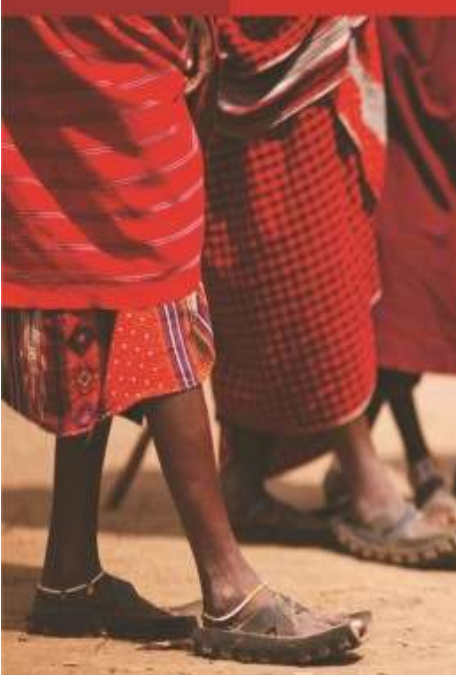




DIGBY WELLS
ENVIRONMENTAL



Heritage Resources Management Process Update for the Exxaro Matla Mine, Mpumalanga

Heritage Site Management Plan

Project Number:

EXX5635

Prepared for:

Exxaro Coal Mpumalanga (Pty) Ltd

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This document has been prepared by Digby Wells Environmental.

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EXECUTIVE SUMMARY

Exxaro Coal Mpumalanga (Pty) Ltd (hereinafter Exxaro) have a Heritage Site Management Plan (HSMP) with reference to a single grave identified during short wall underground mining activities at the Matla Coal Mine (hereinafter Matla) near Kriel in the Mpumalanga Province. Subsequent to the drafting of the HSMP, Exxaro appointed Digby Wells Environmental (hereinafter Digby Wells) to undertake a Heritage Resource Management (HRM) process in support of Exxaro's update their existing Environmental Management Plan (EMP) for the Matla Mining Right Area (MRA).

Digby Wells completed the HRM process in compliance with the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA). This process included a Heritage Impact Assessment (HIA) report within which Digby Wells recommended that Exxaro update their HSMP to include heritage resources identified within 15 m of present and future-planned mining activities. This document constitutes an update to the existing HSMP informed by the outcomes of the aforementioned HIA process.

This document serves as an updated HSMP to include these heritage resources. The objective, purpose and aim of the HSMP is summarised as follows:

Objective	Define management and mitigation measures for <i>in situ</i> conservation that aims to remove/reduce the risk to the heritage resources
Purpose	<p>The purpose of the HSMP is to:</p> <ol style="list-style-type: none"> 1. Recognise the cultural significance of the identified heritage resources; 2. Acknowledge the sensitivities of the heritage resources; 3. Understand the potential risks to the resources from the organisation's mining and mining-related activities; and 4. Ensure the potential risks or manifested impacts to the heritage resources are assessed, prioritised and controlled to a level that is acceptable to the various management structures.
Scope	Applies to all Exxaro Matla employees, organisational units under Exxaro Matla's management control and service providers and business partners.

Exxaro is responsible for the implementation of this HSMP, as the custodian of the heritage sites. The various responsibilities and competencies include:

Positions	Responsibility
Business Unit (BU) Manager	Ultimately responsible for the implementation of this HSMP in accordance with the legislative requirements, Exxaro policies, and defined scope of this HSMP.

Positions	Responsibility
Section Managers	Responsible for identifying risks applicable to their area of responsibility as it may relate to the heritage sites and this HSMP.
	Ensuring identified risks for their area of responsibility as it may relate to the heritage sites and this HSMP are mitigated and updated on a continuous basis.
	Ensuring this HSMP as it may be relevant to their area of responsibility is implemented and adhered to.
Manager: Mine 2	Communication of the scope and procedures contained within this HSMP to support units within Exxaro Matla MRA operations.
	Ensuring identified risks to the grave are captured and recorded in the Safety, Health and Environment (SHE) Risk/Impact Register.
	Ensuring this HSMP is implemented and adhered to at all time.
	Progress reporting as defined in this HSMP for submission to the relevant competent authorities.
Manager: Head, Wall Surface Infrastructure	Communication of the scope and procedures contained within this HSMP to support staff.
	Ensuring this HSMP is implemented and adhered to at all time.
	Responsible for identifying risks applicable to the heritage sites and this HSMP that may manifest during mining and mining-related activities.
Manager: Sustainability (Safety, Health and Environment)	Provide assistance to all managers regarding the compilation and maintenance of risk assessments in accordance with the Exxaro Matla SHEQ Risk Management Procedure (SP01) and as they may relate to the heritage sites and this HSMP.
	Ensuring monitoring of the heritage resources in accordance with the scope and procedures contained within this HSMP is implemented through auditing and visual inspections.
Environmental Rehabilitation Superintendent	Monitoring of the heritage resources in accordance with the scope and procedures contained within this HSMP.
	Updating the “Measuring and Monitoring the Performance of Environmental” matrix to adhere to the scope and procedures in this HSMP.
	Ensuring progress reporting as defined in this HSMP for submission to the relevant competent authorities is completed and submitted on time.

The preservation mechanisms defined in this HSMP for implementation include:

Preventative protection	Clearly determine extent of each of the heritage sites and delineate boundaries.
	Establish fencing with access gates to provide physical barriers to the sites.
	Place signage along access routes and adjacent to heritage sites to warn of presence.
	Establish berms a minimum distance of 20 m surrounding the extent of the heritage sites.
	Record baseline conditions for the effective monitoring of the potential effects of subsidence from mining methodologies.
	Establish a monitoring procedure in line with the Exxaro "Measuring and Monitoring the Performance of Environmental" matrix. Monitoring must be measured against baseline conditions.
	Identify alternative routings to the heritage sites.
	Place signage along access routes to inform heritage site users of alternative routing options and relevant contact information.
	Complete monthly maintenance to remove overgrowth and reduce intensity of natural degradation processes.
Monitoring¹	Daily monitoring during earth moving activities.
	Weekly monitoring during mining activities.
	Monthly monitoring post mining activities for the first year and annually thereafter.
Progress Reporting	Completed on a monthly basis and distributed to the various management structures via the South African Heritage Resources Information System (SAHRIS) portal.

¹ Refer to Section 5.3 on page 20 for detailed procedures for recording of monitoring activities.

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1 Introduction

Exxaro Coal Mpumalanga (Pty) Ltd (hereinafter Exxaro) recently undertook short wall underground mining at their Matla Coal Mine (hereinafter Matla) near Kriel in the Mpumalanga Province. During the implementation of these activities, Exxaro recognised a previously-unidentified grave located in proximity to the planned activities. The grave was at risk of being negatively impacted by possible subsidence caused by the undermining activities.

To negate or minimise the risk of such an impact, Exxaro appointed Digby Wells Environmental (hereinafter Digby Wells) to compile a Heritage Site Management Plan (HSMP) to conserve the single grave *in situ*. Digby Wells² completed this process in April 2017.

More recently, Exxaro undertook a process to update their existing Environmental Management Plan (EMP) for the Matla Mining Right Area (MRA). Exxaro appointed Digby Wells to undertake a Heritage Resource Management³ (HRM) process to comply the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) that considered past, current and future mining activities. Digby Wells submitted⁴ the reports produced from the HRM process to the relevant Heritage Resource Authorities (HRAs) in compliance with Section 38 of the NHRA. In this instance, the HRAs include the South African Heritage Resources Agency (SAHRA) and the Mpumalanga Provincial Heritage Resources Agency (MPHRA).

The aforementioned HRM process included a Heritage Impact Assessment (HIA). In the HIA report, Digby Wells recommended that Exxaro amend their existing HSMP to include the heritage resources of significance identified within 15 m of present and future-planned mining activities. This document constitutes an update to the existing HSMP informed by the outcomes of the aforementioned HIA process.

1.1 Document Objective

The objective of this document is to define management and mitigation measures for the *in situ* conservation that aims to remove or reduce the risk to heritage resources⁵ as well as the risks to Exxaro and their subsidiary companies and service providers.

² Digby Wells reference: EXX4610.

³ Digby Wells reference: EXX4731.

⁴ Case ID 11829, accessible at: <https://sahris.sahra.org.za/cases/exxaro-matla-empr-amendment-and-consolidation>

⁵ Refer to Section 2 for a more detailed description of these heritage resources.

1.2 Purpose

The purpose of the HSMP is to:

- Collate all relevant information into a single management document;
- Recognise the Cultural Significance (CS) of the heritage resources within the Exxaro Matla Coal Mine;
- Acknowledge the sensitivities of the heritage resources;
- Understand the potential risks to the heritage resources from Exxaro's mining and mining-related activities;
- Ensure that the potential risks or manifested impacts to the heritage resources are assessed, prioritised and controlled through the various management structures (refer to Section 3) to an acceptable level; and
- Present the tools for implementation of prescribed management and mitigation requirements.

1.3 Scope

The scope of this document is to provide:

- A description of the various heritage resources and sites within the Exxaro Matla Coal Mine;
- The delimitations of the applicable heritage resources and sites;
- The relevant management structures to implement the stipulated requirements;
- The principles for planning and action;
- Applicable preservation mechanisms that consider current and future risks; and
- Possible awareness requirements and initiatives.

This document applies to the following:

- All Exxaro Matla employees,
- All organisational units under the management control of Exxaro Matla; and
- All Exxaro Matla service providers and subsidiary companies.

1.4 Principles

The national South African regulatory framework, international best practice standards and the draft Exxaro Grave Relocation Policy and Stakeholder Communication Policy (SCA-POL-02) informed the principles of this document.

Principles include *inter alia*:

- The general principles for heritage resource management as encapsulated within Section 5⁶ of the NHRA are applicable and must be considered;
- Proposed management measures must be realistic;
- The management plan must promote co-operative governance and stakeholder engagement;
- The relevant HRAs must endorse the management plan once finalised;
- Exxaro acknowledges that graves are special places that serve as bridges to the past, memorialise the deceased and serve as sacred places to remember and celebrate lives of the deceased;
- The relocation of graves is inherently sensitive and must be approached with due sensitivity and respect. Exxaro is therefore obliged to follow an approach that is balanced between their requirements, respect for the deceased, family directives, cultural considerations and compliance with the applicable national, provincial and local legislation;
- Exxaro will not exhume, or cause to exhume, any grave without the consent of *bona fide* Next-of-Kin (NoK) obtained through extensive consultation. Proof of this consultation and consent will be required in the event that the relevant permit application processes are undertaken;
- In the event that the NoK do not consent to grave relocation, Exxaro will:
 - Conduct impact assessments on such graves to determine, for example: the effect of mining around or below such graves and the effect of mitigation measures, such as fencing graves off;
 - Periodically inspect *in situ* graves to monitor any damage that may occur. Where such damage does occur, this will be immediately repaired;
 - Should Exxaro's Executive Committee (ExCo) determine that mitigation measures will not sufficiently protect the graves, ExCo may decide to implement

⁶ (1)(a) Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and as they are valuable, finite, non-renewable and irreplaceable they must be carefully managed to ensure their survival;

(1)(b) Every generation has a moral responsibility to act as trustee of the national heritage for succeeding generations and the State has an obligation to manage heritage resources in the interests of all South Africans;

(1)(c) Heritage resources have the capacity to promote reconciliation, understanding and respect, and contribute to the development of a unifying South African identity; and

(1)(d) Heritage resources management must guard against the use of heritage for sectarian purposes or political gain.

grave relocation without NoK consent. Exxaro will develop and/or update a communication plan to explain such actions⁷;

- Exxaro management, other employees, service providers and business partners acknowledge the strategic value of branding and communication and the role they play in enhancing and protecting corporate reputation and will display commitment and support for these initiatives; and
- Exxaro will:
 - Keep all stakeholders informed of major developments within the Group;
 - Provide timely, honest, transparent and accurate information; and
 - Treat all stakeholders with dignity and respect.

2 Site Definition

2.1 Description and Significance

Guidance Note

Site descriptions and the ensuing discussions of CS drive the management of the heritage sites. Management plans must include clear descriptions to the character and extent of the site and define the cultural significance built upon by verifiable sources, robust criteria and motivations.

2.1.1 Description

The heritage site currently included in the HSMP comprises a single grave belonging to the Booyens family. The surface dressings of the grave included a weathered tombstone which was partially legible. Helena Booyens is interred here and the grave dates to 1934. This site is referred to in the HIA report as BGG-004.

Table 2-1 presents a summary of additional heritage resources identified within 15 m of present and future-planned mining activities.

Table 2-1: Summary of the Heritage resources to be included in the HSMP

Resource Type	Site Name	Description
Burial grounds and graves	BGG-003	Burial ground demarcated by a fence. Three graves are visible, but it is likely that there are more, based on the spacing of the graves and as the burial ground was overgrown. The three graves were marked by cement headstones, but no writing was legible.
	BGG-005	Single grave with a cement headstone which has been weathered and is difficult to read. Legible parts of the inscription appear to include GAMEISISBAN and 1994. The grave is within a maize field and a small buffer has been left uncultivated.

⁷ Refer to SCA-POL-02

Resource Type	Site Name	Description
	BGG-008	Burial ground with 9 visible graves, three of which are double graves. The graveyard is surrounded by a wire fence and gate. Two of the double graves belong to the Van den Berg family (which date either to 1913 or 1943 and 1932 or possibly 1953). Another double grave belongs to the Van der Heever family (2002) and is the only grave in this burial ground not belonging to the Van den Berg family. Dates range from 1913 to 2002. All headstones are either marble or granite.
	BGG-009	Graveyard including 9 graves with marble and cement headstones and fittings. One headstone was damaged by a fallen tree and may potentially be a double grave. Surnames identified include: Geldenhuys, Van Wyk, Van den Berg and Oosterhuis. Dates range from 1915 and 1952. The graveyard was demarcated by a wire fence with a gate, which has since fallen away.
	BGG-010	Burial ground with three graves, one of which is marked by a cement headstone and brick dressing. The other two burials consist of brick and soil dressings. One of these soil graves has been disturbed by erosion. The writing on the cement headstone is barely legible and appears to date to either 1912 or 1942. The graves are not demarcated or fenced off.
	BGG-011	Single grave within a void in a maize field. The grave is marked by heaped soil, brick and stone and has no headstone. This grave is in proximity to BGG-010.
	BGG-013	Burial ground of two graves, which is not demarcated by a fence. The graves both have cement fittings and headstones. The inscription on one headstone was not legible. The other headstone was not inscribed, but included an epitaph written using metal wire. The headstone was damaged and so the epitaph was only partially legible but looks to date to 1964. Small coloured marbles / rounded glass were added to the headstone and corners of the cement fittings.
	BGG-017	Graveyard of 9 visible graves, although the site is overgrown and there may be more graves. The burial ground is not bounded by fences. Graves are marked by cement headstones with cement slabs or cement or brick fittings, or a stone headstone (marker). Only one surname (Dinamsweni) was legible and no dates were legible. Some headstones have fallen over.
Historical structures	STE-002	Small building with the roof missing. The structure includes two rooms (with no communication between), two doors leading outside and one window with metal bars (no glass). There is some collapse of the outer walls. 4 concrete pillars (with some wire remaining) surround the structure.

Resource Type	Site Name	Description
	STE-003	Large stone structure with no roof and some collapse. Structure includes four divisions (including what may be considered a 'courtyard') with several doorways/entrances. One 'room' has three windows, while no other rooms have windows. Two of the rooms have long concrete slabs with several metal rings embedded in the concrete. Three metal rings were embedded in the wall of the courtyard at different heights.
	STE-004	Two buildings in a state of disrepair. Both structures are missing their roofs and have some wall collapse. Some corrugated iron lean-tos or other informal structures have been attached to the outer walls of the larger building, which is used for storing refuse. The larger structure has an electrical box and so may be more recent or represent a more recent building phase.
	STE-005	Foundations of a long and narrow rectangular structure made of stone and cement, with some metal pieces and metal rings embedded in the cement. Four short walls remain in a small square and there are five visible post holes around the one wall of this small square.
	STE-006	Bakenlaagte farmhouse (belonging to and occupied by Mr. J.H Jacobs and his family). Mr. Jacobs confirmed the farmhouse was approximately 100 years old, having been built shortly after the South African War.
	STE-007	Remains of a one-roomed structure with the roof missing. Two of the walls have collapsed.
Historical <i>werwe</i>	WF-002	Farmhouse and associated outbuildings. The farmhouse is in the process of being demolished and looks to be raided for bricks. An abandoned caravan parked behind the building suggests the structure was recently abandoned. Water tanks, outbuildings and a gate remain, marked with caution tape.
	WF-003	Remains of a farmhouse with a pump house and water pump nearby. The farmhouse is still standing and is in fairly good condition. The house still has its roof, although some of the windows are covered with corrugated iron. There is some building rubble in proximity to the farmhouse.

Resource Type	Site Name	Description
	WF-004	Abandoned farmhouse/barn with outbuildings, including another structure and remains of what appears to be 4 brick pillars and 4 silos. The ages of the buildings are unknown, but '1949' is written into the cement of one of the silos. There are rubbish heaps over the site and the silos are also being used as refuse storage. The additional structure is a structure with four rooms and a chimney. "Room 1" written above the lintel. Both structures still have their roofs and show no collapse. Two small brick squares occur between the structure and the silos.
	WF-006	Outbuildings associated with the Bakenlaagte farmhouse, including a wagon house and what may have been a pig sty. Mr. Jacobs did not know the age of the buildings. They are younger than the farmhouse but are older than 60 years. The wagon house and the piggery are in good condition. There are some small structures that are also in good condition that are being used for refuse storage. There is also a water pump and silo.
Battlefield	Bakenlaagte	Battlefield associated with the Battle of Bakenlaagte. No tangible remains of the event were identified on the surface and the battlefield cannot be accurately delineated but covers a significant portion of the Matla MRA.

2.1.2 Evaluation of Cultural Significance

CS⁸ was determined based on identified resources' importance or contribution to four broad value categories: aesthetic, historical, scientific and social values (Table 2-2). These categories summarised the CS and other values described in Section 3(3) of the NHRA. The resources' importance or contributions to these values were considered in terms of associative (qualitative) and/or rarity (quantitative) attributes, based on data collected through the HRM process. The integrity or condition of resources further influenced the CS. Integrity is largely determined based on resources' current, observed state of conservation, as well as notable changes made to it over the years.

Field ratings assist the responsible heritage resources authority to grade heritage resources into national (Grade I), provincial (Grade II) or local (Grade III) categories and are required under Chapter II Section 7(J) of the SAHRA Minimum Standards.

⁸ Cultural Significance is defined in the NHRA as the intrinsic "aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance" of a heritage resource. These attributes are combined and reduced to four themes used in the Digby Wells significance matrix: aesthetic, historical, scientific and social.

Field ratings considered the assigned CS and the level of official management required or the local competency of heritage authorities⁹.

Table 2-2: Broad Value Categories to Inform CS

Value Category	Attributes		NHRA Reference
Aesthetic	1.	Importance in aesthetic characteristics	S. 3(3)(e)
	2.	Degree of technical / creative skill at a particular period	S. 3(3)(f)
Historical	3.	Importance to a community or pattern in the country's history	S. 3(3)(a)
	4.	Site of significance relating to history of slavery	S. 3(3)(i)
	5.	Association with life or work of a person, group or organisation of importance in the history of the country	S. 3(3)(h)
Scientific	6.	Possession of uncommon, rare or endangered natural or cultural aspects	S. 3(3)(b)
	7.	The potential to yield information	S. 3(3)(c)
	8.	Importance in demonstrating principle characteristics	S. 3(3)(d)
Social	9.	Association to a community or cultural group for social, cultural or spiritual reasons	S. 3(3)(g)

Digby Wells assessed the affected heritage resources during the HIA process in accordance with the aforementioned methodology. Table 2-3 below repeats the results of the HIA. BGG-004 refers to Helena Booyens' grave, which is included in the existing HSMP.

⁹ Currently the MPHRA is only competent to manage and issue permits on NHRA Section 34 heritage resources, and no local (i.e. local government) competency exists within the province. All decisions relating to archaeology, palaeontology and burial grounds and graves therefore fall under the ambit of SAHRA.

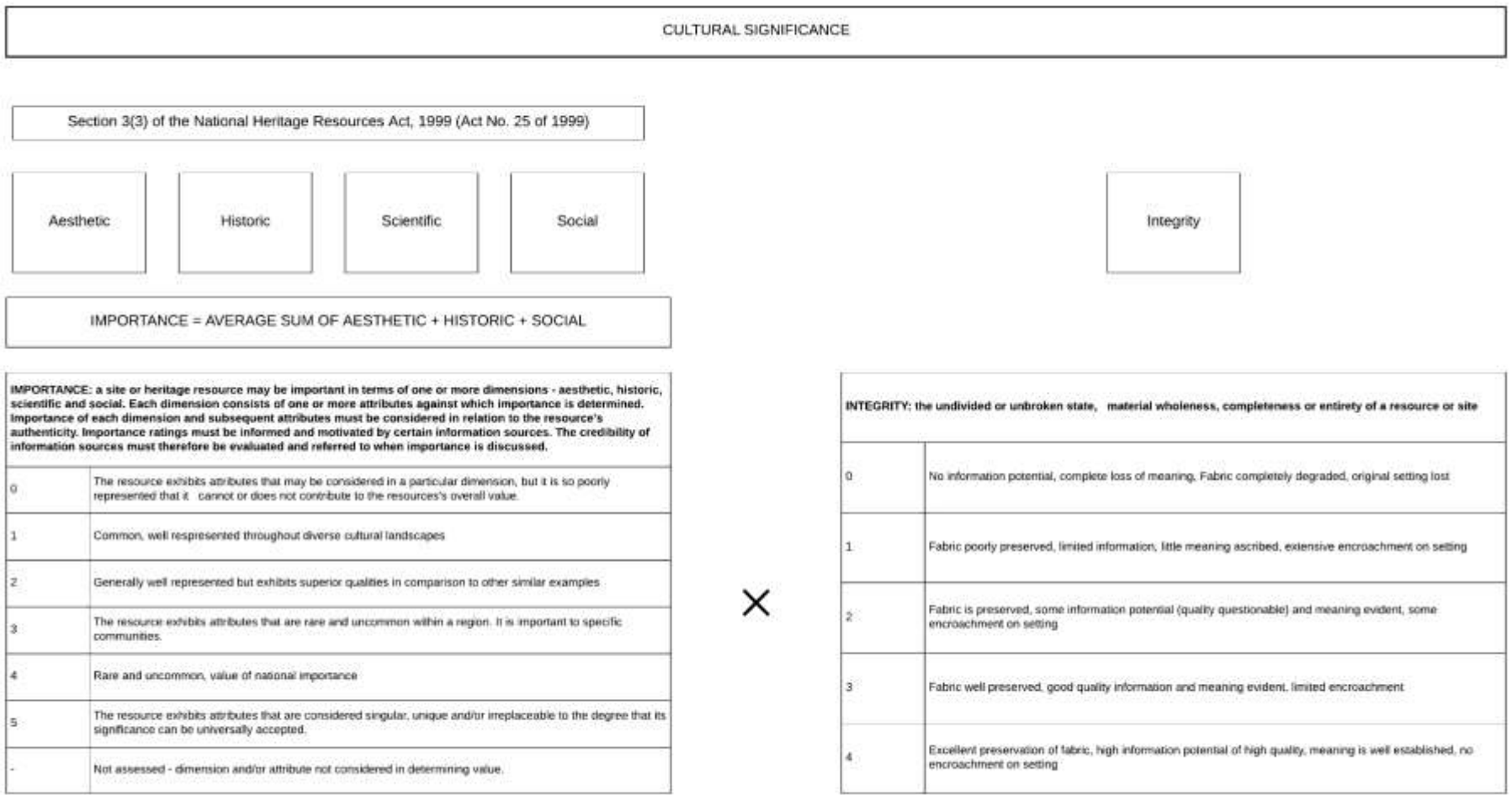


Figure 2-1: CS Determination Methodology

Table 2-3: CS and Field Ratings of newly identified heritage resources within the Matla Coal Mine site-specific study area

Resource ID	Type	Description	Aesthetic	Historic	Scientific	Social	INTEGRITY	VALUE	Designation	Recommended Field Rating	Field Rating Description	Project-Specific Recommended Mitigation
BGG-003	Burial / grave	Burial Grounds & Graves	- Burial grounds and graves were not assessed against aesthetic criteria as defined in Section 3(3) of the NHRA.	- Burial grounds and graves were not assessed against historic criteria as defined in Section 3(3) of the NHRA.	- Burial grounds and graves were not assessed against scientific criteria as defined in Section 3(3) of the NHRA.	5 Burial grounds and graves have specific connections to communities or groups for spiritual reasons. The significance is universally accepted.	4 The integrity of burial grounds is considered to be excellent with both tangible and intangible fabric preserved.	20	Very High	Grade I ¹⁰	Heritage resources with qualities so exceptional that they are of special national significance.	Project design must change to avoid the resource completely where possible. A Grave Relocation Process (GRP) may be necessary. Resources within the 15m buffer zone must be incorporated into the HSMP.
BGG-004												
BGG-005												
BGG-008												
BGG-009												
BGG-010												
BGG-011												
BGG-013												
BGG-017												
BKLG T	Battlefield	Battle of Bakenlaagte	- The battleground was not assessed against aesthetic criteria as defined in Section 3(3) of the NHRA.	4 The battlefield, as a part of the South African War, must be considered at national level. This is the only battlefield in the local area.	2 There is some information potential and evident meaning; however the site has been encroached upon.	4 This Battle contributes to the history of South Africa and should be considered at the national level having specific associations to communities for cultural reasons.	2 The site has been encroached upon, however, there is still meaning and information potential.	8	Low	General Protection IV B	Resources under general protection in terms of NHRA sections 34 to 37 with Low significance.	Project design must change to avoid the resource. If this is not possible, the resource must be fully recorded, including detailed site mapping and surface sampling if necessary, before destruction.
STE-003	Site	Historic Built Environment	2 This historic structure, in comparison to other examples in the study area, exhibits superior aesthetics and technical skill for the particular period it was constructed.	4 The site, based on aesthetic criteria, is assumed to date to the early settlement of the region and may be affiliated with events associated with the Battle of Bakenlaagte.	2 This structure has some information potential, but this will require investigation. Some encroachment on setting has been noted.	3 This resource has the potential to be important to communities across South Africa.	3 The structure is fairly well preserved with some meaning evident. There is some (limited) encroachment.	8	Low	General Protection IV B	Resources under general protection in terms of NHRA sections 34 to 37 with Low significance.	Project design must change to avoid the resource. If this is not possible, the resource must be fully recorded, including detailed site mapping and surface sampling if necessary, before destruction.

¹⁰ Field ratings considered the assigned CS and the level of official management required or the local competency of heritage authorities. Currently the MPHRA is only competent to manage and issue permits on NHRA Section 34 heritage resources. All decisions relating burial grounds and graves therefore fall under the ambit of SAHRA and Section 34 structures under MPHRA.

Resource ID	Type	Description	Aesthetic	Historic	Scientific	Social	INTEGRITY	VALUE	Designation	Recommended Field Rating	Field Rating Description	Project-Specific Recommended Mitigation
STE-002	Site	Historic Built Environment	1 These structures and <i>werwe</i> are commonly represented in the site-specific study area and greater cultural landscape.	2 Some of the structures and <i>werwe</i> are important to the surrounding communities and personal histories.	1 These sites provide limited information potential and possess no uncommon or endangered heritage aspects.	3 Some of the structures and <i>werwe</i> are important to the surrounding communities and personal histories.	2 These structures have maintained some of the original fabric and the meaning was evident. Changes through time have encroached on the original structures and setting.	4	Negligible	General Protection IV C	Resources under general protection in terms of NHRA sections 34 to 37 with Negligible significance.	Sufficiently recorded, no mitigation required
STE-004												
STE-005												
STE-006												
STE-007												
WF-002												
WF-003												
WF-004												
WF-006												

2.2 Delimitation

Guidance Note

The precise position and delimitation of a site are important. They define where and to what extent actions and restrictions that are part of the management programme will be applicable and facilitated.

Matla is located in the Mpumalanga Province, approximately 20 km west of Kriel. The MRA covers roughly 22 000 hectares (ha) across the Gert Sibande and Nkalanga District Municipalities (GSDM and NDM respectively). Table 2-4 summarises the details relevant to the location of the Matla MRA. Plan 1 presents the regional and local setting of the MRA.

Table 2-4: Heritage site location summary

Province	Mpumalanga Province	
District Municipality	GSDM and NDM	
Local Municipality	Emalahleni Local Municipality (ELM) Goven Mbeki Local Municipality (GMLM) Victor Khanye Local Municipality (VKLM)	
Nearest town	Ga Nala (Kriel)	
Name and ownership of property/ies¹¹	Bakenlaagte 84 IS Portion 2	Bakenlaagte Boerdery (Pty) Ltd
	Kruisementfontein 95 IS Portion 2	Vosstoffel (Pty) Ltd
	Moedverloren 88 IS Portion 27	Ms. Gesina J. Ferreira
	Nooitgedacht 94 IS Portion 5	<i>Land ownership information currently not available</i>
	Overwacht 97 IS Portion 2	John Cameron Trust
	Rietvlei 62 IS Portion 3	Eskom Holdings Limited
	Rietvlei 62 IS Portion 8	Eskom Holdings Limited
	Schaapskraal 93 Portion 2	Omnipact SA Inv. 194 (Pty) Ltd
	Vierfontein 61 IS Portion 52	Vierfontein Trust
Weltevreden 307 IR Portion 6	John Cameron Trust	
Current use	Mining and agriculture	

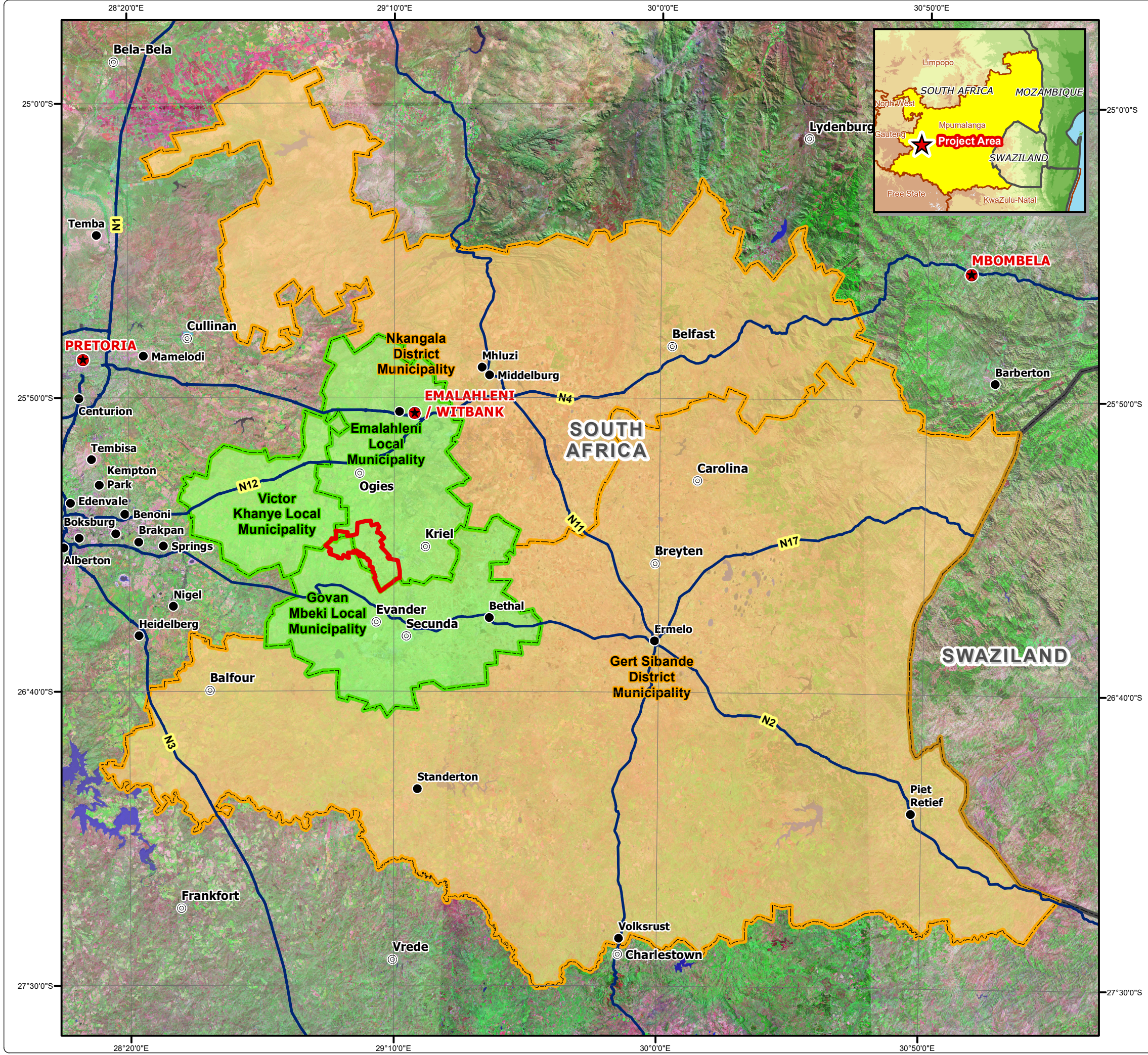
¹¹ The properties listed here are only those affected by the HSMP. Please refer to the Notification of Intent (NID) submitted to Case ID 11829 as a component of the previous HRM process for a list of all properties included in the Matla MRA.

Digby Wells determined the maximum extent of the heritage site for BGG-004 during the compilation of the existing HSMP. To date, this has not been completed for the other heritage resources and remains to be done.

Exxaro Matla HRM Update Study Areas

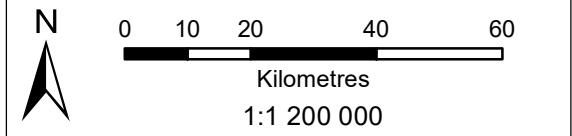
Legend

-  Project Area
-  Regional Study Area
-  Local Study Area
-  City
-  Major Town
-  Secondary Town
-  National Road
-  International Boundary



• Sustainability • Service • Positive Change • Professionalism • Future Focused • Integrity

Projection: Transverse Mercator Ref #: prv.EXX5635.201807.057
 Datum: WGS 1984 Revision Number: 1
 Central Meridian: 29°E Date: 09/07/2019



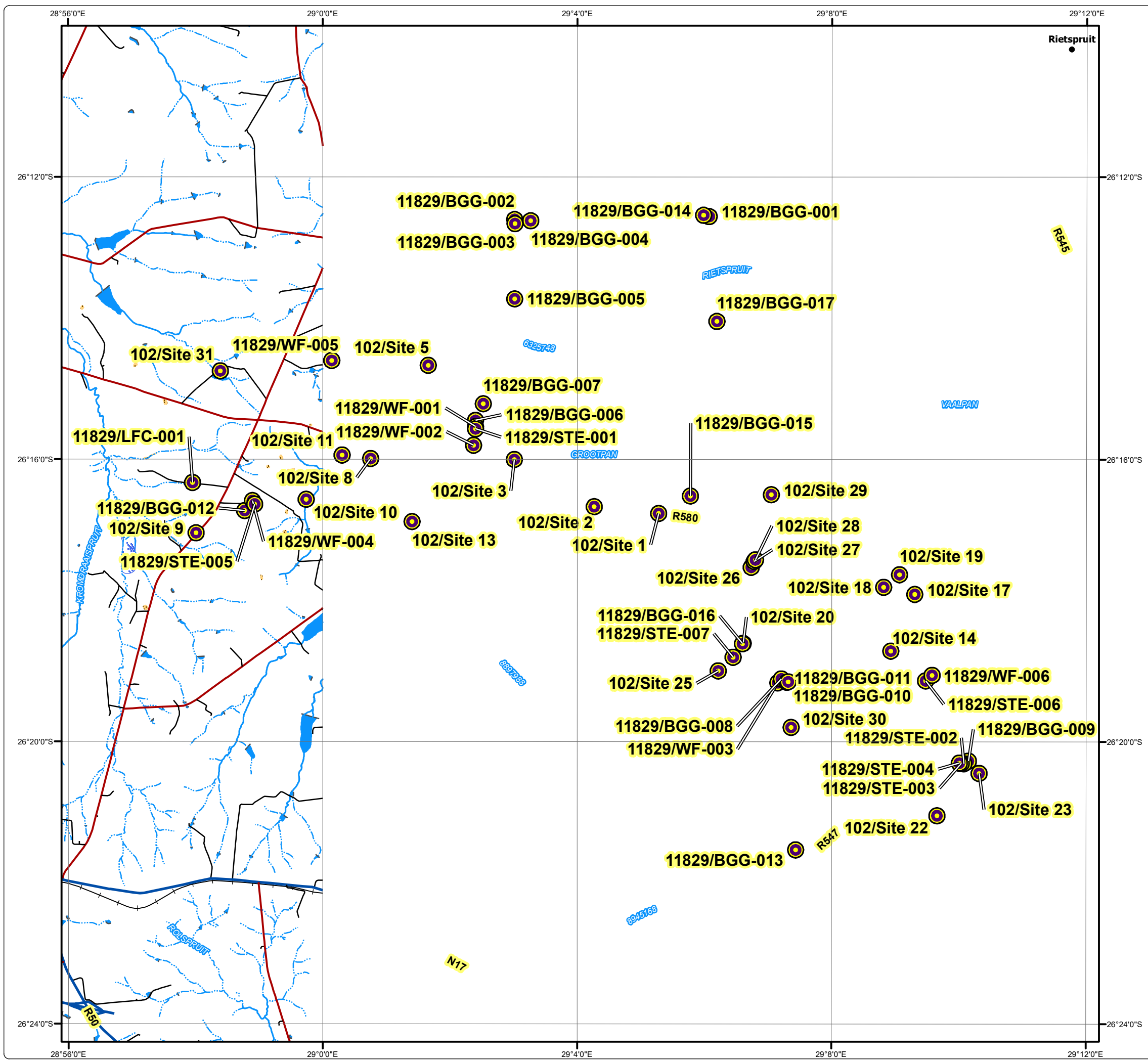
Plan 2: Heritage Resources identified in previous HRM processes

Exxaro Matla HRM Update

Identified Heritage Resources

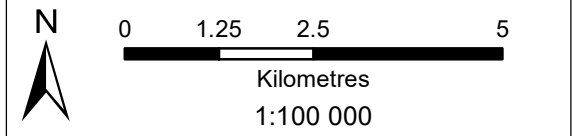
Legend

- Project Area
- Identified Heritage Resources
- Settlement
- Arterial / National Road
- Main Road
- Minor Road
- Railway Line
- Non - Perennial Stream
- Perennial Stream
- Dam Wall
- Dam / Lake
- Non-Perennial Pan
- Perennial Pan
- Wetland



• Sustainability • Service • Positive Change • Professionalism • Future Focused • Integrity

Projection: Transverse Mercator Ref #: prv.EXX5635.201907.059
 Datum: WGS 1984 Revision Number: 1
 Central Meridian: 29°E Date: 14/12/2017



2.3 Ownership Structures

Table 2-5 below details the landowners for the properties upon which the heritage resources are located. Exxaro do not own the land within the affected properties.

Table 2-5: Heritage Resources and Land Ownership

Land Owner	Property	Heritage Resources
Bakenlaagte Boerdery (Pty) Ltd	Bakenlaagte 84 IS Portion 2	STE-006 and WF-006
Ms. Gesina J. Ferreira	Moedverloren 88 IS Portion 27	WF-002
Eskom Holdings Limited	Rietvlei 62 IS Portion 3	BGG-003 and BGG-004
	Rietvlei 62 IS Portion 8	BGG-005
John Cameron Trust	Overwacht 97 IS Portion 2	BGG-013
	Weltevreden 307 IR Portion 6	STE-005 and WF-004
Omnipact SA Inv. 194 (Pty) Ltd	Schaapskraal 93 Portion 2	STE-007 and Battle of Bakenlaagte ¹² point of interest ¹³
Vierfontein Trust	Vierfontein 61 IS Portion 52	BGG-017
Vosstoffel (Pty) Ltd	Kruisementfontein 95 IS Portion 2	BGG-009, STE-002, STE-003 and STE-004
Land ownership information unavailable	Nooitgedacht 94 IS Portion 5	BGG-008, BGG-010, BGG-011 and WF-003

Ownership of the graves resides with the *bona fide* NoK as defined in terms of Section 14(3)(e)(iii) of the Mpumalanga Cemeteries, Crematoria and Exhumation of Bodies Act, 2005 (Act No. 8 of 2005) (MCCEBA). These include in order of relevance:

1. The surviving spouse or partner of the deceased;
2. In the absences of a surviving spouse or partner, the eldest adult child of the deceased;
3. In the absence of an adult child, a parent of the deceased;

¹² Both the natural landscape and oral traditions contribute to the CS of this resource. The NHRA does not specifically consider the preservation of oral traditions. Digby Wells considers the natural landscape a “feature [...] associated with military history which [is] older than 75 years [...]” in accordance with Section 2(ii)(d) of the NHRA. This heritage resource is therefore afforded general protection under Section 35 of the NHRA. Should any material associated with this battle be identified through Project-related, or any other, activities, these will be afforded general protection under Section 35.

¹³ The landowner, Mr B. Roux indicated to the heritage assessor during the pre-disturbance survey a location on this property at which events tied to the Battle were meant to occur. Additionally, Colonel Benson was apparently killed in action on this property; however, Mr. Roux was not sure of the exact location.

4. In the absence of a parent, an adult sibling of the deceased; and
5. In the absence of a sibling, the closest adult relative to the deceased.

In an instance where no *bona fide* NoK are known (such as with BGG-004), the landowners are considered the custodians of the grave.

Historical structures are considered part of the national estate and fall within the sphere of operations of the HRAs in terms of Section 3(2) of the NHRA. As such, the property owners, landowners or land management entities are considered the custodians of the structures and must assume the responsibility of preserving the structures and must adhere to the requirements of the NHRA and NHRA Regulations, as applicable. In cases where historical structures are being actively utilised in activities compatible with maintaining the CS of those resources, the user or resident is considered the custodian.

The heritage assessor did not identify any visible surface indicators or tangible remains associated with the Battle of Bakenlaagte. The landscape is considered a significant feature in retaining the sense of place of this historic event. The natural, undulating landscape and the oral traditions (popular memory constituting living heritage) linked to this landscape contribute to the CS of this heritage resource.

This notwithstanding, Exxaro's planned undermining activities may impact the heritage resources. In these instances, Exxaro will be responsible for managing the risk and the impact to the heritage resources in consultation with the landowner. This includes potential Grave Relocation Processes (GRPs) and/or permit application processes to obtain permits issued in terms of Section 34, Section 35 and Section 36, as may be necessary. Appendix B includes a description of the requirements for each of the permit application processes.

2.4 Access

Guidance Note

Access relates to the free movement of proprietors and users of the heritage site or the restriction of movement to the heritage site to manage identified risks and liabilities. The management plan must be developed to facilitate access to the best benefit of society.

Access routes to the heritage sites must be defined or established to allow NoK access to the burial grounds and graves. Digby Wells recommends Exxaro fence off burial grounds and graves to minimise the potential for accidental damage during earth moving activities, as was done for BGG-004. Such fencing must include a pedestrian gate to allow for free access to the heritage site.

Free movement of individuals to the grave is however, a concern in terms of the management of risks and liabilities to Exxaro. To give effect to the NHRA requirement to safeguard the CS of burial grounds and graves through sustainable use, Exxaro will implement remedial action that will enable access to the heritage sites for living heritage purposes. Visitors to the heritage site must adhere to Exxaro health and safety policies that are based on the Mine Health and Safety Act, 1996 (Act No. 29 of 1996) (MHSA).

Access must be arranged in compliance with the requirements of the MHPA. Where the community member(s) wish to visit a heritage resource in a space deemed too hazardous for a member of the public to access, Exxaro retains the right to refuse entry on these grounds.

3 Management structures

Guidance Note

Implementation of an HSMP requires co-operation between several entities that have bearing on the way various interests and policy objectives are implemented. These need to be captured in an HSMP to define competencies, responsibilities and modalities of co-ordination. The site management plan should contain a description of all these entities as well as a binding agreement of their competences and responsibilities in the context of the plan.

3.1 Legal Status of Entities

Table 3-1 outlines the various entities applicable to the implementation of the HSMP.

Table 3-1: Entities applicable to implementation

Entity	Role	Competencies
NoK	Owner	N/A
Land Occupiers	Owner / custodian	N/A
Exxaro Matla Coal Mine	Implementation	N/A
Exxaro Coal Mpumalanga (Pty) Ltd	Developer / custodian	N/A
SAHRA	Competent authority	NHRA NHRA Regulations (GN R 548)
MPHRA	Commenting authority ¹⁴	SAHRA Minimum Standards (2007)

¹⁴ At the time of compilation of this HSMP, MPHRA has not been assessed as competent to manage NHRA Section 36 heritage resources, i.e. burial grounds and graves. The HSMP will be submitted to MPHRA for the management of Section 34 heritage resources, i.e. historical structures.

3.2 Competencies and Responsibilities

The *bona fide* NoK are ultimately responsible for the maintenance of the burial grounds and graves. Residents or users of historical structures are responsible for the care and maintenance of such structures. In the absence of *bona fide* NoK and in cases where historical structures have been abandoned, the current landowners are considered the custodians (refer to Section 2.3 above). This notwithstanding, Exxaro is ultimately responsible for the conservation and ethical management of the impacts posed to the burial grounds and graves, battlefield site and historical structures.

Figure 3-1 presents the hierarchical structure of Matla, as the implementer of the HSMP. Table 3-2 presents an overview of the associated responsibilities.

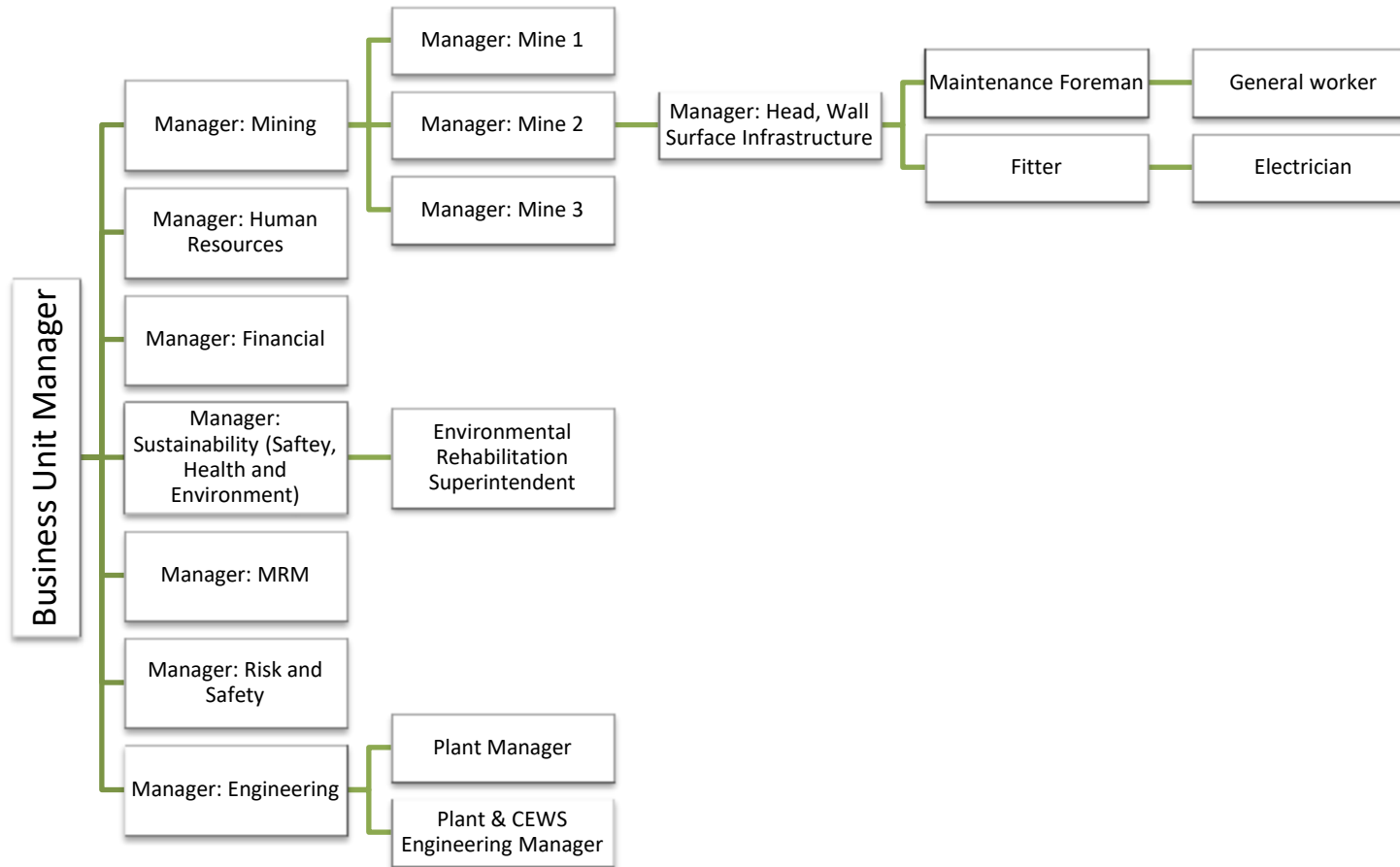


Figure 3-1: Exxaro Matla Coal Mine organisational structure

Table 3-2: Responsibilities of Exxaro Matla Coal Mine

Positions	Responsibility
Business Unit (BU) Manager	Ultimately responsible for the implementation of this HSMP in accordance with the legislative requirements, Exxaro policies, and defined scope of this HSMP.
Section Managers	Responsible for identifying risks ¹⁵ applicable to their area of responsibility as it may relate to the heritage resources and this HSMP.
	Ensuring identified risks for their area of responsibility as it may relate to the heritage resources and this HSMP are mitigated and updated on a continuous basis.
	Ensuring this HSMP as it may be relevant to their area of responsibility is implemented and adhered to.
Manager: Mine 2	Communication of the scope and procedures contained within this HSMP to support units within Matla Shaft Number 2 operations.
	Ensuring identified risks to the heritage resources are captured and recorded in the Safety, Health and Environment (SHE) Risk/Impact Register.
	Ensuring this HSMP is implemented and adhered to at all time.
	Progress reporting as defined in this HSMP for submission to the relevant competent authorities.
Manager: Head, Wall Surface Infrastructure	Communication of the scope and procedures contained within this HSMP to support staff.
	Ensuring this HSMP is implemented and adhered to at all time.
	Responsible for identifying risks applicable to the heritage resources and this HSMP that may manifest during short-wall mining activities.
Manager: Sustainability (Safety, Health and Environment)	Provide assistance to all managers regarding the compilation and maintenance of risk assessments in accordance with SP01 and as they may relate to the heritage resources and this HSMP.
	Ensuring monitoring of the heritage resources in accordance with the scope and procedures contained within this HSMP is implemented through auditing and visual inspections.

¹⁵ Please refer to the Exxaro Matla Coal Safety, Health, Environment and Quality (SHEQ) Risk Management Procedure (SP01)

Positions	Responsibility
Environmental Rehabilitation Superintendent	Monitoring of the heritage resources in accordance with the scope and procedures contained within this HSMP.
	Updating the “Measuring and Monitoring the Performance of Environmental” matrix to adhere to the scope and procedures in this HSMP.
	Ensuring progress reporting as defined in this HSMP for submission to the relevant competent authorities is completed and submitted on time.

MPHRA is competent to assess and manage Section 34 structures. This HSMP, and all progress reporting relevant to Section 34 structures, will be submitted to MPHRA, for noting and for adjudication where historical structures are concerned.

The Archaeology, Palaeontology and Meteorites (APM) Unit of SAHRA is the competent authority responsible for the regulation of the HSMP in terms of the national legislative framework with reference to the battlefield associated with the Battle of Bakenlaagte¹⁶. The NHRA states:

35(1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: [...].

This notwithstanding, MPHRA is not considered competent to manage and issue permits regarding NHRA Section 35 heritage resources. Therefore, although the battlefield associated with the Battle of Bakenlaagte is considered to have general protection under Section 35 of the NHRA and therefore should be managed by a local authority, this heritage resource falls within SAHRA’s ambit.

Additionally, the NHRA states:

35(2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.

(3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.

¹⁶ Refer to Footnote 12 in Section 2.3 for an explanation of how Section 35 of the NHRA applies.

- (4) No person may, without a permit issued by the responsible heritage resources authority—
- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
 - (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
 - (c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
 - (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

The Burial Grounds and Graves (BGG) Unit of SAHRA is the competent authority responsible for the regulation of the HSMP in terms of the national legislative framework with reference to the burial grounds and graves. The NHRA states:

36(1.) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make the necessary arrangement for their conservation as they see fit.

This HSMP, including all progress reporting, will be submitted to the SAHRA APM and BGG Units and MPHRA in accordance with the scope and procedures contained herein.

3.3 Coordination Mechanism between Entities

The South African Heritage Resources Information System (SAHRIS¹⁷) platform will be the primary co-ordination mechanism between the various entities. The SAHRIS platform is in the public domain and will allow for process transparency.

All documentation, including the HSMP, progress reporting and correspondence will be captured under the unique SAHRIS Case ID¹⁸.

4 Principles for planning and actions

4.1 Objectives, targets and strategies

Guidance Note

Principles for planning and actions are anchored in general strategies and policies. These will have specific targets that should be defined and met through the implementation of the HSMP. What is best for a heritage site considering the specific, defined CS and the opportunities is the main objective of any HSMP. Several aspects, such as preservation, access, provisions for science and research should be integrated with this objective, as well as a vision for the future and sustainable use.

¹⁷ www.sahra.org.za/sahris/

¹⁸ Case ID 10967, accessible at: <https://sahris.sahra.org.za/cases/exx4610-matla-mine-grave-management-plan>

The principles for planning and actions are directly correlated to and guided by defined objectives, targets and strategies. Table 4-1 details the applicable objectives, targets and strategies.

Table 4-1: Objectives, targets and strategies

Objective	Target	Strategy
To comply with the requirements of the national legislative framework, with specific reference to the NHRA in terms of Section 34(1) ¹⁹ .	<ul style="list-style-type: none"> ■ <i>In situ</i> conservation of the burial grounds and graves; ■ Conservation of the CS of the battlefield site; ■ <i>In situ</i> conservation of the historical structures and <i>werwe</i>; ■ Identification of risks; ■ Proactive management of identified risks; ■ Monitoring of the grave; and ■ Management of manifested risks. 	Update the HSMP for approval by the competent authority.
To comply with the requirements of the national legislative framework, with specific reference to the NHRA in terms of Section 35(3) and (4) as above.		
To comply with the requirements of the national legislative framework, with specific reference to the NHRA in terms of Section 36(3) ²⁰ .		
To safeguard tangible cultural heritage.		Implement scope and procedures defined in the HSMP (refer to Section 5).
To facilitate sustainable use of the heritage site or sites.		

¹⁹ No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

²⁰ Where no person may, without a permit issued by SAHRA, (b) destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority.

4.2 Masterplan of action

Guidance Note

All completed and planned actions should be listed in relation to the defined objectives to guide decision making processes of competent authorities. The masterplan is not static and should be continuously reviewed and updated to remain applicable to changes and developments.

Figure 4-1 presents the Masterplan of Action and includes the progress to date. A checkmark indicates an item has been completed for all heritage resources, while a hyphen indicates that partial progress has been achieved (either partial progress at some or all heritage resources or full progress at some heritage resources).

Exxaro must update this regularly.

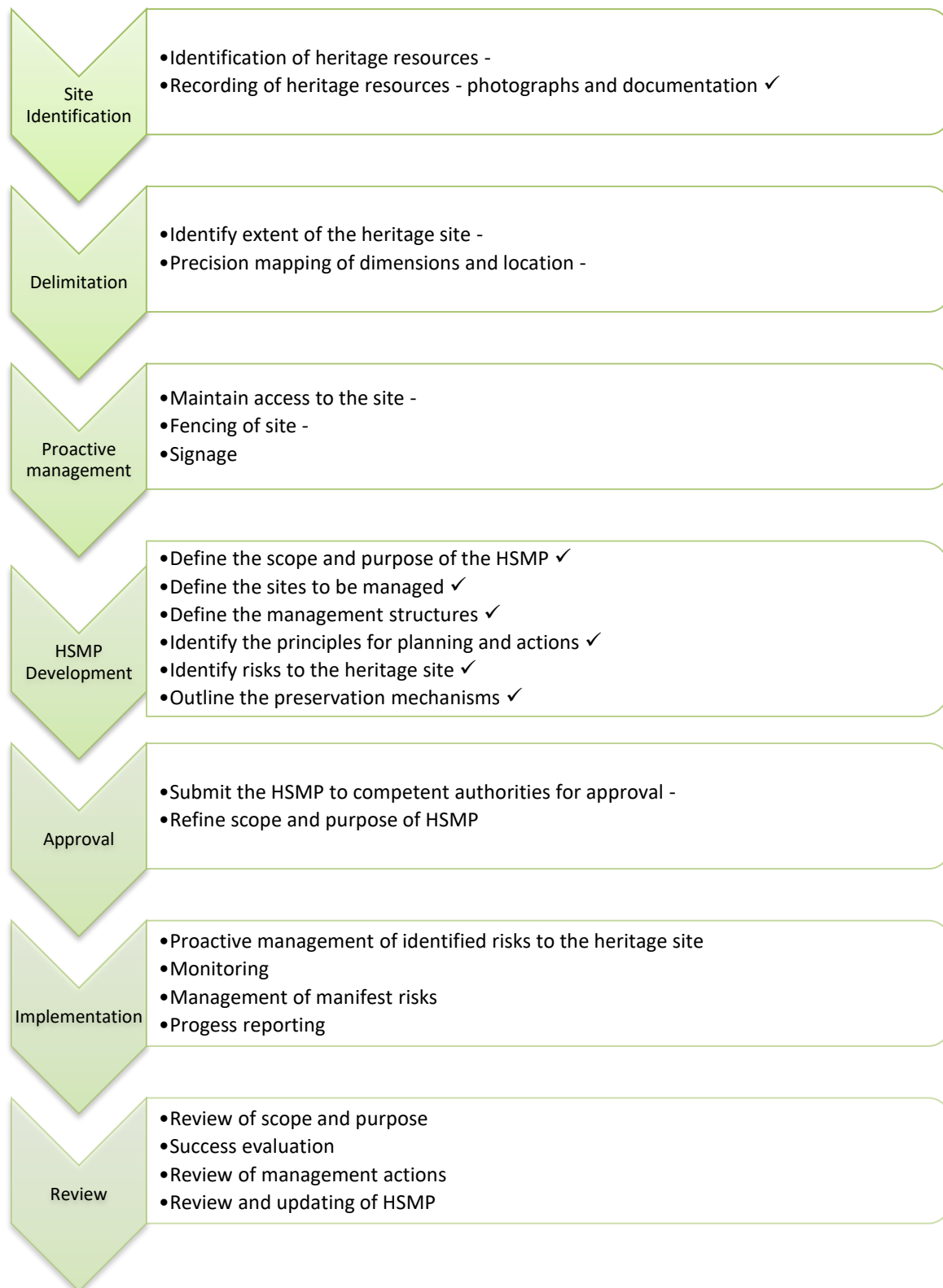


Figure 4-1: Masterplan of Action

5 Preservation mechanism

Guidance Note

Preservation, as the broadest objective of a site management plan, is undertaken for specific purposes that must consider all aspects. A site management plan must aim to balance the benefits of preservation with acceptable levels of degradation.

Commensurate to the objectives of this HSMP (as detailed in Section 4.1) preservation mechanisms include *inter alia*:

- Preventative protection;
- Monitoring;
- Progress reporting; and
- Reactive management (*should identified risks manifest*).

To develop appropriate preservation mechanisms, potential current and future risks must be identified and recorded within the existing Exxaro instruments (refer to Section 3.2 and the Exxaro Matla SP01).

5.1 Current and future risks

Guidance Note

Current and future threats to heritage sites must be identified, defined and assessed. The site management plan must aim at balancing risks with preservation to ensure threats become opportunities.

This section describes the identified risks to the heritage sites, and the potential impacts if manifested. Table 5-1 presents a description and assessment of the potential impacts per identified risk, as well as the consequence of each.

This HSMP aims at balancing the preservation of the heritage sites *in situ* against the identified risks and potential impacts. Various preservation mechanisms are identified for implementation. These are discussed separately under Sections 5.2 to 5.4 below.

Table 5-1: Identified and future risks, potential impacts and assessment

Risk	Description	Potential Impact	Assessment in terms of Burial Grounds and Graves	Assessment in terms of Historical Structures	Assessment in terms of the Battlefield Site
Earth moving activities	Earth moving activities on the surface	Damage	Potential damage to the burial grounds and graves may occur considering the location of the burial grounds and graves relative to these activities and considering preventative protection measures, will be short-term as it will be mitigated through the implementation of this HSMP. If manifested, it will require the involvement of the SAHRA BGG Unit as the competent authority.	Potential damage to the historical structures may occur considering the location of these structures relative to the activities. Considering preventative protection measures, the effects will be short-term as they will be mitigated through the implementation of this HSMP. If manifested, it will require the involvement of MPHRA as the competent authority.	Potential damage to unidentified archaeological resources associated with the Battle of Bakenlaagte that may exist below the surface. Considering preventative protection measures, the effects will be short-term as they will be mitigated through the implementation of this HSMP. If manifested, it will require the involvement of the SAHRA APM Unit as the competent authority.
			Consequence ²¹ : Moderately detrimental.	Consequence: Negligible detrimental	Consequence: Negligible detrimental

²¹ The impact to a resource is directly related to the designated CS, as it provides minimum accepted levels of change to the resource.

Risk	Description	Potential Impact	Assessment in terms of Burial Grounds and Graves	Assessment in terms of Historical Structures	Assessment in terms of the Battlefield Site
		Destruction	<p>Potential destruction of the burial grounds and graves may occur considering the location of the burial grounds and graves relative to mining activities will be permanent. If manifested, it will require the involvement of SAHRA as the competent authority and may have international reputational repercussions.</p> <p>Consequence: Extremely detrimental</p>	<p>Potential damage to the historical structures may occur considering the location of these structures relative to the activities. The effects will be permanent and, if manifested, it will require the involvement of MPHRA as the competent authority.</p> <p>Consequence: Minor detrimental.</p>	<p>Potential destruction unidentified archaeological resources associated with the Battle of Bakenlaagte that may exist below the surface.</p> <p>If manifested, it will require the involvement of the SAHRA APM Unit as the competent authority.</p> <p>Consequence: Minor detrimental</p>
Subsidence as a result of mining methodologies	Subsidence of undermined areas	Damage	<p>Potential damage to the burial grounds and graves may occur considering the location of the burial grounds and graves relative to these activities will be short-term as it will be mitigated through the implementation of this HSMP. If manifested, it will require the involvement of SAHRA as the competent authority.</p>	<p>Potential damage to the historical structures may occur considering the location of these structures relative to the activities. Considering preventative protection measures, the effects will be short-term as they will be mitigated through the implementation of this HSMP. If manifested, it will require the involvement of MPHRA as the competent authority.</p>	<p>No direct impacts associated with subsidence are anticipated.</p>

Risk	Description	Potential Impact	Assessment in terms of Burial Grounds and Graves	Assessment in terms of Historical Structures	Assessment in terms of the Battlefield Site
			Consequence: Highly detrimental	Consequence: Negligible detrimental	Consequence: Not applicable.
		Destruction	Potential destruction of the burial grounds and graves, which may occur, depending on the location of the burial grounds and graves in relation to mining activities, will be permanent. If manifested, it will require the involvement of SAHRA as the competent authority and may have international reputational repercussions.	Potential damage to the historical structures may occur considering the location of these structures relative to the activities. The effects will be permanent and, if manifested, it will require the involvement of MPHRA as the competent authority.	No direct impacts associated with subsidence are anticipated.
			Consequence: Extremely detrimental	Consequence: Minor detrimental.	Consequence: Not applicable.
		Loss of CS	No indirect impacts associated with subsidence are anticipated.	No indirect impacts associated with subsidence are anticipated.	Changes to the sense of place of the battlefield associated with the Battle of Bakenlaagte will result in the loss of CS of the heritage resource. Considering preventative protection measures, the effects will be short-term as they will be mitigated through the implementation of this HSMP.

Risk	Description	Potential Impact	Assessment in terms of Burial Grounds and Graves	Assessment in terms of Historical Structures	Assessment in terms of the Battlefield Site
			Consequence: Not applicable.	Consequence: Not applicable.	Consequence: Negligible detrimental
Restricted access	Full restriction of access to the heritage site	Degradation of CS	Potential degradation of the intrinsic CS of the burial grounds and graves through fully-restricted access to the heritage sites is highly unlikely when considering current and future planned access. If manifested, it will be limited to the duration of the project and limited to the extent of the individual heritage site or sites. This may however, require the involvement of SAHRA as the competent authority.	Potential degradation of the intrinsic CS of the historical structure through fully-restricted access to the heritage site is highly unlikely when considering current and future planned access. If manifested, it will be limited to the duration of the project and limited to the extent of the individual heritage site or sites.	No indirect impacts associated with a complete loss of access are anticipated.
			Consequence: Moderately detrimental	Consequence: Negligible detrimental	Consequence: Not applicable

5.2 Preventative protection

Guidance Note

Preventative protection has important implications to the implementation of site management and future planning. These measures protectively cover the most vulnerable components to prevent degradation of the heritage site from identified risks. These measures must aim at improving the conditions for preservation that can be adapted and refined through time.

Table 5-2 outlines the preventative protection measures for implementation in line with the scope of this HSMP.

Table 5-2: Preventative protection measures²²

Objective	Action	Status
Avoid accidental damage or destruction of the heritage sites during earth moving activities	Clearly determine extent of the burial grounds and graves and the historical structures. Exxaro must delineate these boundaries.	Partially Complete
	Establish fencing with access gate to provide physical barrier to the burial grounds and graves and the historical structures.	Partially Complete
	Place signage along access routes and adjacent to heritage sites to warn of presence.	TBC
	Establish berms a minimum distance of 20 m surrounding the extent of the burial grounds and graves and historical structures.	TBC
Avoid accidental damage or destruction of the heritage sites during mining activities	Record baseline conditions for the effective monitoring of the potential effects subsidence from mining methodologies.	Partially Complete
	Establish a monitoring procedure in line with the Exxaro "Measuring and Monitoring the Performance of Environmental" matrix (refer to Section 5.3). Monitoring must be measured against baseline conditions.	TBC
Avoid degradation of the intrinsic CS of the heritage sites.	Identify alternative routings to the heritage sites.	TBC
	Place signage along access routes to inform heritage site users of alternative routing options and relevant contact information.	TBC
	Complete monthly maintenance to remove overgrowth and reduce intensity of natural degradation processes.	TBC

²² Refer to SP01 and SP09. Planned controls to prevent occurrence will be prioritised and implement. In the prioritisation, the organisation will take into account the potential risk reduction of the planned controls.

5.3 Monitoring

Guidance Note

A site management plan cannot be static and must be conceived in terms of a cycle. Defined measures must be implemented, evaluated, reviewed, and if necessary altered or withdrawn. Monitoring should target specific issues, measure specific parameters of change or react to specific events. Monitoring should be measured against recorded baseline conditions.

Monitoring measures in terms of this HSMP must be aligned with the Exxaro “Measuring and Monitoring the Performance of Environmental” matrix. Table 5-3 presents an extract of this matrix as relevant to heritage sites.

Table 5-3: Heritage site monitoring

ENVIRONMENTAL					
Environmental aspect	Area / process / activity	Responsible for monitoring and measuring	Frequency	Type of measurement	Method
Heritage – Heritage Site	Matla MRA Earth moving activities	Environmental Rehabilitation Superintendent	Daily	Proactive	<ul style="list-style-type: none"> Environmental rehabilitation superintendent to supervise earth moving activities within 100 m of the extent of the heritage site; and Earth moving activities will be recorded through photographs.
Heritage – Heritage Site	Matla MRA Earth moving activities	Environmental Rehabilitation Superintendent	Daily	Reactive	<ul style="list-style-type: none"> If risks are manifested: <ol style="list-style-type: none"> Cease all works immediately; Report incident to the Sustainability Manager; Contact an archaeologist to inspect the site; Report incident to the competent authority; and Employ reasonable mitigation measures in accordance with the requirements of the NHRA, NHRA Regulations and SAHRA Minimum Standards. Only recommence operations once impacts have been mitigated.

ENVIRONMENTAL					
Environmental aspect	Area / process / activity	Responsible for monitoring and measuring	Frequency	Type of measurement	Method
Heritage – Heritage Site	Matla MRA Mining activities	Environmental Rehabilitation Superintendent / Chief Surveyor	Weekly	Proactive	<ul style="list-style-type: none"> Measure levels of subsidence and compare with recorded baseline conditions; <i>Status quo</i> will be recorded through photographs; Results will be maintained; and Results will be reported in the progress reporting.
		Archaeologist	Monthly during mining activities		<ul style="list-style-type: none"> Visually assess the <i>status quo</i>; Review monitoring results against baseline conditions.
Heritage – Heritage Site	Matla MRA Mining activities	Environmental Rehabilitation Superintendent	Weekly	Reactive	<ul style="list-style-type: none"> If risks are manifested: <ol style="list-style-type: none"> Cease all works immediately; Report incident to the SHE Manager; Contact an archaeologist to inspect the site; Report incident to the competent authority; and Employ reasonable mitigation measures in accordance with the requirements of the NHRA, NHRA Regulations and SAHRA Minimum Standards. Only recommence operations once impacts have been mitigated.

ENVIRONMENTAL					
Environmental aspect	Area / process / activity	Responsible for monitoring and measuring	Frequency	Type of measurement	Method
Heritage – Heritage Site	Matla MRA Post mining	Environmental Rehabilitation Superintendent / Chief Surveyor	Monthly – first year Annually thereafter	Proactive	<ul style="list-style-type: none"> Measure levels of subsidence and compare with recorded baseline conditions; <i>Status quo</i> will be recorded through photographs; Results will be maintained; and Results will be reported in the progress reporting.
		Archaeologist	Quarterly – first year Annually thereafter	Proactive	<ul style="list-style-type: none"> Visually assess the <i>status quo</i>; Review monitoring results against baseline conditions.
Heritage – Heritage Site	Matla MRA Post mining	Environmental Rehabilitation Superintendent	Monthly	Reactive	<ul style="list-style-type: none"> If risks are manifested: <ol style="list-style-type: none"> Report incident to the Sustainability Manager; Contact an archaeologist to inspect the site; Report incident to the competent authority; and Employ reasonable mitigation measures in accordance with the requirements of the NHRA, NHRA Regulations and SAHRA Minimum Standards.

5.4 Progress reporting

Guidance Note

Progress reporting should present details to the status quo, state of degradation or stability to guide proactive management measures and competent authority decisions. Progress reporting is important as it correlates baseline conditions to the effectiveness of measures contained in the site management plan.

Progress reporting must be completed on a monthly basis and distributed to the various management structures via the SAHRIS portal (refer to Section 3.3). Progress reporting will be undertaken in accordance with the competences and responsibilities as defined in Section 3.2.

6 Awareness

Guidance Note

The site management plan must make provision for the dissemination of information to the public. Means of communication may vary considerably across various platforms. Nonetheless, information pertaining to the heritage site and the proposed management thereof must be freely available.

The HSMP will be publically available via the SAHRIS portal (refer to Section 3.3). Furthermore, awareness of the site will be created through appropriate signage along various access routes and at the heritage site (as detailed in Table 5-2).

Stakeholder engagement will be completed in accordance with the principles and procedures contained in SCA-POL-02.

7 Resources

Guidance Note

A site management plan must detail the resources required for its implementation. Resources from other entities that promote the management objectives and actions should be listed.

Employees of the Matla operations will implement the HSMP in line with the management structure presented in Figure 3-1 and competences and responsibilities defined in Table 3-2.

In accordance with the reactive measures defined in Table 5-3, in the event of risk manifesting, Exxaro must enlist the services of a qualified and accredited archaeologist.

8 Sustainable use and vision for the future

Guidance Note

A site management plan must adapt through time to meet the specific requirements for the continued use of the heritage site and benefits for society.

Exxaro will endeavour to maintain in situ conservation of the burial grounds and graves and historical structures and the CS of the battlefield site throughout the project life. Exxaro will promote the sustainable use thereof via the various measures contained in this HSMP (refer to Section 5).

Heritage Site Management Plan

Heritage Resources Management Process Update for the Exxaro Matla Mine, Mpumalanga

EXX5635



DIGBY WELLS
ENVIRONMENTAL

Appendix A: Specialist CV



DIGBY WELLS

ENVIRONMENTAL

Miss Shannon Hardwick
Heritage Resources Management Consultant
Social and Heritage Services Division
Digby Wells Environmental

1 Education

Date	Degree(s) or Diploma(s) obtained	Institution
2013	MSc (Archaeology)	University of the Witwatersrand
2010	BSc (Honours) (Archaeology)	University of the Witwatersrand
2009	BSc	University of the Witwatersrand
2006	Matric	Rand Park High School

2 Language Skills

Language	Written	Spoken
English	Excellent	Excellent
Afrikaans	Fair	Basic

3 Employment

Period	Company	Title/position
2017 to present	Digby Wells Environmental	Junior Heritage Resources Management Consultant
2016-2017	Tarsus Academy	Facilitator
2011-2016	University of the Witwatersrand	Teaching Assistant
2011	University of the Witwatersrand	Collections Assistant

4 Experience

I joined the Digby Wells in April 2017 as an archaeologist and a Heritage Resources Management intern in the Social and Heritage Services Division and have most recently been promoted to a Junior Consultant. I received my Master of Science (MSc) degree in Archaeology from the University of the Witwatersrand in 2013, specialising in archaeobotany and historical archaeology. I have fieldwork experience in historical archaeology as well as in Stone Age archaeology in South Africa; since joining Digby Wells, this has been expanded to include pre-disturbance surveys across South Africa and fieldwork in Malawi.

Since joining Digby Wells, I have gained generalist experience through the compilation of various heritage assessment reports in South Africa, Malawi and Mali and Section 34 Permit Applications. I have also obtained experience in compiling socio-economic documents, including a Community Health, Safety and Security Management Plan (CHSSMP) and social baselines and data analysis in South Africa, Malawi, Mali and Sierra Leone.

5 Project Experience

My project experience is listed in the table below.

Project Title	Name of Client	Project Location	Date:		Project / Experience Description
Environmental Authorisation for the Dagsoom Coal Mining Project near Ermelo, Mpumalanga Province	Dagsoom Coal Mining (Pty) Ltd	Ermelo, Mpumalanga Province	April 2019	Ongoing	Heritage Impact Assessment
Regional Tailings Storage Facility Heritage Mitigations	Ergo Mining (Pty) Ltd	Randfontein, Gauteng	April 2019	Ongoing	Section 34 Permit Application Process
Weltevreden Mine Environmental Authorisation, Water Use Licence and Mining Right Application Project	Mbuyelo Group (Pty) Ltd	Belfast, Mpumalanga	April 2019	Ongoing	Heritage Impact Assessment
Environmental Authorisation for the proposed Lephalale Pipeline Project, Limpopo Province	MDT Environmental (Pty) Ltd	Lephalale, Limpopo Province	April 2019	Ongoing	Notification of Intent to Develop
Heritage Resources Management Process Update for the Exxaro Matla Mine	Exxaro Coal Mpumalanga (Pty) Ltd	Kriel, Mpumalanga Province	February 2019	Ongoing	Heritage Site Management Plan Update
Environmental Authorisation for the proposed Musina-Makhado Special Economic Zone Development Project, Limpopo Province	Limpopo Economic Development Agency	Vhembe District Municipality, Limpopo Province	February 2019	Ongoing	Heritage Impact Assessment
Songwe Hills Rare Earth Elements Project	Mkango Resources Limited	Phalombe District, Malawi	February 2019	Ongoing	Heritage Impact Assessment

Project Title	Name of Client	Project Location	Date:		Project / Experience Description
Elandsfontein Colliery Burial Grounds and Graves Chance Finds	Anker Coal and Mineral Holdings SA (Pty) Ltd Elandsfontein Colliery (Pty) Ltd	Clewer, Emalahleni, Mpumalanga Province	November 2018	December 2018	Site Inspection
Environmental Authorisation Process to Decommission a Conveyor Belt Servitude, Road and Quarry at Twistdraai East Colliery	Sasol Mining (Pty) Ltd	Secunda, Mpumalanga Province	November 2018	Ongoing	Notification of Intent to Develop
Environmental and Social Impact Assessment for the Bougouni Lithium Project, Mali	Future Minerals S.A.R.L.	Bougouni, Mali	October 2018	Ongoing	Heritage Impact Assessment
Environmental Authorisation for the Nomalanga Estates Expansion Project, KwaZulu-Natal	Nomalanga Property Holdings (Pty) Ltd	Greytown. KwaZulu-Natal	October 2018	Ongoing	Heritage Impact Assessment
Environmental Authorisation for the Temo Mine proposed Rail, Road and Pipeline Development, Limpopo Province	Temo Coal Mining (Pty) Ltd	Lephalale, Limpopo Province	August 2018	Ongoing	Heritage Impact Assessment
Gorumbwa RAP Audit	Randgold Resources Limited	Kibali Sector, Democratic Republic of the Congo	July 2018	December 2018	Resettlement Action Plan Audit
Sasol Sigma Defunct Colliery Surface Mitigation Project: Proposed Rover Diversion and Flood Protection Berms	Sasol Mining (Pty) Ltd	Sasolburg, Free State Province	June 2018	November 2018	Notification of Intent to Develop

Project Title	Name of Client	Project Location	Date:		Project / Experience Description
Basic Assessment and Regulation 31 Amendment / Consolidation for Sigma Colliery: Mooikraal and Sigma Colliery: 3 Shaft	Sasol Mining (Pty) Ltd	Sasolburg, Free State Province	April 2018	Ongoing	Notification of Intent to Develop
Sasol Mining Sigma Colliery Ash Backfilling Project, Sasolburg, Free State Province	Sasol Mining (Pty) Ltd	Sasolburg, Free State Province	April 2018	July 2018	Heritage Basic Assessment Report Update
Constructed Landfill Site for the Sierra Rutile Limited Mining Operation, Southern Province, Sierra Leone	Sierra Rutile Limited	Southern Province, Sierra Leone	April 2018	May 2019	Social Impact Assessment
Environmental Impact Assessment for the Klipspruit Colliery Water Treatment Plant and associated pipeline, Mpumalanga	South32 SA Coal Holdings (Pty) Ltd	Ogies, Mpumalanga Province	March 2018	Ongoing	Notification of Intent to Develop; Social baseline
Proposed construction of a Water Treatment Plant and associated infrastructure for the Treatment of Mine-Affected Water at the Kilbarchan Colliery	Eskom Holdings SOC Limited	Newcastle, KwaZulu-Natal Province	February 2018	Ongoing	Heritage Impact Assessment
Belfast Implementation Project	Exxaro Coal Mpumalanga (Pty) Ltd	Belfast, Mpumalanga Province	February 2018	Ongoing	Section 34 Permit Application
Newcastle Landfill Project	GCS Water and Environmental Consultants	Newcastle, KwaZulu-Natal	January 2018	March 2019	Heritage Impact Assessment

Project Title	Name of Client	Project Location	Date:		Project / Experience Description
NHRA Section 34 Permit Application process for the Davin and Queens Court Buildings on Erf 173 and 174, West Germiston, Gauteng Province	IDC Architects	Johannesburg, Gauteng Province	January 2018	May 2018	Section 34 Permit Application Process
Basic Assessment and Environmental Management Plan for the Proposed pipeline from the Mbali Colliery to the Tweefontein Water Reclamation Plant, Mpumalanga Province	HCI Coal (Pty) Ltd Mbali Colliery	Ogies, Mpumalanga Province	November 2017	February 2018	Heritage Basic Assessment Report
The South African Radio Astronomy Observatory Square Kilometre Array Heritage Impact Assessment and Conservation Management Plan Project	The South African Radio Astronomy Observatory (SARAO)	Carnarvon, Northern Cape Province	November 2017	July 2018	Heritage Impact Assessment; Conservation Management Plan
Environmental Impact Assessment for the proposed Future Developments within the Sun City Resort Complex	Sun International (Pty) Ltd	Rustenburg, North West Province	November 2017	Ongoing	Heritage Impact Assessment Conservation Management Plan Social Baseline
Environmental Fatal Flaw Analysis for the Mabula Filling Station	Mr van den Bergh	Waterberg, Limpopo Province	November 2017	November 2017	Fatal Flaw Analysis

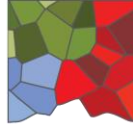
Project Title	Name of Client	Project Location	Date:		Project / Experience Description
Environmental Impact Assessment for the Blyvoor Gold Mining Project near Carletonville, Gauteng Province	Blyvoor Gold Capital (Pty) Ltd	Carletonville, Gauteng	October 2017	Ongoing	Notification of Intent to Develop; Social Baseline
Heritage Resources Management Process for the Exxaro Matla Mine	Exxaro Coal Mpumalanga (Pty) Ltd	Kriel, Mpumalanga Province	August 2017	October 2018	Heritage Impact Assessment
Liwonde Additional Studies	Mota-Engil Africa	Liwonde, Malawi	June 2017	June 2018	Community Health, Safety and Security Management Plan
Environmental Impact Assessment for the Millsite TSF Complex	Sibanye-Stillwater	Randfontein, Gauteng	June 2017	December 2017	Heritage Impact Assessment
Heritage Resources Management Process for the Portion 296 of the farm Zuurfontein 33 IR Proposed Residential Establishment Project	Shuma Africa Projects (Pty) Ltd	Ekurhuleni (Johannesburg), Gauteng	May 2017	June 2017	Notification of Intent to Develop
NHRA Section 35 Archaeological Investigations, Lanxess Chrome Mine, North-West Province	Lanxess Chrome Mine (Pty) Ltd	Rustenburg, North West Province	March 2017	August 2017	Archaeological Phase 2 Mitigation
Environmental and Social Input for the Pre-Feasibility Study	Birimium Gold	Bougouni, Mali	January 2017	October 2018	Pre-Feasibility Study; Heritage Impact Assessment

6 Professional Registration

Position	Professional Body	Registration Number
Member	Association of Southern African Professional Archaeologists (ASAPA)	451
Member	International Council on Monuments and Sites (ICOMOS)	38048

7 Publications

Esterhuysen, A.B. & Hardwick, S.K. 2017. Plant remains recovered from the 1854 siege of the Kekana Ndebele, Historic Cave, Makapan Valley, South Africa. *Journal of Ethnobiology* 37(1): 97-119.



DIGBY WELLS

ENVIRONMENTAL

Mr. Justin du Piesanie

Divisional Manager: Social and Heritage Services

Social and Heritage Services Department

Digby Wells Environmental

1 Education

Date	Degree(s) or Diploma(s) obtained	Institution
2015	Continued Professional Development, Intermediate Project Management Course	PM.Ideas: A division of the Mindset Group
2013	Continued Professional Development Programme, Architectural and Urban Conservation: Researching and Assessing Local Environments	University of Cape Town
2008	MSc	University of the Witwatersrand
2005	BA (Honours) (Archaeology)	University of the Witwatersrand
2004	BA	University of the Witwatersrand
2001	Matric	Norkem Park High School

2 Language Skills

Language	Written	Spoken
English	Excellent	Excellent
Afrikaans	Proficient	Good

3 Employment

Period	Company	Title/position
2018 to present	Digby Wells Environmental	Divisional Manager: Social and Heritage Services
2016-2018	Digby Wells Environmental	Unit Manager: Heritage Resources Management
2011-2016	Digby Wells Environmental	Heritage Management Consultant: Archaeologist
2009-2011	University of the Witwatersrand	Archaeology Collections Manager
2009-2011	Independent	Archaeologist
2006-2007	Maropeng & Sterkfontein Caves UNESCO World Heritage Site	Tour guide

4 Experience

I joined the company in August 2011 as an archaeologist and was subsequently made manager of the Heritage Unit and subsequently the Divisional Manager for Social and Heritage Services in 2016 and 2018 respectively. I obtained my Master of Science (MSc) degree in Archaeology from the University of the Witwatersrand in 2008, specialising in the Southern African Iron Age. I further attended courses in architectural and urban conservation through the University of Cape Town's Faculty of Engineering and the Built Environment Continuing Professional Development Programme in 2013. I am a professional member of the Association of Southern African Professional Archaeologists (ASAPA), and accredited by the association's Cultural Resources Management (CRM) section. I am also a member of the International Council on Monuments and Sites (ICOMOS), an advisory body to the UNESCO World Heritage Convention. I have over 10 years combined experience in HRM in South Africa, including heritage assessments, archaeological mitigation, grave relocation, and NHRA Section 34 application processes. I gained further generalist experience since my appointment at Digby Wells in Botswana, Burkina Faso, Cameroon, the Democratic Republic of Congo, Liberia, Malawi, Mali, Senegal and Tanzania on projects that have required compliance with IFC requirements such as Performance Standard 8: Cultural Heritage. Furthermore, I have acted as a technical expert reviewer of HRM projects undertaken in Cameroon and Senegal. As Divisional Manager for Social and Heritage Services at Digby Wells Environmental, I manage several large capital Projects and multidisciplinary teams placing me in the best position to identify and exploit points of integration between the HRM process and greater social landscape. This approach to HRM, as an integrated discipline, is grounded in international HRM principles and standards that has allowed me to provide comprehensive,

project-specific solutions that promote ethical heritage management and assist in achieving the strategic objectives of our clients, as well as maintain or enhance Cultural Significance of the relevant cultural heritage resources.

5 Project Experience

Please see the following table for relevant project experience:

PROJECT	LOCATION	DATES		PROJECT TYPE	CLIENT
Ergo RTSF Section 34 Process	Westonaria, Gauteng, South Africa	2019	-	Section 34 Destruction Permit Applications	Ergo (Pty) Ltd
Sun City EIA and CMP	Pilanesberg, North-West Province, South Africa	2018	-	Heritage Impact Assessment and Conservation Management Plan	Sun International
Exxaro Matla HRM	Kriel, Mpumalanga, South Africa	2017	-	Heritage Impact Assessment and Conservation Management Plan	Exxaro Coal Mpumalanga (Pty) Ltd
Exxaro Belfast GRP	Belfast, Mpumalanga, South Africa	2013	-	Grave Relocation	Exxaro Coal Mpumalanga (Pty) Ltd
Eskom Northern KZN Strengthening	KwaZulu-Natal, South Africa	2016	2018	Heritage Impact Assessment	ILISO Consulting
Thabametsi GRP	Lephalale, Limpopo Province, South Africa	2017	2018	Grave Relocation	Exxaro Resources Ltd
SKA HIA and CMP	Carnarvon, Northern Cape, South Africa	2017	2018	Heritage Impact Assessment and Conservation Management Plan	SARAO
Grootegeeluk Watching Brief	Lephalale, Limpopo Province, South Africa	2017	2017	Watching Brief	Exxaro Resources Ltd
Matla HSMP	Kriel, Mpumalanga Province, South Africa	2017	2017	Heritage Site Management Plan	Exxaro Coal Mpumalanga (Pty) Ltd

PROJECT	LOCATION	DATES	PROJECT TYPE	CLIENT
Ledjadja Coal Borrow Pits	Lephalale, Limpopo Province, South Africa	2017 2017	Heritage Assessment Basic	Ledjadja Coal (Pty) Ltd
Exxaro Implementation PIA	Belfast, Mpumalanga, South Africa	2017 2017	Palaeontological Impact Assessment	Exxaro Coal Mpumalanga (Pty) Ltd
Lanxess Chrome Mine Archaeological Mitigation	Rustenburg, North West Province, South Africa	2017 2017	Phase 2 Excavations	Lanxess Chrome Mine (Pty) Ltd
Tharisa Apollo EIA Project	KwaZulu-Natal, South Africa	2017 2017	Heritage Assessment Impact	GCS (Pty) Ltd
Queen Street Section 34 Process	Germiston, Johannesburg, Gauteng, South Africa	2017 2017	Section 34 Destruction Permit Applications	IDC Architects
Goulamina EIA Project	Goulamina, Sikasso Region, Mali	2017 2017	Heritage Assessment Impact	Birimian Limited
Zuurfontein Residential Establishment Project	Ekurhuleni, Gauteng, South Africa	2017 2017	Notification of Intent to Develop	Shuma Africa Projects
Kibali Grave Relocation Training and Implementation	Orientale Province, Democratic Republic of Congo	2017 2017	Grave Relocation	Randgold Resources Limited
Massawa EIA	Senegal	2016 2017	Heritage Assessment and Technical Reviewer Impact	Randgold Resources Limited
Beatrix EIA and EMP	Welkom, Free State, South Africa	2016 2017	Heritage Assessment Impact	Sibanye Gold Ltd
Sun City Chair Lift	Pilanesberg, North-West Province, South Africa	2016 2017	Notification of Intent to Develop and Heritage Assessment Basic	Sun International
Hendrina Underground Coal Mine EIA	Hendrina, Mpumalanga, South Africa	2016 2017	Heritage Assessment Impact	Umcebo Mining (Pty) Ltd



PROJECT		LOCATION	DATES		PROJECT TYPE		CLIENT		
Elandsfontein Update	EMP	Clewer, Mpumalanga, South Africa	2016	2017	Heritage Assessment	Impact	Anker Coal		
Groningen and Inhambane PRA		Limpopo Province, South Africa	2016	2016	Heritage Assessment	Basic	Rustenburg Limited	Platinum	Mines
Palmietkuilen MRA		Springs, Gauteng, South Africa	2016	2016	Heritage Assessment	Impact	Canyon Resources (Pty) Ltd		
Copper Sunset Mining S.102	Sand	Free State, South Africa	2016	2016	Heritage Assessment	Basic	Copper Sunset Sand (Pty) Ltd		
Grootvlei MRA		Springs, Gauteng, South Africa	2016	2016	Notification of Intent to Develop		Ergo (Pty) Ltd		
Lambda EMP		Mpumalanga, South Africa	2016	2016	Palaeontological Impact Assessment		Eskom Holdings SOC Limited		
Kilbarchan Assessment and EMP	Basic	Newcastle, KwaZulu-Natal, South Africa	2016	2016	Heritage Assessment	Basic	Eskom Holdings SOC Limited		
Grootegeeluk Amendment		Lephalale, Limpopo Province, South Africa	2016	2016	Notification of Intent to Develop		Exxaro		
Garsfontein Township Development		Pretoria, Gauteng, South Africa	2016	2016	Notification of Intent to Develop		Leungo Construction Enterprises		
Louis Botha Phase 2		Johannesburg, Gauteng, South Africa	2016	2016	Phase 2 Excavations		Royal Haskoning DHV		
Sun City Mapping	Heritage	Pilanesberg, North-West Province, South Africa	2016	2016	Phase 2 Mapping		Sun International		
Gino's Building Section 34 Destruction Permit Application		Johannesburg, Gauteng, South Africa	2015	2016	Heritage Assessment and Section 34 Destruction Application	Impact and Section 34 Permit	Bigen Africa Services (Pty) Ltd		
EDC Refurbishment Project	Block	Johannesburg, Gauteng, South Africa	2015	2016	Heritage Assessment and Section 34 Application	Impact and Permit	Bigen Africa Services (Pty) Ltd		

PROJECT	LOCATION	DATES		PROJECT TYPE		CLIENT
Namane IPP and Transmission Line EIA	Steenbokpan, Limpopo Province, South Africa	2015	2016	Heritage Assessment	Impact	Namane Resources (Pty) Ltd
Temo Coal Road Diversion and Rail Loop EIA	Steenbokpan, Limpopo Province, South Africa	2015	2016	Heritage Assessment	Impact	Namane Resources (Pty) Ltd
Sibanye WRTRP	Gauteng, South Africa	2014	2016	Heritage Assessment	Impact	Sibanye
NTEM Iron Ore Mine and Pipeline Project	Cameroon	2014	2016	Technical Review		IMIC plc
NLGM Constructed Wetlands Project	Liberia	2015	2015	Heritage Assessment	Impact	Aureus Mining
ERPM Section 34 Destruction Permits Applications	Johannesburg, Gauteng, South Africa	2015	2015	Section 34 Destruction Applications	Permit	Ergo (Pty) Ltd
JMEP II EIA	Botswana	2015	2015	Heritage Assessment	Impact	Jindal
Oakleaf ESIA Project	Bronkhorstspruit, Gauteng, South Africa	2014	2015	Heritage Assessment	Impact	Oakleaf Investment Holdings
Imvula Project	Kriel, Mpumalanga, South Africa	2014	2015	Heritage Assessment	Impact	Ixia Coal
VMIC Vanadium EIA Project	Mokopane, Limpopo, South Africa	2014	2015	Heritage Assessment	Impact	VM Investment Company
Everest North Mining Project	Steelpoort, Mpumalanga, South Africa	2012	2015	Heritage Assessment	Impact	Aquarius Resources
Nzoro 2 Hydro Power Project	Orientele Province, Democratic Republic of Congo	2014	2014	Social consultation		Randgold Resources Limited
Eastern Basin AMD Project	Springs, Gauteng, South Africa	2014	2014	Heritage Assessment	Impact	AECOM
Soweto Cluster Reclamation Project	Soweto, Gauteng, South Africa	2014	2014	Heritage Assessment	Impact	Ergo (Pty) Ltd



PROJECT		LOCATION	DATES		PROJECT TYPE		CLIENT
Klipspruit South Project		Ogies, Mpumalanga, South Africa	2014	2014	Heritage Assessment	Impact	BHP Billiton
Klipspruit Extension: Weltevreden Project		Ogies, Mpumalanga, South Africa	2014	2014	Heritage Assessment	Impact	BHP Billiton
Ergo Pipeline Assessment	Rondebult Basic	Johannesburg, South Africa	2014	2014	Heritage Assessment	Basic	Ergo (Pty) Ltd
Kibali Project	ESIA Update	Orientele Province, Democratic Republic of Congo	2014	2014	Heritage Assessment	Impact	Randgold Resources Limited
GoldOne Consolidation	EMP	Westonaria, Gauteng, South Africa	2014	2014	Gap analysis		Gold One International
Yzermite PIA		Wakkerstroom, Mpumalanga, South Africa	2014	2014	Palaeontological Impact Assessment		EcoPartners
Sasol Mooikraal Assessment	Basic	Sasolburg, Free State, South Africa	2014	2014	Heritage Assessment	Basic	Sasol Mining
Rea Vaya Project	Phase II C	Johannesburg, Gauteng, South Africa	2014	2014	Heritage Assessment	Impact	ILISO Consulting
New Liberty Project	Gold	Liberia	2013	2014	Grave Relocation		Aureus Mining
Putu Iron Ore Project	Mine	Petroken, Liberia	2013	2014	Heritage Assessment	Impact	Atkins Limited
Sasol Twistdraai Project		Secunda, Mpumalanga, South Africa	2013	2014	Notification of Intent to Develop		ERM Southern Africa
Kibali Project	Gold Hydro-Power	Orientele Province, Democratic Republic of Congo	2012	2014	Heritage Assessment	Impact	Randgold Resources Limited
SEGA Project	Gold Mining	Burkina Faso	2013	2013	Technical Reviewer		Cluff Gold PLC
Consbrey and Harwar Collieries Project		Breyton, Mpumalanga, South Africa	2013	2013	Heritage Assessment	Impact	Msobo

PROJECT	LOCATION	DATES		PROJECT TYPE	CLIENT
Falea Uranium Mine Environmental Assessment	Falea, Mali	2013	2013	Heritage Scoping	Rockgate Capital
Daleside Acetylene Gas Production Facility	Gauteng, South Africa	2013	2013	Heritage Impact Assessment	ERM Southern Africa
SEGA Gold Mining Project	Burkina Faso	2012	2013	Socio Economic and Asset Survey	Cluff Gold PLC
Kibali Gold Project Grave Relocation Plan	Oriental Province, Democratic Republic of Congo	2011	2013	Grave Relocation	Randgold Resources Limited
Everest North Mining Project	Steelpoort, Mpumalanga, South Africa	2012	2012	Heritage Impact Assessment	Aquarius Resources
Environmental Authorisation for the Gold One Geluksdal TSF and Pipeline	Gauteng, South Africa	2012	2012	Heritage Impact Assessment	Gold One International
Platreef Burial Grounds and Graves Survey	Mokopane, Limpopo Province, South Africa	2012	2012	Burial Grounds and Graves Survey	Platreef Resources
Resgen Boikarabelo Coal Mine	Limpopo Province, South Africa	2012	2012	Phase 2 Excavations	Resources Generation
Bokoni Platinum Road Watching Brief	Burgersfort, Limpopo Province, South Africa	2012	2012	Watching Brief	Bokoni Platinum Mine
Transnet NMPP Line	Kwa-Zulu Natal, South Africa	2010	2010	Heritage survey	Umlando Consultants
Archaeological Impact Assessment – Witpoortjie Project	Johannesburg, Gauteng, South Africa	2010	2010	Archaeological Impact Assessment	ARM
Der Brochen Archaeological Excavations	Steelpoort, Mpumalanga, South Africa	2010	2010	Phase 2 Excavations	Heritage Contracts Unit
De Brochen and Booyesdal Archaeology Project	Steelpoort, Mpumalanga, South Africa	2010	2010	Site Mapping Recording:	Heritage Contracts Unit

PROJECT		LOCATION	DATES		PROJECT TYPE		CLIENT
Eskom Electricity Network	Thohoyandou Master	Limpopo Province, South Africa	2010	2010	Heritage Statement		Strategic Environmental Focus
Bathako Expansion	Mine	North-West Province, South Africa	2010	2010	Phase 2 Mapping		Heritage Contracts Unit
Wenzelrust Excavations		Shoshanguve, Gauteng, South Africa	2009	2009	Phase 2 Excavations		Heritage Contracts Unit
University of the Witwatersrand LIA Shelter Project	Parys	Free State, South Africa	2009	2009	Phase 2 Mapping		University of the Witwatersrand
Archaeological Assessment Modderfontein Holdings	of AH	Johannesburg, Gauteng, South Africa	2008	2008	Heritage Assessment	Basic	ARM
Heritage Assessment of Rhino Mines		Thabazimbi, Limpopo Province, South Africa	2008	2008	Heritage Assessment	Impact	Rhino Mines
Cronimet Project		Thabazimbi, Limpopo Province, South Africa	2008	2008	Archaeological surveys		Cronimet
Eskom SEA Project	Thohoyandou	Limpopo Province, South Africa	2008	2008	Heritage Statement		Eskom
Witbank Archaeological Assessment	Dam Impact	Witbank, Mpumalanga, South Africa	2007	2007	Archaeological survey		ARM
Sun City Archaeological Site Mapping		Sun City, Pilanesberg, North West Province, South Africa	2006	2006	Site Mapping	Recording:	Sun International
Klipriviersberg Archaeological Survey		Meyersdal, Gauteng, South Africa	2005	2006	Archaeological surveys		ARM

6 Professional Registrations

Position	Professional Body	Registration Number
Member	Association for Southern African Professional Archaeologists (ASAPA); ASAPA Cultural Resources Management (CRM) section	270
Member	International Council on Monuments and Sites (ICOMOS)	14274
Member	Society for Africanist Archaeologists (SAfA)	N/A
Member	International Association of Impact Assessors (IAIA) South Africa	5494

7 Publications

Huffman, T.N. & du Piesanie, J.J. 2011. Khami and the Venda in the Mapungubwe Landscape. *Journal of African Archaeology* 9(2): 189-206

du Piesanie, J.J., 2017. Book Review: African Cultural Heritage Conservation and Management. *South African Archaeological Bulletin* 72(205)



Appendix B: Permit Application Procedures Checklist

GN R 548 Permit Applications Checklist

Requirement	Format	Relevant Field on SAHRIS	Step	Section 34 – Structures	Section 35 – Palaeontology & Archaeology	Section 36 – Burial Grounds and Graves
Create SAHRIS Application	-	-	1	x	x	x
Provide motivation and significance opinion	-	Expanded Motivation	2	x	x	x
Create Site	-	Permit for Sites / Objects	3	x	x	x
Full SAHRIS Site Recording linked to Site	-	(Fill Out in Site Recording Record)	3	-	x	-
Provide photographs	JPEG	Case Images	4	x	x	x
Provide copies of original drawings	PDF	Additional Documents	4	x	-	-
Relevant title deed information	PDF		4	x	-	-
Plans numbered and coloured	PDF		4	x	-	-
Proof of Professional Accreditation	PDF	Membership Number in Profile	4	x	x	x
Proof of Public Participation	PDF	Online Comments / Consent Letter	4	x	x	x
Curating Institution Consent	PDF		4	-	x	-
Proof of payment	PDF	Proof of Payment	4	x	x	x