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Proposed Arnot South Coal Mining Project near Hendrina, Mpumalanga Province

Notification of Intent to Develop

Prepared for:

Exxaro Coal Mpumalanga (Pty) Ltd

Project Number:



UCD6802

February 2021



This document has been prepared by Digby Wells Environmental.

Report Type:	Notification of Intent to Develop
Project Name:	Proposed Arnot South Coal Mining Project near Hendrina, Mpumalanga Province
Project Code:	UCD6802

Name	Responsibility	Signature	Date
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1 Introduction

Exxaro Coal Mpumalanga (Pty) Ltd (hereinafter Exxaro) held a Prospecting Right¹ (PR) to mine coal on various farms comprising the proposed Arnot South Underground Coal Mining Project near Hendrina in the Mpumalanga Province. The PR lapsed on 10 September 2020 and Exxaro is applying for the Environmental Authorisation (EA) for the proposed Project to continue. The Project triggers Listed Activities in terms of the Environmental Impact Assessment (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, promulgated under the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).

To this effect, Digby Wells Environmental (hereinafter Digby Wells) was appointed as the independent Environmental Assessment Practitioner (EAP) 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 NEMA;
- The EIA Regulations, 2014 (as amended); and
- The National Water Act, 1998 (Act No. 36 of 1998).

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

2 Project Details

Exxaro held the PR for the farms comprising the Project area, which covers approximately 16 000 hectares roughly 10 km east of Hendrina. The Project includes portions of the Steve Tshwete Local Municipality (STLM) in the Nkangala District Municipality (NDM) and the Chief Albert Luthuli Local Municipality (CALLM) within the Gert Sibande District Municipality (GSDM).

The PR was renewed in September 2017 and lapsed on 10 September 2020. Prior to the expiration of the PR, Exxaro submitted² a Mining Right Application (MRA) for underground

¹ Reference Number: MP 30/5/1/1/2/360 PR

² Reference Number: MP 30/5/1/2/2/10292 MR, submitted 8 September 2020

mining and Mine Works Programme (MWP) to the Department of Mineral Resources and Energy (DMRE).

The Mining Right (MR) boundary includes the following farms:

- Groblersrecht 175 IS
- Mooiplats 165 IS
- Tweefontein 203 IS
- Vaalwater 173 IS
- Weltevreden 174 IS
- Nooitgedacht 493 IS
- Leeuwpan 494 JS
- Schoonoord 164 IS
- Vlakfontein 166 IS
- Vryplaats 163 LQ
- Helpmakaar 168 IS
- Op Goeden Hoop 205 IS
- Klipfontein 495 JS

The target area for mining and mining-related infrastructure includes the farms: Mooiplats 165 IS, Schoonoord 164 IS, Vlakfontein 166 IS and Weltevreden 174 IS.

Table 1 presents a summary of the location details relevant to the Project. Plan 1 presents these details graphically.

Table 1: Project location details

Name of property/ies	Arnot South MRA
Street address or location (e.g.: Off R44)	North and south of the R38 regional road, east of the N11 national highway, west of the R33 regional road and south of the R104 regional road.
Erf or farm number/s	Portion 1, Remainder of Portion 2, Portion 4, and Remaining Extent (RE) of the farm Weltevreden 174 IS Portion 11, Portion 12, Portion 13, Portion 15, and Portion 16 of the farm Mooiplats 165 IS Portion 2, Portion 5, Portion 8, Portion 9, Portion 10, Portion 12, remainder of Portion 13 and RE of the farm Vlakfontein 166 IS Portion 19 of the farm Schoonoord 164 IS
Coordinates of approximate centre of project area	26°03'43.68"S
	29°51'47.42"E
Town or District	Hendrina (10 km west of the Project) Carolina (25 km east of the Project) Middelburg (50 northwest of the Project)
Responsible Municipality	STLM and CALLM in the NDM and GSDM respectively
Extent of property	16 000 ha (approximate)

Maximum extent of proposed development	Approximately 55 ha
Current use	Agriculture, infrastructure
Predominant land use/s of surrounding properties	Agriculture, mining, power production, urban.

Table 2 below presents details of the landowners of the farm portions comprising the Project 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
H J Pieterse Vlakfontein Tweehonderd Pty Ltd	Farm Weltevreden 174 IS, Portion 1	Pending
P W Steinberg Trust	Farm Weltevreden 174 IS, remainder of Portion 2	
	Farm Weltevreden 174 IS, Portion 4	
	Farm Mooiplaats 165 IS, Portion 11	
	Farm Mooiplaats 165 IS, Portion 12	
	Farm Mooiplaats 165 IS, Portion 13	
	Farm Mooiplaats 165 IS, Portion 15	
	Farm Mooiplaats 165 IS, Portion 16	
Cobus Botha Trust	Farm Weltevreden 174 IS, RE	
S.J.M van der Merwe	Farm Vlakfontein 166 IS, Portion 5	
	Farm Vlakfontein 166 IS, Portion 8	
	Farm Schoonord 164 IS, Portion 19	
S J M Trust	Farm Vlakfontein 166 IS, Portion 10	
	Farm Vlakfontein 166 IS, RE	
Sarel van der Merwe Trust	Farm Vlakfontein 166 IS, remainder of Portion 13	
P.A. Taljard	Farm Vlakfontein 166 IS, Portion 9	
<i>Not confirmed to date</i>	Farm Vlakfontein 166 IS, Portion 12	
<i>Not confirmed to date</i>	Farm Vlakfontein 166 IS, Portion 2	

The main proposed Project infrastructure will include, but is not limited to:

- Adit/ Boxcut;
- Medical facility;
- Temporary guardhouse;
- Site access (perimeter fencing & gates);
- Possible laydown area;
- Substation;
- Weighbridges;
- Run of Mine (ROM) stockpiles;
- Vent shaft;
- Discard facility;
- Topsoil stockpiles;
- Overburden stockpiles;
- Fuel dispensary/storage;
- Conveyors;
- Offices;
- Stores;
- Brake-test ramp;
- Stormwater management infrastructure;
- Workshop;
- Vehicle wash bay;
- Laundry facility;
- Pollution Control Dam (PCD);
- Washing plant;
- Potable water tank;
- Water storage tank and booster;
- Ventilation shafts (including fans);
- Sewage Treatment Plant;
- Change-house;
- Salvage yard;
- Coal Handling and Processing Plant (CHPP);
- Powerline/s;
- Pipelines;
- Parking area;
- Water Treatment Plant (WTP);
- A new access road (3 km); and
- Road infrastructure including upgrades to the district road (15 km).

Plan 2 presents the proposed infrastructure layout.

Arnot South EA & IWUL Application

Regional Setting

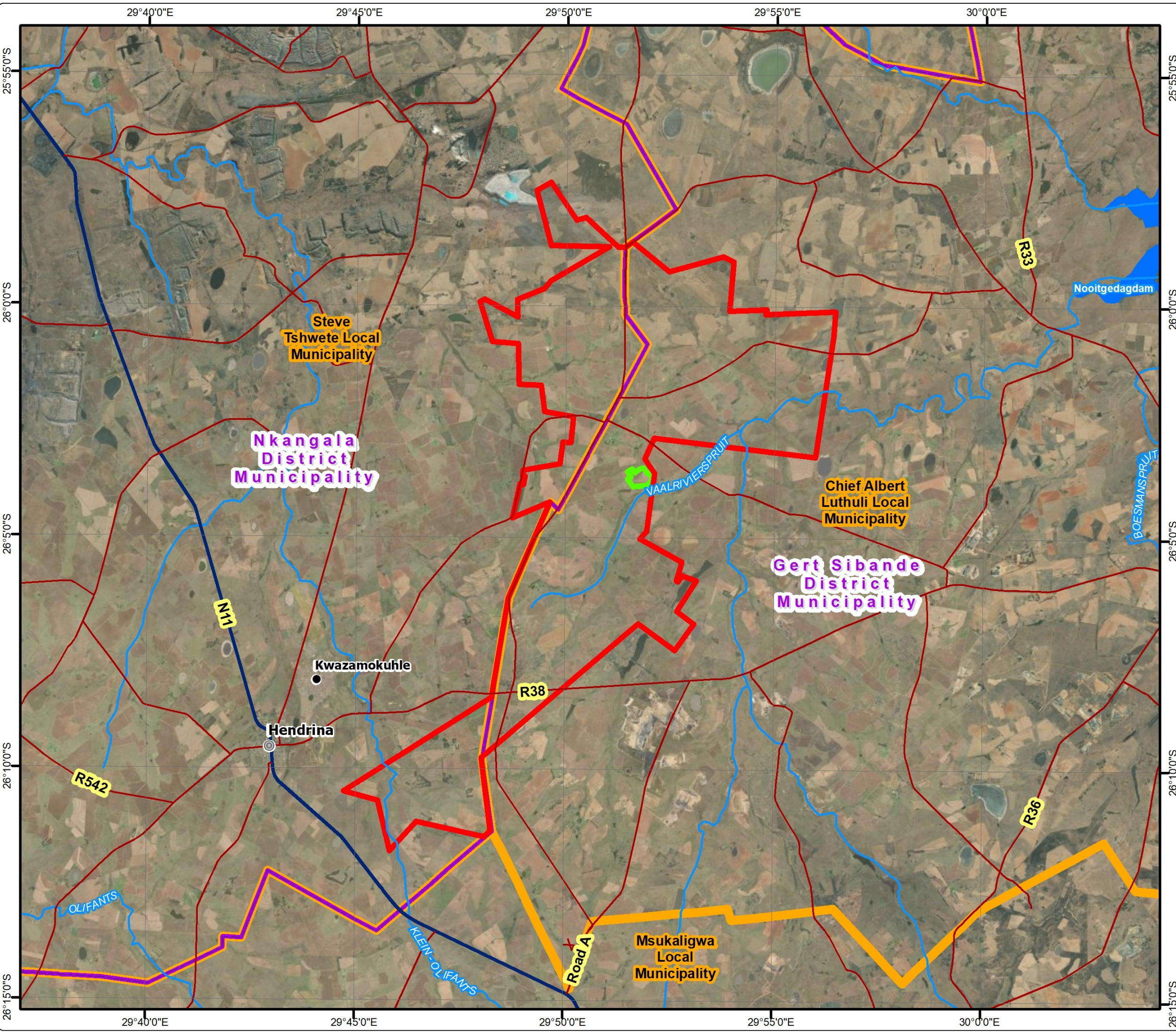
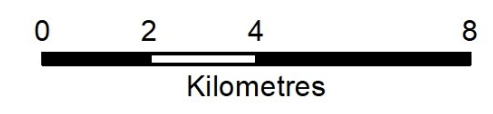
Legend

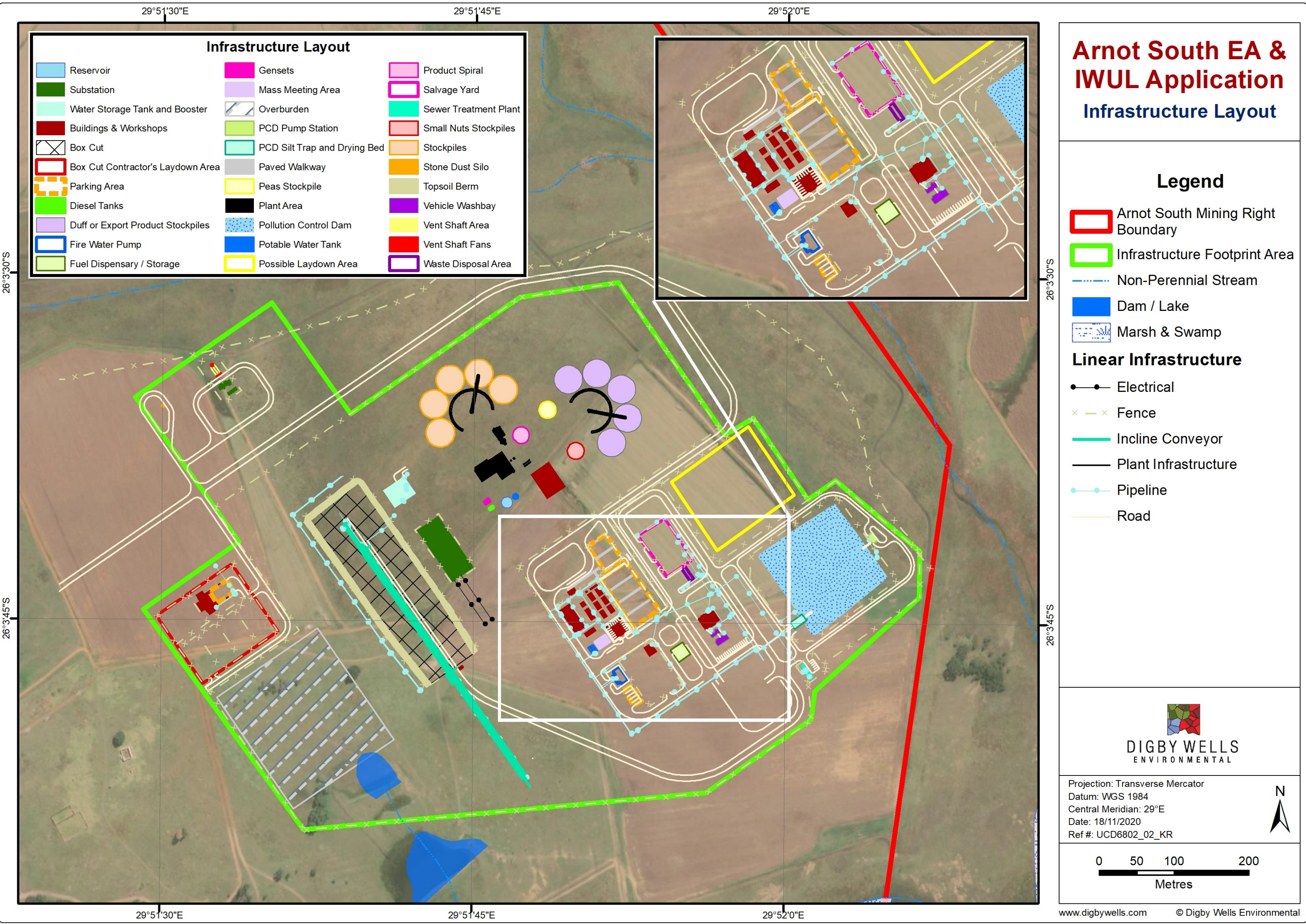
-  Arnot South Mining Right Boundary
-  Infrastructure Footprint Area
-  Other Town
-  Settlement
-  Main Road
-  National Road
-  Perennial Stream
-  Dam / Lake
-  District Municipality Boundary (2016)
-  Local Municipality Boundary (2016)



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Projection: Transverse Mercator
Datum: WGS 1984
Central Meridian: 29°E
Date: 18/11/2020
Ref #: UCD6802_01_KR





Infrastructure Layout

Reservoir	Gensets	Product Spiral
Substation	Mass Meeting Area	Salvage Yard
Water Storage Tank and Booster	Overburden	Sewer Treatment Plant
Buildings & Workshops	PCD Pump Station	Small Nuts Stockpiles
Box Cut	PCD Silt Trap and Drying Bed	Stockpiles
Box Cut Contractor's Laydown Area	Paved Walkway	Stone Dust Silo
Parking Area	Peas Stockpile	Topsoil Berm
Diesel Tanks	Plant Area	Vehicle Washbay
Duff or Export Product Stockpiles	Pollution Control Dam	Vent Shaft Area
Fire Water Pump	Potable Water Tank	Vent Shaft Fans
Fuel Dispensary / Storage	Possible Laydown Area	Waste Disposal Area

Arnot South EA & IWUL Application

Infrastructure Layout

Legend

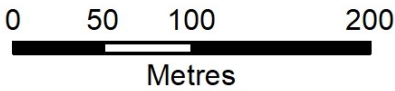
- Arnot South Mining Right Boundary
- Infrastructure Footprint Area
- Non-Perennial Stream
- Dam / Lake
- Marsh & Swamp

Linear Infrastructure

- Electrical
- Fence
- Incline Conveyor
- Plant Infrastructure
- Pipeline
- Road



Projection: Transverse Mercator
Datum: WGS 1984
Central Meridian: 29°E
Date: 18/11/2020
Ref #: UCD6802_02_KR



3 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)	Current phase of assessment process (e.g., Scoping, EIA)	Authorities who has / will receive information	Capacity of Authorities
NEMA	Scoping	DMRE	Licencing
MPRDA	Scoping	DMRE	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 3.1 to 3.3 below.

3.1 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)
<input checked="" type="checkbox"/>	a	Any linear development or barrier >300 m		Proposed access road (3 km), road upgrades (15 km) and powerline. The length of the proposed powerline or powerlines will be confirmed in the EIA phase.
<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 checked="" type="checkbox"/>	i	≥5 000m ² in extent	The proposed Project will exceed 0.5 ha and will change the character of the site.
	<input type="checkbox"/>	ii	Involving ≥3 existing erven/ subdivisions	

	NHRA Section 38 (1) Activities / Triggers			Summary description (e.g., 500 m conveyor belt, open cast pit)
	<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, i.e., in terms of other legislation, (e.g., NEMA)	NEMA, MPRDA

3.2 EIA Regulations listed activities

Table 5 provides a description of the activities listed in the EIA Regulations triggered through 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 9	38(1)(a) 38(1)(e)	<p><i>The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water—</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 bulk transportation of water or storm water or storm water drainage 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
Listing Notice 1 Activity 10	38(1)(a) 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 Operation

NEMA Activity No.	NHRA Trigger	Description	Expected duration/phase
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
Listing Notice 1 Activity 13	38(1)(e)	<p><i>The development of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of activity 16 in Listing Notice 2 of 2014.</i></p>	Construction
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

NEMA Activity No.	NHRA Trigger	Description	Expected duration/phase
Listing Notice 2 Activity 4	38(1)(e)	<i>The development and related operation of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.</i>	Construction Operation
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> <ul style="list-style-type: none"> <i>(i) activities which are identified and included in Listing Notice 1 of 2014;</i> <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> <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> <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> 	Construction
Listing Notice 2 Activity 15	38(1)(e)	<p><i>The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for—</i></p> <ul style="list-style-type: none"> <i>(i) the undertaking of a linear activity; or</i> <i>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</i> 	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;</i></p> <p><i>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>	Construction Operation
Listing Notice 2 Activity 25	38(1)(e)	<i>The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of 15 000 cubic metres or more.</i>	Construction Operation

3.3 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. Potential impact: the Project has the potential to directly impact built heritage resource. 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 the 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. 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 checked="" type="checkbox"/>	3(2)(g)	Graves and burial grounds (e.g. <i>ancestral graves, graves of victims of conflict, historical graves & cemeteries</i>)
		Description of resource: burial grounds and graves constitute a significant portion of the cultural landscape within which the Project is located.
		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

4 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:			
Name: Shannon Hardwick		Name: Justin du Piesanie	
Capacity: HRM Consultant		Capacity: Divisional Manager: Social and Heritage Services	