

FINAL BASIC ASSESSMENT REPORT



**PROPOSED DEVELOPMENT OF A RESIDENTIAL TOWNSHIP ON A PORTION OF PORTION
39 OF THE FARM TOWNLANDS, LYDENBURG 31 JT, THABA CHWEU LOCAL
MUNICIPALITY, MPUMALANGA PROVINCE**

DARDLEA REF: 17/2/3/E-314

AUGUST 2015

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PROJECT INFORMATION

REPORT TITLE: Basic Assessment Report

REPORT STATUS: Final

PROJECT TITLE: Proposed Establishment of Lydenburg Residential Township

USER CLIENT (APPLICANT): Vipcon (PTY) LTD Property Developers & Project Management

ENVIRONMENTAL CONSULTANTS: Wandima Environmental Services

DARDLEA REFERENCE NUMBER: 17/2/3/E-314

WES REFERENCE NUMBER: 14/30/07/15

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EXECUTIVE SUMMARY

1. ACTIVITY INFORMATION

1.1 Background

The Thaba Chweu Municipality Promotes the development of residential townships in the Lydenburg area, which falls under its jurisdiction, for the purposes of disposing off serviced and improved erven to purchasers wishing to acquire ownership of erven in the Townships. This development was originally initiated in 2006 by the then Mpumalanga Housing Finance Company. While preliminary activities were under way to get the project off the ground, the Mpumalanga Housing Finance Company, together with others, amalgamated to form Mpumalanga Economic Growth Agency (MEGA). When this change happened many initiatives fell through the cracks and this project was one of those.

1.2 Project description

The proposed development will consist of residential erven, business area, schools, municipal area, institution (clinic, pre-school, church) and public open space. The size and number of stands for each activity is as follows:

Zoning	Number of erven	Size
Residential 1	3767	138,3211 m ²
Residential 2	4	3,9319 m ²
Business 1	5	6,8818 m ²
Educational	3	11,9494 m ²
Special (Buss/ Comm Fac)	3	0,4628 m ²
Special (Comm Fac)	5	1,6232 m ²
Special (Mixed Uses)	88	10,9615 m ²
Special (Telecommunication)	1	0,5049 m ²
Open Space	16	66,1368 m ²
Public Roads		63,3027 m ²
Total	3892	304,0761 m ²

1.3 Listed activities according to EIA Regulation (2010), R543:

The proposed project will trigger the following listed activities according to the National Environmental Management Act 1998 (Act No. 107 of 1998) Regulation 2010, **R545**:

- **R545 of 18 June 2010 – 15 (iii)**: Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational institutional use where the total area to be transformed is 20 hectares or more.

The Listing Notice requires the applicant to undertake S&IER. However, a downgrading application was lodged with the Competent Authority and duly accepted due to the fact that the environmental issues and concerns of the development can be addressed in a Basic Assessment Report.

2. PROPERTY DESCRIPTION

2.1 Location and Particulars of Property

The proposed project is to be situated on a portion of Portion 39 of the Farm Townlands, Lydenburg 31 JT, Thaba Chweu Local Municipality. The site is bounded by Lydenburg Extension 6 to the east, Mashishing Township to the west and Voortrekker Street to the north. The mid-point GPS co-ordinates are 25° 5' 55.20" S, 30° 25' 52.92" E.

2.2 Current Land Use

The site is currently zoned "Agricultural" but is in the process of being rezoned for township development. 70% of the site is vacant with 30% being invaded by informal squatters on the western boundary of the development site. The land use for adjacent neighbouring areas is mainly "Residential".

2.3 Description of the Environment

2.3.1 Climate

Mpumalanga is a province where the climate varies due to its topography. The Mpumalanga climate changes from the Highveld to the Lowveld area, and the vegetation in each area is determined by the climate it experiences. Lydenburg, located on the Lowveld Region, has a tropical climate with warm sub tropical temperatures and experiences high summer rainfalls. The Mean Average Temperatures (MAT) ranges at 16°C. The Annual rainfall ranges between 580mm and 810mm (MAP 707 mm) and it falls within rainshadow because it is generally lower than in surrounding areas. The area experiences fairly infrequent frost.

2.3.2 Topography

Lydenburg is located at the base of the Long Tom Pass on the banks of the Sterkspruit River. The average elevation of Lydenburg is 1,416 m.a.s.l. The site itself has an undulating and generally flat landscape, sloping gently from the south west to the north east.

2.3.3 Geology and Soil profile

The area of interest is underlain by greenish grey fine-grained shale and mudstone belonging to the Boven Member of the Silverton Formation of the Pretoria Group, Transvaal Sequence. Diabase belonging to the Marico Diabase Suite, which is probably related to an early intrusive phase of the Bushveld Complex, has intruded into the sediments of the Transvaal Sequence. The diabase is encountered mainly as dykes and is characteristically encountered at the contact between shales and quartzites and often over long distances of strike.

The **Soil profile** encountered was ferricrete, classed as pedogenic material. The site is blanketed with a thin layer of fine-grained colluvium. The colluvium is considered to exhibit a collapsible grain structure and should therefore be regarded as being potentially collapsible and/or compressible.

3. PUBLIC PARTICIPATION PROCESS

3.1 Approach

A public participation process (PPP) was followed in according with the 2010 EIA regulations, GNR543, Section 54. This process was executed as follows:

All possible Interested & Affected Parties (I&AP's) were contacted to register and give them an opportunity to meaningfully participate in the process from 21/11/2014 till 12/01/2015. Contact was made with nearby property owners and key I&AP's by handing out notices, e-mails were sent to some of the persons that were not available at the time and fixed site notice boards were placed on various key points on the boundaries of the property. A PPP meeting was held on 28 January 2015 and all issues raised are recorded in the PPP report.

All issues raised in the meeting were responded to and properly addressed. The Draft BAR was subjected to public review for 30 days for scrutiny and comments thereof. This gave the I&AP's an opportunity to voice their concerns regarding the proposed project. The registered Government Departments had 40 days to comment on the draft BAR. The draft BAR was also available on the Wandima Environmental Services (WES) website for download to be reviewed.

3.2 Further Participation

After the 30 days for I&AP commenting period, all issues raised were recorded and included in the Final BAR. The Final BAR will be submitted to the Competent Authority for final review and decision making. After the decision has been made and an

Environmental Authorization (EA) issued, the decision will be communicated to all registered I&AP's and will be afforded the opportunity to appeal against any decision.

4. IMPACT ASSESSMENT

Potential impacts of the activities on the biophysical and socio-economic components of the environment were analysed which includes the design/preconstruction, construction, operational and decommissioning phases. Both negative and positive impacts were assessed, negative for mitigation of impacts and positive for enhancement of the environment. The assessment also covered three (3) areas of specialization this includes Terrestrial & Wetland Assessment Report, Heritage Impact Assessment, Engineering Services Report and a Geo-technical Report. The Specialist studies for the establishment and operation of the proposed Residential Township were undertaken to determine the possible impacts likely to arise due to the construction and operational phase. The findings of the specialists' assessments were included in the impact assessment and all impacts described in detail in the reports.

4.2 Summary of Impact Assessment

According to the findings of the specialists, the nature of predicted impacts, their extent, duration, intensity, probability and significance are summarized in Table 1.

Table 1: Summary of Impact Assessment

PREFERRED ALTERNATIVE							
Phase	Nature of Impact	Extent	Duration	Intensity/ Severity	Probability/ Certainty	Significance	
						Before	After mitigation
Planning	Topography	Site	Long term	Low	Definite	Medium	Low
	Land use	Site	Long term	Low	Definite	Low	Low
	Geology	Site	Long term	Low	Probable	Low	Low
	Locality	Site	Long term	Low	Definite	Low	Low
Construction	Geology - Topography	Local	Short term	Medium	Probable	Medium	Low
	Surface & groundwater	Site	Short term	High	Definite	High	Medium
	Generation of spoil material and general waste	Site	Short term	Low	Definite	Medium	Low
	Loss of Fauna & Flora	Site	Long term	High	Definite	High	Medium
	Workforce management	Local	Short term	Low	Definite	Medium	Low
	Erosion	Local	Short term	Low	Probable	Medium	Low
	Visual impacts	Local	Long term	High	Definite	Medium	Low
	Traffic and Neighbourhood disruptions	Local	Long term	High	Probable	High	Medium
Operational	Surface & groundwater	Local/ downstream	Long term	Low	Probable	High	Low
	Erosion	Site	Long term	Low	Probable	Medium	Low
	Visual impacts	Site	Long term	High	Definite	High	Medium
	Availability of services and waste management	Local	Long term	Medium	Probable	Medium	Low
	Positive Social Impacts	Local	Short term	High	Definite	High	
	Negative Social Impacts (unavailability of employment)	Local	Long term	Medium	Definite	High	

5. CONCLUSIONS AND RECOMMENDATIONS

A basic environmental impact assessment, underpinned by an extensive Public Participation Process, was conducted. As per the DEAT Guidelines (2006), all relevant Interested and/or Affected Parties (I&APs) were identified, notified and every effort made to ensure their involvement and participation in the process. Also, all relevant Authorities, notably the Local Municipality, non governmental organizations, service providers as well as key stakeholders, were notified and invited to participate in the process.

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Definition of Terms

"Activity" means an activity identified in Government Notice No. R. 544 and No. R. 545 of 2010 as a listed activity
"Alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to property, activity, design or technology.

"Associated Infrastructure" means any building or infrastructure that is necessary for the functioning of a facility or activity or that is used for an ancillary service or use from the facility.

"Cumulative impact", in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

"Environmental impact assessment", means the process of collecting, organizing, analyzing, interpreting and communicating information that is relevant to the consideration of that application.

"Environmental management programme" means a detailed plan of action prepared to ensure that recommendations for enhancing positive environmental impacts and/or limiting or preventing negative environmental impacts are implemented during the life-cycle of a project.

"Interested and Affected Party" means any person, group of persons or organization interested in or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity;

"Public Participation Process" means a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters;

"Significant impact" means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment;

"The Act" means the National Environmental Management Act, 1998 (Act No.107 of 1998).

Abbreviations

BA	Basic Assessment
BID	Background Information Document
DARDLEA	Department of Agriculture, Rural Development, Land and Environmental Affairs
DEAT	Department of Environment, Agriculture and Tourism
DAFF	Department of Agriculture, Forestry and Fishery
DEA	Department of Environmental Affairs
DWS	Department of Water and Sanitation
EA	Environmental Authorization
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Program
I&APs	Interested and Affected Parties
MAP	Mean Annual Precipitation
MBCP	Mpumalanga Biodiversity Conservation Plan.
MTPA	Mpumalanga Tourism and Parks Agency
NEMA	National Environmental Management Act, Act No 107 of 1998
NEM:WA	National Environmental Management: Waste Act, Act No 59 of 2008.
SABS	South African Bureau of Standards
WES	Wandima Environmental Services

ASSUMPTIONS & LIMITATIONS

For the purpose of this report it has been assumed that all information received from the client has been correct.

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