

DIGBY WELLS

ENVIRONMENTAL

NOTIFICATION OF INTENT TO DEVELOP

SAHRIS Case ID: 10221
Reference:

DMR LP 30/5/1/3/2/1 (46) EM
Reference:

Digby Wells EXX3666
Reference:

EXXARO COAL (PTY) LTD GROOTEGELUK COAL MINE SHORT-TERM STOCKPILE AMENDMENT PROJECT

1 Introduction

Exxaro Coal (Pty) Ltd (hereafter Exxaro) is the proprietor of the Grootegeluk Coal Mine near Lephalale in the Limpopo Province (refer to Section 1.1 below for detailed project location information), with an approved Consolidated Environmental Management Programme (EMP) in terms of the Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), which was originally approved in July 2014. The Grootegeluk Expansion Project EMP was an addendum to the Consolidated EMP and was approved in August 2015. The first EMP was approved by the Department of Minerals and Energy (DME) during 1985. The EMP then was updated in 2004 and approved on the 4th January 2006 and now forms part of the Consolidated EMP approved in 2014.

Exxaro have previously submitted an application to the Department of Mineral Resources (DMR) to expand certain infrastructure within the mine boundary, authorised by the Limpopo Department of Economic Development, Environment and Tourism (LEDET) (Ref. No. 12/1/9/1-W89; SAHRIS Case ID: 5935) in October 2014 and the DMR authorisation was granted in August 2015.

At present, Exxaro is contracted to supply coal to the Medupi and Matimba power stations, however, off-take of coal has slowed due to the delay in the construction of the Medupi power station thus now additional stockpile space is required to accommodate the excess coal on site. To this effect, Exxaro have requested Digby Wells Environmental (hereafter Digby Wells) to assist with the necessary studies and amendments to comply with National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and National Water Act, 1998 (Act No. 36 of 1998) (NWA) for this proposed amendment.

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This document serves as the Notification of Intent to Develop (NID) for submission to the South African Heritage Resources Agency (SAHRA) and Limpopo Heritage Resources Authority (LIHRA) required in terms of Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA).

1.1 Project location

Project specific location details are summarised in Table 1-1.

Table 1-1: Project location details

Name of property	Grootegeeluk Coal Mine	
Erf or farm numbers	Daarby 458 LQ Enkelbult 562 LQ	
Coordinates of approximate centre of project area	S -23.642847	
	E 27.558117	
Magisterial District	Ellisras Magisterial District	
District Municipality	Waterberg District Municipality	
Local Municipality	Lephalale Local Municipality	
Nearest town	Lephalale	
Maximum extent of proposed development	~64.1 ha	GG10B area – 16.6 ha GG10B Extension Area, not previously assessed as part of the 2014 Application – 12.8 ha Laydown Area – 29.6 ha Multiproduct Overflow Stockyard – 5.1 ha
Current use	Open cast coal mining	
Predominant land use/s of surrounding properties	Mining	

1.2 Registered owner

Information pertaining to the landownership and representative is presented in Table 1-2.

Table 1-2: Registered owners of the properties under assessment

Name	Properties	Notified
Exxaro Coal (Pty) Ltd	Daarby 458 LQ Enkelbult 562 LQ	N/A

2 Project / development details

Exxaro owns multiple mining operations, including Grootegeluk Coal Mine (hereafter Grootegeluk), which has been in operation since 1982 in the Limpopo Province. Grootegeluk is located approximately 20 km outside of Lephalale and is contracted to supply coal to Eskom's Matimba power station and the Medupi power station. Due to delays in the start-up of Medupi the off-take of Eskom coal has slowed and Exxaro requires additional stockpiling space to accommodate the excess coal on site.

Exxaro applied to expand certain infrastructure within the mine boundary area, referred to as the Grootegeluk Coal Mine Infrastructure Expansion Project. Exxaro submitted Applications in terms of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998) and Minerals and Petroleum Resources Development Act (MPRDA), 2002 (Act No. 28 of 2002) to include the following activities / expansions within the mine boundary:

- Expansion of the rail loop, load out stations and associated infrastructure;
- Expansion of the existing coal stockyard and stockpiles;
- Expansion of the fuel storage depot;
- Expansion of beneficiation plants and associated infrastructure;
- New road and conveyors to fines recovery area;
- New gate and hard park area; and
- Expansion of ancillary infrastructure and new 33 kV power line.

The aforementioned 2014 amendment was also associated with the expansion of the existing coal product stockpiles. The following stockpiles and stockyards were included in the applications and approved:

- GG 6/2 stockyard;
- GG 10 stockyards;
 - Conical Stock pile;
 - Stockyard A and
 - Stockyard B;
- Multi-product overflow stockyard

The Grootegeluk Coal Mine Infrastructure Expansion Project was authorised in terms of the NEMA and the Environmental Impact Assessment Regulations of 2010¹, (which have been repealed). The Limpopo Department of Economic Development, Environment and Tourism (LEDET), and the Record of Decision are dated 27 October 2014, with reference number 12/1/9/1-W89 (refer to Figure 2-1). The Department of Mineral Resources (DMR)

¹ Dated 18 June 2010

Environmental Management Programme (EMP) Amendment approval was granted on the 28 August 2015.

Exxaro proposed a phased authorisation approach for the amendments that are being requested. Exxaro proposes to amend the existing Authorisation relevant to the Grootegeluk Mine Infrastructure Expansion Project (which included the expansion of the GG10 Stockyards and several other stockpile areas).

The purpose of these amendments is to allow Exxaro to legally stockpile Eskom-grade coal currently being mined from the upper coal benches at the Grootegeluk Mine. In summary the two phases included the following:

- Phase 1: Amendment of the GG10A stockyard for temporary use - The amendment of the GG10A stockyard area with the capacity of 400,000m³ to include the alternative of a temporary 2 Mt compacted Power Station Coal Stockpile in the same footprint area.
- Phase 2: Amend the GG10B stockyard area - The amendment of the GG10B stockyard to include the additional area inside the loop not originally included. To also amend the use of the multi-product overflow stockpiles to stacking and loading areas. The additional 1.1mil stockpiles area in the footprint of the original Coke and Co-gen area will need to be included as an additional area. It is assumed the amount of coal to be stockpiled in this area will total six megatons

Further to what has been noted above regarding the requested amendment, Exxaro received approval from Department of Water Affairs (DWS) and DMR for Phase 1 of the project on the 5th May 2016 and 7th July 2016 respectively. This part of the project and associated specialist studies conducted is in support of the Phase 2 amendment that is being requested for in terms Section 31 of the 2014 NEMA Regulations applies as this is an amendment to an existing Environmental Authorisation. Thus the information contained within this specialist report is specific to the Phase 2 amendment process, however does make reference to Phase 1 with respect to the areas assessed.

It is proposed to utilise the Laydown Area, GG10B, and Multiproduct Stockyard footprints, authorised in terms of the Grootegeluk Coal Mine Infrastructure Expansion Project (Ref. No. 12/1/9/1-W89; SAHRIS Case ID: 5935), and extend the GG10B Stockyard footprint by ~12.8 ha, to stock excess Eskom-grade coal only for a period of five years. It is assumed the amount of coal to be stockpiled on these footprints will total six megatons (Mt).

The proposed expansion of the GG10B Stockyard will entail the inclusion of the internal area of a discontinued rail-loop within the current mining area (Figure 2-1). The assumed grade of coal to be placed on this proposed consolidated stockpile area has been classified as Type 3 waste, requiring a Class C liner or equivalent liner system. It must be noted that the liner requirements for Phase 1 and Phase 2 will differ and is based on the waste classification that was undertaken. It is assumed the amount of coal to be stockpiled in this area will total six megatons

The proposed changes will require authorisation in terms of Regulation 31 of the NEMA and, a Section 21(g) Authorisation in terms of the National Water Act, 1998 (Act No 36 of 1998) and a Section 38(8) submission in terms of the NHRA.

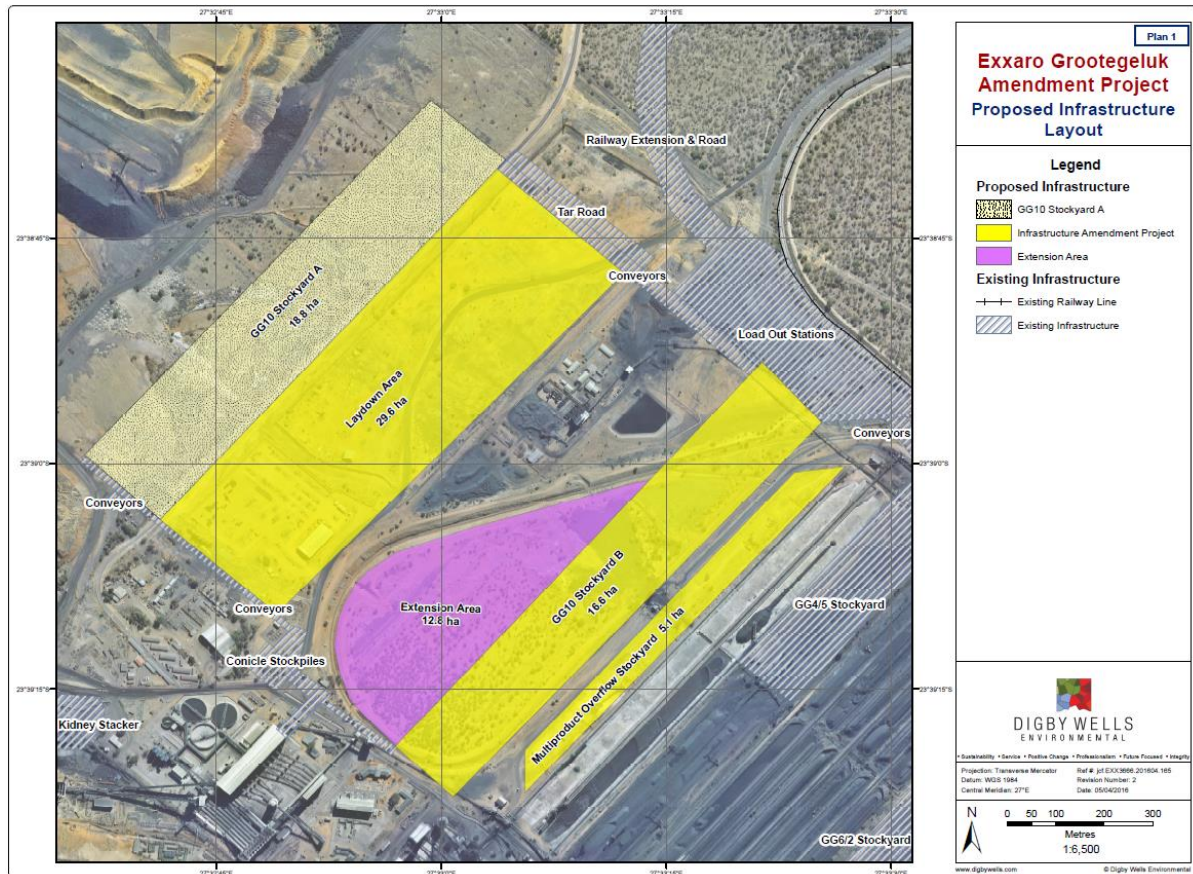


Figure 2-1: Infrastructure relevant to the proposed amendment

2.1 NHRA Section 38 triggers

The following aspects of Section 38 of the NHRA may be triggered by the proposed project.

Table 2-1: Triggers in terms of Section 38 of the NHRA

		NHRA Section 38 (1) Activities / Triggers	Summary description (e.g. 500 m conveyor belt, open cast pit, etc.)
<input type="checkbox"/>	a	Any linear development or barrier >300 m	
<input type="checkbox"/>	b	Any bridge or similar structure >50 m	
<input checked="" type="checkbox"/>	c	Any development or activity that will change the character of a site:	
	<input checked="" type="checkbox"/> i	≥5 000m ² in extent	Extension of the GG10B Stockyard by 12.8 ha

NHRA Section 38 (1) Activities / Triggers			Summary description (e.g. 500 m conveyor belt, open cast pit, etc.)
<input type="checkbox"/>	ii	Involving ≥3 existing erven/ subdivisions	
<input type="checkbox"/>	iii	Involving ≥3 or more erven/ divisions consolidated within past 5 years.	
<input type="checkbox"/>	d	Rezoning of a site ≥10 000m ² in extent.	
<input checked="" type="checkbox"/>	e	Other triggers, e.g.: in terms of other legislation, (i.e.: National Environment Management Act, etc.)	NEMA, NWA

2.2 Activities

No listed activities have been triggered.

2.3 Additional impact assessment process

The following impact assessment processes are currently being undertaken for the proposed project.

Table 2-2: Relevant process undertaken as part of this project

Legislation, i.e. NEMA, MPRDA, etc.	NEMA and NWA
Consenting Authority that has/will receive information	DMR
Present phase of process at Authority	Application

3 Identified / known heritage resources and potential impacts

The following categories of heritage resources as defined in Section 3 of the NHRA are known to occur within the proposed project area.

Table 3-1: Identified heritage resources and potential impacts

<input type="checkbox"/>	3(2)(a)	Places, buildings, structures and equipment of cultural significance
		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(b)	Places to which oral traditions are attached or which are associated with living heritage
		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(c)	Historical settlements and townscapes



		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(d)	Landscapes and natural features of cultural significance
		Description of resource: None identified
		Potential impact: None envisaged
<input checked="" type="checkbox"/>	3(2)(e)	Geological resources of scientific or cultural importance
		Description of resource: <i>Clarens Formation</i> The <i>Clarens Formation</i> consists of Aeolian desert sandstone, ephemeral stream deposits and basaltic lava. Potential fossils associated with this formation include silicified wood and other plant remains, freshwater crustaceans, invertebrate trace fossils and other trace fossils, including dinosaur and mammal tracks. Other palaeontological remains may include the occurrence of rare dinosaurs such as <i>Massospondylus</i> , remains of <i>crocodylomorphs</i> and advanced <i>cynodonts</i> , including early mammals such as <i>Erythrotherium</i> .
		According to the Palaeo-Sensitivity Map, the site-specific study area falls within a high sensitivity zone.
		Potential impact: None envisaged The site-specific study area has been subject to anthropogenic changes through time that reduce the potential for surface indicators of fossil heritage to be identified. Furthermore, the proposed activities will not affect potential fossiliferous geological strata.
<input type="checkbox"/>	3(2)(f)	Archaeology and/or palaeontology (Including archaeological sites and material, fossils, rock art, battlefields & wrecks)
		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(g)	Graves and burial grounds (e.g.: ancestral graves, graves of victims of conflict, historical graves & cemeteries)
		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(a)	Other human remains
		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(h)	Sites of significance relating to the history of slavery in South Africa
		Description of resource: None identified

		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(i)	Movable objects
		Description of resource: None identified
		Potential impact: None envisaged

3.1 Illustrative material

Please refer to Figure 2-1 and Appendix A for the relevant illustrative material.

4 Recommendation

Specialist heritage recommendations are summarised in Table 4-1:

Table 4-1: Specialist recommendations

Is a Heritage Impact Assessment required?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>If NO, provide motivation:</p> <p>The area under consideration for the proposed amendment to the approved EMP has been subject to a heritage assessment submitted to SAHRA and LIHRA under Case ID: 5935. Within this assessment, it was noted that the area site-specific project area is situated within an existing operation that has been heavily disturbed through time. In addition to this, no heritage resources were identified during the pre-disturbance survey completed on 12 May 2014.</p> <p>Statutory comment issued by SAHRA on 18 August 2014 (cf. Ref 5935) for the Grootegeeluk Coal Mine Infrastructure Expansion Project acknowledge that no heritage resources were identified throughout the proposed developed area and did not object to the proposed amendment.</p> <p>With the exception of the expansion of the GG10B Stockpile area, the current proposal is for the temporary change in use of existing, approved infrastructures. No impacts to heritage resources, including palaeontological resources are envisaged for this change. With the expansion of the GG10B Stockpile area, the approximate 12.8 ha has been subject to anthropogenic changes through time, and any potential surface indicators that may have been present would have previously been disturbed or destroyed.</p> <p>Based on our understanding of the cultural environment through relevant experience in the site-specific and local study area, it is not envisaged that the current proposed amendments will have additional impacts on heritage resources or the cultural landscape. It is therefore requested that a Letter of Exemption from further heritage assessments be granted in respect of the current application on condition that the requirements from SAHRA as issued in the Statutory Comment for Case ID: 5935 remain valid and implemented by the proponent. This is in specific reference to the requirement that should any evidence of archaeological remains and palaeontology be uncovered during the proposed activities, an archaeologist or a palaeontologist, according to the nature of the finds, be called on site to inspect the findings and the SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit be alerted immediately. .</p>		



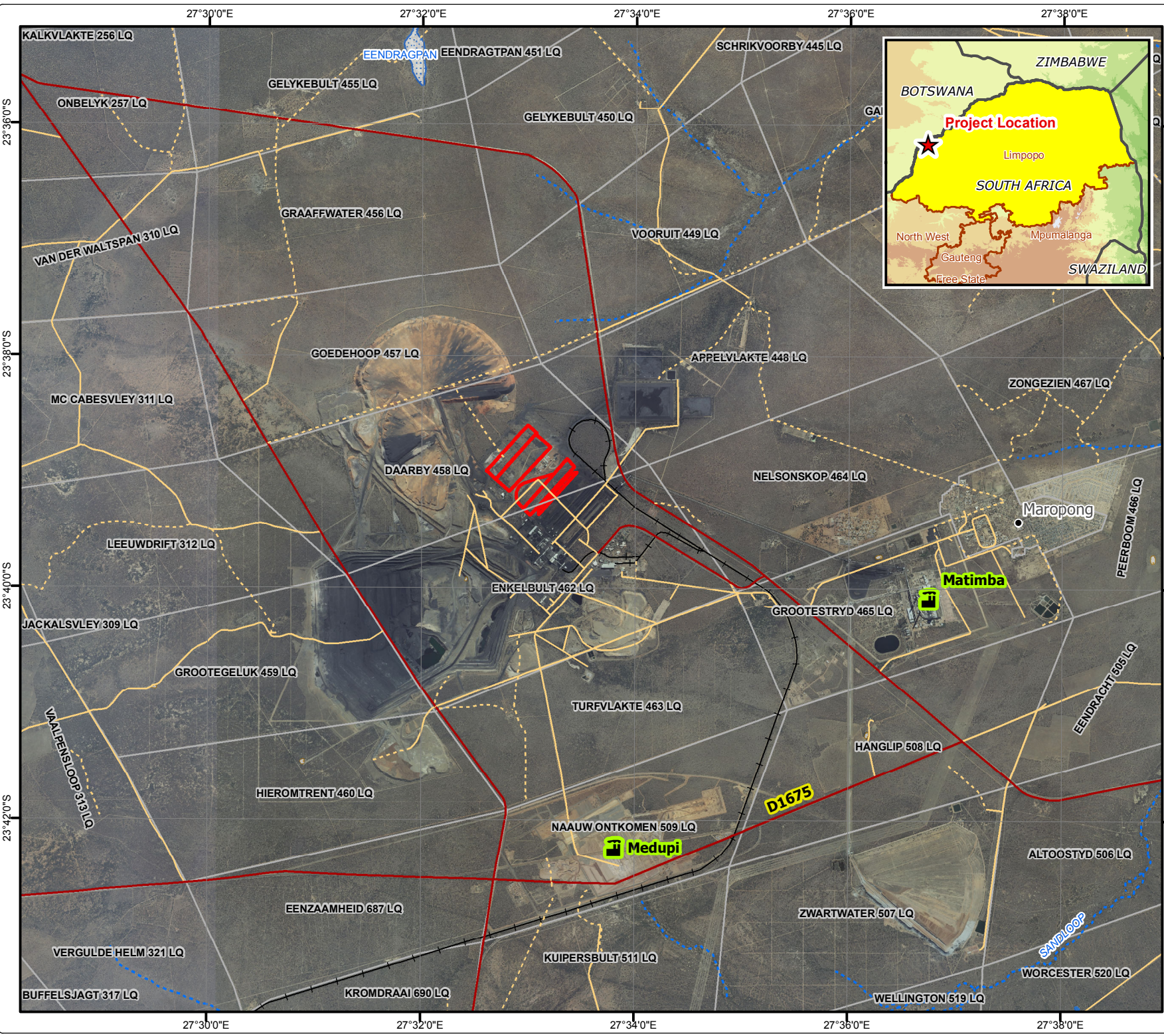
If YES, provide suggested components that may be required or undertaken during HIA.

<input type="checkbox"/>	Archaeology	<input type="checkbox"/>	Architecture
<input type="checkbox"/>	Built Environment	<input type="checkbox"/>	Burial Grounds and Graves
<input type="checkbox"/>	Palaeontology	<input type="checkbox"/>	Public Participation
<input type="checkbox"/>	Townscapes	<input type="checkbox"/>	Visual Impact
<input type="checkbox"/>	Other:		

Recommendation made by:

Name: Justin du Piesanie













Capacity: HRM Unit Manager



Exxaro Grootegeluk Amendment Project

Locality Plan

Legend

-  Proposed Infrastructure Footprint
-  Settlement
-  Power Station
-  Main / Secondary Road
-  Other Access Road
-  Tracks & Footpaths
-  Existing Railway Line
-  Non-Perennial River
-  Dam
-  Perennial Pan
-  Non-Perennial Pan
-  Farm Boundary



Projection: Transverse Mercator
 Datum: WGS 1984
 Central Meridian: 27°E
 Date: 10/05/2016
 Ref #: jcf.EXX3666.201605.022

