that the social receptors along intersection 2 will be impacted by the transportation of construction materials.

The intersections pass through a number of houses, a primary school, a secondary school and the intersection leading to the Twickenham substation.

Table 5-7 shows the damage to local roads and access road impact rating and mitigation measures, pre and post mitigation

Table 5-7: Damage to local roads and key intersection

<table>
<tr><th colspan="5">IMPACT DESCRIPTION: Damage to local roads and key intersections</th></tr>
<tr><td>Predicted for project phase:</td><td colspan="4">Pre-construction and Construction</td></tr>
<tr><td colspan="5">PRE-MITIGATION</td></tr>
<tr><td>Dimension</td><td>Rating</td><td colspan="3">Motivation</td></tr>
<tr><td>Duration</td><td>Short-term</td><td>Impact will prevail during the construction phase</td><td rowspan="3">Consequence: Moderately detrimental</td><td rowspan="4">Significance: Moderate - negative</td></tr>
<tr><td>Extent</td><td>Local</td><td>Impact likely to affect local social receptors along the intersections and frequent users of the key road network</td></tr>
<tr><td>Intensity</td><td>Very high - negative</td><td>Impact likely to be very high if not managed, resulting in roads remaining in poor condition</td></tr>
<tr><td>Probability</td><td>Very likely</td><td colspan="2">Damage to local access road very likely if not managed</td></tr>
<tr><td colspan="5">MITIGATION:</td></tr>
<tr><td colspan="5">The contractor to conduct a condition assessment of the road pre-construction, and post construction. Additionally, the contractor will design and construct the access roads in accordance with the Standard Specifications for Roads and Bridge Works for State Road Authorities, 1998, prepared by the COLTO. It is recommended that the mitigation measures stipulated in the TIA report to be implemented by the contractor during the construction phase.</td></tr>
<tr><td colspan="5">POST-MITIGATION</td></tr>
<tr><td>Dimension</td><td>Rating</td><td colspan="3">Motivation</td></tr>
<tr><td>Duration</td><td>Short-term</td><td>Impact will prevail during the construction phase, as it is anticipated to be short-term</td><td rowspan="3">Consequence: Slightly detrimental</td><td rowspan="4">Significance: Low - negative</td></tr>
<tr><td>Extent</td><td>Local</td><td>Impact likely to affect the local social receptors along the intersections and frequent users of the key road network</td></tr>
<tr><td>Intensity</td><td>Moderate - negative</td><td>Impact likely to be moderate if managed</td></tr>
<tr><td>Probability</td><td>Fairly likely</td><td colspan="2">Damage to local access road fairly likely if not managed</td></tr>
</table>

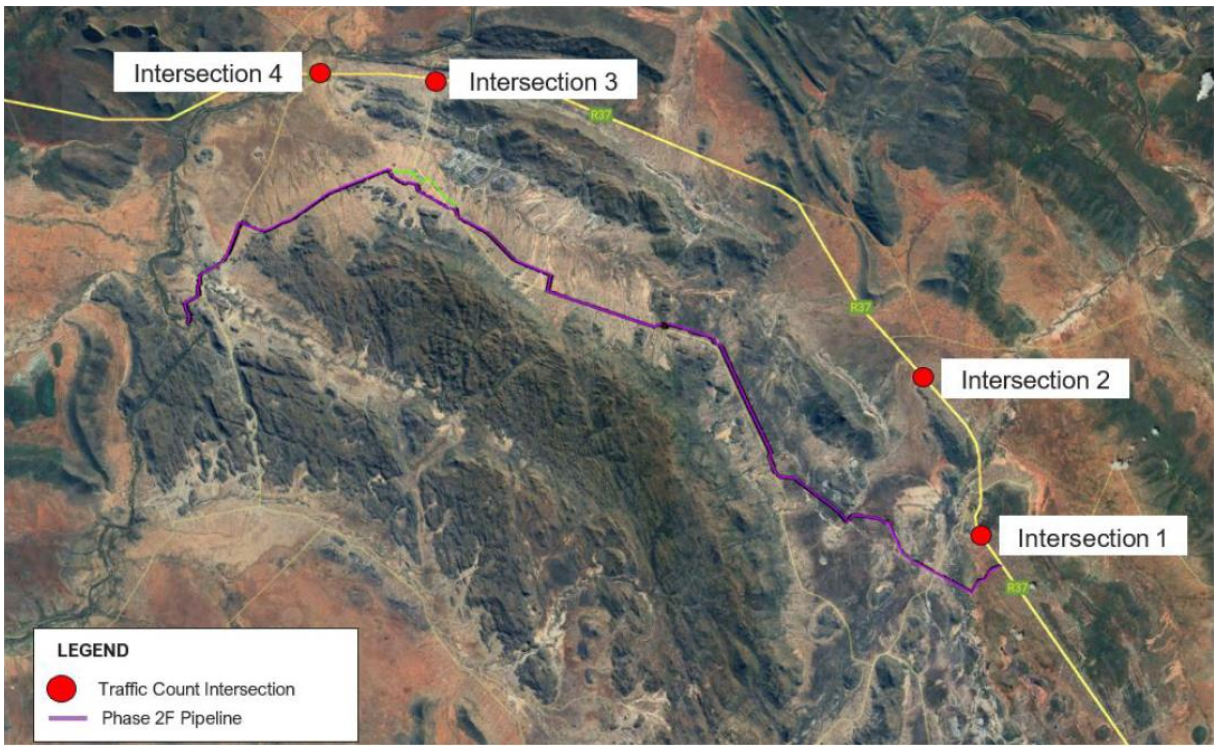

Figure 5-3: Key intersections *(Source TIA)*

5.1.8 Health, safety, and security

Construction projects are generally known to impact negatively on the health and safety of communities and employees. It is anticipated that similar impacts will be triggered by the proposed development. During the construction phase, nearby communities and employees may be exposed to increased dust, noise, visual and other nuisance disturbances, construction vehicles and man-machine interfaces. The dust will likely to be induced by construction phase activities such as excavation, cement mixing and material or waste transportation. The dust from construction activities may affect the respiratory system of those exposed to the dust. Construction noise will likely be induced by construction machines and transportation vehicles and although the construction noise will not damage the hearing ability of those exposed to the noise in the community, it will be at a nuisance level. Also, Additionally, an influx of job and opportunity seekers is often characterized by higher health risks, particularly if the influx is male dominated. These include a higher disease burden and rise in HIV/AIDS rates (Daniel Owens*, et al*).

Construction activities are likely to attract criminals into the area, hence compromising the security of nearby farm owners, communities, and employees. During the construction phase, it is anticipated that that criminal activities will escalate in the area, including the trespassing of properties.

Table 5-8 shows the health, safety and security impact rating and mitigation measures, pre and post mitigation.

Table 5-8: Health, safety, and security

IMPACT DESCRIPTION: Healthy, safety, and security				
Predicted for project phase:	Pre-construction and Construction			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	Impact will prevail during the construction phase, which is anticipated to be short-term	Consequence: Moderately detrimental	Significance: Moderate - negative
Extent	Local	Impact likely to extend to local communities		

Intensity	High - negative	Impact likely to be high if not managed		
Probability	Very likely	Health, safety, and security impacts are likely during the construction phase		

MITIGATION:

Impact related to health and safety will be managed as per the recommendations made in other specialist studies such as the Defence compliance statement and TIA, and as per the duties as defined in the Construction Regulations (Occupational Health and Safety Act). It is recommended that the contractor should:

- Implement safety measures such as having appropriate signage and fencing/barricades on site to keep local community members and livestock away from falling into the dugout ditches.
- Use flaggers and barriers to separate work zones from public areas
- Implement dust and noise control measures
- Implement traffic management plans to prevent accidents with construction vehicles Plan and facilitate a community health and safety workshop, including a similar workshop for employees
- Develops an Emergency Prevention and Response Plan for potential fire, flooding, cave-ins and hazardous material spills
- Appoint a Health & Safety Officer to oversee compliance, including conducting regular inspections and audits to identify and correct hazards
- Deploys Security personnel stationed at the project site to avoid vandalism/ site specific criminal activities, protecting the broader community will remain the responsibility of the SAPS.
- Engage with the Provincial commissioner to assist with handling potential construction mafia.[3]

POST-MITIGATION

Dimension	Rating	Motivation		
Duration	Short-term	Impact will prevail during the construction phase, which is anticipated to be short-term	Consequence: Slightly detrimental	Significance: Low - negative
Extent	Local	Impact likely to extend to local communities		
Intensity	Moderate - negative	Impact likely to be moderately high following the application of the recommended mitigation measures		
Probability	Fairly likely	Health and safety impacts are fairly likely if managed during the construction phase		

5.1.9 Modification of the sense of place

During the construction phase, the presence of heavy construction vehicles and potential displacement will trigger a modification of the sense of place impact. The potential disruption to be caused by the pipeline's construction activities, such as site clearing, noise, dust, and the presence of heavy machinery, can alter the physical and social landscape, affecting how local residents connect with and perceive their environment. Additionally, the resettlement of selected households could further displace people from their familiar surroundings, leading to a sense of loss and dislocation. These changes may affect the community's social ties, cultural connections, and mental well-being, particularly in rural or culturally significant areas. The temporary disruption of familiar landscapes and daily routines may lead to feelings of loss, dislocation, or anxiety, particularly for those whose livelihoods and homes are directly impacted by the project. Additionally, the construction phase could result in decreased aesthetic value of the land and disturbance of cultural or social spaces used by community members, leading to potential social tension.

Table 5-9 shows the modification of the sense of place impact rating and mitigation measures, pre and post mitigation.

Table 5-9: Modification of the sense of place

IMPACT DESCRIPTION: Modification of the sense of place

[3] Construction mafias, are also known as business forums, are networks that employ violence and other illegal means to control access to public sector procurement opportunities. These groups invade construction sites, demanding money or a stake in development projects. They are often involved in systemic extortion.

Predicted for project phase:	Pre-Construction & Construction			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	Impact will prevail during the construction phase; it is short-term, as the disruption will be temporary	Consequence: Slightly detrimental	Significance: Low - negative
Extent	Site specific	Impact anticipated to be site specific		
Intensity	High - negative	Impact likely to be high if not managed		
Probability	Very likely	It is very likely that the project will have an impact on the project affected households and the temporary disruption of familiar landscape		
MITIGATION:				
The contractor should aim at minimising disruption during construction by involving the community in the planning process and ensuring that the landscape is restored to its original state after construction to preserve the community's sense of place. The households which are likely to experience resettlement should be supported during livelihood restoration to help preserve their connection to the land.				
POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term	Impact will prevail during the construction phase; it is the short-term as the disruption will be temporary	Consequence: Slightly detrimental	Significance: Low - negative
Extent	Site-specific	Impact likely to be site specific		
Intensity	Moderate - negative	Impact likely to be moderate if managed		
Probability	Very likely	It is very likely that the project will have an impact on the project affected households and the temporary disruption of familiar landscape		

5.2 Operation phase

5.2.1 Access to potable water for defined communities

LNLM is one of three LM that are water service providers serving for the revenue collection. Serious water shortages may be accompanied by chronic illnesses; resulting in applied pressure on the local health care facilities. A secure water supply reduces health-related costs in a society. In most developing countries people spend a third of their income on medical costs mostly from water-related diseases such as malaria and diarrhoea. Further, water supplies the individual with the opportunity to do everyday activities such as drinking water, cooking, bathing, and cleaning.

Table 5-10 shows the access to potable water for defined communities impact rating and mitigation measures, pre and post mitigation.

Table 5-10: Access to potable water for defined communities

IMPACT DESCRIPTION: Access to potable water for defined communities				
Predicted for project phase:	Operational			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Long-term	Impact will prevail during the operation phase, which is anticipated to be long-term	Consequence: Moderately beneficial	Significance: Moderate - positive

Extent	Local	Local defined communities are likely to benefit from Potable water		
Intensity	Low - positive	Benefit likely to be low if pipeline not constructed accordingly		
Probability	Certain	It is certain that the defined communities will have access to potable water		
MITIGATION:				
An experienced and qualified service provider should be appointed to construct the pipeline. The SDM Water Master Plan and Water Sector Plan to be updated with defined communities which will benefit from the OMM Programme to receive potable water.				
POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Long-term	Impact will prevail during the operation phase, which is anticipated to be long-term	Consequence: Highly beneficial	Significance: High - positive
Extent	Local	Local defined communities are likely to benefit from Potable water		
Intensity	High - positive	Benefit likely to be high provided that the pipeline is constructed accordingly		
Probability	Certain	It is certain that the defined communities will have access to potable water		

5.2.2 Access to bulk raw water for Mine members

During the operational phase, it is anticipated that the mine members [4]will have a reliable supply of bulk raw water, essential for their operation. Access to reliable water supply allows a mine to optimise its operations, minimise significant financial loss and mitigate environmental impacts. Water used for industrial purposes is becoming acceleratingly scares in Southern Africa (Mining Industry Association Southern Africa, 2022). While receiving criticism that the mining industry wastes water. Mines face numerous different water management challenges, these challenges can be due to environment, climate and geopolitical circumstances which a mine can face throughout the mine's life cycle. Effective water management has become more of a strategic imperative then just an operational requirement.

Table 5-11 shows the access to bulk raw water for mine members impact rating and mitigation measures, pre and post mitigation.

Table 5-11: Access to bulk raw water for mine members

IMPACT DESCRIPTION: Access to bulk raw water for mine members				
Predicted for project phase:	Operation			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Long-term	The impact is likely to be long term	Consequence: Highly beneficial	Significance: High - positive
Extent	Regional	Impact will prevail at regional level		
Intensity	Low - positive	Benefit likely to be low if pipeline not constructed accordingly		

[4] OMM Programme Mine members include; African Rainbow Minerals, Anglo American Platinum, Assore (Dwars River), Bushveld Minerals, Cheetah Chrome, Corridor Resources, Glencore-Merafe, Implats (Marula), Ivanplats, Modkiwa Platinum Mine, Northam Platinum, Sibanye-Stillwater, Sylvania Platinum, Tameng Mining & Exploration, Two Rivers Platinum, Vanadium Resources and Zijin Platinum

Probability	certain	It is certain that the mine members in the affected project phase will receive bulk raw water during operations	

MITIGATION:
An experienced and qualified service provider should be appointed to construct the pipeline. The SDM Water Master Plan and Water Sector Plan to be updated and include the mine members of the OMM Programme to receive bulk raw water supply for their mine operations.

POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Long-term	The impact is likely to be long term	Consequence: Highly beneficial	Significance: Very High - positive
Extent	Regional	Impact will prevail at regional level		
Intensity	High - positive	Benefit likely to be high provided that the pipeline is constructed accordingly		
Probability	Certain	It is certain that the mine members in the affected project phase will receive bulk raw water during operations		

5.2.3 Employment opportunities

During the operational phase, employment opportunities will be minimal, as the project will require only a small workforce for routine inspection, maintenance, and repairs. Unlike the construction phase, which involves a larger labour force, the operational phase will be limited to specialized roles such as pipeline monitoring, technical maintenance, and occasional rehabilitation work. As a result, the project is unlikely to generate significant long-term employment for local communities. However, where possible, priority should be given to local workers for maintenance activities, and skills development programs during construction could help equip local labourers with the necessary competencies for these roles.

Table 5-12**Error! Reference source not found.** shows the employment opportunities impact rating and mitigation measures, pre and post mitigation.

Table 5-12: Employment opportunities

IMPACT DESCRIPTION: Employment opportunities				
Predicted for project phase:	Operation			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Long-term	maintenance anticipated to happen throughout the operation phase	Consequence: Highly beneficial	Significance: Moderate - positive
Extent	Regional	Impact likely to extend regionally to source specialised skills		
Intensity	Moderate - positive	intensity anticipated to be low, opportunities will be limited to maintenance activities		
Probability	Fairly likely	It is likely that maintenance will be required		

MITIGATION:
Employment opportunities for locals during this phase can be enhanced by prioritizing local workers for maintenance roles and engaging local businesses for pipeline maintenance contracts, ensuring that the community benefits from long-term employment opportunities

POST-MITIGATION		
Dimension	**Rating**	**Motivation**

Duration	Long-term	maintenance anticipated to happen throughout the operation phase	Consequence: Highly beneficial	Significance: High - positive
Extent	Regional	Impact likely to extend regionally to source specialised skills		
Intensity	High - positive	Impact to be high when the local community are considered for the opportunities in this phase		
Probability	Very likely	It is likely that maintenance will be required		

5.2.4 Health and safety

It is anticipated that during the operation phase, some of the activities associated with the maintenance of the pipeline will be reliant on human labour and therefore operation phase workforce will be exposed to health and safety risks. It is anticipated that injuries can occur due to incorrect handling of equipment and materials.

Table 5-13 **Error! Reference source not found.**shows the health and safety impact rating and mitigation measures, pre and post mitigation.

Table 5-13: Health and safety

IMPACT DESCRIPTION: Health and safety				
Predicted for project phase:	Operation			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Long-term	It's anticipated that impact will prevail for a medium-term during the operation of the development	Consequence: Moderately detrimental	Significance: Low - negative
Extent	Site-specific	Impact likely to be site specific		
Intensity	Moderate - negative	If not managed through maintenance safety procedures, impact will be moderate		
Probability	Fairly likely	Probability for incidents and injuries are almost fairly likely as maintenance will be done while on the ground and not suspended in a harness hanging off the ground		
MITIGATION:				
It is recommended that the developer develop a health and safety plan that outlines the safety measures and procedures implemented when undertaking maintenance at the projects infrastructure.				
POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Long-term	It's anticipated that impact will prevail for a medium-term during the operation of the development	Consequence: Slightly detrimental	Significance: Low - negative
Extent	Site-specific	Impact likely to be site specific		
Intensity	Low - negative	If managed the impact will be low, as the maintenance team will be required to adhere to the health and safety plan		
Probability	Fairly likely	Probability for incidents and injuries are almost fairly likely if not manged		

5.3 Decommission Phase

The decommissioning of an underground water pipeline is a complex process that requires careful planning to mitigate potential environmental and social impacts. While decommissioning is technically feasible, it is generally not the preferred option unless unavoidable due to factors such as structural failure, regulatory requirements, or redundancy. However, for the purpose of this assessment, decommissioning is assumed to evaluate its potential impacts and necessary mitigation measures. Despite this assumption, the specialist recommends exploring alternative solutions such as rehabilitation, maintenance, or repurposing to minimize negative effects on communities

5.3.1 No access to potable water

Social water users will not have access to potable water should the proposed development be decommissioned. Specifically, the selected defined communities. This could likely have severe consequences for households, schools, healthcare facilities, businesses, and agricultural activities that depend on the pipeline as their primary or sole water source. The decommissioning could lead to increased water insecurity, forcing affected communities to seek alternative and potentially less reliable or unsafe water sources, which may result in health risks, higher costs, and social strain.

Table 5-14 shows the no access to Potable water impact rating and mitigation measures, pre and post mitigation.

Table 5-14: No access to water

IMPACT DESCRIPTION: No access to potable water				
Predicted for project phase:	Decommissioning			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	short-term	It is anticipated that the impact will prevail during the decommissioning phase, provision alternative water source is assumed following decommissioning	Consequence: Moderately detrimental	Significance: High - negative
Extent	Local	It is anticipated that the lack of water will extend to the local beneficiaries		
Intensity	Very high - negative	It is anticipated to be very high if not managed		
Probability	Certain	Impact certain should the development decommission		
MITIGATION:				
Prior to the decommissioning of the potable water the beneficiaries should be notified. The district municipality should have an alternative source of potable water.				
POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short-term-	It is anticipated that the impact will prevail during the decommissioning phase, provision alternative water source is assumed following decommissioning	Consequence: Moderately detrimental	Significance: Moderate - negative
Extent	Local	It is anticipated that the lack of water will extend to the local beneficiaries		
Intensity	Moderate - negative	If managed impact anticipated to be moderate		
Probability	Certain	Impact is certain should the development decommission		

5.3.2 No access to bulk raw water

Mine members will no longer have access to bulk raw water should the proposed development be decommissioned. This could likely have severe consequences for the operations of the mine members and could lead to significant financial losses which include a loss on the return of investment.

Table 5-15 shows the no access to bulk raw water impact rating and mitigation measures, pre and post mitigation.

Table 5-15: No access to bulk raw water

IMPACT DESCRIPTION: No access to bulk raw water				
Predicted for project phase:	Decommissioning			
PRE-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short term	It is anticipated that the impact will prevail during the decommissioning phase	Consequence: Highly detrimental	Significance: High - negative
Extent	Regional	It is anticipated that the lack of water will extend to the region's mine member		
Intensity	Very high - negative	It is anticipated to be very high if not managed		
Probability	Certain	Impact certain should the development decommission		
MITIGATION:				
Prior to the decommissioning of the bulk raw water the mine members should be notified. The district municipality should have an alternative source of bulk raw water.				
POST-MITIGATION				
Dimension	**Rating**	**Motivation**		
Duration	Short term	It is anticipated that the impact will prevail during the decommissioning phase	Consequence: Moderately detrimental	Significance: High - negative
Extent	Regional	It is anticipated that the lack of water will extend to the mine members of the OMM Programme		
Intensity	Moderate - negative	The mine members will rely on the district municipality for alternative arrangements		
Probability	Certain	Impact certain should the development decommission		

6 Assessment of No-go alternative

As per the requirements of the NEMA the alternative of not proceeding with the proposed project; must be assessed as an alternative. The no-go alternative implies that the Phase 2F pipeline and the development or widening of the access or internal roads do not proceed, hence the current status quo remains the same. This section defines a situation which would result should the proposed project not proceed.

The Minister of Water & Sanitation. published the National Water and Sanitation Master plan for South Africa which specifically indicated that South Africa as a country is experiencing a water crisis by insufficient water infrastructure maintenance and investment, recurrent droughts driven by climatic variation, inequities in access to water and sanitation, deteriorating water quality, and a lack of skilled water engineers.

The proposed development is part of the OMM programme. The OMM Programme intends to build, operate, and maintain bulk and potable water infrastructure in the Eastern and Northern Limb of the Limpopo Province. Additionally, to comply with government instructions that every person living in South Africa have a constitutional right of access to at least basic water. The OMM Programme aims to provide quality water. As such, this would address the water crisis caused by insufficient water infrastructure maintenance and investment identified in the Water Master Plan.

It is also essential to note that the OMM programme is aligned with the NIP, 2050 (Phase I), and the goals of the NDP 2011, the NDP anticipates, amongst others, universal and reliable access to water of an acceptable quality and quantity in support of a strong, inclusive economy and a healthy environment by the year 2030.

The overall impact associated with not proceeding with the proposed development would entail the failure of the OMM programme to fully align with the country's plan for infrastructure development, especially the provision of potable water to social users.

Table 6-1 below, presents the no-go assessment associated with the proposed Phase 2F re-alignment and associated development.

Table 6-1: No-go assessment associated with the proposed re-alignment and associated developments

Code	Impact	Pre-mitigation:					
		Duration	Extent	Intensity	Consequence	Probability	Significance
1	No-go alternative	Long-term	Regional	Very high - negative	Extremely detrimental	Certain	Very high - negative

7 Potential cumulative impacts

The potential cumulative impacts for the proposed realignment of the proposed pipeline and associated development include:

- ***Impacts related to multiplier effects on the local economy:***

The proposed development promotes diversifying employment opportunities in the dominant mining region. This will result in several economic benefits for local communities through direct and multiplier effects. These effects are usually stimulated by wage bills, local and regional procurement spending, and investment into Local Economic Development (LED) and skills development.

- ***Impacts related to community health:***

The impacts could be permanent duration due to the nature of HIV/AIDS and other Sexually Transmitted Infections (STIs) that are incurable. The spatial scale is local but infected persons from the community, as well as construction teams who are mobile, could infect more people in other parts of the country.

- ***Impacts related to population influx:***

The proposed development will attract opportunity seekers to the project area as the municipality has a high unemployment rate. Applying pressure on local resources, infrastructure, and services: The capacity of social service delivery is generally under threat in the proposed project areas. Any additional influx of job and business seekers into the area, combined with the construction and operational workforce, will place great pressure on local social services and infrastructure such as roads, clinics, schools, sanitation and water access, and housing.

Increased informal settlements: An influx of temporary opportunity seekers into the area also has the potential to increase the formation of informal settlements, those who cannot afford rental property or experience an inability of bonds on tribal land will likely resort to residing in informal dwellings. This consequently lowers the property value of formal houses which are located in proximity to the informal settlements.

8 Concluding remarks and recommendations

The proposed re-alignment and associated developments are strategic infrastructure projects that align with the objectives of the National Infrastructure Plan (NIP) and the broader goals of the National Development Plan (NDP). These developments are essential for strengthening national water supply infrastructure, supporting economic growth, and enhancing community well-being.

The findings of the SIA) indicate that, with the effective implementation of the recommended mitigation measures, the significance of identified negative social and environmental impacts can be minimized to acceptable levels. At the same time, the project's positive impacts—such as increased water security, employment opportunities, and improved socio-economic conditions—can be maximized to ensure long-term benefits for the affected communities. To achieve this balance, it is strongly recommended that the developer integrates and adheres to the proposed mitigation and enhancement measures outlined in this report. These measures are designed to reduce disruptions, safeguard community interests, and promote inclusive development while ensuring that the project operates in an environmentally and socially responsible manner.

Furthermore, the specialist recommends that the proposed development be authorized, as the no-go alternative would hinder the achievement of national strategic goals, particularly those focused on providing potable water to communities for social and economic use. Failure to proceed with the project could exacerbate existing challenges related to water scarcity, infrastructure deficits, and socio-economic inequalities, ultimately impacting national development priorities. Thus, the approval and responsible execution of this project are crucial to ensuring sustainable water supply, enhanced livelihoods, and broader socio-economic progress in alignment with national policy frameworks.

9 References

- Statistics South Africa, Census 2011.
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- Fetakgomo Tubatse Local Municipality, The Final IDP /Budget - 2024/2025
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- Defence Impact Assessment, 2024
- Sustainable Mine Water Management Strategies, Heaney, 2023
- Effective Mine Water Management Strategies & Best Practices, PPS Group, 2025

In diversity there is beauty and there is strength.

MAYA ANGELOU

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SPECIALIST DECLARATION FORM – AUGUST 2023

Specialist Declaration form for assessments undertaken for application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

REPORT TITLE

OLIFANTS MANAGEMENT MODEL PROGRAMME BULK RAW WATER STUDY PHASE (OMMP-BRWSP): PROPOSED PHASE 2F PIPELINE RE-ALIGNMENT AND ASSOCIATED INFRASTRUCTURE, IN THE FETAKGOMO TUBATSE AND LEPELLE NKUMPI LOCAL MUNICIPALITIES, WITHIN THE CAPRICORN AND GREATER SEKHUKHUNE DISTRICT MUNICIPALITIES, IN THE LIMPOPO PROVINCE.

Kindly note the following:

1. This form must always be used for assessment that are in support of applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting, where this Department is the Competent Authority.
2. This form is current as of August 2023. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.dffe.gov.za/documents/forms.
3. An electronic copy of the signed declaration form must be appended to all Draft and Final Reports submitted to the department for consideration.
4. The specialist must be aware of and comply with *'the Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the act, when applying for environmental authorisation - GN 320/2020)'*, where applicable.

1. SPECIALIST INFORMATION

Title of Specialist Assessment	Social Impact Assessment
Specialist Company Name	Zutari Pty Ltd
Specialist Name	Valentina Kruger
Specialist Identity Number	9502140144086
Specialist Qualifications:	BA in Development Studies - ongoing
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2. DECLARATION BY THE SPECIALIST

I, Valentina Kruger declare that –

- I act as the independent specialist in this application;
- I am aware of the procedures and requirements for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act (NEMA), 1998, as amended, when applying for environmental authorisation which were promulgated in Government Notice No. 320 of 20 March 2020 (i.e. "the Protocols") and in Government Notice No. 1150 of 30 October 2020.
- I 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 applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant 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; and;
    - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 48 and is punishable in terms of section 24F of the NEMA Act.

Signature of the Specialist

Zutari Pty Ltd

Name of Company:

23 Jun 2025

Date

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, _ Valentina Kruger_____, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.

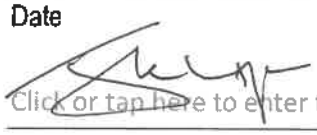
Signature of the Specialist

Zutari Pty Ltd

Name of Company

23 June 2025

Date



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Signature of the Commissioner of Oaths

23 June 2025

Click or tap to enter a date.

Date