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Exxaro Dorstfontein East Coal Mine Expansion Project near Kriel, Mpumalanga

Notification of Intent to Develop

Prepared for:

Exxaro Coal Central (Pty) Ltd

Project Number:



EXX5725

November 2020



This document has been prepared by Digby Wells Environmental.

Report Type:	Notification of Intent to Develop
Project Name:	Exxaro Dorstfontein East Coal Mine Expansion Project near Kriel, Mpumalanga
Project Code:	EXX5725

Name	Responsibility	Signature	Date
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1. Introduction

Exxaro Coal Central (Pty) Ltd (hereinafter ECC) holds an approved Mining Right¹ (MR) for opencast and underground mining at the Dorstfontein East Coal Mine (DECM) near Kriel in the Mpumalanga Province. SRK Consulting (hereinafter SRK) compiled the approved Environmental Impact Assessment (EIA) and Environmental Management Programme (EMPr) for the operation. ECC² intends to extend the underground mining within the approved MR and establish surface infrastructure in support of the mining extension (the Project).

Considering the environmental authorisations already in place, the Project will require an amendment and consolidation of the EMPr and the Integrated Water Use Licence (IWUL) before it may proceed. The Project triggers activities listed in the EIA Regulations, 2014 (Government Notice Regulation [GN R] 982 of 4 December 2014 as amended by GN R 326 of 7 April 2017) (EIA Regulations, 2014 [as amended]). As such it requires an EIA process to assess the potential impacts posed by these Listed Activities.

To this effect, ECC appointed Digby Wells Environmental (hereinafter Digby Wells) to undertake the required EIA process in compliance with the following legislation:

- The Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA);
- The National Environmental Management Act, 1999 (Act No. 107 of 1998) (NEMA);
- The EIA Regulations, 2014 (as amended); and
- The National Water Act, 1998 (Act No. 36 of 1998) (NWA).

The required EIA process includes a Heritage Resources Management (HRM) process in support of the Project. This Notification of Intent to Develop (NID) serves to inform the Heritage Resources Authorities (HRAs) of the Project to meet the regulatory requirements of Section 38(1) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA). In this application, the relevant HRAs include the South African Heritage Resources Agency (SAHRA) and the Mpumalanga Provincial Heritage Resources Authority (MPHRA).

2. Project details

The DECM MR was approved under the ownership of Total Coal South Africa (Pty) Ltd (TCSA) and was ceded to ECC on 20 August 2015. The DECM is located 16 km northeast of Kriel in the Emalahleni and Govan Mbeki Local Municipalities (ELM and GMLM) of the Nkangala and Gert Sibande District Municipalities (NDM and GMDM) respectively. Table 1 presents a summary of the local details relevant to the Project. These are represented graphically in Plan 1.

¹ MP30/5/1/2/51MR

² The applicant is Dorstfontein Coal Mines (Pty) Ltd

Table 1: Project location details

Name of property/ies	DCEM
Street address or location (e.g.: Off R44)	The Dorstfontein MR area is transected by the R544 regional road. This road can be accessed from the R547 regional road. The DCEM occurs on the eastern side of the R544.
Erf or farm number/s	Portion 12 of the farm Bosch Krans 53 IS Portions 2 and 8 of the farm Dorstfontein 71 IS Portions 1, 2 and 3 of the farm Fentonia 54 IS Portions 4, 5, 10, 11 and 13 of the farm Welstand 55 IS
Coordinates of approximate centre of project area	26°13'43.24"S
	29°21'47.83"E
Town or District	16 km northeast of Kriel
Responsible Municipality	ELM, NDM and GMLM, GSDM
Extent of property	3 288,53 ha
Maximum extent of proposed development	Approximately 1 100 ha
Current use	Approved underground and opencast coal mining
Predominant land use/s of surrounding properties	Farming, mining, urban areas (Kriel and Thubelihle)

Table 2 below presents details of the landowners of the farm portions comprising the DCEM MR area. Digby Wells will notify all landowners of the proposed Project during the Public Participation Process which is required in terms of the EIA process. The PPP has not been undertaken to date.

Table 2: Landowner details

Name	Property	Notified
Dorstfontein Coal Mines (Pty) Ltd	Bosch Krans 53 IS, Portion 12	Not Applicable
	Dorstfontein 71 IS, Portion 2	
	Dorstfontein 71 IS, Portion 8	
	Welstand 55 IS, Portion 4	
	Welstand 55 IS, Portion 5	
	Welstand 55 IS, Portion 10	
	Welstand 55 IS, Portion 11	
	Welstand 55 IS, Portion 13	
Bakenlaagte Trust	Fentonia 54 IS, Portion 1	Pending
	Fentonia 54 IS, Portion 2	
	Fentonia 54 IS, Portion 3	

29°10'0"E

29°20'0"E

29°30'0"E

26°0'0"S

26°0'0"S

26°10'0"S

26°10'0"S

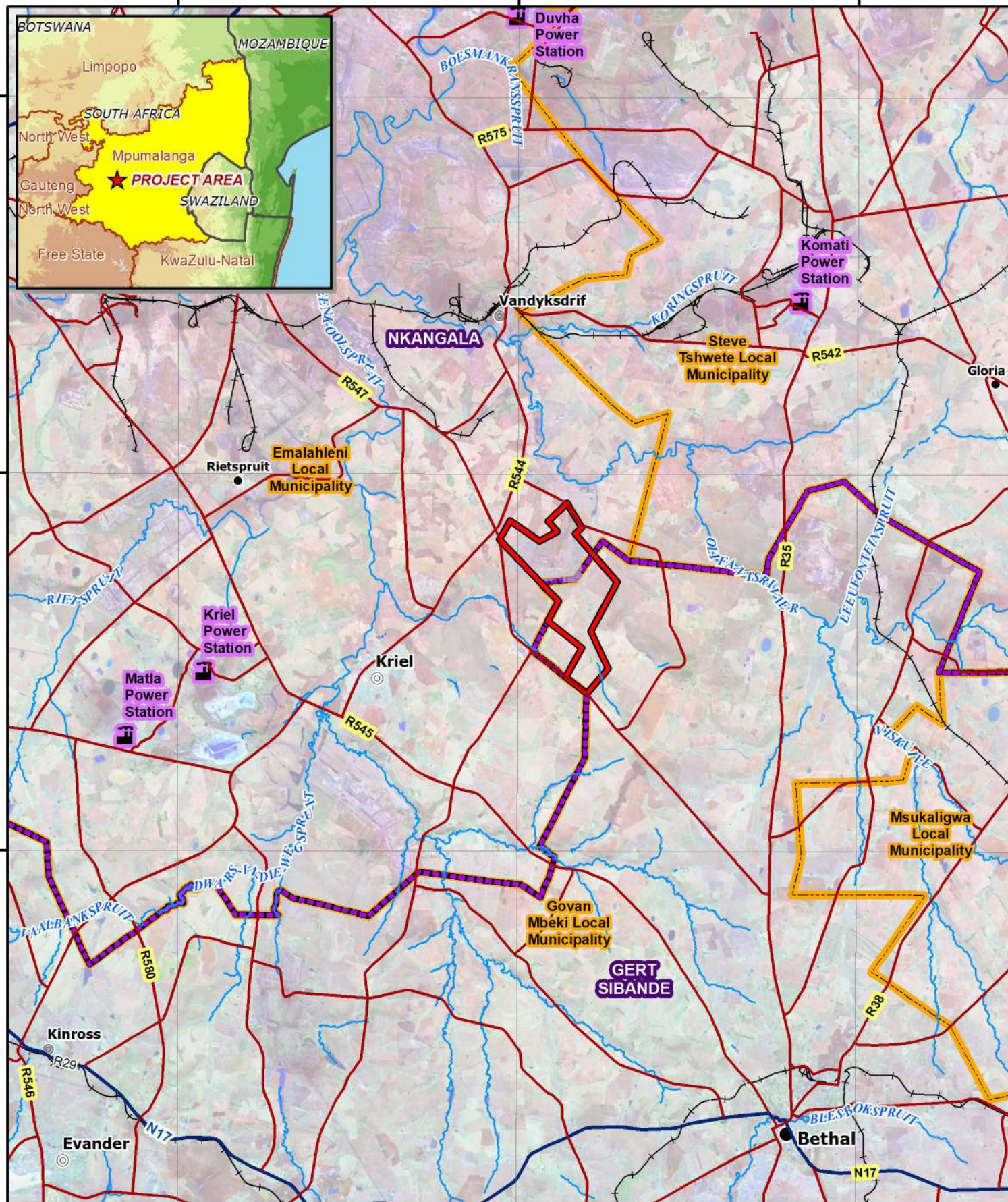
26°20'0"S

26°20'0"S

29°10'0"E

29°20'0"E

29°30'0"E



Dorstfontein East: Regional Setting

Legend

- | | | |
|------------------------------|------------------------|--------------------------------------|
| Main Road | Power Station | Local Municipalities Boundary (2016) |
| Arterial / National Route | Railway Line | District Municipalities (2016) |
| Existing Mine Infrastructure | Perennial River/Stream | Mining Right Area |
| Major Town | | |
| Secondary Town | | |
| Other Town | | |
| Settlement | | |

Projection: Transverse Mercator

Central Meridian: 29°E

Datum: WGS 1984

Date: 28/01/2020

Ref #: amt.EXX5725.202001.054

0 2.5 5 10
Kilometres



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ECC has approval to mine the Lower 4 Seam and the Lower 2 Seam as well as three opencast pits. ECC is also approved to undertake underground mining of deeper coal reserves at DCEM.

Subsequent to the transfer of the DCEM, additional resources were identified for underground mining that were not included in the areas approved under the current authorisations. ECC intends to extend the approved underground mining areas for the Lower 4 and Lower 2 Seams. The Project will extend the Life of Mine (LoM) through the exploitation of the additional resources between 2021 and 2034.

ECC intends to establish the following surface infrastructure as part of the Project:

- Sewage Treatment Plant (STP);
- Water Treatment Plant (WTP);
- Potable Water storage tank;
- Erikson dam;
- A new 22 kV overhead powerline from the existing substation to a new 11kV substation;
- Run of Mine (ROM) Stockpile conveyor at portal;
- Portal ventilation fan;
- Sewer and water management;
- Change house;
- Lamp room;
- Office;
- Workshop area; and
- Stone dust silo.

Plan 2 presents the current proposed layout of the surface infrastructure. ECC will access the underground mining operations through the existing Pit 2 opencast and the Dorstfontein West operations. Plan 3 and Plan 4 present the proposed underground extension areas for Seam 2 and Seam 4 in relation to the approved mining areas.

29°21'15"E

29°21'20"E

29°21'25"E

29°21'30"E

29°21'35"E

26°12'5"S

26°12'5"S

26°12'10"S

26°12'10"S

26°12'15"S

26°12'15"S

26°12'20"S

26°12'20"S

26°12'25"S

26°12'25"S



29°21'15"E

29°21'20"E

29°21'25"E

29°21'30"E

29°21'35"E

Dorstfontein East: Proposed Surface Infrastructure - Office Area, High Wall and Ventilation Fan Area

Legend			
Surface Infrastructure Lines	Surface Infrastructure Areas	Changehouse	ROM Stockpile
High Wall	Main Workshop and Office Area	Lamproom	Sewage Plant
Potable Water Pipelines	General Buildings and Offices	Erikson Pond	Sump
Return Treated Water Lines	Mini Sub	Haul Road	Ventilation Fan
Sewer Lines	22kV Sub Station	LDV Road	Water Treatment Plant
	Brake Test Ramp	Potable Water Tanks	Workshop Area

Projection: Transverse Mercator

Central Meridian: 29°E

Datum: WGS 1984

Date: 14/08/2020

Ref #: EXX5725_EIA_08_AJM_v2

0 30 60 120

Metres



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29°20'0"E

29°22'0"E

29°20'0"E

29°22'0"E

Approved Mining Area

Seam 2 Approved Area

Seam 2 Extension Area

Pit 2

Pit 3

Seam 2 Extension Area

Seam 2 Approved Area

R547

R544

Dorstfontein East: Underground Extension and Approved Areas (Seam 2)

- Mining Right Area
- Blocks
- Seam 2 Approved
- Seam 2 Extension Areas
- Main Road
- Secondary Road
- Street

Legend

- Non-Perennial River/Stream
- Perennial River/Stream
- Inland Water**
 - Dams and lakes
 - Marsh and swamps
 - Non-perennial pans

Projection: Transverse Mercator
 Central Meridian: 29°E
 Datum: WGS 1984
 Date: 20/06/2020
 Ref #: EXX5725_EIA_05_AJM_v1



0 0.375 0.75 1.5
 Kilometres



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29°20'0"E

29°22'0"E

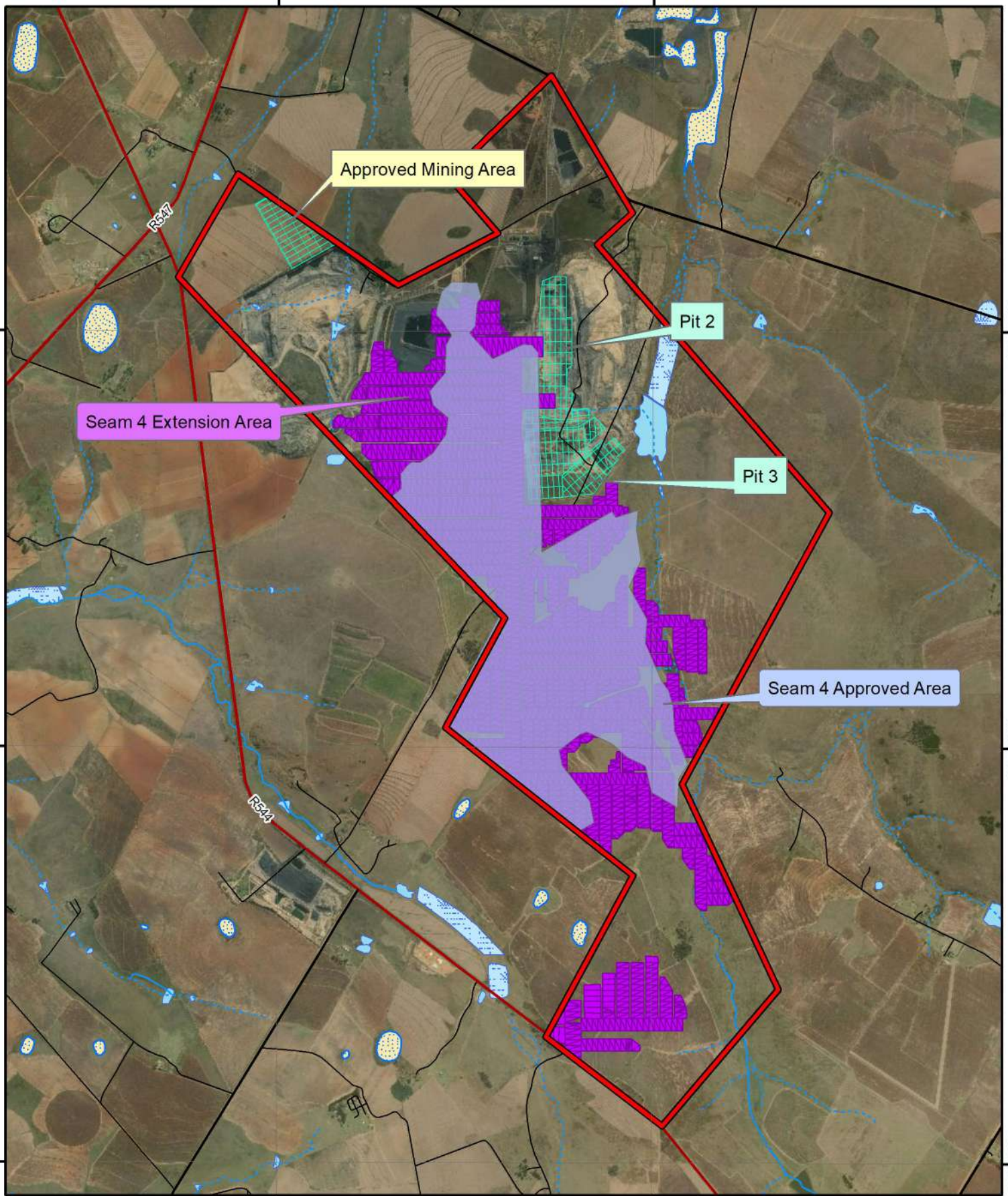
26°12'0"S

26°14'0"S

26°16'0"S

29°20'0"E

29°22'0"E



Dorstfontein East: Underground Extension and Approved Areas (Seam 4)

- Mining Right
- Blocks
- Seam 4 Approved
- Seam 4 Extension
- Main Road
- Secondary Road
- Street

Legend

- Non-Perennial River/Stream
- Perennial River/Stream
- Inland Water**
 - Dams and lakes
 - Marsh and swamps
 - Non-perennial pans

Projection: Transverse Mercator
 Central Meridian: 29°E
 Datum: WGS 1984
 Date: 20/06/2020
 Ref #: EXX5725_EIA_04_AJM_v2



0 0.375 0.75 1.5
 Kilometres



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3. Illustrative Material

Illustrative material is provided in Plan 1 to Plan 4. The illustrative material demonstrates the general Project locality and the proposed Project layout in relation to the authorised activities.

4. Assessment process

Table 3 summarises the impact assessment processes that are currently being conducted for the proposed project.

Table 3: Current assessment processes

Legislation (e.g. NEMA, MPRDA, etc.)	Current phase of assessment process (e.g. Scoping, EIA, etc.)	Authorities who has / will receive information	Capacity of Authorities
NEMA	Scoping	Department of Mineral Resources (DMR)	Licencing
MPRDA	Scoping	DMR	Licencing
NWA	Scoping	Department of Water and Sanitation (DWS)	Licencing
NHRA	Scoping	SAHRA	Commenting
	Scoping	MPHRA	Noting

These assessments are required in terms of legislated and / or regulated activities outlined in Sections 4.1 to 4.3 below.

4.1. NHRA Section 38(1) activities

The proposed development will include the following activities listed in Section 38(1) of the NHRA, which generally require heritage assessments be undertaken.

Table 4: NHRA Section 38 triggers

	NHRA Section 38 (1) Activities / Triggers		Summary description (e.g. 500 m conveyor belt, open cast pit, etc.)
<input checked="" type="checkbox"/>	a	Any linear development or barrier >300 m	Proposed 22 kV powerline (2.3 km long), conveyor and roads.
<input type="checkbox"/>	b	Any bridge or similar structure >50 m	
<input type="checkbox"/>	c	Any development or activity that will change the character of a site:	
	<input type="checkbox"/>	i ≥5 000m ² in extent	The proposed Project will exceed 0.5 ha in size but will not change the character of the site.
	<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 in terms of other legislation	MPRDA, NEMA

4.2. EIA Regulations listed activities

Table 5 provides a description of the activities listed in the EIA Regulations applicable to the Project. These activities generally require impact assessments.

Table 5: Identified listed activities

NEMA Activity No.	NHRA Trigger	Description	Expected duration/phase
Listing Notice 1 Activity 10	38(1)(e)	<p><i>The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes –</i></p> <p><i>(i) with an internal diameter of 0,36 metres or more; or</i></p> <p><i>(ii) with a peak throughput of 120 litres per second or more;</i></p> <p><i>excluding where—</i></p> <p><i>(a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or</i></p> <p><i>(b) where such development will occur within an urban area.</i></p>	Construction and Operation
Listing Notice 1 Activity 11	38(1)(a) 38(1)(e)	<p><i>The development of facilities or infrastructure for the transmission and distribution of electricity—</i></p> <p><i>(i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or</i></p> <p><i>(ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more;</i></p> <p><i>excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is —</i></p> <p><i>(a) temporarily required to allow for maintenance of existing infrastructure;</i></p> <p><i>(b) 2 kilometres or shorter in length;</i></p> <p><i>(c) within an existing transmission line servitude; and</i></p> <p><i>(d) will be removed within 18 months of the commencement of development.</i></p>	Construction

NEMA Activity No.	NHRA Trigger	Description	Expected duration/phase
Listing Notice 1 Activity 24	38(1)(a) 38(1)(e)	<p><i>The development of a road—</i></p> <p><i>(i) 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 Government Notice 545 of 2010; or</i></p> <p><i>(ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;</i></p> <p><i>but excluding a road—</i></p> <p><i>(a) which is identified and included in activity 27 in Listing Notice 2 of 2014;</i></p> <p><i>(b) where the entire road falls within an urban area; or</i></p> <p><i>(c) which is 1 kilometre or shorter.</i></p>	Construction
Listing Notice 2 Activity 6	38(1)(e)	<p><i>The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding—</i></p> <p><i>(i) activities which are identified and included in Listing Notice 1 of 2014;</i></p> <p><i>(ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies;</i></p> <p><i>(iii) the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or</i></p> <p><i>(iv) where the development is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic metres per day.</i></p>	Construction

NEMA Activity No.	NHRA Trigger	Description	Expected duration/phase
Listing Notice 2 Activity 17	38(1)(e)	<p><i>Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including—</i></p> <p><i>(a) associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource; or</i></p> <p><i>(b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.</i></p>	Operation

4.3. Identified and known heritage resources and potential impacts

Certain categories of heritage resource, if existing and identified, generally require heritage assessments to be completed before any development may take place. These categories may be formally or generally protected in terms of the NHRA. Table 6 presents an overview of such heritage resources identified within the Project area.

Table 6: Identified heritage resources in terms of Section 3 of the NHRA

	Section	Description
<input checked="" type="checkbox"/>	3(2)(a)	Places, buildings, structures and equipment of cultural significance
		Description of resource: the historical built environment constitutes a significant portion of the cultural landscape within which the Project is located. Built heritage resources have been identified within the DCEM area.
		Potential impact: the Project has potential to directly impact built heritage. This will be assessed in more detail in the Impact Assessment phase.
<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
<input type="checkbox"/>	3(2)(c)	Historical settlements and townscapes
		Description of resource: None identified
		Potential impact: None
<input type="checkbox"/>	3(2)(d)	Landscapes and natural features of cultural significance
		Description of resource: None identified
		Potential impact: None
<input checked="" type="checkbox"/>	3(2)(e)	Geological resources of scientific or cultural importance
		Description of resource: The Project area is underlain by geological strata of very high palaeosensitivity.
		Potential impact: the Project has potential to directly impact fossil heritage. This will be assessed in more detail in the Impact Assessment phase.
<input checked="" type="checkbox"/>	3(2)(f)	Archaeology and/or palaeontology (<i>Including archaeological sites and material, fossils, rock art, battlefields & wrecks</i>)
		Description of resource: Archaeological resources constitute a minor portion of the cultural landscape within which the Project is located. No such heritage resources have been identified within the Project area to date.
		Potential impact: the Project has potential to directly impact archaeological heritage. This will be assessed in more detail in the Impact Assessment phase.

	Section	Description
<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: burial grounds and graves constitutes a significant portion of the cultural landscape within which the Project is located. Burial grounds and graves have been identified within the DCEM area.
		Potential impact: the Project has potential to directly impact burial grounds and graves. This will be assessed in more detail in the Impact Assessment phase.
<input type="checkbox"/>	3(2)(h)	Other human remains
		Description of resource: None identified
		Potential impact: None
<input type="checkbox"/>	3(2)(i)	Sites of significance relating to the history of slavery in South Africa
		Description of resource: None identified
		Potential impact: None
<input type="checkbox"/>	3(2)(j)	Movable objects
		Description of resource: None identified
		Potential impact: None

5. Recommendation

Table 7 presents a summary and motivation of the specialist recommendations.

Table 7: Specialist heritage recommendations

Is a Heritage Impact Assessment required?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
If NO, provide motivation: Not applicable.					
If YES, provide suggested components that may be required or undertaken during HIA.					
<input checked="" type="checkbox"/>	Archaeology	<input type="checkbox"/>	Architecture		
<input checked="" type="checkbox"/>	Built Environment	<input checked="" type="checkbox"/>	Burial Grounds and Graves		
<input checked="" type="checkbox"/>	Palaeontology	<input type="checkbox"/>	Public Participation		
<input type="checkbox"/>	Townscapes	<input type="checkbox"/>	Visual Impact		
<input type="checkbox"/>	Other:				
Recommendation made by: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Name: Shannon Hardwick Capacity: HRM Consultant </td> <td style="width: 50%; vertical-align: top;"> Name: Justin du Piesanie Capacity: Divisional Manager: Social and Heritage Services </td> </tr> </table>				Name: Shannon Hardwick Capacity: HRM Consultant	Name: Justin du Piesanie Capacity: Divisional Manager: Social and Heritage Services
Name: Shannon Hardwick Capacity: HRM Consultant	Name: Justin du Piesanie Capacity: Divisional Manager: Social and Heritage Services				