

# **ENVIRONMENTAL IMPACT ASSESSMENT (EIA)**

**PROPOSED RESIDENTIAL DEVELOPMENT ON THE REMAINING EXTENT  
OF PORTION 2 AND REMAINING EXTENT OF PORTION 9 OF THE FARM  
ELANDSFONTEIN 102JQ, BOSHOEK, NORTH WEST PROVINCE**

**REF: NWP/EIA/52/2014**

## **BACKGROUND INFORMATION DOCUMENT (BID)**

Prepared by



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## LIST OF ABBREVIATIONS

BID	Background Information Document
CBD	Central Business District
CARA	Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983)
DAFF	Department of Agriculture, Forestry & Fisheries
DPWRT	Department of Public Works, Roads & Transport
DWA	Department of Water Affairs
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMF	Environmental Management Framework
EMP	Environmental Management Programme
GDP	Gross Domestic Product
GNR	Government Notice Regulation
GPS	Global Positioning System
I&AP	Interested and Affected Party
NEMA	National Environmental Management Act, 1998 (Act 107 of 1998) as amended
NW READ	North West Department of Rural, Environmental and Agricultural Development
PPP	Public Participation Process
RLM	Rustenburg Local Municipality
SDF	Spatial Development Framework
SEA	Strategic Environmental Assessment
SAHRA	South African National Heritage Resources Act, 1999 (Act 25 of 1999)

## 1. INTRODUCTION

HydroScience cc, an independent Environmental Assessment Practitioner (EAP), has been appointed by Green Star Developments (Pty) Ltd, to undertake a full Environmental Impact Assessment (EIA) and submit a Scoping and Environmental Impact Report (EIR) to the relevant authority to apply for environmental authorisation for the proposed construction of a township on the Remaining Extent of Portion 2 and the Remaining Extent of Portion 9 of the farm Elandsfontein 102JQ, Rustenburg, in the North West Province.

As part of the EIA process (Figure 1), an application, in terms of the National Environmental Management Act (NEMA), 1998 (Act 107 of 1998), as amended, and associated Regulations of 2010, has been submitted to the North West Department of Rural, Environmental and Agricultural Development (NW READ).

## 2. PURPOSE OF THIS DOCUMENT

The purpose of this document is to provide background information (in addition to the notices on the site and published in the newspaper) in terms of Government Notice Regulation (GNR) 543 (Sections 54 through 57) of NEMA to all Interested and Affected Parties (I&APs) regarding the intention of the proposed project as described above.

In addition, this document will provide a platform from which to obtain comments and contributions from stakeholders with regard to the potential environmental impacts of the proposed project as part of the Public Participation Process (PPP). The aim of the PPP is not only to adhere to the required legislation, but also to give as many stakeholders and I&APs as possible an opportunity to be actively involved in this process.

The PPP will be carried out in accordance with Chapter 6 of NEMA as amended and in support of the Environmental Impact Assessment Regulations, 2010 and associated guidelines.

## 3. ROLE OF I&APs

You are invited to register as an I&AP (see contact details and registration form attached) and to assist us in:

- Identifying issues of concern that need to be investigated as well as possible impacts of the proposed project on the environment; and
- Suggesting alternatives to mitigate possible negative impacts and enhance positive impacts.

Your input is considered valuable as it contributes to:

- The decision-making process;
- Information on public needs, values and expectations; and
- Local and traditional knowledge.

The following authorities will also be notified and requested to provide comments:

- Department of Water Affairs (DWA) in terms of the National Water Act (NWA), 1998 (Act 36 of 1998).
- The South African Heritage Resources Agency in terms of the South African National Heritage Resources Act (SAHRA), 1999 (Act 25 of 1999).
- The Department of Agriculture, Forestry and Fisheries (DAFF) as the property is currently zoned for agricultural use.
- The Rustenburg Local Municipality (RLM), who is the local authority under whose jurisdiction it falls and who needs to ensure that the development fits in with their Spatial

Development Framework (SDF), Strategic Environmental Assessment (SEA) and Environmental Management Framework (EMF).

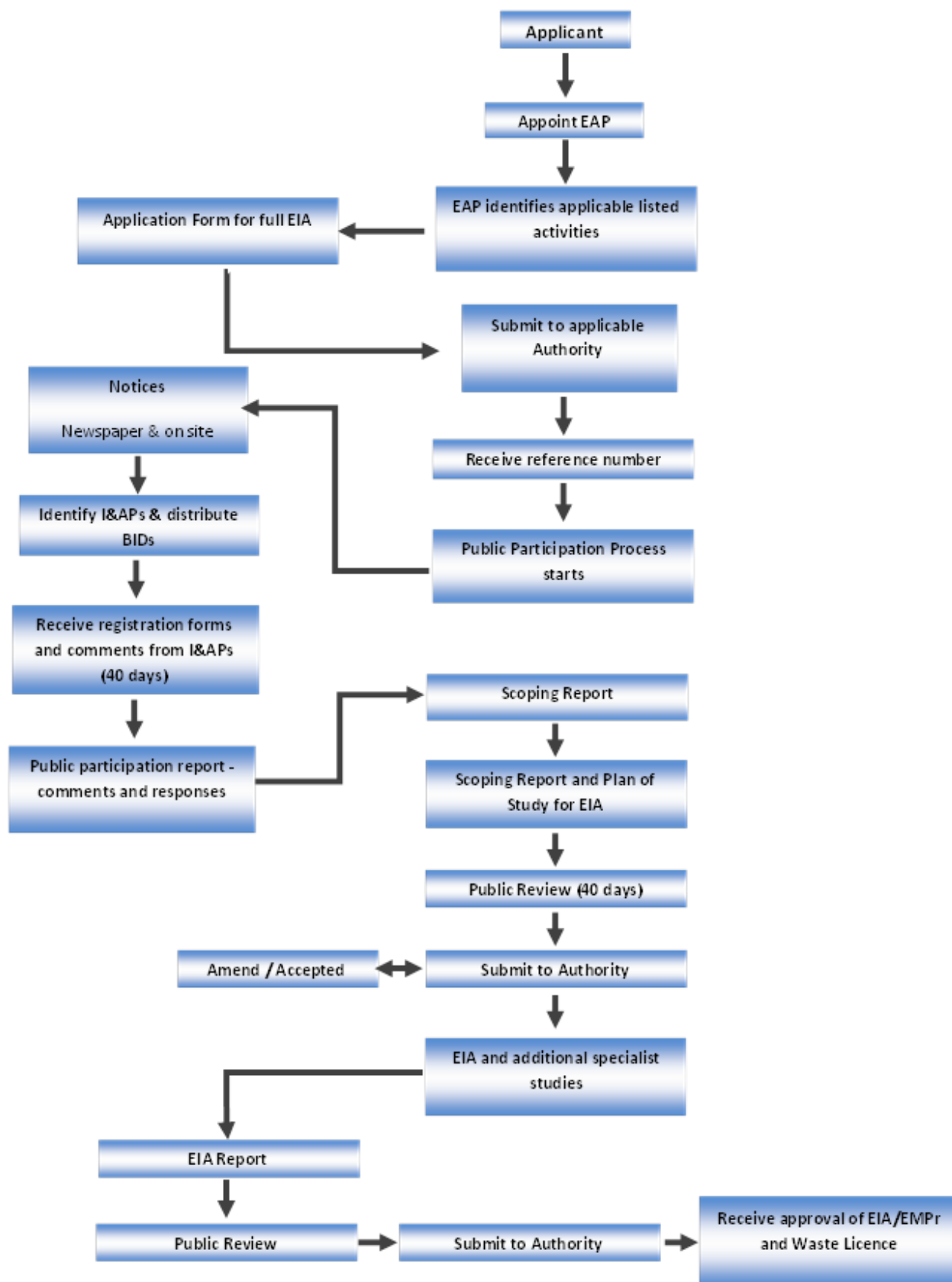


Figure 1: Simplified diagram presenting the EIA process

## **4. PROPOSED PROJECT**

### **4.1. Project motivation**

According to the Rustenburg Spatial Development Framework (SDF, 2010), the total population of Rustenburg have increased from 395 000 in 2001 to nearly 450 000 in 2007. This represents an increase of 13.6% over this period and thus implies an annual growth rate of approximately 2.3%. A notable feature is that the growth in the number of households (25.6%) was nearly double that of the population figures, translating into a household growth rate of 4.3% per annum. Approximately 84% of the Rustenburg Municipal Area population can be classified as urbanized, residing in either urban or rural settlements. Only 10% of the total population lives on farms. Furthermore, the agricultural sector only accounts for 3.4% of the employed population in 2007, this slightly decreased from 4.1% in 2001. A low percentage of the male population (2.6%) is involved in the agricultural sector.

The Rustenburg Housing Sector Plan analysed the total overall municipal housing need, as well as the spatial disaggregation housing need per settlement cluster. According to these figures, the total backlog (which comprises of informal structures in informal settlements, informal structures in backyards, traditional houses constructed of traditional materials and other informal categories), is estimated to be approximately 58 600 units. This backlog is mostly concentrated in the Boitekong/Kanana Cluster ( $\pm 14\ 000$ ), the Thekwane-Mfidikoe-Photsaneng Cluster ( $\pm 12\ 000$ ) and the Rustenburg/Thlabane cluster ( $\pm 6\ 000$ ) (SDF, 2010).

The potential future growth of the municipality, resulting from both natural growth, as well as immigration to the area due to its high economic growth rate, will result in an additional demand for housing up to 2015. The total additional demand over this period is estimated to be approximately 57 000 units. This figure includes both affordable housing units to be provided through the public sector, as well as bonded houses to be provided through the private sector (SDF, 2010).

### **4.2. Project objective**

The main objective of the project is to establish a township development that will contribute to the development and growth of Rustenburg, consequently adding to the Gross Domestic Product (GDP) of the city as a whole.

### **4.3. Project locality**

The proposed township will be established on the Remaining Extent of Portion 2 and the Remaining Extent of Portion 9 of the farm Elandsfontein 102JQ, North West Province. The proposed project area of land is located 4 km west of Chaneng, 7km south west of SunCity and approximately 26 km north west from the Rustenburg Central Business District (CBD). These portions can be accessed via the R565 on the eastern boundary of the site. Global Positioning System (GPS) coordinates are 25° 25' 35" South; 27° 04' 01" East (please refer to the topographical map – Figure 2 and the Locality map – Figure 3). The farm portion is bordered by agricultural land (north, west, south) (Figure 4) and mining activities (east).

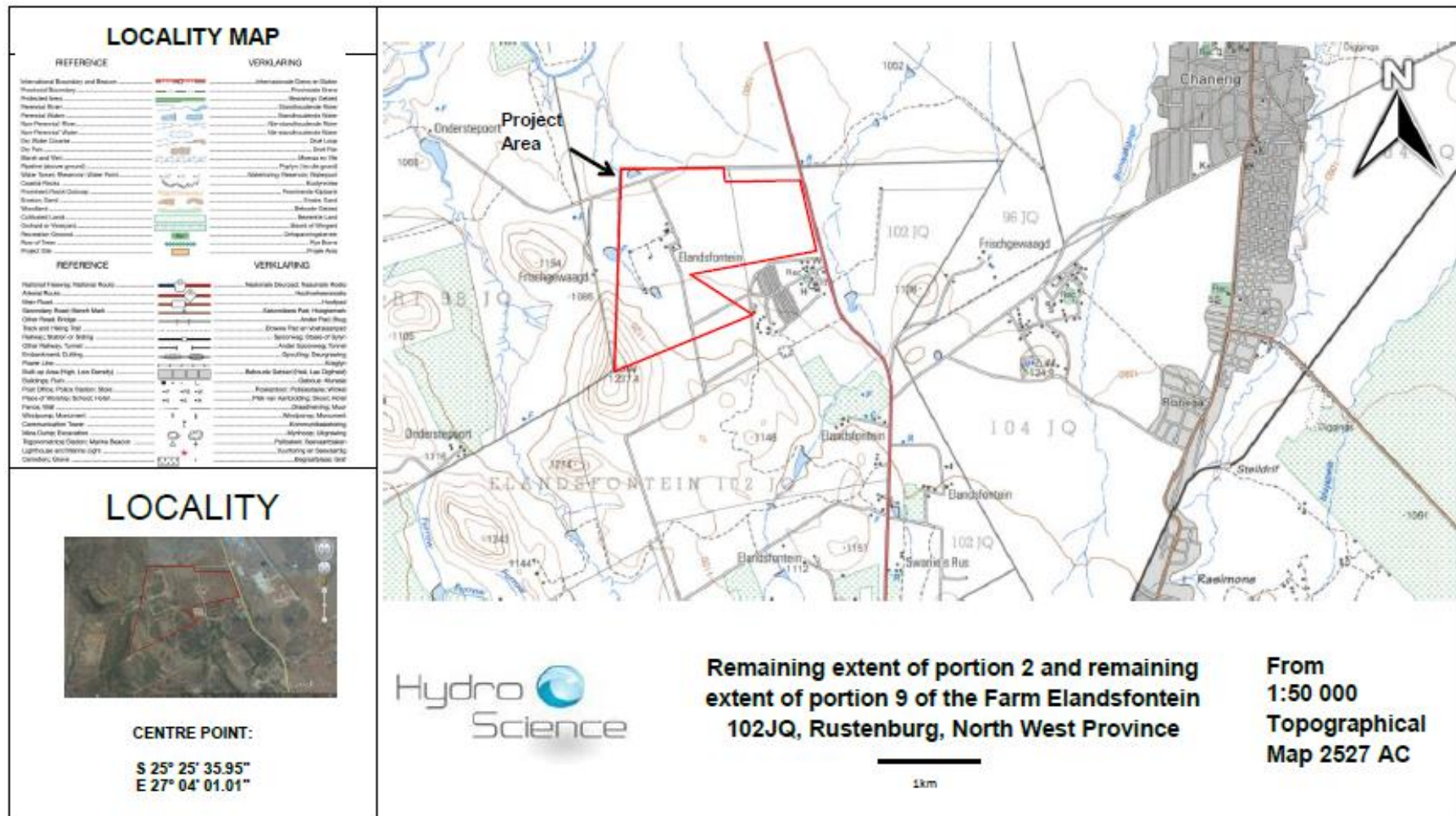


Figure 2: Topographical map indicating the proposed project area, Rustenburg, North West Province

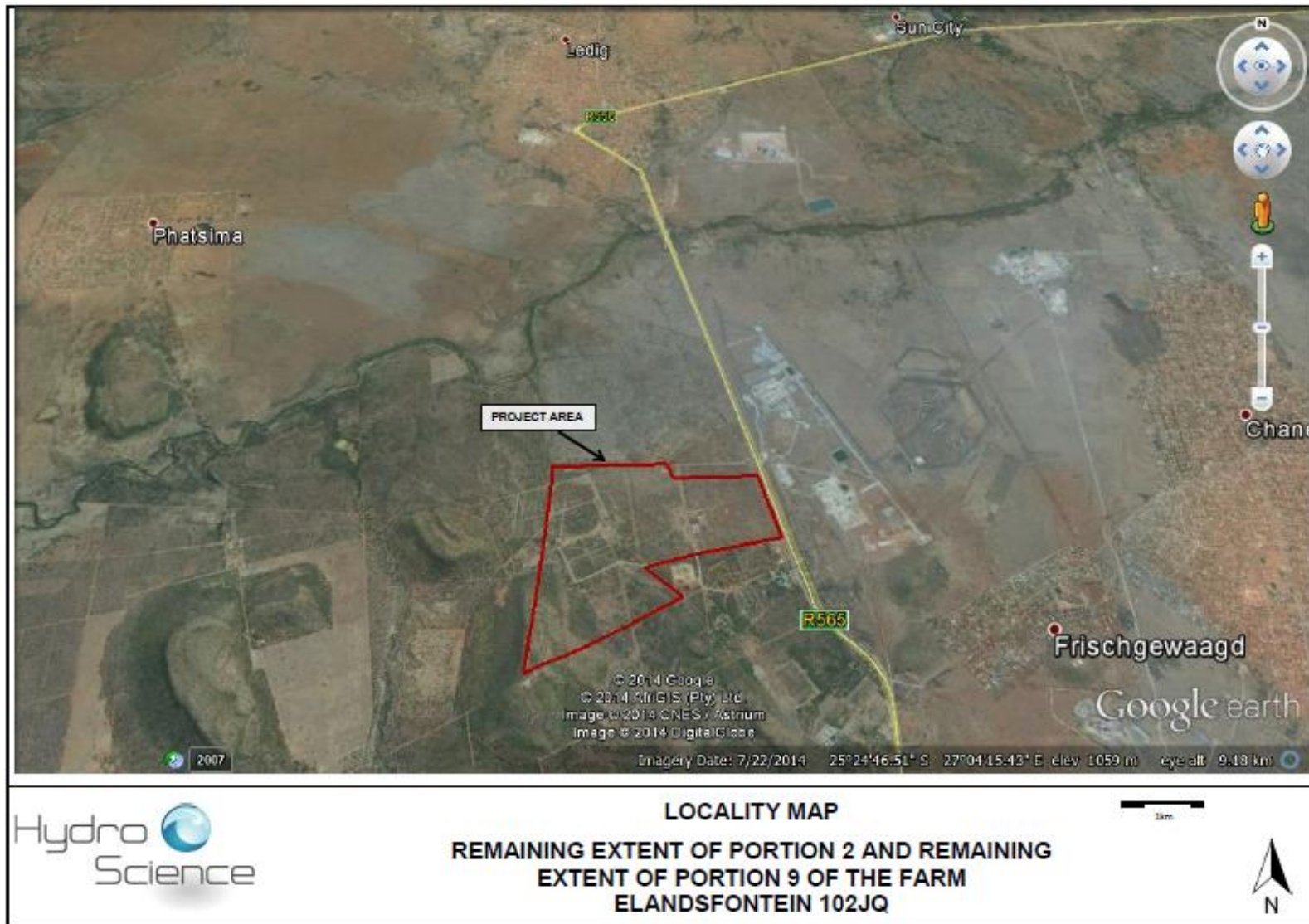


Figure 3: Google™ locality map of Project Site on the farm Elandsfontein 102 JQ

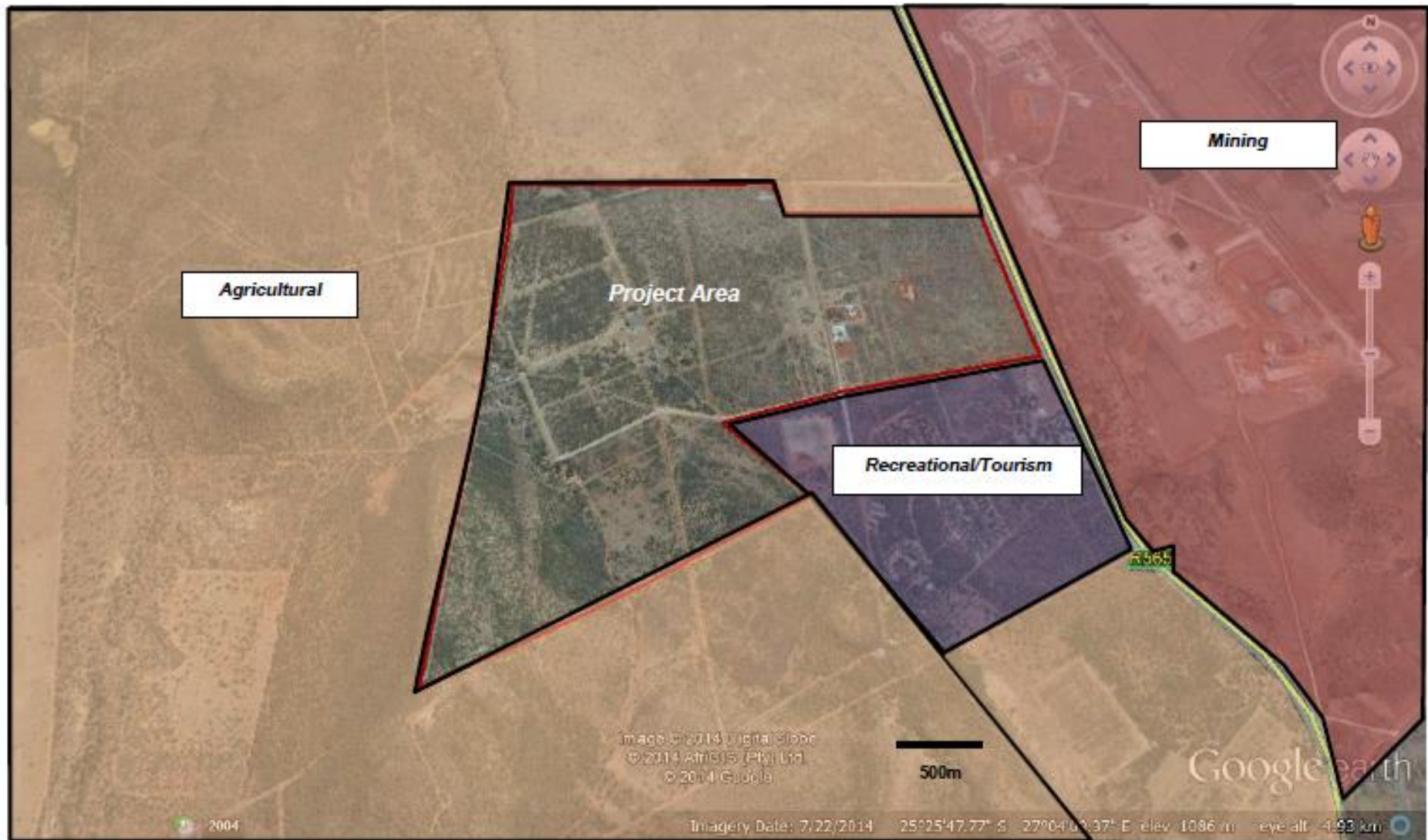


Figure 3: Google™ image showing current surrounding land use



#### 4.4. Project description

The site has a size of 200.5 ha and is largely undisturbed and undeveloped except for tracks and gravel roads that lead to farmsteads and small developments. In the process of developing the site into a township, the following main activities will take place:

- Vegetation will be cleared during earth works and the construction phase;
- Bulk municipal services (sewage, electricity, water supply and roads) will be established and linked; and
- Infrastructure (residential dwellings) will be built during the construction phase.

The planned infrastructure will include:

- Residential units;
- School
- Access and internal roads; and
- Infrastructure for bulk services (water supply and sewage).

#### 4.5. Project schedule

The projected leading time on completion is five (5) years once environmental authorisation has been obtained. The environmental authorisation process will take approximately eighteen (18) months.

#### 4.6. Additional Work

The following additional specialist studies will need to be included:

- A geotechnical study to establish soil conditions and stipulate building and foundation requirements.
- A wetland delineation study as the tributary of the Elands River is less than 500m from the site.
- Due to the amount of indigenous vegetation to be cleared, a fauna and flora must be included.
- A traffic study to assess the potential impacts of the development on traffic in the area.
- An archaeological, cultural and heritage specialist study to ensure that if any heritage sites of importance are found, they will not be impacted upon.
- An application in terms of the Township Ordinance will be submitted by the Town Planner to the RLM in terms of Town Planning requirements.
- A civil engineering service report or service agreements to address the provision of solid waste removal services, water and electricity supply and sewage management.
- A geohydrological specialist study will be required if the use of groundwater is planned as part of the development.

### 5. POTENTIAL IMPACTS

Preliminary predictions of possible impacts that may occur and need to be managed as part of the Environmental Management Programme (EMP) include:

- Dust generation due to vegetation removal and site clearance (soils are exposed) as well as earth works and construction (construction vehicle movement etc);
- Removal of a large quantity of vegetation due to site clearance and associated loss of fauna habitat;
- Erosion potential due to vegetation removal and site clearance (soils are exposed);
- Noise generation during the construction phase (workers, vehicles, machinery, equipment) and operational phase (people, vehicles, pets, traffic);

- Change of land use and characteristic of area;
- Improper waste and wastewater management during the construction phase; and
- Increased traffic during the construction and operational phase of the project.

If the scoping phase indicates that specific specialist studies are required, these will be pursued.

## 6. APPLICABLE LEGISLATION

An application for environmental authorisation, in terms of the NEMA, as amended, has been submitted to the NW READ (Reference number NWP/EIA/52/2013).

Notification, in the form of site notices and an advertisement placed in the Rustenburg Herald (16/17 October 2014), was given to all I&APs, as prescribed in Chapter 6 of NEMA, informing them that a full EIA process (Scoping and EIA) will be followed and an EIR will be submitted to the relevant authority to obtain environmental authorisation for the proposed development as set out in Section 4 of this document.

The following listed activities which require environmental authorisation were identified in terms of the relevant legislation:

### **NEMA (18 June 2010)**

**GNR 544, Activity 9** - The construction of facilities or infrastructure exceeding 1000 metres in length for the bulk transportation of water, sewage or storm water -

- (i) with an internal diameter of 0.36 metres or more; or
- (ii) with a peak throughput of 120 litres per second or more, excluding where:
  - a. such facilities or infrastructure are for bulk transportation of water, sewage or storm water or storm water drainage inside a road reserve; or
  - b. where such construction will occur within urban areas but further than 32 metres from a watercourse, measured from the edge of the watercourse.

**The establishment of a township will include the construction of infrastructure for the supply of bulk services to the township. The pipelines associated with service provision are outside of the urban edge and may not be limited to the road reserve.**

**GNR 544, Activity 22** - The construction of a road, outside urban areas,

- (i) with a reserve wider than 13,5 meters or,
- (ii) where no reserve exists where the road is wider than 8 metres, or
- (iii) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Notice 545 of 2010.

**As part of the township layout, many access roads will be developed and due to the fact that the proposed development is situated outside of the urban edge, this activity may be applicable.**

**GNR 545, Activity 15** - The physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more.

**The proposed project will include the establishment of a township in an undeveloped area and the extent will be approximately 200 hectares, which is significantly more than 20 hectares.**

**GNR 546, Activity 14** - The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation

(a) In Eastern Cape, Free State, KwaZulu-Natal, Gauteng, Limpopo, Mpumalanga, Northern Cape,

Northwest and Western Cape:

- i. All areas outside urban areas.

**The site is relatively undisturbed, outside of the urban edge and consist of many indigenous species over an area of 200 hectares that will be removed.**

## **7. PROCESS AND WAY FORWARD**

- An application for environmental authorisation has been submitted to NW READ. The reference number: NWP/EIA/52/2014 has been assigned and the application will be handled by Mrs Thembekile Makuwa in the NW READ offices at 114 Chris Hani, Potchefstroom reachable on 018 299 6583.
- Notices have been placed in the Rustenburg Herald (16/17 October 2014) and on the site (17 October 2014).
- Further notification and Background Information Documents (BID) are to be delivered by hand, fax, registered mail or email to other identified I&APs, including neighbours, authorities and other stakeholders in the area throughout the process.
- Comments/registration forms from I&APs should be received on or before 25<sup>th</sup> November 2014.
- A Scoping Report will become available for public review during 30<sup>th</sup> October - 8<sup>th</sup> December 2014.
- A final EIR will be submitted to the NW READ for their review and a decision in 2015.

## **8. CONTACT DETAILS**

Please complete the attached form or contact the person below should you wish to be registered as an I&AP or make any comments regarding this project.

### **HydroScience cc**

Person: Nandipha Mabuza  
Tel: 082 667 5056  
Fax: 086 692 8820 / 086 588 1770  
E-mail: nandipha@hydroscience.co.za  
Postal address: P.O. Box 1322, Ruimsig, 1732

**COMPLETE & FAX OR E-MAIL TO:**

**HYDROSCIENCE 086 692 8820 / 086 588 1770 / nandipha@hydroscience.co.za**

<b>ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED DEVELOPMENT ON THE          REMINING EXTENT OF PORTION 2 AND THE REMAINING EXTENT OF PORTION 9 OF THE          FARM ELANDSFONTEIN 102 JQ, RUSTENBURG, NORTH WEST PROVINCE          REFERENCE: NWP/EIA/52/2014</b>
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**INTERESTED AND AFFECTED PARTY REGISTRATION AND COMMENT SHEET**

<b>Title:</b>	<input type="checkbox"/> Mr	<input type="checkbox"/> Mrs	<input type="checkbox"/> Ms	<input type="checkbox"/> Dr		
<b>Surname:</b>				<b>First name &amp; initials:</b>		
<b>Organisation / Company:</b>						
<b>Postal / physical address:</b>				<b>Postal code:</b>		
<b>Tel:</b>				<b>Fax:</b>		
<b>Email:</b>				<b>Cell:</b>		
<b>Interest in approval or refusal:</b>	<b>Business:</b>	YES	NO	<b>Preferred method of notification / communication</b>	<b>Post/mail:</b>	
	<b>Financial:</b>	YES	NO		<b>Fax:</b>	
	<b>Personal:</b>	YES	NO		<b>Email:</b>	
<b>Details of interest:</b>						
<b>Name of other I&amp;AP to be contacted:</b>						
<b>Contact details:</b>						

**Comments: (please use separate sheets if you wish/require)**

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**Thank you for your comments, participation and time. Your contribution is appreciated and will form part of the final submission to the authority for decision-making.**