

**HERITAGE IMPACT ASSESSMENT FOR PHASE 1 OF THE PROPOSED  
MOKOLO AND CROCODILE RIVER (WEST): WATER AUGMENTATION  
PROJECT (MCWAP)**

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June 2009

## **ACKNOWLEDGEMENTS**

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National Heritage Legislation (Act 25 of 1999)

The National Archives, in particular the “Transvaalse Argiefbewaarplek” database.

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## **ABOUT THIS REPORT**

*The heritage report must reflect that consideration has been given to the history and heritage significance of the study area and that the proposed work is sensitive towards the heritage resources and does not alter or destroy the heritage significance of the study area.*

*The heritage report must refer to the heritage resources currently in the study area.*

*The opinion of an independent heritage consultant is required to evaluate if the proposed work generally follows a good approach that will ensure the conservation of the heritage resources.*

*The National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998) are the guideline documents for a report of this nature.*

*Leonie Marais-Botes was requested by Nema Consulting to carry out a Heritage Impact Assessment (HIA) for Phase 1 of the proposed Mokolo and Crocodile River (West): Water Augmentation Project (MCWAP)*

- *Phase 1 consists of: Augment the supply from Mokolo Dam*
  - Phase 1A – Provide a total ultimate peak delivery capacity of 50.4 million m<sup>3</sup>/a*
  - Option 1 – Pipeline from Mokolo Dam to the Lephalale and Steenbokpan demand areas.*
  - Option 2 – Weir in the Mokolo River downstream of the dam and pipeline to Lephalale and Steenbokpan*

## **EXECUTIVE SUMMARY**

The Department of Water Affairs and Forestry (DWAF) is expanding water infrastructure in the Limpopo Water Management Area. This project is referred to as the proposed Mokolo and Crocodile River (West): Water Augmentation Project (MCWAP).

Phase 1 of this project may impact on any types and ranges of heritage resources that are outlined in Section 3 of the National Heritage Resources Act (Act 25 of 1999) Consequently a Heritage Impact Assessment was commissioned by Nema Consulting and conducted by Leonie Marais-Botes (Heritage Practitioner).

The main types and ranges of heritage resources that were identified in the study area were:

- Family cemetery
- Heritage structures

There is one cemetery in the study area. The cemetery is situated near the road on the farm Goedgedacht. The graves appear to be of a more recent nature. All graves and cemeteries are of high significance and are protected by various laws. Legislation with regard to graves included the National Heritage Resources Act (Act 25 of 1999) whenever graves are 60 years and older. Other legislation with regard to graves includes those when graves are exhumed and relocated, namely the Ordinance on Exhumations (no 12 of 1980) and the Human Tissues Act (Act 65 of 1983 as amended)

## 1. INTRODUCTION

The Department of Water Affairs and Forestry (DWAF) is expanding water infrastructure in the Limpopo Water Management Area. This project is referred to as the proposed Mokolo and Crocodile River (West): Water Augmentation Project (MCWAP).

The main aim of this project is to provide water to the expanding electrical infrastructure at Lephalale (Ellisras) and other consequent developments.

Phase 1 of this said project consists of:

- Augment the supply from Mokolo Dam
  - Phase 1A – Provide a total ultimate peak delivery capacity of 50.4 million m<sup>3</sup>/a
  - Option1 – Pipeline from Mokolo Dam to the Lephalale and Steenbokpan demand areas.
  - Option 2 – Weir in the Mokolo River downstream of the dam and pipeline to Lephalale and Steenbokpan

Activities in the greater study area include:

Agricultural activities (crop and cattle)  
Tourism (guest farms, eco farms)  
Game Hunting  
Commercial Activities (towns)  
Mining (mainly coal)

## **2. DESCRIPTION OF THE GREATER STUDY AREA**

The study area is situated in the Limpopo Province of the Republic of South Africa, approximately 400 km from Johannesburg. Vegetation in the area includes tropical flood plains (near rivers), Bushveld on sandy soil and Bushveld on clay soil. The main town in the study area is Lephalale (Ellisras). The area adjacent to Lephalale is particularly known for coal mining and electricity generation. Other activities in the area include farming (crop and cattle), tourism and game hunting.

## **3. METHOD**

The objective of this study was not to undertake a detailed heritage survey, but to gain an overall understanding of the heritage sensitivities of the area and indicate how they may be impacted on through development activities. The survey took place in the week of 23-27 March 2009.

In order to establish heritage significance the following method was followed:

- Investigation of primary resources (archival information)
- Investigation of secondary resources (literature and maps)
- Physical evidence (site investigation)
- Determining Heritage Significance

## **PROPOSED PHASE 1 DEVELOPMENT: MCWAP**

### **1. BRIEF BACKGROUND HISTORY**

The study area was sparsely populated by humans in the past. However archaeological findings in the greater study area suggest that occupation occurred from the Stone Age, throughout the early Iron Age which covers the first millennium AD and the historical period which commenced with the arrival of the first colonial hunters, traders and farmers (latter part of the 19<sup>th</sup> century). Very little of the first colonial hunters, traders and farmers survived in the greater study area.



Drawing by Erich Mayer illustrating the first settlers in the Bushveld

From documents in the National Archives and in specific the TAB (Transvaalse Argiefbewaarplek) the first administration with regard to farms was conducted in the late 19<sup>th</sup> century. Very little physical evidence of this period still remains. Most of the heritage structures in the study area dates from the 1930's and 1940's.

The Geological Survey Division of the Department of Mining launched an exploration program in the area in 1942. ISCOR, at that stage the country's largest steel producer and also the biggest consumer of coal, actively partook in



the program. Drilling was completed in 1952 and in 1957 ISCOR obtained the surface rights to six farms in the area, including Grootgeluk. Mining at Grootgeluk commenced in 1975

In addition to the above ESKOM (National mElectricity Supply Company) also decided to extend interest to Lephalale (then Ellisras) seeing that the coal produced in the area is suitable for use in power stations. ESKOM decided to build an air-cooled power station called Matimba in close vicinity of the ISCOR coal mine. Construction of the power station commenced in April 1981. Matimba was officially opened in 1989

## **2. FINDINGS**

### **2.1 PRE-COLONIAL HERITAGE SITES**

No pre-colonial heritage sites were observed in the study area. This is not uncommon where new developments are planned to run adjacent to existing infra-structure.

### **2.2 COLONIAL AND UNION PERIOD SITES**

From documentation in the National Archives and in particular the TAB (Transvaalse Argief Bewaarplek) it is clear that the majority of settlers came to the area in the latter part of the 19<sup>th</sup> century. The indication in literature is that the first structures were the so-called “Hartbeeshuise”.

Very little physical evidence of these settlers has remained. Most of the heritage structures in the area dates from the 1930's and 1940's.

**Image of a “Hartbeeshuis”(at back with tented “veldkombuis” in the front): None remaining in the study area.**





**Farmhouse on the farm Goedgedacht. Possibly earlier than the 1930's  
But with significant changes.**



**Hennie de Lange's Café at Theunispan cc. 1930-1940**



## **2.3 ORIGINAL LANDSCAPE**

There is some stretches of undisturbed Bushveld still evident in the study area.



## **2.4. INTANGIBLE HERITAGE**

Very little intangible heritage remains as no historically known tribal groupings occupied the study area and most of the original settlers descendents moved away from the area (reasons include drought, floods, employment opportunities in larger centres ect).

## **3. CATEGORIES OF HERITAGE VALUE (ACT 25 OF 1999)**

*The National Heritage Resources Act (Act 25 of 1999) identifies the following categories of value under section 3(1) and (2) of the Act under the heading “National Estate”:*

- “3 (1) For the purpose of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.

(2) Without limiting the generality of subsection (1), the national estate may include-

- (a) places, buildings, structures and equipment of cultural significance;
- (b) places which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites;
- (g) graves and burial grounds, including-
  - (i) ancestral graves;
  - (ii) royal graves and graves of traditional leaders;
  - (iii) graves of victims of conflict;
  - (iv) graves of individuals designated by the Minister by notice in the Gazette
  - (v) historical graves and cemeteries; and
  - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history in South Africa;
- (i) movable objects, including-
  - (i) objects recovered from the soil or waters of South Africa including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
  - (ii) objects to which oral traditions are attached or which are associated with living heritage;
  - (iii) ethnographic art and objects;
  - (iv) military objects
  - (v) objects of decorative or fine art;
  - (vi) objects of scientific or technological interests; and

(vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section I (xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

(3) Without limiting the generality of the subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of-

- (a) Its importance in the community, or pattern of South Africa's history;
- (b) Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (c) Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural objects;
- (e) Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- (h) Its strong or special association with the life and work of a person, group or organisation of importance in the history of South Africa; and
- (i) Sites of significance relating to the history of slavery in South Africa."

### **3.1 HERITAGE VALUE OF PHASE 1 OF THE PROPOSED MOKOLO AND CROCODILE RIVER (WEST); WATER AUGMENTATION PROJECT (MCWAP) AREA WEIGHED AGAINST GENERAL HERITAGE VALUE CATEGORIES**

#### **3.1.1 Spiritual value**

There is no indication of any spiritual activity other than in places of formal worship in this part of the study area.

#### **3.1.2 Scientific value**

The structures and associated infrastructure in the specific study area does not contain any scientific value in terms of section 3(3)(d) of the Act. No natural feature or other infrastructure associated with scientific importance could be identified in the study area.

#### **3.1.3 Historical value**

The structures built in the 1930's and earlier have historical value.

#### **3.1.4 Aesthetic value**

No heritage item with exceptional aesthetic (architectural) value was identified in the study area.

#### **3.1.5 Social value**

The study area does not contain sites that are associated with social value. These sites may include meeting places, community halls, parks ect.

### **3.2 SPECIFIC CATEGORIES INVESTIGATED:**

#### **3.2.1 Does the site/s provide the context for a wider number of places, buildings, structures and equipment of cultural significance?**

The study area does not provide context for a wider number of places, buildings, structures and equipment of cultural significance. The reason is the relatively low number of heritage structures remaining in the study area.

**3.2.2 Does the site/s contain places to which oral traditions are attached or which are associated with living heritage?**

Due to the Bushveld being sparsely populated and that there is no particular tribe or clan associated with the area no indication of oral traditions could be found.

**3.2.3 Do the sites contain historical settlements?**

No historical settlement was identified in the study area as indicated on the study area map. Again the reason is the absence of a particular tribe or clan associated with the study area.

**3.2.4 Do the site contain landscapes and natural features of cultural significance?**

The specific study area although situated in an area known for its geological formations contain no landscapes and natural features of cultural significance.

**3.2.5 Do the sites contain geological sites of cultural importance?**

Although the greater study area is known for its geological importance especially coal and other deposits the geological landscape associated with the specific study area contain no natural features of cultural importance.

**3.2.6 Do the sites contain a wide range of archaeological sites?**

No significant surface archaeological deposits were observed. The reason is again the sparseness in pre-historical and historical groupings in the area and the fact that the proposed development mainly stretch next to existing infra-structure.

**3.2.7 Do the sites contain any marked graves and burial grounds?**

One family of cemetery was identified on the farm Goedgedacht. The graves appear to be of a more recent nature. Due to access restrictions close inspection was not possible.



**3.2.8 Do the sites contain aspects that relate to the history of slavery?**

There is no indication that the sites contain aspects that relate to the history of slavery. This is not an area associated with the history of slavery.

**3.2.9 Can the place be considered as a place that is important to the community or in the pattern of South African history?**

Although the greater study area can be regarded as important to the community in terms of the mining and other commercial activities in the area, the specific study area can not be considered a place that is important to the community or in the pattern of South African history.

**3.2.10 Do the sites embody the quality of a place possessing uncommon or rare endangered aspects of South Africa's natural and cultural heritage?**

The sites do not contain uncommon, rare or endangered aspects of South Africa's natural and cultural heritage. Reason is the low intensity of heritage resources in the area.

**3.2.11 Do the sites demonstrate the principal characteristics of South Africa's natural or cultural places?**

The sites demonstrate to some extent some principal characteristics of South Africa's cultural places especially pertaining to the 1930's and 1940's, but the sites in the specific study area have been altered in one or other way.



**3.2.12 Do the site exhibit particular aesthetic characteristics valued by the community or cultural groups?**

This part of the greater study area does exhibit particular aesthetic characteristics valued by the community or cultural groups. Again the reason is the low intensity of heritage resources in the area.

**3.2.13 Do the sites contain elements, which are important in demonstrating a high degree of creative technical achievement?**

The sites do not contain elements, which are important in demonstrating a high degree of creative technical achievement.

**3.2.14 Do the sites have strong and special associations with particular communities and cultural groups for social, cultural and spiritual reasons?**

The heritage sites in the study area have no strong or special associations with particular communities and cultural groups for social, cultural and spiritual reasons. Reason is the sparse population pre-historic and historic of the area.

**3.2.15 Do the sites have a strong and special association with the life or work of a person, group or organisation?**

The heritage resources in the study area have no strong and special association with the life or work of a person, group or organisation.

**4. Table indicating known heritage resources in the vicinity the proposed Phase 2 development.**

<b>Pipeline Route</b>	<b>Heritage Resource</b>	<b>Level of Significance</b>	<b>Magnitude of Impact</b>
Preferred Route	Cemetery (recent) on the farm Goedgedacht	HIGH	MEDIUM TO HIGH/ if mitigated LOW
	Farm House on Goedgedacht	LOW	LOW
	Hennie de Lange se Kafee Theunispans	LOW	LOW
	Steenbokpan Bosveld Drankwinkel	LOW	LOW

**5. OPPORTUNITIES, RESTRICTIONS, IMPACTS**

The intensity of heritage resources in the study area is low. The family cemetery on the farm Goedgedacht is the only major concern as it is near to the proposed development. Best practice stipulates that if possible cemeteries should remain in order to preserve context. If this is a major obstacle for proposed development the necessary channels should be followed.

**6. THE WAY FORWARD**

- A section 38 application in line with the National Heritage Act (Act 25 of 199) should be submitted to the South African Heritage Resources Agency (SAHRA of Limpopo).
- If a structure older than 60 years needs to be demolished an application for demolition must be submitted to the Provincial Heritage Resources Authority of Limpopo.
- If the graves situated on Goedgedacht must be exhumed and remains reburied the necessary channels must be followed in accordance with the Ordinance on Exhumations (no 12 of 1980) and the Human Tissues Act (Act 65 of 1983 as amended). If on closer inspection a grave that is older than 60 years are identified in the cemetery the guidelines pertaining historic graves as stipulated in Act 25 of 1999 (National Heritage Legislation) should be followed.
- Moving of graves out of original context should be avoided, only if the graves are in danger and the proposed development can not be re-routed graves exhumation and reburial will be allowed.