



NOTIFICATION OF INTENT TO DEVELOP

Digby Wells Reference: ANG1733 **Date:** 11 November 2013

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR AN INTEGRATED WASTE MANAGEMENT LICENCE AT THE LANDAU COLLIERY

1 INTRODUCTION

Anglo American Thermal Coal (AATC), a division of Anglo Operations (Pty) Ltd (AOL), is applying for an Integrated Waste Management Licence for the proposed new waste management activities within the mining right area at its Landau Colliery. AATC has appointed Digby Wells Environmental (Digby Wells), as independent Environmental Assessment Practitioners (EAPs), to complete the required components of the Environmental Impact Assessment (EIA), as required in terms of the National Environmental Management Waste Act, 2008 (Act No. 59 of 2008) (NEM:WA) for activities listed in GN R 718 of 3 July 2009.

This Notification of Intent to Develop (NID) is compiled in order to notify the South African Heritage Resources Agency (SAHRA) and the Mpumalanga Provincial Heritage Resources Authority (MPHRA) of the proposed expansion and new waste management activities. The NID includes the following components:

- South African national legislation that may be applicable to the project¹;
- Detailed project description;
- A summary of previous heritage studies completed for the Landau Colliery;
- A description of the current state of the immediate receiving environment; and
- Recommendations regarding heritage assessments that may be required for the Integrated Waste Management Licence and new waste management activities.

¹ Please note that the term "project" refers to the proposed expansion and new waste management activities at the Landau Colliery.

2 TERMS OF REFERENCE

2.1 Client Terms of Reference

AATC has requested Digby Wells to undertake an EIA with associated studies for the Integrated Waste Management Licence in accordance with the NEM:WA.

2.2 Legislative Framework

The following legislative requirements are applicable to the project:

2.2.1 National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM:WA)

The NEM:WA requires in terms of Section 48(b) that the likely effect of pollution on existing cultural heritage be taken into account. Section 48(c)(ii) requires the cultural heritage be protected from adverse change due to pollution.

2.2.2 National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA)

The NID is submitted in terms of Section 38(8) of the NHRA as the proposed development may trigger a heritage assessment in terms of complimentary legislation including the NEMA and NEM:WA. In terms of Section 38(8) the consenting authority needs to ensure that evaluation fulfils the requirements of the relevant Heritage Resources Authority (HRA) in terms of subsection (3), and any comments and recommendations of the relevant HRA with regard to such development have been taken into account prior to the granting of the consent.

3 BACKGROUND INFORMATION OF PROJECT

AATC's Landau Colliery Consists of two sections, namely the Kromdraai Section and the Navigation Section. The Integrated Waste Licence will be applied for the following waste activities within the mining right area at the Landau Colliery:

- Treatment of sewage;
- Management of waste water and hazardous waste; and
- Storage of tyres.

The Kromdraai Section is situated approximately 15 km north-west and the Navigation Section 6 km south-west of eMalahleni, within the Mpumalanga Province. Coal is currently mined at the Landau Colliery from the No. 1, 2 and 4 seams of the Witbank Coal Field by implementing strip opencast mining methods. The project area is presented in Plan 1 and in Plan 2.

3.1 Project Location

| | |
|--|---|
| Name of property | Landau Colliery |
| Street address or location (e.g.: Off R44) | <u>Kromdraai Section</u> Off R544 route <u>Navigation Section</u> Off N4 route |
| Erf or farm number/s | <u>Kromdraai Section</u> Kromdraai 279 JS Rivulet 253 JS Hartbeestspruit 281 JS Merwede 272 JS Coronation 280 JS <u>Navigation West Section</u> Schoongezicht 308 JS Blaauwkrans 323 JS |
| Coordinates of approximate centre of the project area | <u>Kromdraai Section</u> Latitude: -25.791712 Longitude: 29.087245 |
| | <u>Navigation Section</u> Latitude: -25.916218 Longitude: 29.149500 |
| Town | Emalahleni |
| Responsible municipality | Emalahleni Local Municipality |
| District municipality | Ekangala District Municipality |
| Magisterial district | Witbank |
| Extent of property | 12 080.33 ha |
| Maximum extent of proposed development | 190.82 ha |
| Current use | Mining |

| | |
|--|--------------------------------------|
| Predominant land uses of surrounding properties | Farming Industrial Residential |
|--|--------------------------------------|

3.2 Registered Owner/s of Properties

| Name | Property |
|----------------------------|-----------------|
| Anglo Operations (Pty) Ltd | Landau Colliery |

4 PROJECT DETAILS

AATC is applying for an Integrated Waste Management Licence for the proposed new waste management activities within the mining right area at the Landau Colliery. The infrastructure provided in Table 4-1 below forms part of the Integrated Waste Management Licence application.

Table 4-1: Proposed infrastructure required for the new waste management activities under the Integrated Waste Management Licence application

| Kromdraai Section | Navigation Section |
|---|--|
| <ul style="list-style-type: none"> ■ Sewage Treatment Plant, Category A Activity 3(11); ■ Bioremediation Plant, Category B Activity 4(5); ■ Reverse Osmosis Plant, Category B Activity 4(7); and ■ Tyre Storage Yard, Category A Activity 3(4). | <ul style="list-style-type: none"> ■ Sewage Treatment Plant, Category B Activity 4(5) and 4(7); ■ Navigation West (Umlazi) Bio-Disk Sewage Treatment Plant, Category A Activity 3(11) and 3(19); ■ Navigation West (Umlalazi) Sewage Treatment Plant, Category A Activity 3(11) and 3(18); ■ Bioremediation Plant, Category B Activity 4(5); and ■ Landau Life Extension Project Sewage Treatment Plant, Category B Activity 4(5) and 4(7). |

4.1 NHRA Section 38 Triggers

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

| | NHRA Section 38 (1) Activities / Triggers | | Summary description (E.g. 500 m conveyor belt, open cast pit, etc.) |
|-------------------------------------|---|--|--|
| <input type="checkbox"/> | a | Any linear development or barrier >300 m | |
| <input type="checkbox"/> | b | Any bridge or similar structure >50 m | |
| <input type="checkbox"/> | c | Any development or activity that will change the character of a site: | |
| | <input type="checkbox"/> | i $\geq 5\,000\text{ m}^2$ in extent | |
| | <input type="checkbox"/> | ii Involving ≥ 3 existing erven/ subdivisions | |
| | <input type="checkbox"/> | iii Involving ≥ 3 or more erven/ divisions consolidated within past 5 years. | |
| <input type="checkbox"/> | d | Rezoning of a site $\geq 10\,000\text{ m}^2$ in extent. | |
| <input checked="" type="checkbox"/> | e | Other triggers, e.g.: in terms of other legislation, (i.e.: National Environment Management Act, etc.) | NEM:WA |

4.2 Activities

The following activities will take place during the lifespan of the proposed project:

| NEM:WA Activity No. | NHRA Trigger | Description | Expected duration phase |
|---------------------|--------------|------------------------|-------------------------|
| GN R 718 | 38(1)(e) | Sewage Treatment Plant | LoM |
| GN R 718 | 38(1)(e) | Bioremediation Plant | LoM |
| GN R 718 | 38(1)(e) | Reverse Osmosis Plant | LoM |
| GN R 718 | 38(1)(e) | Tyre Storage Yard | LoM |

5 SUMMARY OF THE HERITAGE STUDIES COMPLETED FOR THE LANDAU COLLIERY ENVIRONMENTAL MANAGEMENT PROGRAMMES

Between 1993 and 2007, four Environmental Management Programmes (EMPs) were completed for the development of the Landau Colliery. Heritage studies were completed and included in the EMP reports. The results of the heritage studies are briefly discussed in this Section of the NID.

During the heritage study for the Schoongezicht No. 4 Seam Minipit EMP, no sites of archaeological or heritage significance were identified.

A heritage study was completed in 1992 by A. C. van Vollenhoven of the National Cultural History Museum in Pretoria. The results of the heritage study were included in the Kromdraai Section EMP in 1995. One Stone Age site was identified and recorded. According to van Vollenhoven (1992), the nature of the terrain in the Kromdraai area would not have been suitable for Stone Age inhabitants and the artefacts were most likely left by travelling hunters and were therefore not significant. Graves dating to 1928, possibly earlier, were also identified by van Vollenhoven (1992).

A heritage study was completed in 2007 for the Navigation West Section EMP. According to the heritage study, two burial grounds were identified and recorded.

A heritage survey was also undertaken for the Schoongezicht No. 2 Seam Minipit EMP. During the survey, no graves, old buildings of historical or cultural interest, or Iron Age sites were identified.

5.1 Identified / Known Heritage Resources and Potential Impacts

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

| | | |
|--------------------------|----------------|--|
| <input type="checkbox"/> | 3(2)(a) | Places, buildings, structures and equipment of cultural significance |
| | | <i>Description of resource:</i> |
| | | <i>Potential impact:</i> |
| <input type="checkbox"/> | 3(2)(b) | Places to which oral traditions are attached or which are associated with living heritage |
| | | <i>Description of resource:</i> |
| | | <i>Potential impact:</i> |
| <input type="checkbox"/> | 3(2)(c) | Historical settlements and townscapes |
| | | <i>Description of resource:</i> |
| | | <i>Potential impact:</i> |
| <input type="checkbox"/> | 3(2)(d) | Landscapes and natural features of cultural significance |
| | | <i>Description of resource:</i> |
| | | <i>Potential impact:</i> |

| | | |
|-------------------------------------|----------------|---|
| <input type="checkbox"/> | 3(2)(e) | Geological resources of scientific or cultural importance |
| | | <i>Description of resource:</i> |
| | | <i>Potential impact:</i> |
| <input checked="" type="checkbox"/> | 3(2)(f) | Archaeology and/or palaeontology (Including archaeological sites and material, fossils, rock art, battlefields & wrecks) |
| | | <i>Description of resource:</i> A single occurrence of a Stone Age artefact was reported on by van Vollenhoven (1992). |
| | | <i>Potential impact:</i> None. The heritage resource has a low heritage value. |
| <input checked="" type="checkbox"/> | 3(2)(g) | Graves and burial grounds (E.g.: ancestral graves, graves of victims of conflict, historical graves & cemeteries) |
| | | <i>Description of resource:</i> Three burial grounds were previously identified in the project area. |
| | | <i>Potential impact:</i> None. These burial grounds are not located in the proposed new waste management sites. |
| <input type="checkbox"/> | 3(2)(a) | Other human remains |
| | | <i>Description of resource:</i> |
| | | <i>Potential impact:</i> |
| <input type="checkbox"/> | 3(2)(h) | Sites of significance relating to the history of slavery in South Africa |
| | | <i>Description of resource:</i> |
| | | <i>Potential impact:</i> |
| <input type="checkbox"/> | 3(2)(i) | Movable objects |
| | | <i>Description of resource:</i> |
| | | <i>Potential impact:</i> |

6 CURRENT STATE OF IMMEDIATE RECEIVING THE ENVIRONMENT

A desktop satellite aerial survey of current state of the immediate receiving environment was completed. The immediate receiving environment of proposed sites for the sewage treatment plants, bioremediation plants, a reverse osmosis plant and a tyre storage yard was characterised as completely industrial. The proposed new waste management activities are located either in areas with existing mining infrastructure, along existing roads, or in brownfields (i.e. landscape already changed due to mining and industrial activities).

No heritage sites were identified during the satellite aerial survey.

The current state of the environment for the Kromdraai Section is depicted in Plan 3a. The current state of the environment for the Navigation West Section is depicted in Plan 3b.

7 RECOMMENDATION

| | | | |
|--|-------------------|--|--|
| Is a Heritage Impact Assessment required? | | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| If NO, provide motivation: | | | |
| <p>The immediate receiving environment of proposed sites for the sewage treatment plants, bioremediation plants, a reverse osmosis plant and a tyre storage yard is characterised as completely industrial. The proposed new waste management activities are located either in areas with existing mining infrastructure, along existing roads, or in brownfields. Very little, if any, pre-colonial history is expected to occur in the immediate vicinity. In general the proposed new waste management activities will not impact on heritage resources in the project area. Due to the completely modern and industrialised character of the project area, a Letter of Exemption from a Heritage Impact Assessment (HIA) is recommended.</p> | | | |
| If YES, provide suggested components that may be required or undertaken during HIA. | | | |
| <input type="checkbox"/> | Archaeology | <input type="checkbox"/> | Architecture |
| <input type="checkbox"/> | Built Environment | <input type="checkbox"/> | Burial Grounds and Graves |
| <input type="checkbox"/> | Palaeontology | <input type="checkbox"/> | Public Participation |
| <input type="checkbox"/> | Townscapes | <input type="checkbox"/> | Visual Impact |
| <input type="checkbox"/> | Other: | | |
| Recommendation made by: | | | |
| Name: Shahzaadee Karodia | | Capacity: Assistant Heritage Consultant | |
| Name: Johan Nel | | Capacity: Senior Heritage Consultant | |

8 REFERENCE

AMCOAL Colliery and Industrial Operations Limited, 1994. *Landau Colliery - Environmental Management Programme Report for the Schoongezicht No. 4 Seam Minipit*, Landau Colliery: EMP Report.

Anglo Operations Limited Anglo Coal, 1995. *The Environmental Management Programme Report for Landau Colliery - Kromdraai Section*, Landau Colliery: Anglo Operations Limited Anglo Coal.

Anglo Operations Limited, 2007. *Amendment to Environmental Management Programme for the Navigation West Section*, Landau Colliery: Anglo Operations Limited.

van Vollenhoven, A. C., 1992. *Identification Survey of Historical Sites*, Landau Colliery - Kromdraai Section: Unpublished report.